



World Bank Funded Inclusive Rural Road Connectivity and Development Project (IRCDP)

Environmental and Social Management Plans (ESMP) for Initial 'Front Runner' Roads

Environmental and Social Management Framework (ESMF)

Volume III



Draft Final Report June 2021

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List of Abbreviations

ARAP	Abbreviated Resettlement Action Plan
CBO	Community Based Organization
CEA	Central Environmental Authrority
CESGP	Code of Environmental and Social Good Practices
DOI	Department of Irrigation
EPL	Environmental Protection License
ESDD	Environmental and Social Development Division
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plans
ESSO	Environmental and Social Safeguards Officer
FFPO	Fauna and Flora Protection Ordinance
FO	Forest Ordinance
GBV	Gender Based Violance
GRC	Greavance Redress Committee
GRM	Greavance Redress Mechanism
GSMB	Geological Survey and Mines Bureau
IML	Insustrial Mining License
IRCDP	Inclusive Rural Connectivity Development Project
LA	Local Authority
LHS	Side Hand Side
NBRO	National Building Research Organization
NGO	Non - Government Organization
NWSDB	National Water Suppy and Drainage Board
PCR	Physical Cultural Resource
PHI	Public Health Inspector
PIU	Project Implementation Unit
PMU	Project Management Unit
PPE	Personnel Protective Equipment
PRDA	Provincial Road Development Authotity
PS	Pradeshiya Sabha
RDA	Road Development Authority
RHS	Right Hand Side
ROW	Right of Way
SLT	Sri Lanka Telecome
TOR	Terms of Reference
UC	Urban Council

Chapter 1: Introduction

1.1. Background

Sri Lanka is a country located in the South East region of Asia. The road infrastructure of a country plays a significant role in its economic development which is common for Sri Lanka as well.

At present the country has about 12,000 kilometres of national Class A and B roads and more than a million km's of Class C, D and E roads in rural level connecting town centres and villages to the national level Class A and B roads. However, many of these roads have passed their economic life and are in dilapidated condition which requires rehabilitation and improvement to cater to the continuously growing traffic needs of the country.

Roads are considered the main mode of transportation in the country, in which the current policy plan under the present government of Sri Lanka aims to develop the road system constructing new expressways and rehabilitating existing roads mainly to improve the socio economic conditions of the country. The Road Development Authority (RDA) of the Ministry of Highways has a major role in implementing this policy plan.

In these perspectives, in addition to the rehabilitation and maintainance of National Road Network and maintainance of three Expressways already in its purview, RDA was entrusted to develop 100,000 km of rural roads going beyond developing new Expressways lined up in the future.

The Ministry of Highways and the RDA had negotiations with the World Bank for obtaining funding for the Inclusive Rural Connectivity Development Project (IRCDP) for the rehabilitation of part of the Class C, D and E rural level roads in the country.

In the appraisal stage, 22 rural level roads which are currently under the governance of local authorities i.e. Provincial Councils (Provincial Road Development Authority), Urban Councils, and Pradeshiya Sabha (subordinate divisons of Provincial council) in the Ratnapura district of the Sabaragamuwa Province were selected as the front runner roads, out of more than 3000kms to be developed under IRCDP in the Sabaragamuwa Province. Bidding wil be done in clusters of several roads per each contract and proper ESMP/CESGP associated with the road links being bid will be included in the bid documents.

Figure 1.1 shows the locations of the roads selected from the Ratnapura District.

Rural level roads selected as the front runner roads are as follows.

Road Code	Road Name	Local Authority
SR1	Passaramulla Denagama Nelliwala Road	Sabaragamuwa PRDA
SR2	Welekumbura Seethgala Udakandawatta Kowlketiya Road	Sabaragamuwa PRDA
SR3	Pambahinna Kinchigune Road	Balangoda PS
SR4	Wikiliya Pansala Road	Balangoda PS
SR5	Kumaragama Randola Road	Balangoda PS
SR6	Berenduwa - Banagoda - Kempanawatta - Batewela Road	Pelmadulla PS and Ratnapura PS
SR7	Dambuluwana - Galathura Road	Sabaragamuwa PRDA
SR8	Devipahala Deraniyagala Road	Sabaragamuwa PRDA
SR10	Guruluwana Ekneligoda Road	PRDA
SR11	Ilukwatta Rathgaga Road	Ratnapura PS
SR12	Dehenakanda Road	Sabaragamuwa PRDA
SR15	Paper mill road from Kubugoda Ara junction to Thalawa Road	Embilipitiya PS
SR17(a)	Hingura Ara Old Road	Sabaragamuwa PRDA
SR17(b)	Road to Hingura Ara Village	Sabaragamuwa PRDA
SR18	Road From Higura Ara to Ketagal Ara	Sabaragamuwa PRDA
SR19	Kalagedi Ara Nuge Cross Road	Embilipitiya UC
SR21	100 mile post Bosirigama Thalagahawela Via Galwanguwa Road	Embilipitiya PS
SR22	13 Bund Road from 99 Junction	Embilipitiya PS
SR23	Udawalawa to Kolambage Ara via Adaluwa Road	Embilipitiya PS
SR24	Kolambage Ara to Babilegama yaya Road	Embilipitiya PS
SR25	2 nd Mile Post to Guru Ara Galawanguwa Road	Embilipitiya PS & Sabaragamuwa PRDA
SR26	Balagara Junction to Kachchigala Ara lake Road	Embilipitiya PS

Table 1.1: Roads selected as front runners

PRDA - Provincial Road Development Authority, UC - Urban Council, PS - Pradeshiya Sabha

In compliance with the Environmental and Social Management Framework (ESMF) of IRCDP, above listed roads were screened for environmental and social impacts and based on the level of potential environmental and social impacts and risks, and the roads were categorized in to "Low Risk" and "Moderate Risk" categories. The implementation of these two categories of road projects will be guided by a Code of Environmental and Social Good Practices (CESGP) and Environmental and Social Management Plans (ESMP) developed for each road project to ensure that any adverse environmental and social impacts and risks are avoided, minimized or mitigated. Road projects with 'low risk' will be guided by CESGPs while their counterpart 'moderate risk' projects will follow the ESMPs.

This Volume III of the ESMF includes the respective E&S instrument i.e. CESGP or ESMP prepared for each of the front runner roads identified. The Volume also incorporates the environmental and social screening checklists prepared for individual road projects and the summary outcomes of stakeholder consultations conducted during the screening process.

1.2. Non-Compliance with E&S intruments

As mentioned, CESGP and ESMP present good practices to be implemented to ensure that any adverse environmental and social impacts and risks are avoided, minimized, or mitigated.

Therefore, these documents form part of the Contract, and the prescriptions detailed in the CESGP/ESMP are mandatory in nature and also contractually binding with the parties stated in the instrument.

The Contractor is advised to carefully consider the relevant requirements stated under item "Preconstruction and design phase" and "Construction phase" of CESGP/ESMP when preparing the proposal. In case the Contractor fails to implement the CESGP/ESMP recommendations after informing in writing, the Engineer shall take whatever actions it is deemed necessary to ensure that the CESGP/ESMP is properly implemented. If the Contractor still fails to comply with the particular requirements, the Engineer shall impose a penalty and take actions to arrange appropriate remedial measures to rectify the impact as given below.

- The Engineer shall be responsible for conducting compliance monitoring of the CESGP/ESMP implementation during the project period and conducting site visits and liaising with the Contractor to ensure compliance on site.
- On observations of serious and minor noncompliance (chemical spills, gross misconduct or lapses on multiple areas as per this code of conduct etc.), as determined by the project Engineer and confirmed by the RDA's Environmental and Social Unit, noncompliance issues immediate rectification should be made within the given time period by the Engineer, these include impacts such as spills and accidents that cause serious risks to the community, injuries and/or death to any persons, structural damage to any properties or vehicles due to accidents and Contractor negligence.
- If the contractor fails to comply with the requirements after giving a reasonable time to attend/rectify, the Engineer shall recommend the RDA to suspend the whole or any part of the particular construction activity until proper mitigation measures are taken to a level acceptable to the Engineer. If the contractor continues to fail to take satisfactory action

within next 14 days from the date of suspension, the Engineer/RDA shall immediately take action to get the service completed through a third party and the entire cost incurred shall be recovered from any amount payable to the Contractor.

- The contractor must take every effort to avoid cases of sexual exploitation abuse or harassment (SEAH) and gender-based violence (GBV) associated with contract workers. If those incidents are recorded frequently the Engineer shall take suitable measures to remove the suspects from the construction site after a comprehensive inquiry.
- All final payments shall be subject to a final evaluation and closure report of the CESGP/ESMP implementation which shall be prepared by the Engineer prior to the Contractors complete demobilization from the Site.
- Any requirement under the contract should be fulfilled by the Contractor. If not, that may be corrected through other means at the Contractor's cost or take measures to terminate the Contract shall be taken by the Employer.

1.3. Monitoring and Reporting Requirements

The Contractor shall recruit an Environmental and Social Safeguards Officer (ESSO) who acts as the representative of the Contractor for environmental and social (E & S) management. The Terms of Reference (TOR) of the ESSO is presented in Annex I of this document. ESSO shall maintain a report of ESMP/CESGP compliance via photo documentation of implementation, issues and impacts identified during construction and report on how the Contractor has complied with the E & S management measures in place for this project as per this document.

The written report to the Engineer shall be submitted monthly via the use of photographs and written documentation as part if project progress reports or as agreed with the Engineer.

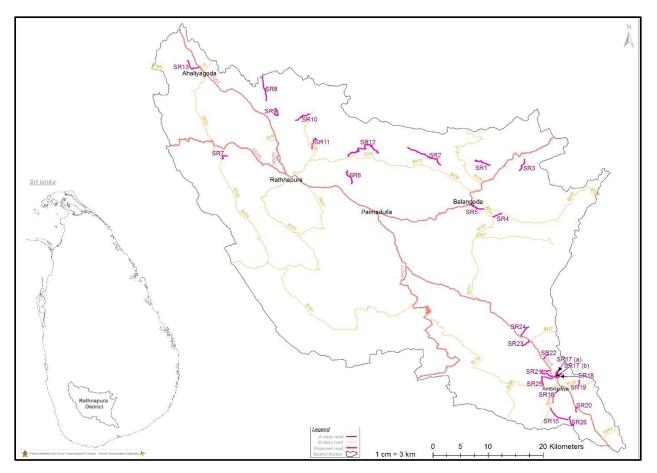


Figure 1.1: Geographical spread of the front runner roads in the Ratnapura District

Chapter 2: CESGPs and ESMPs prepared for front runner roads of IRCDP

Table 2.1 shows the risk classification for each road project and the E&S instruments i.e. CESGP or ESMP that would guide the project implementation.

Road	Road Name	Length	Risk	E&S Instrument
Code		(km)	classification	
SR1	Passaramulla Denagama	4.0	Moderate	ESMP
	Nelliwala Road			
SR2	Welekumbura Seethgala	8.1	Moderate	ESMP
	Udakanda Deiyangewatta			
	Kowlketiya Road			
SR3	Pambahinna Kinchigune Road	2.8	Moderate	ESMP
SR4	Wikiliya Pansala Road	2.1	Moderate	ESMP
SR5	Kumaragama Randola Road	3.4	Moderate	ESMP
SR6	Berenduwa - Banagoda -	4.0	Moderate	ESMP
	Kempanawatta - Batewela Road			
SR7	Dambuluwana - Galathura Road	2.0	Moderate	ESMP
SR8	Devipahala Deraniyagala Road	5.6	Moderate	ESMP
SR10	Guruluwana Ekneligoda Road	3.6	Moderate	ESMP
SR11	Ilukwatta Rathgaga Road	2.82	Moderate	ESMP
SR12	Dehenakanda Road	12.1	Moderate	ESMP
SR15	Paper mill road from Kubugoda	4.15	Moderate	ESMP
	Ara junction to Thalawa Road			
SR17(a)	Hingura Ara Old Road	1.1	Low	CESGP
SR17(b)	Road to Hingura Ara Village	1.7	Low	
SR18	Road From Higura Ara to	1.45	Low	CESGP
	Ketagal Ara			
SR19	Kalagedi Ara Nuge Cross Road	1.0	Low	CESGP
SR21	100 mile post Bosirigama	4.4	Low	CESGP
	Thalagahawela Via			
	Galwanguwa Road			
SR22	13 Bunt Road from 99 Junction	1.4	Low	CESGP
SR23	Udawalawa to Kolmabage Ara	1.8	Low	CESGP
	via Adaluwa Road			
SR24	Kolambage Ara to Babilegama	2.6	Low	CESGP
	yaya Road			
SR25	2 nd Mile Post to Guru Ara	4.4	Moderate	ESMP
	Galawanguwa road			
SR26	Balagara Junction to	2.1	Low	CESGP
	Kachchigala Ara lake Road			

 Table 2.1: Risk classification and safeguards instruments for front runner roads

2.1. ESMP of SR 01 - Passaramulla Denagama Nelliwala Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 01 - Passaramulla Denagama Nelliwala Road (4km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background Passaramulla Denagama Nelliwala Road

Road length: 4.0Km

Coordinates: Starting Point 6°42'0.64"N, 80°43'50.77"E End Point 6°37'37.31"N, 80°43'13.11"E

Location:

District: Ratnapura DS Division: Imbulpe EE Division: Pellmadulla GN Divisions: Amuwathugoda , Alakolaella

1. Introduction:

Imbulpe Passramulla Nelliwala Road starts from Colombo – Rathnapura – Wellawaya – Batticaloa (A004) Road. However, the 4km section of the road selected for the development starts after 2km. The road provides access to Olugantota – Pinnawala – Bogawanthalawa (B339) road. This road is under the custody of Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. Road traverses along a hilly terrain and elevation of the trace vary between 481 - 598m MSL. Road runs parallel to Denagam oya (an inflow to Samanalawewa Reservoir) from 0 km to 2.5km point on RHS.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section incude carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The construction period of the road is estimated as five (5) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist on either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along either side of the RoW line. But drains may or may not be erected along the RoW. As in some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Passaramulla Denagama Nelliwala road is around 5.5m and the average carriageway is 4.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a

representative from Provincial Road Development Authority (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The public consultations revealed that it is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo – Ratnapura – Wellawaya – Batticaloa (A004) Road and Olugantota – Pinnawala – Bogawanthalawa (B339) road. There are paddy and vegetable cultivations in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and to take photographs of the road (see Annex 1 for photographs of the road).Based on this information, google maps, topographic maps and secoundary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The technical details were obtained from Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Passaramulla - Denagama - Nelliwala Road will have reversible, small-medium scale environmental and social impacts. The key environmental impacts identified in the screening checklist are sedimentation of streams including Denagama stream, temporary obstructions to waterflow of streams at culvert reconstruction sites, potential water pollution and temporary slope failures. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise, and vibration. These impacts are specifically limited to the construction phase of the project that can be mitigated by site specific mitigation measures; this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: The settlements can be observed along the road. There are about 128 households and 30 small shops located on both sides of the road. The population along the road is around 600. A majority of the people are Sinhalese. An Indian Tamil population also live in some section of the road. Buddhism and Hinduism are the religions of above population.
- Land ownership: There are no squatters along the road. All the lands are private or government.

Livelihoods: Paddy and vegetables are the major agricultural crops in the area and it is a main source of income for residents. Some people are engaged in wage labour, public and private sector employment and self-employment.

Local organisations: There are Farmer Organisations functioning in the area

• **Community infrastructure and resources:** There is one temple; one Bo Tree and a health centre located along the road (see Table 1). During road construction, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided until the construction work is completed. Permanent access will be restored after completion of construction activities.

Community infrastructure and resources	Location of	coordinates	Chain-age	Road side	Distance from the RoW
Health Centre	6°42'7.22"N	80°43'26.50"E	1+000	RHS	5.0 m
Bo tree	6°42'6.75"N	80°43'28.92"E	1+000	LHS	4.0 m
Bodhirukkaramaya	6°42'20.00"N	80°42'39.02"E	3+800	LHS	20 m
Temple					

Table 1: Community infrastructure and resources

On-going development projects: None.

Visitors to the area: People from other villages come to the health centre to obtain health care services.

7.2 Potential Impacts:

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.

Screening Questions	Not known	Yes	No	Remarks
Does the project include upgrading or rehabilitation of existing facilities?		V		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing Right of Way.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Provincial Road Development Authority (PRDA), -Sabaragamuwa
Is land acquisition likely to be necessary?			V	Proposed rehabilitation works will be within the existing Right of Way.
Is the ownership status and current usage of land known?		~		The RoW is owned by PRDA (Sabaragamuwa). The land is used as the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			\checkmark	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? Is the land free of squatter/informal settlements or other			✓ 	
encumbrances? Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?			V	None of the people will be affected as the development works will be carried out within the existing RoW.

Screening Questions	Not known	Yes	No	Remarks
Any of these people poor, indigenous, or vulnerable to poverty risks? If yes, how?			\checkmark	
Access to Services				
Will people lose access to facilities, services, or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters, or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters, or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			\checkmark	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There is one Temple, one Bo Tree and a Health centre located (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Pinnawala Police Station which is 3km from the project area. Further, <i>"MithuruPiyasa"</i> ¹ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx How many workers will be needed for the sub-project, with what skill set, and for what period?		 ✓ 		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be

¹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		V		Accommodation facilities need to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious, or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			\checkmark	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project	The total number of labor required for
	area	the project is approximately 15. Priority
		will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Passaramulla Denagama Nelliwala Road (SR01)Road Length:4.0kmLocation:District: Rathnapura
DS Division: Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			
following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive		\checkmark	
or protected areas)?			
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?			Road crosses minor streams at 0.33km, 1.6km, 1.82km, 2.7km, 3.0km, 3.38km and 3.8km. However these streams will not be permanently altered for road rehabilitation. However, streams at above locations will be temporarily altered for rehabilitation/minor repairing of culverts and construction of new culverts at 1.0 and 1.5km. Continuous water supply shall be provided to downstream and waterways shall be restored to its original condition. Soil erosion control measures such as application of silt barriers will minimize siltation of water bodies.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	V		Road runs parallel to Denagamoya (an inflow to Samanalawewa Reservoir) from 0.0 to 2.5km and crosses canals at 0.33km, 1.6km,

				1.82km 2.7km 2.0km
				1.82km, 2.7km, 3.0km, 3.38km and 3.8km.
				This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these
				impacts.
-	Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	~		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
-	Noise and vibration due to blasting and other civil works?	✓		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the permissible levels as specified in the national standards. Especially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and settlement areas located at starting section and around 1km (Yahalekumbura) section of the road.
-	Dislocation or involuntary resettlement of people		\checkmark	
-	Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	~		Regular sprinkling of water to suppress dust and avoiding construction activities during night time with especial attention to settlements located close to the road edge

				around the starting point and 1km.
-	Hazardous driving conditions where construction interferes with pre-existing roads?		\checkmark	
-	Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	V		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce these impacts.
-	Creation of temporary breeding habitats for mosquito vectors of disease?	~		Avoiding possibilities of water stagnation areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
-	Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for labor will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
-	Increased noise and air pollution resulting from traffic volume?		~	
-	Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		\checkmark	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 Photographs of Passaramulla Nelliwala Road

Figure 1: Starting point of the road at Passaramulla Nelliwala road.



Figure 2: Along the road



Figure 3: Healthy Lifestyle Centre located at 1.00 km on RHS of the road



Figure 4: Settlements located on both sides of the road



Figure 5: End point of the road



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Passaramulla Denagama Nelliwala Road				
Risk Category assigned by E and S Screening	Moderate			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Side drains and cross drains directed to Denagam oya stream runs parallel to road from 0.0 - 2.5km, are recommended to have proper silt control measures to avoid siltation of the stream.	Section 10, 22 of ESMPAnnex III			
Drainage system with adequate capacity to collect storm water and proper slope protection measures are recommended to implement at the settlement area at the starting section (Yahalekumbura) of the road, where houses are located in downward side (lower to the road level) of the road.	• Section 10, 22, 42 of ESMP			
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	 Section 11, 44 of ESMP Any guidance to be issued by NBRO 			
Details of Internal Submission of Design Recommendation	18			
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA			
Mode of transmission (Email, hand delivery)	Email			

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 01 Passaramulla Denagama Nelliwala Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION A	ND SITE PREPERATION			
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Replantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

			• Removed trees of economic value must be handed over to the Timber			
			Corporation.			
			• Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved			
3.	Tahan and Tahan		manner.			
5.	Labor and Labor	*	The contractor should give priority to hiring labor from the surrounding	Engineering Cost	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant
	Camps, Construction		areas to avoid the need for labor camps.			Engineer/Local Authority
	Camps, temporary	*	If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and			
	office and other temporary facilities		boundaries and buffer zones of protected/forested areas and preferably			
	temporary facilities		located on land which is not productive (barren/waste lands presently). If			
			these are not possible, private lands maybe taken on lease as standard			
			practice. The location, layout and basic facility provision of the labor			
			camp must be submitted to Engineer of the relevant managing department			
			prior to their construction.			
		*	The construction will commence only upon the written approval of the			
		• .	Engineer and then from the relevant local authority.			
		*	Separate labor camps need to be provided for female migrant laborers.			
		*	The instructions for the laborers should be provided in all three languages.			
		*	Provision of proper drainage facilities to the labour camps and prevent			
		·	breeding of mosquitoes, flies and other vector borne diseases.			
		*	The contractor shall maintain necessary living accommodation and			
			ancillary facilities in a functional and hygienic manner and as approved by			
			the Engineer.			
		*	Provision of proper sanitary facilities to the labour camps and offices			
			including water, urinals, toilets, bathing facilities, mosquito nets with			
			adequate capacity of septic tanks and soak pits.			
		*	All temporary accommodation must be constructed and maintained in			
			such a fashion that uncontaminated water is available for drinking,			
			cooking and washing.			
		*	The sewage system for the camp must be planned and implemented with			
			concurrence from the Local Public Health Officer (PHI)			
		*	Provision shall be made for domestic solid waste disposal in acceptable			
			manner. The solid waste shall be handed over to the waste collecting			
			system of the Local Authority (LA) of the area (if any) and wastewater			
			should be disposed in an environmentally acceptable manner (meeting the			
1			desired water quality standards) with the approval of the Engineer.			
1			Adequate health care is to be provided for the work force.			
		*	Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs			
1			for workers, first aid and firefighting equipment shall be available at			
			construction sites before start of construction. An emergency plan shall be			
			prepared to fight with any emergency like fire.			
L		*	All construction camps shall have provision of rationing facilities			

		1			l	
			particularly for kerosene/LPG so that dependence on firewood for cooking			
			is avoided to the extent possible			
		*	Labor camp sites after use should be cleared and the site should be			
			reinstated to previous condition at the close of the construction work.			
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates and other quarry	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
			material is sourced from licensed sources.			Engineer, CEA,GSMB
		*	The contractor is required to maintain the necessary licenses and			
			environmental clearances from GSMB and CEA for all borrow and quarry			
			material they are sourcing -including soil, fine aggregate and coarse			
			aggregate.			
		*	Sourcing of any material from protected areas and/or designated natural			
			areas, including tank beds, are strictly prohibited.			
		*	If the contractor uses a non-commercial borrow/quarry sites, the sites			
			should be remediated accordingly once material sourcing has been			
			completed.			
		*	The contractor should submit in writing all the relevant numbers and			
		•	relevant details of all pre-requisite licenses etc. and report of their status			
			accordingly to the Engineer.			
5.	Water for Construction	*	The contractor should arrange adequate supply of water for the project	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	activities		purpose throughout the construction period from a source agreed upon	Lingineering Cost	Contractor	Engineer
	activities		with the engineer.			Engineer
			Water may not be obtained for project purposes, including for labor			
		**				
			camps, from public or community water supply schemes without a prior			
			approval from the relevant authority. Extraction of water from ground			
			water or surface water bodies without the permission from Engineer and			
			the relevant authority (Water Resources Board, NW&DB, Department of			
			Irrigation, CBO) will not be allowed.			
		**	Permission for the extraction of water should be obtained prior to the			
			commencement of the project, from the relevant authority.			
6.	Work Site for	*	The contractor should identify an area to store construction materials and	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	construction materials		equipment at a site which should be approved by the engineer.			Engineer
		*				
			close to water ways, cause access issues to locals or forested areas that			
			require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall be done			
			stationed only at the work site and/or in any other designated areas by the			
			engineer.			
		*				
			drivers and operators (both companies owned and hired) to park vehicles			
		*	Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the			

7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use of lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to reestablish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

10.	Hydrology and drainage	* * * *	Design of new culverts and other drainage structures in consultation and recommendations of the Engineer and Irrigation and Provincial Irrigation Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	* * *	manner that adversely affect downstream intakes Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) Existing slopes should not be disturbed to extent possible Incorporate the recommendations and guidelines of the NBRO to the road designing.	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	* * * *	Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All efforts must be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
13.	Land Acquisition (if required)	*	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
14.	Identifying locations to provide temporary access	* *	Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

	CONSTRUCTION PHASE		
15.		 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (Denagam oya stream, etc). Avoid disposal on productive/agricultural land. should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, Minimize the construction debris/excavated material as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material land, environmentally sensitive 	PMU/PIU/RDA/Consultant Engineer
16.	Protection of topsoil	 locations such as forest lands, water bodies. Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil must be 	PMU/PIU/RDA/Consultant Engineer

-						1
			distributed on adjoining/proximate barren areas as identified by the			
			Engineer in a layer of thickness of 75mm – 150mm.			
		*	Topsoil thus stockpiled for reuse shall not be surcharged or overburdened.			
		*	As far as possible multiple handling of topsoil stockpiles should be kept to			
			a minimum.			
17.	rowellon of Oround	*	Construction vehicle, machinery and equipment shall be used and	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Cover and Vegetation		stationed only in the areas of work and in any other area designated/			Engineer
			approved by the Engineer.			
		*	Entry and exit of construction vehicles and machinery should be restricted			
			to particular points as directed by the engineer			
		*	Contractor should provide necessary instructions to drivers, operators and			
			other construction workers not to destroy ground vegetation cover			
			unnecessarily.			
18.	Transport and Storage	*	All material should be transported in fully covered trucks. Overloading of	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	of construction		vehicles with materials should be controlled and done in a manner to suit	0 0 0		Engineer
	materials		the trucks capacity.			2
		*	Construction material such as cement, sand and metal should be stored in			
			closed structures or in a contained manner. All construction materials such			
			as sand, metal, lime, bricks etc. should be transported under cover to the			
			site and stored under cover at the sight. Plastic sheeting (of about 6 mm			
			minimum thickness) can be used and held in place with weights, such as			
			old tires or cinder blocks, with the edges of the sheeting buried, or by the			
			use of other anchoring systems.			
		*	Loading, unloading and transport of materials shall not be inconvenient to			
		•	the road side community or road users			
		•*•	Selection of sites for stock piling with the approval of Engineer away from			
		•	environment and public sensitive locations as mentioned in No. 15.			
		*	Storage of fuel, lubricant and chemicals use for the construction activities			
		•	on paved surface without contamination to the environment and storm			
			water runoff			
		*	Approval shall be taken prior to use of local roads from relevant			
		.*.	authorities and need to maintenance during the use by the Contractor			
19.	Emission of Dust	*	In order to minimize the levels of airborne dust all construction	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
19.	Emission of Dust	**		Engineering Cost	Contractor	
			material/debris should be stored as per the instructions provided above			Engineer
			No.16.			
		*	Any parties vulnerable for excessive dust residing along the road			
			especially at the health center and Bo tree at 1km, temple at 3.8km and			
			residential areas should be identified in advance and measures as agreed			
			with the Engineer should be implemented to minimize the impact.			
		*	Mud patches caused by material transporting vehicles in the access road			
			should be immediately cleaned			
		*	Continual water sprinkling should be carried out in the work and fill areas,			
			material extraction sites, processing plants and the access road if dust stir			

		· 1 1 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,		1
		is observed. Water sprinkling should be done more frequently on days the			
		are dry and windy (at least four time's day) as the levels of dust can be	e		
		elevated during dry periods.			
		✤ Dust masks should be provided to the laborers for the use at require	1		
		times.			
		✤ Erection of dust barriers to the public, religious and other social	/		
		important locations			
		✤ Metal quarries, crushers and all the plants should be located at least 500m	1		
		form the public sensitive and residential areas			
		✤ Establishment of tire washing facility for the plants, yards or any other	r		
		sites which causing to bring mud particles with the vehicles.			
20.	Management of Self	 In the event the contractor will use a self-operated borrow site 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow Sites	• Contractor shall comply with the environments	1		Engineer CEA, GSMB
	_	requirements/guidelines issued by the CEA, GSMB and the	e		_
		respective local authorities with respect of locating borrow areas an	1		
		with regard to all operations related to excavation and transportation	1		
		of earth from such sites.			
		• Contractor can also find suitable soil materials from currentl	4		
		operated licensed borrow pits in the surrounding area, subject t			
		approval of the Engineer			
		• No borrow-sites be used (currently approved) or newly established	1		
		within areas protected under FFPO and FO and within productiv			
		land/agricultural land and environment and public sensitive locations			
		• Borrow areas shall not be opened without having a valid minin			
		license from the GSMB. The location, depth of excavation and the	e		
		extent of the pit or open cut area shall be as approved by the			
		Engineer.			
		• All borrow pits/areas should be rehabilitated at the end of their use b	7		
		the contractor in accordance with the requirements/guidelines issue			
		by the CEA and the respective local authority (Refer Annex II for			
		guidelines).			
		• Establishment of borrow pits/areas and its operational activities sha	1		
		not cause any adverse impact to the near-by properties. Also, sha			
		not be a danger of health hazard to the people.			
		• Contractor shall take all steps necessary to ensure the stability of	f		
		slopes including those related to temporary works and borrow pits.			
21.	Quarry Operations and	✤ In the event the contractor manages a self-owned existing quarry site	s Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	Management of Self	available in the project area			Engineer CEA,GSMB
	Operated Quarry Sites	* They should be approved by CEA with valid EPL (Environment	t		_
		Protection Licenses) and GSMB with valid IML (Industrial Minin			
		Licenses);			
		 Prior approval should be obtained from GSMB, CEA and local authorities 	5		
		such as Pradeshiya Sabha.			
					•

		 Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. It is recommended not to seek material from quarries that have ongoing disputes with community. The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer
22.	Control of	
	Sedimentation and Soil	paths are not blocked.
	Erosion	Drainage paths associated with irrigation structures should be improved / arrotted to drain rainwater property.
		 erected to drain rainwater properly. Silt traps will be constructed to avoid siltation into the water ways, where
		necessary along the road corridor.
		 To avoid siltation, drainage paths should not be directed to waterways and
		irrigation canals and they should be separated from such water bodies
		Temporary soil dumps should be removed from the construction sites as
		soon as possible. Until removal, these soil dumps should be covered with
		thick polythene sheets.
		Temporary soil dumps should be placed at least 200m away from all water
		 bodies. Top soil shall be prevented to use for tree planting and turfing activities.
		 Top son shar be prevented to use for the planting and turning activities. In Hilly terrain and areas with slopes
		• Embankment slopes, slopes of cuts, etc. shall not be unduly exposed
		to erosive forces.
		• These exposed slopes shall be graded and covered by grass or other
		suitable materials per the specifications.
		• During the rainy season open cuts/slopes should be covered with
		fixed polythene sheeting to avoid excessive erosion. ◆ All fills, back fills and slopes should be compacted immediately to reach
		the specified degree of compaction and establishment of proper mulch.
		 ♦ Work that lead to heavy erosion shall be avoided during the raining
		season. If such activities need to be continued during rainy season prior
		approval must be obtained from the Engineer by submitting a proposal on
		actions that will be undertaken by the contractor to prevent erosion.
		 Construction activities: excavation and earth work around vulnerable area
		for soil erosion mainly restricted to the dry periods and removal of green
		cover vegetation shall be minimized.

		 The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. Refer Annex III for sample soil erosion measures. 			
23.	Noise from vehicles, machinery and equipment	 Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). Any parties vulnerable for excessive noise residing along the road especially at the health center and Bo tree at 1km, temple at 3.8km and residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive receptors		Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		*	All possible and practical measures to control noise emissions during drilling shall be Employed.			
		*	Contractor shall submit the list of high noise/vibration generating			
			machinery & equipment to the engineer for approval.			
		*	Servicing of all construction vehicles and machinery must be done			
			regularly and during routine servicing operations, the effectiveness of			
			exhaust silencers will be checked and if found defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be regular and			
			up to the satisfaction of the Engineer to keep noise levels at the minimum.			
25.	Impacts due to	*	Contractor shall take appropriate action to ensure that construction works	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Vibration		do not result in damage to adjacent properties due to vibration.			Engineer, GSMB
		*	Any parties vulnerable for excessive vibration residing along the road			
			especially at the health center and Bo tree at 1km, temple at3.8km and residential areas should be identified in advance and measures as agreed			
			with the Engineer should be implemented to minimize the impact.			
		*	Prior to commencement of excavation, blasting activity, the Contractor			
		•	shall undertake a condition survey of existing structures within the zone of			
			influence, as agreed with the relevant government agencies and the			
			engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration sensitive			
			receptor during blasting or when other equipment causing vibrations are			
			used.			
		*	The contractor shall modify the method of construction until compliance			
			with the criteria, if vibration levels exceed the relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of blasting on			
			adjoining structures. Explosive loads shall be determined so that excessive			
			vibration can be avoided, and blasts shall be controlled blasting in nature.			
			Notwithstanding to these provisions contractor is liable for any damage			
		*	caused by blasting work. Blasting shall be carried out only with permission of the Engineer and			
		*	approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking locations,	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		fuel/lubricants storage sites, vehicle, machinery and equipment			Engineer CEA
	Lubricants		maintenance and refueling sites shall be located away at least 200m away			
			from water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a fashion			
			that spillage of fuels and lubricants does not contaminate the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be located			
			and operated as per the conditions and /or guidelines stipulated under the			
			EPL issued by CEA. Wastewater shall not be disposed without meeting			
			the disposal standards of the CEA. Wastewater from vehicle and plant			
			maintenance and servicing stations shall be cleared of oil and grease and			

		 other contaminants to meet the relevant standards before discharging to the environment. ✤ Contractor shall arrange for collection, storing and disposal of oily wastes
		to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will
		be disposed of in accordance with standards set by the CEA.
		• Engineer will certify that all arrangements comply with the guidelines of
		CEA or any other relevant laws.
27.	Public Safety	✤ At all times, the Contractor shall provide safe and convenient passage for Engineering Cost Contractor PMU/PIU/RDA/Consultant
		vehicles, pedestrians and livestock. Engineer
		♦ Work that affects the use of existing accesses shall not be undertaken
		without providing adequate provisions to the prior satisfaction of the Engineer.
		The construction corridor should be barricaded at all time in a day with
		adequate marking, safety tape, flags, reflectors etc. for safety of
		individuals using the site daily basis. (Items such as parking cones, lights,
		tubular markers, orange and white strips and barricades of a luminous
		nature for night visibility shall be procured where deemed necessary)
		 Safety signboards should be displayed at all necessary locations.
		The contractor should obtain a Third-party insurance to compensate any
		damages, injuries caused to the public or laborers during the construction period.
		✤ All construction vehicles should be operated by experienced and trained
		operators under supervision.
		 Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities.
		 All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety
		tape and barricading structures surrounding the whole area.
		 Trenches should be progressively rehabilitated once work is completed.
		 Material loading and unloading should be done in an area, well away from traffic and barricaded
		Construction wastes should be removed within 24 hours from the site to
		ensure public safety. Safety awareness programs should be conducted by the Contractor in
		annual basis targeting the public residing along the road in order to make
		the public aware on road safety especially during the operation period of
		the road.
28.	Safety of Workers	Contractor shall comply with the requirements for safety of the workers as Engineering Cost Contractor PMU/PIU/RDA/Consultant
		per the ILO Convention No. 62 and Safety & Health Regulations of the Engineering Cost
		Factory Ordinance of Sri Lanka to the extent that those are applicable to
		this contract.
		The contractor shall supply all necessary safety measures at site.

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		*	Protective footwear and protective goggles should be provided to all			
			workers Employed on mixing of materials like cement, concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers who are			
			engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise, and workers			
			working in crushing, compaction, or concrete mixing operation.			
		*	The contractor shall supply all necessary safety appliances such as safety			
			goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office, gloves,			
			earmuffs, goggles, dust masks, safety harness and any other equipment			
			considered necessary.			
		*	A safety inspection checklist should be prepared taking into consideration			
			what the workers are supposed to be wearing and monitored on a monthly			
			basis and recorded.			
		*	All workers should be made aware about Workers GRM and they should			
			be facilitated to approach relevant GRCs as and when required.			
		*	National and World Bank requirements (such as providing necessary			
			personal protective equipment, taking temperature checks etc.) for			
			prevention of the spread of COVID-19 virus will be adhered to.			
29.	Prevention of accidents	*	Prevention of accidents involving human beings, animals or vehicles	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
			falling or accidents due to open trenches/manholes during construction	0 0		Engineer
			period. This needs to be ensured with proper barricading, signage boards			C
			and lighting etc.			
		*	Adequate signboards shall be placed much ahead of diversion site to			
			caution the road users. The road signs should comply with the Road Safety			
			Manual of RDA.			
		*	A readily available first aid unit including an adequate supply of sterilized			
			dressing materials and appliances should be available at the site office at			
			all times			
		*	Availability of suitable transport at all times to take injured or sick			
			person(s) to the nearest hospital should also be insured.			
		*	Names and contact information for emergency services such as			
			Ambulance services, hospitals, police and the fire brigade should be			
			prepared as a sign board and displayed at the work site.			
		*	Night time illumination should be in place at every location where the			
			road is narrow, diverted and structures are repaired and any other places			
			where the PIU recommends to do so			
		*	Monitor and record road crashes during construction and maintenance			
			stages and take appropriate remedial actions			
30.	Operation of labor	*	Locations selected for labour camps should be approved by engineer and	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	camps		comply with guidelines/ recommendations issued by the CEA/Local			Engineer, CEA, LA
	r Fr>		Authority (LA). Construction of labourer's camps shall not be located			<i>G</i> , <i>Z</i>
			within 200m from waterways and near to any other environment and			
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	 social sensitive locations The Contractor shall construct and maintain all labor accommodation i 			
	• The Contractor shall construct and maintain all labor accommodation it			1
	such a fashion that uncontaminated water is available for drinking			
	cooking and washing.			
	Supply of sufficient quantity of potable water (as per IS) in ever			
	workplace/labor camp site at suitable and easily accessible places and			
	regular maintenance of such facilities.			
	The sewage system for the camp are designed, built and operated in such			
	fashion that no health hazards occurs and no pollution to the air, groun			
	water or adjacent water courses take place. Ensure adequate water suppl			
Management of the		Engineering Cost	Contractor	PMU/PIU/RDA /Consultant
			Confidence	-
				Lingineer, Worr
1 andenne outbreaks				
<u> </u>			~	
			Contractor	
borne Diseases				Engineer, MoH
	buildings clean devoid of garbage to prevent breeding of rats and other			
	vectors such as flies.			
Management of the spread of Covid-19 or handling sudden Pandemic outbreaks Pandemic outbreaks Prevention of Vector borne Diseases	 or management by the Government of Sri Lanka, Ministry of Health an Local Public Health officers and adhere to all relevant guideline applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refe Annex 28 of ESMF of IRCDP for more details The contractor will ensure that there is set number of workers as per th guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisionin will be made for spacing. The contractor will at all times, ensure proper handwashing and sanitatio facilities are available on the site. Measures should be in place to undertake daily temperature checks o workforce and enable social distancing at the work site and interaction with communities should be minimized. Daily records of these check should be maintained by the contractors site staff. If a worker is diagnosed with symptoms related to the said pandemic th contractor will immediately inform the PHI and follow instructions lai out by the national health agencies. Contractor shall take necessary actions to prevent breeding of mosquitoe at places of work, labor camps, plus office and empty cans, containers tires, etc. shall be prevented. Approved chemicals to destroy mosquitoe and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by th contractor in accordance with the requirements/guidelines issued by th Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other buildings clean devoid of garbage to prevent breeding of rats and other buildings clean devoid of garbage to prevent breeding of rats and other buildings clean devoid of garbage to prevent breeding of rats and other buildings clean devoid of garbage to prevent breeding of rats and other buildings clean devoid of garbage	Engineering Cost Engineering Cost	Contractor Contractor Contractor	PMU/PIU/RDA,/Consult Engineer, MoH PMU/PIU/RDA/Consult Engineer, MoH

	a	•			G i i	
33.	Gender issues including Gender base violence	*	Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
			against the Sexual harassment that can happen at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.			
34.	Issues due to labor influx	* * * * * *	Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. The workers will be made aware of GRM procedure through toolbox meetings.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

35.	Traffic Management	*	Contractor shall develop a traffic management plan with the relevant	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
55.	Tame Management	·•·	authorities to minimize inconvenience to road users as well as prevent	Engineering Cost	Contractor	Engineer, Traffic Police
			road accidents and implement it.			Engineer, frame i once
		*	Road signs and trained flagmen should be used to divert traffic as per the			
		•	required traffic management measures.			
		*	Clear instructions should be given if detours are used.			
		*	Also, any pits should be enclosed to prevent pedestrians or vehicles falling			
		•	into them			
		*	Improvement of the road surface and width will result in an increase of			
		•	both the number of vehicles and the vehicle operating speeds.			
		*	Therefore, after the construction is completed the contractor should erect			
			relevant road signs and road markings to guide the drivers to ensure the			
			safety of the vehicles and pedestrians			
36.	Loss of Access due to	*	Temporary access will be provided when permanent access is blocked for	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	construction		construction to every house and other public properties for which the			Engineer
			access is already given from the road.			C
		*	When construction work is in progress in one side, the other side will be			
			opened for traffic & properly			
		*	At the end of each day, debris that blocked access path will be cleared			
			away under the supervision of the Engineer.			
37.	Protection of Physical	*	If any physical cultural resources are identified along the project trace the	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources		contractor will ensure that protective fencing as agreed with the			Engineer
	(PCRs) close to the Site.		community and or head of the physical cultural resource (ie temple,			
			mosque, place of worship, grave site, monument, statue, tree or any site			
			designated of importance by the community) is established to avoid any			
			impacts during the civil works.			
		*	If the site is within 5 meters of the proposed road trace the contractor shall			
			conduct and document a crack survey of the site prior to construction to			
			ensure that no damage is caused due to vibrations associated with the civil			
			works and will take all requisite measures to ensure so.			
		*	The contractor shall not, park vehicles or store construction material in			
			close proximity to the PCR or site labor camps in immediate vicinity of the PCR.			
			Labors will be briefed to ensure that no acts of vandalism will be tolerated			
		*	and will be penalized. Workers should not be allowed to trespass into such			
			areas.			
		*	Unless agreed with the community the contractor shall not block access to			
		•	any known places of worship or PCRs along the project trace.			
38.	Loss, Damage and	•	All works shall be carried out in a manner that the destruction to the flora	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	disruption to Flora	-	and their habitats is minimized.			Engineer
1		•	Trees and vegetation shall be felled / removed only if that impinges			G
1			directly on the permanent works or necessary temporary works. In all			
			such cases contractor shall take prior approval from the Engineer.			
		I	such cases contractor shan take pror approval nom the Englicer.			

		• Contractor shall make every effort to avoid removal and/or destruction of			
		trees of religious, cultural and aesthetic significance.			
		• If such action is unavoidable the Engineer shall be informed in advance			
		and carry out public consultation and report on the same should be			
		submitted to the Engineer.			
		• Contractor shall adhere to the guidelines and recommendations made by			
		the CEA, if any with regard to felling of trees and removal of vegetation.			
		• Removed trees of significant value must be handed over to the Timber			
		Corporation. Documentation on the process should be shared with the			
		engineer and maintained by the contractor.			
		• The contractor shall plant at least 3 good specimens of native trees over 5-			
		year-old root-balled or having at least 3ft height suitable for the location			
		as identified by the Engineer. The planting should take place in public			
		land suitable for the purpose			
		• The contractor shall build hardy structures around the trees for protection.			
		• The contractor shall be responsible for ensuring the well-being of the			
		trees/plants until the end of the contract			
39.	Loss, Damage and	• All works shall be carried out in such a manner that the destruction or	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna	disruption to the fauna and their habitats is minimal.			Engineer
		• Construction workers shall be instructed to protect fauna including wild			
		animals and aquatic life as well as their habitats. Hunting, poaching and			
		unauthorized fishing by project workers is not allowed.			
		• No solid or liquid waste should be dumped into natural habitats.			
40.	Prevention of the	There is a possibility of introducing / spreading of invasive species during	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Spread of Invasive Plant	material transportation and disposing cleared vegetation from one site to			Engineer
	Species	another, thus the following measures are to be undertaken.			
		Close monitoring of transportation, storage of borrowing material for the			
		spread of any invasive species must be done.			
		• Vehicles should be covered during transportation of cleared vegetation to			
		and from the construction site.			
		• Borrow material to be brought from properly identified borrow pits and			
		quarry sites, the sites should be inspected in order to ensure that no			
		invasive plant species are being carried with the borrow material.			
		• Washing the vehicles should be conducted periodically to prevent			
		carrying any invasive species			
		• The construction site should be inspected periodically to ensure that no			
		invasive species are establishing themselves at the site.			
41.	Chance find procedures	• All fossils, coins, articles of value of antiquity, structures and other	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	for PCRs and	remains or things of geological or archaeological interest discovered on			Engineer
	Archeological Property	the site shall be the property of the Government and shall be dealt with as			
	•	per provisions of the relevant legislation.			
		• The Contractor will take reasonable precautions to prevent his workmen			
				•	

42.	Surface Drainage and Possible Water Stagnation	or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	
43.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environmental and Social Safegaurds Officer). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints regarding environmental and social safeguards noncompliances and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 	
44.	Prevention of landslides	 Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc as per the designs given in the Contract documents and any other measures instructed by the Engineer. Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	

45.	Prevention of Sexual exploitation, child trafficking and child labour	 Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated into the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	ngineering Cost Contractor	PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTION			
46.	Clearing/Closure of Construction Site/Labor Camps	 The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	ngineering Cost Contractor	RDA,/Consultant Engineer, PRDA
47.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	ngineering Cost Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	ngineering Cost Contractor	RDA,/Consultant EngineerPRDA
49.	Hydrology and drainage		ngineering Cost Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done En at least for a period of three years 	ngineering Cost Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for National level stakeholder consultations conducted for IRCDP.

Stakeholder consultation conducted with communities living beside the road

Date	Details of Stakeh	older	Key concerns raised/Suggestions Provided
	Type of Stakeholder	Number of Participants (M/F)	
11.03.2021	GramaNiladari - Medagedaragoda	Male	 It is important to develop this road. People along the road engage in farming and work as laborers. There is a health center and people come to this place from surrounding villages.
11.03.2021	GramaNiladari - Amuwathugoda	Male	 There is no proper drain system along the road and therefore, the storm water flows on the road. Thus, road is damaged. People engage in paddy, tea and vegetable cultivation. It is good to develop this road.
11.03.2021	Road User	Male	 The bus traverses only up to Nelliwala. From that location, it's difficult even to go by foot as the road is severely damaged. Although this road is a PRDA road, the road is not maintained for a long period.
11.03.2021	Owner of a business unit	Female	 There's a lack of public transport as the road is damaged. Although, the road does not get inundated, the storm water flows along the road and road get damaged.
11.03.2021	Resident	Male	 It is good to develop this road as it is difficult to use this road during rainy season as there is no drainage system along the road. The road is slippery and dangerous during rainy season.

2.2. ESMP of SR 02 - Welekumbura Seethgala Udakandawatta Kowulketiya Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 02 - Welekumbura Seethgala Udakandawatta Kowulketiya Road (8.1km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> <u>Welekumbura - Seethagala - Udakanda - Kowulketiya Road</u>

Road length: 8.10km

Coordinates: Starting Point: 6° 42.000'N, 80° 38.955'E End Point: 6° 43.711'N,80° 35.725'E

Location:

District: Ratnapura DS Division: Balangoda EE Division: Pelmadulla GN Divisions: Welekumbura, EgodaWaleboda

1. Introduction

The Welekumbura - Seethagala - Udakanda - Kowulketiya Road (8.10km) starts from already developed Welekumbura to Seethagala road and connects with Balangoda – Rassagala – UwellaRoad (B039). This road is currently under the custody of Provincial Road Development Authority (PRDA) Sabaragamuwa. Road traverses along a hilly terrain and elevation of the trace vary between 557 - 749m MSL. Road surface is mainly damaged macadam, and there are few scattered locations with concrete. Road runs parallel to a stream of Walawe Ganga from its start to the end point on right hand side (RHS), for about 100m-500m distance downward of the road. The proposed road section is not located within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 8.10km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides) and drains as required. The construction period of this road is estimated as eight (8) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases also there's a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Welekumbura - Seethagala - Udakanda –Deiyangewatta – Kowulketiya Road is around 5.5m and the average carriageway is 3.3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road condition is concrete and damaged macadam. Therefore, residents of the area welcome this development project. There are tea cultivations in the area, and road development will facilitate the transportation of tea. Further, the road development will also provide easy access to schools, temples and medical centre located along the road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). Thestaff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social screening checklists and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required or the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from Project Management Unit of Road Development Authority which responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Welekumbura - Seethagala - Udakanda - Kowulketiya Road will have a majority of reversible, small-medium scale environmental and social impacts. The key environment impacts include temporary siltation of streams, slope failures and flood impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 255 households located on either side of the road with an estimated population of 960. A majority of the population are Sinhalese. There are Indian Tamil families as well. In terms of religion, the majority are Buddhists while others are Hindus.

Land ownership: There are no squatters along the road. There are private lands, government lands and the lands vested with temples under Buddhist Temporalities Ordinance ("Vihara Dewalagam Ordinance").

Livelihoods: Tea plantation is the main source of income for the people living in this area. There are also wage labourers.

- Local organisations: The community organisations include a Rural Development Society, Farmers' Organization, Elders' Society and Samurdhi Societies.
- **Community infrastructure and resources:** There are temples, a preschool, a medical centre, a Buddha statue, a community water tank located along the road as shown in Table 1. During road construction, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

community infrastructure and resources	Location of	coordinates	Chainage	Road side	Distance from the RoW
Buddha statue	6°42'0.17"N	80°38'57.26"E	0+000	Start	1m
Water tank of the	6°42'10.52"N	80°38'46.17"E	0+500	RHS	2m
Community Water					
Supply Scheme					
Temple	6°42'37.86"N	80°38'35.97"E	1+500	RHS	7m
Preschool	6°43'1.67"N	80°37'25.71"E	4+350	LHS	10m
Medical Centre	6°43'1.67"N	80°37'25.71"E	4+350	LHS	5m
School	6°43'19.17"N	80°36'38.06"E	6+100	LHS	5m
Temple	6°43'28.34"N	80°36'18.69"E	6+850	LHS	2m

• **On-going development projects:** None **Visitors to the area:** People from outside come to the village for trading activities.

7.2. Potential Impacts

Screening Questions	Not	Yes	No	Remarks
	known			
Land related Impacts				
Will the project include any new physical construction work?		\checkmark		Culverts will be reconstructed, and drains will be newly constructed in identified locations

Not known	Yes	No	Remarks
			where such drains do not exist at present.
	✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
		~	Proposed rehabilitation works will be within the existing RoW.
	✓		This road is currently under the custody of PRDA (Sabaragamuwa)
		~	Proposed rehabilitation works will be within the existing RoW.
	\checkmark		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
		✓ 	
<u> </u>		✓	
		\checkmark	
	✓	✓	None of the people will be affected as the development work will be carried out within the existing RoW.
		known	known $\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet\checkmark\bullet<$

Screening Questions	Not known	Yes	No	Remarks
poverty risks? If yes, how?				
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		\checkmark		There are temples, preschool, medical centre, Buddha statue, community water tank located along the road (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		The project area comes under the Pinnawala Police Station which is 21km away from the project site. Further, "Mithuru Piyasa" ² center is located in Balangoda Olukanda District hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location? Labour Influx			✓	
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers

 $^{^{2}}$ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				will be used by the contractors. Approximately 20 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓ 		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		V		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		√		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			√	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required
		for the project is approximately 20.
		Priority will be given to hire the
		local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Welekumbura Seethagala Udakanda Kowulketiya Road (SR02)Road Length:8.1kmLocation:District: Rathnapura
DS Division: Balangoda, Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			
following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas;		\checkmark	
disfiguration of landscape by road			
embankments, cuts, fills, and quarries?			
- Encroachment on precious ecology (e.g.		\checkmark	
sensitive or protected areas)?			
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓ 		No permanent alteration of waterways will be required. However temporary diversion of streams at 2.0km where new culvert to be constructed and at reconstruction of culverts; 1.8, 2.72, 3.65, 4.4, 5.45, 5.5 and 7.8km will be required. Provision of continuous supply of water to downstream, restoration of streams to original conditions after culvert reconstruction will minimize these impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	✓		At culvert construction/reconstruction at 2.0km and 1.8, 2.72, 3.65, 4.4, 5.45, 5.5 respectively. Further road runs parallel to the Walawe Ganga River from start to the end point on RHS. However, the river runs about 100m-500m distance downward of the road.

	[]	This impact is temporary and
		This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker
		camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	 ✓ 	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓	 Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and settlement areas located at Egoda Waleboda (6.1-7.2)km
- Dislocation or involuntary resettlement of people	\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓	Regular sprinkling of water to suppress dust and avoiding construction activities during night time especially from 6.1 – 7.2km where settlements are located adjacent to the road.
- Hazardous driving conditions where construction interferes with pre-existing roads?	\checkmark	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓	Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will

			reduce these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Avoiding possibilities of water stagnation areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for labor will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		\checkmark	
 Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road? 		~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photographs of Welekumbura Seethagala Road

Figure 1: starting point of the road



Figure 2: Along the road



Figure 3: Road crosses small stream at 5.1km



Figure 4: Along the road (5.5km)



Figure 5: Road passes settlement area of EgodaWaleboda at 6km



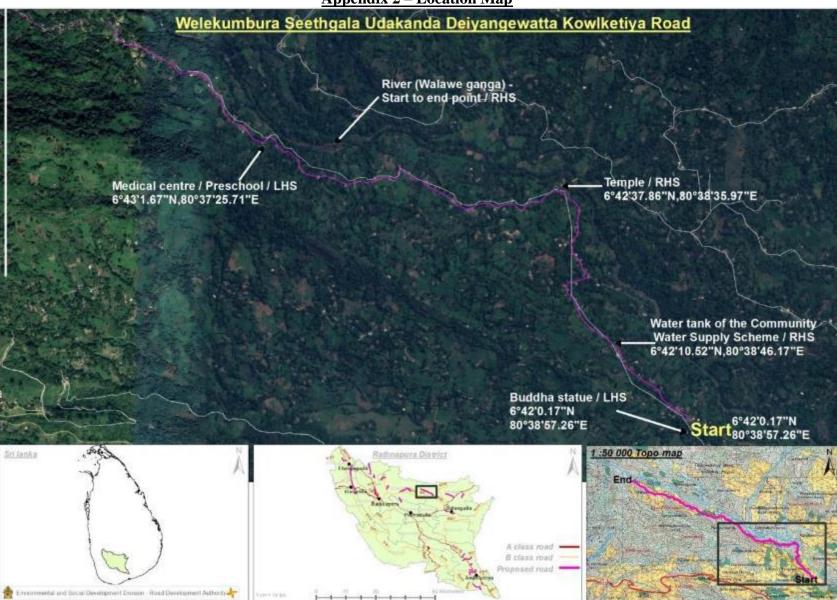
Figure 6: Tea cultivations near the road.



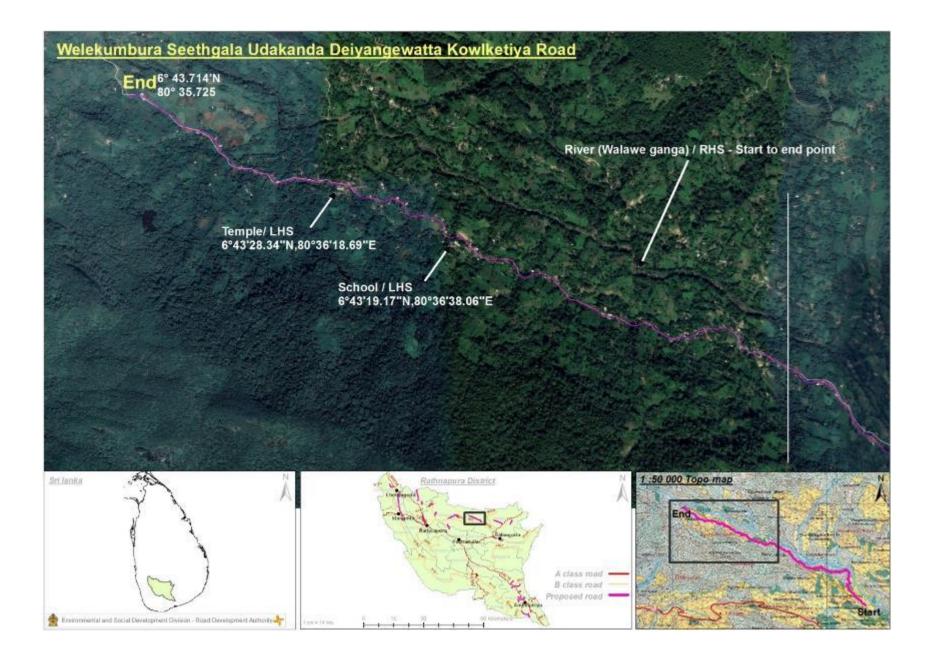
Figure 7: School near the road



Figure 8: End point of the road at 8.0km



Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Welekumbura Seethgala Udakandawatta Kowulketiya Road								
Risk Category assigned by E and S Screening	Moderate							
Design Recommendations and guidance								
Design Justification	Guidance to be Used							
Side drains and cross drains directed to Walawe Ganga	• Section 10, 15, 43 of							
(stream) stream runs parallel to road from start to end, are	ESMP							
recommended to have proper silt control measures to avoid	Annex III							
siltation of the stream.								
Drainage system should be designed in order to prevent	• Section 10, 15, 43 of							
flowing of road runoff to the houses located in downward	ESMP							
side (lower to the road level) of the road.								
Existing slopes should not be disturbed with the road	• Section 11, 45 of ESMP							
rehabilitation. Appropriate slope protection measures	• Any guidance to be							
should be included if slopes are to be disturbed with the	issued by NBRO							
recommendation of the Engineer and NBRO.	,							
Details of Internal Submission of Design Recommendation	18							
Submitted by	Director - ESDD, RDA							
Date of submission	11 June 2021							
Name of RDA design team member submission was made	Project Director – IRCDP,							
to	RDA							
Mode of transmission (Email, hand delivery)	Email							

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 02 Welekumbura Seethagala Udakandawatta Kowulketiya Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Responsibility	
	_			Implementation	Monitoring
	PRE-CONSTRUCTION A				
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Balangoda). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		1				
			recommendations made by the Central Environmental			
			Authority, if any with regard to felling of trees and removal			
			of vegetation.			
			• Removed trees of economic value must be handed over to the			
			Timber Corporation.			
			• Provision shall be made for additional compensatory tree			
			plantation. Any leftover of trees shall be removed and			
			disposed in approved manner.			
3.	Labor and Labor	*	The contractor should give priority to hiring labor from the	Engineering	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant
	Camps,Construction		surrounding areas to avoid the need for labor camps.	Cost		Engineer, Local Authority
		*	If labor camps are required to house migrant workers, they should			
	and other temporary		be placed well away from settlements or sensitive receptors, water			
	facilities		bodies and boundaries and buffer zones of protected/forested areas			
	huchites		and preferably located on land which is not productive			
			(barren/waste lands presently). If these are not possible, private			
			lands maybe taken on lease as standard practice. The location,			
			layout and basic facility provision of the labor camp must be			
			submitted to Engineer of the relevant managing department prior			
			to their construction.			
		*	The construction will commence only upon the written approval of			
			the Engineer and then from the relevant local authority			
		*	Separate labor camps need to be provided for female migrant			
			laborers.			
		*	The instructions for the laborers should be provided in all three			
			languages.			
		*	Provision of proper drainage facilities to the labour camps and			
			prevent breeding of mosquitoes, flies and other vector borne			
			diseases.			
		*	The contractor shall maintain necessary living accommodation and			
			ancillary facilities in a functional and hygienic manner and as			
			approved by the Engineer.			
		*	Provision of proper sanitary facilities to the labour camps and			
			offices including water, urinals, toilets, bathing facilities, mosquito			
1			nets with adequate capacity of septic tanks and soak pits.			
		*	All temporary accommodation must be constructed and			
			maintained in such a fashion that uncontaminated water is			
1			available for drinking, cooking and washing.			
		*	The sewage system for the camp must be planned and			
			implemented with concurrence from the Local Public Health			
			Inspector (PHI)			
		*	Provision shall be made for domestic solid waste disposal in			
		Í	acceptable manner. The solid waste shall be handed over to the			
			waste collecting system of the Local Authority (LA) of the area (if			
			any) and wastewater should be disposed in an environmentally			
			acceptable manner (meeting the desired water quality standards)			
L			acceptable manner (neeting the desired water quality standards)	1	1	1]

		-		1		.
			with the approval of the Engineer. Adequate health care is to be			
			provided for the work force.			
		*	Personal Protective Equipment (PPEs) such as helmet, boots, and		ļ	
			earplugs for workers, first aid and firefighting equipment shall be		ļ	
			available at construction sites before start of construction. An		ļ	
			emergency plan shall be prepared to fight with any emergency like			
			fire.		ļ	
		*	All construction camps shall have provision of rationing facilities		ļ	
			particularly for kerosene/LPG so that dependence on firewood for		ļ	
			cooking is avoided to the extent possible			
		**	Labor camp sites after use should be cleared and the site should be reinstated to provide condition at the close of the construction		ļ	
			reinstated to previous condition at the close of the construction work.		ļ	
4.	Motorial Commission	*		Enginegring	Contractor	PMU/PIU/RDA/Consultant
7.	Material Sourcing	**	The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources.	Engineering Cost	Contractor	
		*	The contractor is required to maintain the necessary licenses and	COSt		Engineer, CEA,GSMB
		* *	environmental clearances from GSMB and CEA for all borrow		ļ	
			and quarry material they are sourcing –including soil, fine		ļ	
			aggregate and coarse aggregate.		ļ	
		*	Sourcing of any material from protected areas and/or designated			
		•	natural areas, including tank beds, are strictly prohibited.		ļ	
		*	If the contractor uses a non-commercial borrow/quarry sites, the		ļ	
		ľ	sites should be remediated accordingly once material sourcing has			
			been completed.		ļ	
		*	The contractor should submit in writing all the relevant numbers			
			and relevant details of all pre-requisite licenses etc. and report of		ļ	
			their status accordingly to the Engineer.		ļ	
5.	Water for Construction	*	The contractor should arrange adequate supply of water for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	activities		project purpose throughout the construction period from a source	Cost	ļ	Engineer
			agreed upon with the engineer.		ļ	
		*	Water may not be obtained for project purposes, including for			
			labor camps, from public or community water supply schemes		ļ	
			without a prior approval from the relevant authority. Extraction of		ļ	
		l	water from ground water or surface water bodies without the			
			permission from Engineer and the relevant authority (Water		ļ	
			Resources Board, NW&DB, Department of Irrigation, CBO) will		ļ	
		•	not be allowed.		ļ	
		*	Permission for the extraction of water should be obtained prior to			
			the commencement of the project, from the relevant authority.		l	

6.	Work Site for	*	The contractor should identify an area to store construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
••	construction materials	•	materials and equipment at a site which should be approved by the engineer.	Cost	Contractor	Engineer
		*	Storage yards cannot be located in community areas, such as			
			playgrounds, close to water ways, cause access issues to locals or			
			forested areas that require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall be			
			done stationed only at the work site and/or in any other designated			
			areas by the engineer.			
		**	The contractor should provide instruction and advice should be			
			given to drivers and operators (both companies owned and hired)			
			to park vehicles and store equipment at the work site or designated			
7.	Information Disclosure	*	areas by the engineer. Discussions should be conducted with the residents and other	Engineering	Contractor/	PMU/PIU/RDA/Consultant
/.	Information Disclosure among Stakeholders	**	stakeholders who reside along the corridor of the road;	Engineering Cost	PMU/PIU	Engineer
	among Stakenolders		• Residents have to be briefed of the project, purpose and	COSt	1 10/110	Lingilicei
			design and outcomes via a documented community			
			consultation session			
			• This should be done immediately once the contractor is			
			mobilized.			
			• The contractor should take note of all impacts, especially			
			access issues and safety hazards that will be of concern to			
			the residents and take necessary measures as stipulated in			
			the ESMP to mitigate them.			
		**	The contractor will maintain a log of any grievances/complains			
		*	and actions taken to resolve them. A copy of the ESMP should be available at all times at the project			
		•••	supervision office on site.			
8.	Selection of temporary	*	Efforts shall be taken to minimize use of temporary land for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
01	use lands	•	construction activities	Cost	Contractor	Engineer
		*	Selection of temporary lands with considering of social and	0000		2
			environmental background adhering to laws and regulations in the			
			country			
		*	Approval for the temporary use of lands shall be obtained from			
			Engineer and need to sign agreement with the land owners			
		**	Once the use of the particular land is over, the agreement should			
			be terminated and the documents should be handed over to the			
0	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Engineer for information.			
9.	Shifting of public		ased on the preliminary studies utilities observed along the road are	Engineering	Contractor/Service	PMU/PIU/RDA/Consultant
	utilities		ot necessary to be removed. However, it is worthwhile to include a	Cost	providers	Engineer, CEB, NW&DB,
			rovision to relocate the utilities in case it is necessary in the design age to perfect the work. In such case,			SLT
		st	age to perfect the work. In such case,			
		*	Proper utility survey shall be carried out in order to identify the			
		1.	rioper dancy survey shall be called out in order to identify the			

		*	 effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility 			
		*	disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes			
		*	Special attention shall be taken to provide relevant services to the public without long delay			
		*	Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU			
10.	Hydrology and drainage	*	Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
		*	Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow			
		*	Construction work affecting water bodies should be prevented and work should be scheduled during the dry season			
		*	Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor			
		*	Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes			
11.	Identification of erodible	*	Prior identification of erodible and landslide prone areas in proper	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
	and landslide prone areas		consultation with National Building Research Organisation (NBRO).	cost		Engineer, NBRO
		*	Existing slopes should not be disturbed to extent possible			
		*	Incorporate the recommendations and guidelines of the NBRO to the road designing.			

10						
12.	Land donation	*	Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead away in the locations where required.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
		*	If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective			
			Divisional Secretariat.			
		*	All effort will be made to minimize the land donation for the project			
		*	Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.			
		*	Survey fees, notary charges for preparing the deed shall be borne			
			by the project to free any legal encumbrances caused as a result of taking the lands for road works.			
13.	Land Acquisition (if	*	Land acquisition is not envisaged in IRCDP. However,	Land	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
	required)		Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land	Acquisition cost		
			acquisition process will be initiated as per the Land Acquisition			
			Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.			
14.	Identifying locations to provide temporary	•	Contractor shall identify locations where permanent access is blocked for construction.	Engineering Cost	Engineer, PIU/PMU of RDA	PMU/PIU/RDA/Consultant Engineer
	access	•	The consultation with property owners is necessary if the access	Cost	01 KDA	Engineer
			of residents and business places expected to be damaged during construction.		Contractor	
		•	In cases of access of common properties including small shrines,			
			temples and schools, the temporary access needs to be discussed with care takers or heads of schools.			
		•	If the structures of common properties are located close to roads,			
	CONSTRUCTION PHAS	F.	safety measures need to be identified to protect the structures.	l		
		1		T		
15.	Clearing of road shoulders and Removal	*	During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
	and Disposal of	*	In places where the road RoW is not clearly demarcated, extra care	Cost		Linginicor
	construction debris and		need to be taken, not to damage crops and trees in private lands.			
	excavated materials	*	During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not			
			damaged / affected and that the traffic is not interrupted			
		*	The contractor shall identify the sites for disposal of material cleared.			
		*	Plants, shrubs and other vegetation cleared should not be burned			
		*	on site. Spoil and other disposal materials should only be dumped at sites			
		**	spon and other disposal materials should only be dumped at sites	I		

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			for which prior approval from relevant authorities such as the LA			
			have been obtained. Taking into account the following			
			• The dumping does not impact natural drainage courses			
			 No endangered / rare flora is impacted by such dumping 			
			• Should be located in nonresidential areas located in the			
			downwind side			
			• Located at least 100m from the boundaries and buffer zones			
			of protected/forested areas (Samanala Adawiya Sobhawa			
			Rakshithya) and water bodies (Walawe ganga stream, etc).			
			• Avoid disposal on productive/agricultural land.			
			• should be located with the consensus of the local			
			community, in consultation with the Engineer and shall be			
			approved by the LA, Pradeshiya Sabha,			
			• Minimize the construction debris/excavated materials as			
			much as possible by balancing the cut and fill requirements.			
		**	The contractor should avoid any spillage of spoil when			
		1	transporting such materials to the approved material dumping			
			sites.			
		**	Debris, residual spoil and dismantled and demolished structures			
		·	should not be sited to the productive/agricultural lands,			
			environmentally sensitive locations such as forest lands, water			
			bodies.			
16.	Protection of topsoil	*	Topsoil of the agricultural areas and any other productive areas	Engineering	Contractor	PMU/PIU/RDA/Consultant
	- Tottetion of topson	·	where it has to be removed for the purpose of this project shall be	Cost	Conductor	Engineer
			stripped to a specified depth of 150mm and stored in stockpiles of	0000		Linginioer
			height not exceeding 2m, as directed by the Engineer.			
		**	If the contractor is in any doubt on whether to conserve the topsoil			
		·	or not for any given area, he shall obtain the direction from the			
			Engineer in writing			
		*	Removed topsoil could be used as a productive soil when			
		ľ	replanting trees and during turfing.			
		*	Stockpiled topsoil must be returned to cover the areas where the			
		ľ	topsoil has been removed due to project activities. Residual topsoil			
			must be distributed on adjoining/proximate barren areas as			
			identified by the Engineer in a layer of thickness of 75mm –			
			150mm.			
		**	Topsoil thus stockpiled for reuse shall not be surcharged or			
		ľ	overburdened.			
		*	As far as possible multiple handling of topsoil stockpiles should be			
		•	kept to a minimum.			
17.	Protection of Ground	*	Construction vehicle, machinery and equipment shall be used and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cover and Vegetation		stationed only in the areas of work and in any other area	Cost		Engineer
	2		designated/ approved by the Engineer.			
		*	Entry and exit of construction vehicles and machinery should be			
		1	restricted to particular points as directed by the engineer			

			~ · · · · · · · · · · · · · · · · · · ·			1
		*	Contractor should provide necessary instructions to drivers,			
			operators and other construction workers not to destroy ground			
			vegetation cover unnecessarily.			
18.	Transport and Storage	*	All material should be transported in fully covered trucks.	Engineering	Contractor	PMU/PIU/RDA/Consultant
	of construction materials		Overloading of vehicles with materials should be controlled and	Cost		Engineer
			done in a manner to suit the trucks capacity.			
		*	Construction material such as cement, sand and metal should be			
			stored in closed structures or in a contained manner.All			
			construction materials such as sand, metal, lime, bricks etc. should			
			be transported under cover to the site and stored under cover at the			
			sight. Plastic sheeting (of about 6 mm minimum thickness) can be			
			used and held in place with weights, such as old tires or cinder			
			blocks, with the edges of the sheeting buried, or by the use of other			
			anchoring systems.			
		*	Loading, unloading and transport of materials shall not be			
		•	inconvenient to the road side community or road users			
		*	Selection of sites for stock piling with the approval of Engineer			
		•	away from environment and public sensitive locations as			
			mentioned in Social Screening Checklist.			
		*•	Storage of fuel, lubricant and chemicals use for the construction			
		•	activities on paved surface without contamination to the			
			environment and storm water runoff			
		*•	Approval shall be taken prior to use of local roads from relevant			
			authorities and need to maintenance during the use by the			
			Contractor			
19.	Emission of Dust	*	In order to minimize the levels of airborne dust all construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
		•	material/debris should be stored as per the instructions provided	Cost	Contractor	Engineer
			above No.18.	COSt		Lingineer
		*	Any parties vulnerable for excessive dust such as temples at 1.5km			
		•	and 6.8km, preschool and medical center at 4.3km, school at			
			6.1km and houses located adjacent to the ROW etc should be			
			identified in advance and measures as agreed with the Engineer			
			should be implemented to minimize the impact.			
		*	Mud patches caused by material transporting vehicles in the access			
		•	road should be immediately cleaned			
		**	Continual water sprinkling should be carried out in the work and			
		•	fill areas, material extraction sites, processing plants and the			
			access road if dust stir is observed. Water sprinkling should be			
			done more frequently on days that are dry and windy (at least four			
			time's day) as the levels of dust can be elevated during dry			
			periods.			
		*	Dust masks should be provided to the laborers for the use at			
		•	required times.			
			Erection of dust barriers to the public, religious and other socially			
		.*.	important locations			
		I	important iocations			

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		*	Metal quarries, crushers and all the plants should eb located at			
			least 500m form the public sensitive and residential areas			
		*	Establishment of tire washing facility for the plants, yards or any			
			other sites which causing to bring mud particles with the vehicles.			
20.	Management of Self	*	In the event the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow Sites		• Contractor shall comply with the environmental	Cost		Engineer CEA, GSMB
			requirements/guidelines issued by the CEA, GSMB and the			
			respective local authorities with respect of locating borrow			
			areas and with regard to all operations related to excavation			
			and transportation of earth from such sites.			
			• Contractor can also find suitable soil materials from currently			
			operated licensed borrow pits in the surrounding area, subject			
			to approval of the Engineer			
			• No borrow-sites be used (currently approved) or newly			
			established within areas protected under FFPO and FO and			
			within productive land/agricultural land and environment and			
			public sensitive locations			
			• Borrow areas shall not be opened without having a valid			
			mining license from the GSMB. The location, depth of			
			excavation and the extent of the pit or open cut area shall be			
			as approved by the Engineer.			
			• All borrow pits/areas should be rehabilitated at the end of			
			their use by the contractor in accordance with the			
			requirements/guidelines issued by the CEA and the respective			
			local authority (Refer Annex II for guidelines).			
			• Establishment of borrow pits/areas and its operational			
			activities shall not cause any adverse impact to the near-by			
			properties. Also, shall not be a danger of health hazard to the			
			people.			
			 Contractor shall take all steps necessary to ensure the stability 			
			of slopes including those related to temporary works and			
			borrow pits.			
21.	Quarry Operations and	*	In the event the contractor manages a self-owned existing quarry	Engineering	Contractor	PMU/PIU/RDA,/Consultant
21.	Management of Self		sites available in the project area	Cost	Contractor	Engineer CEA,GSMB
	Operated Quarry Sites	*	They should be approved by CEA with valid EPL (Environment	Cost		
	Operated Quarry Sites	Ť	Protection Licenses) and GSMB with valid IML (Industrial			
			Mining Licenses);			
		*	Prior approval should be obtained from GSMB, CEA and local			
		Ť	authorities such as Pradeshiya Sabha.			
		*	Selected quarry sites should have proper safety measures such as			
		•	warnings, safety nets etc., and third-party insurance cover to			
			protect external parties that may be affected due to blasting.			
		*	Quarry sites should not be established within protected sites			
		•	identified under the FFPO and FO and not within productive			
			land/agricultural land and environment and public sensitive			
			iand/agricultural land and environment and public sensitive			

 locations. It is recommended not to seek material from quarries that have ongoing disputes with community. The maintenance and rehabilitation of the access roads in the event 	
ongoing disputes with community. ★ The maintenance and rehabilitation of the access roads in the event	
The maintenance and rehabilitation of the access roads in the event	
of damage by the Contractors operations shall be a responsibility	
of the Contractor.	
✤ Copies of all relevant licenses should be maintained by the	
Contractor for review and documentation by the engineer	
22. Control of Control of Debris material shall be disposed in such a manner that existing Engineering Contractor PMU/PIU/RD	A/Consultant
Sedimentation and Soil drainage paths are not blocked. Cost Engineer	
Erosion	
improved / erected to drain rainwater properly.	
Silt traps will be constructed to avoid siltation into the water ways.	
where necessary along the road corridor.	
✤ To avoid siltation, drainage paths should not be directed to	
waterways and irrigation canals and they should be separated from	
such water bodies	
 Temporary soil dumps should be removed from the construction 	
sites as soon as possible. Until removal, these soil dumps should	
be covered with thick polythene sheets.	
 Temporary soil dumps should be placed at least 200m away from 	
all water bodies.	
Top soil shall be prevented to use for tree planting and turfing	
activities.	
 A In Hilly terrain and areas with slopes 	
• Embankment slopes, slopes of cuts, etc. shall not be unduly	
exposed to erosive forces.	
• These exposed slopes shall be graded and covered by grass	
or other suitable materials per the specifications.	
• During the rainy season open cuts/slopes should be covered	
with fixed polythene sheeting to avoid excessive erosion.	
♦ All fills, back fills and slopes should be compacted immediately to	
reach the specified degree of compaction and establishment of	
proper mulch.	
♦ Work that lead to heavy erosion shall be avoided during the	
raining season. If such activities need to be continued during rainy	
season prior approval must be obtained from the Engineer by	
submitting a proposal on actions that will be undertaken by the	
contractor to prevent erosion.	
✤ Construction activities: excavation and earth work around	
vulnerable area for soil erosion mainly restricted to the dry periods	
and removal of green cover vegetation shall be minimized.	
 The work, permanent or temporary shall consist of measures as per 	
design or as directed by the engineer to control soil erosion,	
sedimentation and water pollution to the satisfaction of the	

		-		·		
			engineer.			
		1	• Typical measures include the use of berms, dikes sediment			
1			basins, fiber mats, mulches, grasses, slope drains and other			
1			devices.	1		
			o All sedimentation and pollution control work and	1		
			maintenance thereof are deemed, as incidental to the			
			earthwork or other items of work and no separate payment	1		
			will be made for their implementation.	1		
L		F	tefer Annex III for sample erosion control measures.	<u> </u>	۱ <u> </u>	
23.	Noise from vehicles,	*	Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA,/Consultant
1	machinery and		6:00PM). No work that generates excessive noise should be	Cost		Engineer CEA
1	equipment		carried out during night hours where in close proximity to public			-
1			sensitive receptors (temples, hospitals) and residential areas (from			
			6:00PM to 6:00AM on the following day).			
		**	Any parties vulnerable for excessive noise residing along the road			
			such as temples at 1.5km and 6.8km, preschool and medical	1	۱	1
			center at 4.3km, school at 6.1km and houses located adjacent to	1		
			the ROW etc should be identified in advance and measures as			
			agreed with the Engineer should be implemented to minimize the			
1			impact.			
		**	All equipment and machinery should be operated at noise levels			1
1		Ĺ	that do not exceed the permissible level of 75 dB (during			
			construction) for the daytime. For all construction activities			
			undertaken during the nighttime, it is necessary to maintain the			
			noise level at below 50 dB as per the Central Environmental			
			Authority (CEA) noise control regulations. Special approval			
1			should be obtained from CEA for night time work through PIU.			
		*	All equipment should be in good serviced condition. Regular			
		•	maintenance of all construction vehicles and machinery to meet			
			noise control regulations stipulated by the CEA in 1996 (Gazette			
			Extra Ordinary, No 924/12) must be conducted for			
			extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for			
			transport and for plants (crushers, asphalt, concrete and batching			
		*	plants). Ideally noise generating work should not be carried out during			1
		**	public holidays and religious days. Special care should be taken as			
		*	there is a temple nearby. Labor gangs should be warned to work with minimum noise. Strict			1
		**				
			labor supervision should be undertaken in this respect. Number of nighttime resident laborare should be minimized			
24	Vahioulan neinen 11. 4	*	nighttime resident laborers should be minimized.	Engineer	Contractor	PMU/PIU/RDA/Consultant
24.	· · · · · · · · · · · · ·	**	Idling of temporary trucks or other equipment should not be	Engineering	Contractor	
	at residential / sensitive		permitted during periods of loading / unloading or when they are not in active use.	Cost		Engineer
	receptors					
		*	The practice must be ensured especially near residential /			1
			commercial / sensitive areas.	1 1	<u> </u>	۱

			 Stationary construction equipment will be kept at least 500m awa from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. All possible and practical measures to control noise emission during drilling shall be Employed. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must be dor regularly and during routine servicing operations, the effectiveners of exhaust silencers will be checked and if found defective will be replaced. Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep nois levels at the minimum. 	f s g e s e		
	T (T	,		.		
25.	Impacts due Vibration	to	 Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. Any parties vulnerable for excessive vibration located along the road such as Buddha statue at starting point, water tank at 0.5 km temples at 1.5km and 6.8km, preschool, medical center at 4.3km school at 6.1km and houses located adjacent to the ROW etc. should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structure within the zone of influence, as agreed with the relevang government agencies and the engineer. Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. The contractor shall modify the method of construction unter compliance with the criteria, if vibration levels exceed the relevang vibration criteria. Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blas shall be controlled blasting in nature. Notwithstanding to thes provisions contractor is liable for any damage caused by blasting work. 	co Cost e , , , e e s t f e s e g	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB
26	Dollution of Call	and	and approval from GSMB The contractor shall ensure that all construction vehicle parkir	g Engineering	Contractor	PMU/PIU/RDA,/Consultant
26.	Pollution of Soil Water via Fuel Lubricants	and and	The contractor shall ensure that all construction vehicle parkin locations, fuel/lubricants storage sites, vehicle, machinery an equipment maintenance and refueling sites shall be located awa from rivers, at least 200m away, waterways and water bodies.	d Cost	Contractor	Engineer CEA

		•			Γ	
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate			
			the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not be			
			disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants			
			to meet the relevant standards before discharging to the			
			environment.			
		*	Contractor shall arrange for collection, storing and disposal of oily			
			wastes to the pre-identified disposal sites (list to be submitted to			
			Engineer) and approved by the Engineer. All spills and collected			
			petroleum products will be disposed of in accordance with			
		١.	standards set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
			guidelines of CEA or any other relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
			passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			
			undertaken without providing adequate provisions to the prior			
			satisfaction of the Engineer.			
		*	The construction corridor should be barricaded at all time in a day			
			with adequate marking, safety tape, flags, reflectors etc. for safety			
			of individuals using the site daily basis. (Items such as parking			
			cones, lights, tubular markers, orange and white strips and			
			barricades of a luminous nature for night visibility shall be			
			procured where deemed necessary)			
		*	Safety signboards should be displayed at all necessary locations.			
		**				
		***	The contractor should obtain a Third-party insurance to			
			compensate any damages, injuries caused to the public or laborers			
			during the construction period.			
		*	All construction vehicles should be operated by experienced and			
			trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers			
			during the ESMP training prior to the start of the construction			
		۱.	activities.			
		*	All digging and installation work should be completed in one go, if			
			this task is not accomplished the area should be isolated using			
			luminous safety tape and barricading structures surrounding the			
			whole area.			
1		*	Trenches should be progressively rehabilitated once work is			

		*	Material loading and unloading should be done in an area, well			
			away from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the			
			site to ensure public safety.			
		*	Safety awareness programs should be conducted by the Contractor			
			in annual basis targeting the public residing along the road in order			
			to make the public aware on road safety especially during the			
			operation period of the road.			
28.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
			workers as per the ILO Convention No. 62 and Safety & Health	Cost		Engineer
			Regulations of the Factory Ordinance of Sri Lanka to the extent			6
			that those are applicable to this contract.			
		*	The contractor shall supply all necessary safety measures at site.			
		*	Protective footwear and protective goggles should be provided to			
		•	all workers Employed on mixing of materials like cement,			
			concrete etc.			
		*				
		÷	Welder's protective eye-shields shall be provided to workers who			
			are engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise, and			
			workers working in crushing, compaction, or concrete mixing			
			operation.			
		*	The contractor shall supply all necessary safety appliances such as			
			safety goggles, helmets, safety belts, ear plugs, mask etc. to			
			workers and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office,			
			gloves, earmuffs, goggles, dust masks, safety harness and any			
			other equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
			consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	All workers should be made aware about Workers GRM and they			
			should be facilitated to approach relevant GRCs as and when			
			required.			
		*	National and World Bank requirements (such as providing			
			necessary personal protective equipment, taking temperature			
			checks etc.) for prevention of the spread of COVID-19 virus will			
			be adhered to.			
29.	Prevention of accidents	*	Prevention of accidents involving human beings, animals or	Engineering	Contractor	PMU/PIU/RDA/Consultant
49.	revenuon or acciucits	•	vehicles falling or accidents due to open trenches/manholes during	Cost	Contractor	Engineer
			construction period. This needs to be ensured with proper	COSt		Liigilieei
			barricading, signage boards and lighting etc.			
		*	Adequate signboards shall be placed much ahead of diversion site to continue the mode ware. The mode size should comply with the			
			to caution the road users. The road signs should comply with the			
			Road Safety Manual of RDA.			
		*	A readily available first aid unit including an adequate supply of			

				1		
			sterilized dressing materials and appliances should be available at			
			the site office at all times			
		*	Availability of suitable transport at all times to take injured or sick			
			person(s) to the nearest hospital should also be insured.			
		*	Names and contact information for emergency services such as			
			Ambulance services, hospitals, police and the fire brigade should			
			be prepared as a sign board and displayed at the work site.			
		*	Night time illumination should be in place at every location where			
			the road is narrow, diverted and structures are repaired and any			
			other places where the PIU recommends to do so			
		*	Monitor and record road crashes during construction and			
			maintenance stages and take appropriate remedial actions			
30.	Operation of labor	*	Locations selected for labour camps should be approved by	Engineering	Contractor	PMU/PIU/RDA/Consultant
20.	camps	·	engineer and comply with guidelines/ recommendations issued by	Cost	Contractor	Engineer, CEA, LA, DoF
	cumps		the CEA/Local Authority (LA). Construction of labourer's camps	2000		
			shall not be located within 200m from waterways, within an area			
			coming under DoF, and near to any other environment and social			
			sensitive locations			
		*	The Contractor shall construct and maintain all labor			
		•	accommodation in such a fashion that uncontaminated water is			
			available for drinking, cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every			
			workplace/labor camp site at suitable and easily accessible places			
			and regular maintenance of such facilities.			
		*	The sewage system for the camp are designed, built and operated			
			in such a fashion that no health hazards occurs and no pollution to			
			the air, ground water or adjacent water courses take place. Ensure			
			adequate water supply is to be provided in all toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure			
		*				
			that these are regularly Emptied and disposed of in a hygienic			
21	Management of the	*	manner The contractor shall firstly follow all measures outlined for	Engineering	Contractor	PMU/PIU/RDA,/Consultant
31.	spread of Covid-19 or	*	pandemic management by the Government of Sri Lanka, Ministry	Cost	Contractor	EngineerMoH
	handling sudden		of Health and Local Public Health officers and adhere to all	COSI		Engineermon
	Pandemic outbreaks					
	r andennic outbreaks		relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex			
			(https://www.npb.neaitn.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details.			
		**				
		*	The contractor will ensure that there is set number of workers as			
			per the guidance as well as in labor camps to prevent			
			overcrowding and to allow social distancing. Where necessary in			
			labor camps additional provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper handwashing and			
			sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature checks			
			of workforce and enable social distancing at the work site and			

	1				
	*				
	*			Contractor	PMU/PIU/RDA/Consultant
Borne Diseases			Cost		Engineer, MoH
		and empty cans, containers, tires, etc. shall be prevented.			
		Approved chemicals to destroy mosquitoes and larvae should be			
		regularly applied.			
	*	All borrow sites should be rehabilitated at the end of their use by			
		authorities			
	*	Contractor shall keep all places of work, labor camps, plus office			
		rats and other vectors such as flies.			
Gender issues including	*	Equal opportunity shall be ensured while requirement of project	Engineering	Contractor	PMU/PIU/RDA/Consultant
Gender base violence		staff including contractors working force. The salary/ wages and	Cost		Engineer
		other payments due on service provided to the project should not			-
		be classified on the Gender basis.			
	*	The sanitary facilities in sites and labour camps should be			
		designed with consideration of suitable location, comfortability for			
		female users and safe access.			
	*	Institutional arrangement should be adopted to monitor and taking			
		action against the Sexual harassment can be happened at the site to			
		the workers and general public. The confidential reporting			
		mechanism for sexual harassment shall be incorporated in to the			
		Grievance readdress Mechanism of the Project.			
Prevention of Sexual	*	Contractor shall maintain records of recruitment and employment	Engineering	Contractor	PMU/PIU/RDA/Consultant
exploitation, child		of contract workers (including subcontractors) with age	Cost		Engineer
trafficking and child		verification to avoid child labor.			-
labour	*	Trafficking of children (forced/bonded labour) is prohibited under			
		the project.			
	*	Institutional arrangement should be adopted to monitor and taking			
		action against the Sexual exploitation can be happened at the site			
		to the workers and general public. The confidential reporting			
		mechanism for sexual exploitation shall be incorporated in to the			
		Grievance readdress Mechanism of the Project.			
	*	Contractor shall not employ workers below the age of 14 years			
	*	If there are workers below the age of 18 years and 15 years, they			
		should only be engaged in nonhazardous work that would not			
	1	interfere child's education	1		
	Borne Diseases Gender issues including Gender base violence Prevention of Sexual exploitation, child trafficking and child	Borne Diseases Sender issues including Gender base violence Prevention of Sexual exploitation, and child labour Prevention exploitation, and child labour Sexual explored Sexual explored Sexual explored Sexual explored	Prevention of Vector Solution Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Gender issues including Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. Frevention of Sexual The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. Prevention of Sexual Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Prevention of Sexual Contractor shall maintain records of the Project. Prevention of Sexual Contractor shall maintain records of the project. Prevention of Sexual Contractor shall maintain records of the project. Prev	of these checks should be maintained by the contractors site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. Prevention of Vector Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. Engineering Cost All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings. Clean devoid of garbage to prevent breeding or rats and other vectors such as flies. Engineering Cost Gender issues including Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. Engineering Cost Prevention of Sexual excitation against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. Engineering Cost Prevention of Sexual exhibitional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to	of these checks should be maintained by the contractors site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PH1 and related to the said pandemic the contractor will immediately inform the PH1 and related to the said pandemic the contractor will immediately inform the PH1 and related to the said pandemic the contractor will immediately inform the PH1 and related to the said pandemic the contractor workers takes to the said the contractor sail take contractor sail takes of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. Engineering Cost All borrow sites should be rehabilitated at the end of their use by the contractor in accondance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall take pandemic the requirement of project for and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as files. Engineering Cost Gender base violence The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safa access. Engineering Cost Cost Prevention of Sexual exploitation, child trafficking and child labour Contractor shall maintain records of recruitment and employment of cost and ganeral public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. Engineering Cost Prevention of Sexual

25	T			En ein	Contractor	
35.	Issues due to labor influx	* *	Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
		*	The workers will be made aware of GRM procedure through			
36.	Traffic Management	* * * *	toolbox meetings. Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

			drivers to ensure the safety of the vehicles and pedestrians			
37.	Loss of Access due to	*	Temporary access will be provided when permanent access is	Engineering	Contractor	PMU/PIU/RDA/Consultant
011	construction	·	blocked for construction of all houses and public properties which	Cost	contractor	Engineer
			have already obtained access from the road.			
		*	When construction work is in progress in one side, the other side			
			will be opened for traffic & properly			
		*	At the end of each day, debris that blocked access path will be			
			cleared away under the supervision of the Engineer.			
38.	Protection of Physical	*	If any physical cultural resources are identified along the project	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources		trace the contractor will ensure that protective fencing as agreed	Cost		Engineer
	(PCRs) close to the Site.		with the community and or head of the physical cultural resource			-
			(ie temple, mosque, place of worship, grave site, monument,			
			statue, tree or any site designated of importance by the			
			community) is established to avoid any impacts during the civil			
			works.			
		**	If the site is within 5 meters of the proposed road trace the			
			contractor shall conduct and document a crack survey of the site			
			prior to construction to ensure that no damage is caused due to			
			vibrations associated with the civil works and will take all			
			requisite measures to ensure so.			
		*	The contractor shall not, park vehicles or store construction			
			material in close proximity to the PCR or site labor camps in			
			immediate vicinity of the PCR.			
		*	Labors will be briefed to ensure that no acts of vandalism will be			
			tolerated and will be penalized. Workers should not be allowed to			
		*	trespass into such areas. Unless agreed with the community the contractor shall not block			
		***	access to any known places of worship or PCRs along the project			
			trace.			
39.	Loss, Damage and	•	All works shall be carried out in a manner that the destruction to	Engineering	Contractor	PMU/PIU/RDA/Consultant
59.	disruption to Flora	•	the flora and their habitats is minimized.	Cost	Contractor	Engineer
	usi uption to Piora		Trees and vegetation shall be felled / removed only if that	COSt		Lingineer
		•	impinges directly on the permanent works or necessary			
			temporary works. In all such cases contractor shall take prior			
			approval from the Engineer.			
			Contractor shall make every effort to avoid removal and/or			
		-	destruction of trees of religious, cultural and aesthetic			
			significance.			
		•	If such action is unavoidable the Engineer shall be informed in			
			advance and carry out public consultation and report on the same			
		1	should be submitted to the Engineer.			
		•	Contractor shall adhere to the guidelines and recommendations			
		1	made by the CEA, if any with regard to felling of trees and			
			removal of vegetation.			
	I	<u> </u>			1	I

			Removed trees of significant value must be handed over to the			
		•	Timber Corporation. Documentation on the process should be			
			shared with the engineer and maintained by the contractor.			
		•	The contractor shall plant at least 3 good specimens of native			
		-	trees over 5-year-old root-balled or having at least 3ft height			
			suitable for the location as identified by the Engineer. The			
			planting should take place in public land suitable for the purpose			
		•	The contractor shall build hardy structures around the trees for			
			protection.			
		•	The contractor shall be responsible for ensuring the well-being of			
			the trees/plants until the end of the contract			
40.	Loss, Damage and	٠	All works shall be carried out in such a manner that the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna		destruction or disruption to the fauna and their habitats is	Cost		Engineer
			minimal.			
		٠	Construction workers shall be instructed to protect fauna			
			including wild animals and aquatic life as well as their habitats.			
			Hunting, poaching and unauthorized fishing by project workers is			
			not allowed.			
		•	No solid or liquid waste should be dumped into natural habitats.		-	
41.	Prevention of the Spread	*	There is a possibility of introducing / spreading of invasive species	Engineering	Contractor	PMU/PIU/RDA/Consultant
	of Invasive Plant Species		during material transportation and disposing cleared vegetation	Cost		Engineer
			from one site to another, thus the following measures are to be undertaken.			
		*	Close monitoring of transportation, storage of borrowing material			
		***	for the spread of any invasive species must be done.			
		•	Vehicles should be covered during transportation of cleared			
		-	vegetation to and from the construction site.			
		•	Borrow material to be brought from properly identified borrow			
			pits and quarry sites, the sites should be inspected in order to			
			ensure that no invasive plant species are being carried with the			
			borrow material.			
		٠	Washing the vehicles should be conducted periodically to prevent			
			carrying any invasive species			
		•	The construction site should be inspected periodically to ensure			
			that no invasive species are establishing themselves at the site.			
42.	Chance find procedures	٠	All fossils, coins, articles of value of antiquity, structures and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	for PCRs and		other remains or things of geological or archaeological interest	Cost		Engineer
	Archeological Property		discovered on the site shall be the property of the Government			
			and shall be dealt with as per provisions of the relevant			
		_	legislation.			
		•	The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any			
			such article or thing. He will, immediately upon discovery			
			thereof and before removal acquaint the Engineer of such			
		L	increat and before removal acquaint the Englitter of such			

43.	Surface Drainage and Possible Water Stagnation	 discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
44.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint a person (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 		Contractor	Engineer, PIU/PMU, RDA
45.	Prevention of landslides	 Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc as per the designs given in the Contract documents and any other measures instructed by the Engineer. Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

46.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. All solid waste will be disposed in preapproved sites or via the 	RDA,/Consultant EngineerPRDA
		 local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	
47.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the 	RDA/Consultant Engineer, PRDA
		stipulated waste management criteria of this ESMP.	
48.	Road furnishing on safety.	 The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. Engineering Contractor 	RDA,/Consultant EngineerPRDA
49.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow Engineering Contractor, PRDA 	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	 ✤ Growth and survival of trees planted shall be ensured and Engineering monitoring done at least for a period of three years Cost 	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultations conducted for IRDCP.

Date	Details of Stakeholder		Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	Owner of a commercial unit	Male	 Main livelihood of the area is tea cultivation. About 40 -50 lorries transport tea leaves on this road daily. This road is in damaged condition and therefore, it should be improved.
12.03.2021	Grama Niladhari Welekumbura	Male	 Majority of people living in this area are Sinhala - Buddhists. Most of the lands are private lands. But there are some lands under Buddhist Temporalities Ordinance.

Stakeholder consultation conducted with communities living beside the road

2.3. ESMP of SR 03 - Pabahinna Kinchigune road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 03 - Pabahinna Kinchigune road (2.8km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background Pabahinna Kinchigune road

Road length: 2.80km

Coordinates: Starting Point: 6° 42.566'N, 80° 47.244'E End Point: 6° 41.424'N, 80° 46.773'E

Location: District: Ratnapura DS Division: Imbulpe EE Division: Pelmadulla GN Divisions: Muttettuwegama, Kinchigune, Karagasthalawa

1. Introduction

PabahinnaKinchigune road starts from Pambahinna – Kumbalagama a and Rajawaka- Kapugala (B593) road and ends near the Samanalawewa reservoir. This road is under the custody of Balangoda Pradesiya Sabha (local authority). The surface of the road is damaged macadam. The road traverses along a hilly terrain and elevation of the trace varies between 464 - 596m MSL. The road runs adjacent to Rajawaka proposed forest reserve at 1.8km (RHS) and 2.3km to the end point on both sides of the road. The road ends closer to Samanalawewa reservoir.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8 km). The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 4.5m, shoulder 0.5m (both sides), and earth drain 0.8m. The estimated time frame for construction of this road is four (4) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Pambahinna Kinchigune road is around 10m and the average carriageway is 5m.

4. Project Implementing Agency:

The Road Development Authority is responsible for design and construction activities. The Pradeshiya Sabah (local authority) of Balangoda will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from the Balangoda Pradeshiya Sabah will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road is used by local tourists to visit Samanalawewa reservoir and there is also a camping site. The road also provides access to Faculty of Agriculture, University of Sabaragamuwa and the Training center of Ceylon Electricity Board. Thus, this road development will provide easy access to students, local tourists and residents in the area.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road (see Annex1 for photographs). Based on this information, google maps, topographic mapsand secoundary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists, and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which isresponsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Pambahinna – Kinchigune Road will have a majority of reversible, small-medium scale environmental and social impacts. The key environmental impacts include indirrecte impacts to Rajawaka Proposed Forest Reserve and temporary impacts to water quality of the Samanalawewa Recervoir. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements:

There are about 58 households and 13 small shops located along the road. The population is around 270. The majority of the people are Sinhalese Buddhists by their ethnicity and religion respectively.

Land ownership: There are no squatters along the road. The land is private and government owned. There are titleholders and permit holders

• Livelihoods: Paddy is the main crop cultivated in the area. Residents are engaged in public and private sector jobs and self-employment as well.

Local organisations: There are Farmer Organisations and Funeral Aid Societies in the area

• **Community infrastructure and resources:** There is a Buddha shrine, Bo tree, temple and an educational institute as described in the Table 1.. During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	Coordinates		Chainage	Road side	Distance from RoW
Buddha Shrine	6°42'34.50"N	80°47'14.31"E	Starting point	RHS	0.5m
Temple	6°42'5.53"N	80°47'9.56"E	1.00	LHS	10m
Bo tree	6°41'55.98"N	80°46'54.49"E	1.600	LHS	20m
Faculty of Agriculture - University of Sabaragamuwa	6°42'5.53"N 6°41'55.90"N	80°47'9.60"E 80°46'54.53"E	1.060 to 1.600	LHS	2m

Table 1: Community infrastructure and resources

- **On-going development projects:** None.
- Visitors to the area: There are local tourists who visit the Samanalawewa reservoir. There is also a camping site and a training centre belonging to Ceylon Electricity Board in the project area. Therefore, visitors are coming to project area frequently.

7.2. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		\checkmark		Culverts will be reconstructed, and drains will be

Screening Questions	Not known	Yes	No	Remarks
				newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			✓ 	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of the Balangoda Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		V		The RoW is owned by Balangoda Pradeshiya Sabha (local authority). The usage of land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works?			✓ 	

Screening Questions	Not known	Yes	No	Remarks
(Is the land free of squatter/informal settlements or other encumbrances?				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		~		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There is a Buddha shrine, Bo tree, temple and an education institute (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		V		Project area comes under the Samanalawewa Police Station which is 0.28 km away from the

Screening Questions	Not known	Yes	No	Remarks
				project site.Further, " <i>MithuruPiyasa</i> " ³ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		✓		There is a possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		 ✓ 		Accommodation facilities to be provided if labor is brought from outside.

³ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		√		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Pabahinna - Kinchigune road (No. 3)Road Length:2.8kmLocation:District: Rathnapura
DS Division: Imbulpe

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area			Road runs adjacent to Rajawaka Proposed Forest Reserve at 1.8km (RHS) and 2.3km to the end point on both sides of the road (Source: Maps of Sensitive Areas of Ratnapura District prepared by CEA and Topographic maps of Sri Lanka,1:50000 scale). Current legal status of the forest is being verified with the Forest Department and Department of Wildlife Conservation, which will determine the eligibility for financing according to the project's Negative List (ESMF). However, road improvement works will be limited to the existing ROW (around 11m) of the road and there is a sufficient ROW along the
- Wetland		\checkmark	particular road section.
- Mangrove		\checkmark	
		· ✓	
- Estuarine			
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	

B. Potential Environmental Impacts			
Will the Project cause			
 Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries? Encroachment on precious ecology (e.g. 		✓ ✓	
sensitive or protected areas)?			
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent diversion is required. Temporary diversion will be required at culvert reconstruction; 0.25, 0.85, 1.42, 1.49, 1.68, 1.8 and 2.24km. Water flow to the downstream will be continued during construction phase and streams will be restored to original condition after need is over. Siltation of streams will be minimized by application of soil conservation measures such as silt traps and fences.
- Deterioration of surface water quality due to sil trunoff and sanitary wastes from worker- based camps and chemicals used in construction?			Road ends closer to Samanalawewa reservoir. This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies as above mentioned and installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.

Noise and vibration due to blasting and other civil works?			Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the permissible levels as specified in the national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist and 0.0 to 2.3km where settlements are located.
- Dislocation or involuntary resettlement of people		v	
 Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? Hazardous driving conditions where 	✓ 	✓	Regular sprinkling of water to suppress dust and avoiding construction activities during night time.
construction interferes with pre-existing roads?			
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	~		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
 Creation of temporary breeding habitats for mosquito vectors of disease? 	✓		Avoiding possibilities of water stagnation areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	✓ 		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps, retaining walls and provision of PPE for labors will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards

		will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?	\checkmark	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Pabahinna Kinchigune road



Figure 1:

Starting point of the road at Pabahinna - Kubalgama -Rajawaka - Kapugala road (B593)



Figure 2: Along the road



Figure 3: Faculty of Agriculture of University of Sabaragamuwa which is located at 1.00km to 1.600 on LHS of the road



Figure 4: Rajawaka proposed forest reserve located at 1.8 km on RHS of the road



Figure 5: Rajawaka proposed forest reserve on either sides of the road from 2.3km

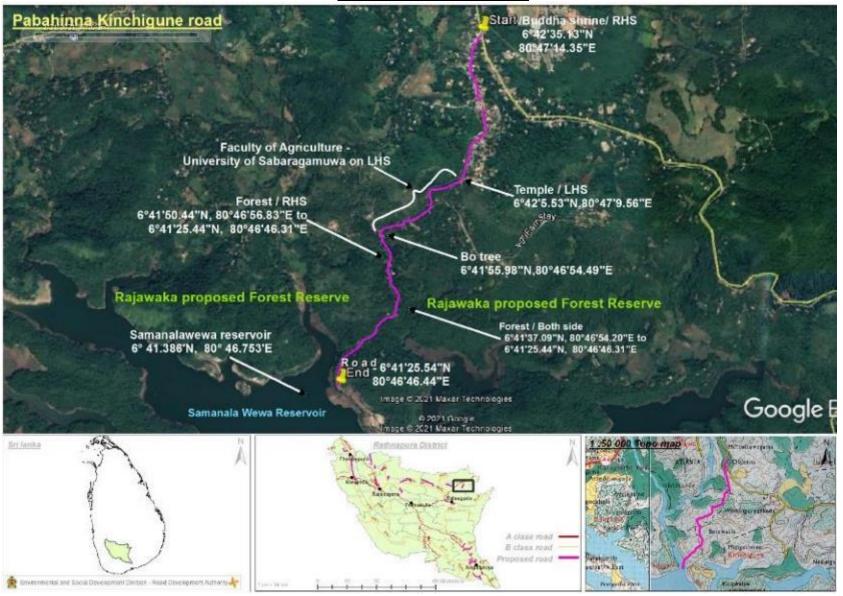


Figure 6: Rajawaka proposed forest reserve on either sides of the road



Figure 4: End point of the road near the Samanalawewa reservoir

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Pabahinna Kinchigune road					
Risk Category assigned by E and S Screening	Moderate				
Design Recommendations and guidance					
Design Justification	Guidance to be Used				
It is recommended to include safety sign boards and speed limits around 1.06 to 1.6km near the location of Faculty of Agriculture - University of Sabaragamuwa	• Section 49 of ESMP				
Details of Internal Submission of Design Recommendations					
Submitted by	Director - ESDD, RDA				
Date of submission	11 June 2021				
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA				
Mode of transmission (Email, hand delivery)	Email				

Environmental and Social Management Plan (ESMP) for Rehabilitation of Pabahinna Kinchigune road (SR03)

	Activities and Associated	Protection and preventive measures	Mitigation cost	Respo	nsibility
	Impacts		cost	Implementation	Monitoring
	PRE-CONSTRUC	TION AND SITE PREPERATION			
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. Strictly prohibited the removal or cut of trees within the Rajawaka Proposed Forest reserve located at 1.8km (RHS) and from 2.3km to end (either sides) of the road. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as temples, public areas (if possible in University land area, land belongs to Electricity Board) will be explored with the help of DOF and DS of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Co nsultant Engineer

		Comparation.			
		Corporation.			
		 Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 			
2	Talan and		En sin sonin s	Contractor	
3.	Labor and Labor Camps,	8	Engineering	Contractor, PMU/PIU	PMU/PIU/RDA/Co nsultant Engineer,
	Labor Camps, Construction	the need for labor camps.If labor camps are required to house migrant workers, they should be placed well	Cost	PMU/PIU	Local Authority
		away from settlements or sensitive receptors, boundaries and buffer zones of			Local Authority
	Camps, temporary office	protected/forested areas (Rajawaka Proposed Forest Reserve), water bodies			
	and other	(Samanalawewa Reservoir) and preferably located on land which is not productive			
	temporary	(barren/waste lands presently). If these are not possible, private lands maybe taken on			
	facilities	lease as standard practice. The location, layout and basic facility provision of the			
	lucificio	labor camp must be submitted to Engineer of the relevant managing department prior			
		to their construction.			
		 The construction of the labor camp will commence only upon the written approval of 			
		the Engineer and then from the relevant local authority.			
		Provision of proper drainage facilities to the labour camps and prevent breeding of			
		mosquitoes, flies and other vector borne diseases.			
		* The contractor shall maintain necessary living accommodation and ancillary facilities			
		in a functional and hygienic manner and as approved by the Engineer.			
		 Separate labor camps need to be provided for female migrant laborers. 			
		The instructions for the laborers should be provided in all three languages.			
		 Provision of proper sanitary facilities to the labour camps and offices including water, 			
		urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks			
		and soak pits.			
		✤ All temporary accommodation must be constructed and maintained in such a fashion			
		that uncontaminated water is available for drinking, cooking and washing.			
		◆ The sewage system for the camp must be planned and implemented with concurrence			
		from the Local Public Health Inspector (PHI)			
		Provision shall be made for domestic solid waste disposal in acceptable manner. The			
		solid waste shall be handed over to the waste collecting system of the Local Authority			
		(LA) of the area (if any) and wastewater should be disposed in an environmentally			
		acceptable manner (meeting the desired water quality standards) with the approval of			
		the Engineer. Adequate health care is to be provided for the work force.			
		◆ Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for			
		workers, first aid and firefighting equipment shall be available at construction sites			
		before start of construction. An emergency plan shall be prepared to fight with any			
		 emergency like fire. All construction camps shall have provision of rationing facilities particularly for 			
		kerosene/LPG so that dependence on firewood for cooking is avoided to the extent			
		possible			
		 Separate labor camps need to be provided for female migrant laborers. 			
		 Separate rabor earlies need to be provided for remark nationers. The instructions for the laborers should be provided in all three languages. 			
1		 The instructions for the laborers should be provided in an incertainguages. Labor camp sites after use should be cleared and the site should be reinstated to 			
1		previous condition at the close of the construction work and the agreement with the			
	I	provides condition at the close of the construction work and the agreement with the			

		-		1	[
			land owner should be terminated properly and relevant documents should be handed			
			over to the Engineer for information.			
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources.	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer,
		*	The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate.			CEA,GSMB
		*	Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited.			
		*	If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed.			
		*	The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer.			
5.	Water for Construction	*	The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer.	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
	activities	*	Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (NW&DB, Department of Irrigation, CEB) is not permitted Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority.			
6.	Work Site for construction materials	*	The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. These sites should be well away from the Rajawaka Proposed Forest Reserve.	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
		*	Storage yards cannot be located in community areas, such as playgrounds, close to water bodies (Reservoirs) and water ways, cause access issues to locals or forested areas that require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer.			
		*	The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer.			

7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Co nsultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Advance notice to the public in all local languages about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Co nsultant Engineer, CEB, NW&DB, SLT
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies (Samanalawewa Reservoir) should be prevented and work should be scheduled during the dry season 	Engineering cost	Contractor/PMU/P IU	PMU/PIU/RDA/Co nsultant Engineer, DoI

					1
		Excavation of beds of any water body/tank, streams, irrigation systems, and other			
		water resources shall be avoided by the contractor			
		Contractor shall not divert, close, block existing canals in a manner that adversely			
		affect downstream intakes			
11.	Land donation	✤ Land donation will be involved only for the land required for the design requirements,		PMU/PIU	PMU/PIU/RDA/Co
		to improve safety including realignment of bends, to avoid bottle necks or			nsultant Engineer,
		construction of cross drainages, lead-away in the locations where required.			Balangoda PS
		 All effort will be made to minimize the land donation for the project 			
		 If land need from the public, negotiation with property owners will be carried out with 			
		involvement of a third party, the respective Grama Niladari and/or Divisional			
		Secretariat.			
		✤ Agreement between the donor and the recipient shall be executed as per the format			
		prepared for land donation.			
		Survey fees, notary charges for modifying the deed shall be borne by the project to			
		free any legal encumbrances caused as a result of taking the lands for road works.			
12.	Reduction of	• Animal corridors/migratory paths, located across the road corridor, shall not be	T		
	animal crashes	blocked/obstructed by the contractor, specially within the Rajawaka Proposed Forest			
	on the road	area. Further, new structures to facilitate animal movement across the road should be			
		introduced with the recommendation of the Forest Department and with the approval			
		of Engineer. For example under passes should be provided for terrestrial animals such			
		as reptiles and amphibians and canopy bridges should be provided for arboreal			
		animals (Drainage structures that have been already provided will act as passages for			
		movement of animals across the road during the operational phase. However,			
		additional pathways to be constructed if the gap between two consecutive structures is			
		considerably high.)			
		Following literature can be used in designing animal crossing structures which are used			
		worldwide.			
		• Ministry of Environment and Climate Change Strategy, 2020. Guidelines for			
		Amphibian and Reptile Conservation during Road Building and Maintenance			
		Activities in British Columbia. Version 1.0., March 30, 2020.			
		Green Infrastructure Design for Transport Projects: A Road Map to Protecting Asia's			
		Wildlife Biodiversity-2019-Asian Development Bank			
		https://www.adb.org/publications/green-transport-projects-asia-wildlife			
		• Ecofriendly Measures to Mitigate Impacts of Linear Infrastructure on Wildlife-2016-			
		Wildlife Institude of India, Ministry of Environment, Forest and Climate Change			
		India, National Highway Authority of India, National Tiger Conservation Authority of			
		India and the World Bank Group			
		http://moef.gov.in/wp-			
		content/uploads/2019/07/eco_friendly_measures_mitigate_impacts_linear_infra_wildlife_c			
		ompressed.pdf			

13.	Land Acquisition (if required)	• Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Balangoda PS
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Co nsultant Engineer
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas (Rajawaka Proposed Forest Reserve) and water bodies (Samanalawewa Reservoir, etc). Avoid disposal on productive/agricultural land. should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya sabha, Minimize the construction debris/excavated material as by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies/reservoirs. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer

16.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
17.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
18.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in No. 17. Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
19.	Emission of Dust	 In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.16. Mud patches caused by material transporting vehicles in the access road should be immediately cleaned Any parties vulnerable for excessive dust residing along the road especially near the University premises and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer

		_				
		*	Continual water sprinkling should be carried out in the work and fill areas, material			
			extraction sites, processing plants and the access road if dust stir is observed. Water			
			sprinkling should be done more frequently on days that are dry and windy (at least			
			four time's day) as the levels of dust can be elevated during dry periods.			
		*	Special attention should be paid to the university premises			
		*	Dust masks should be provided to the laborers for the use at required times.			
		*	Erection of dust barriers to the public, religious and other socially important locations			
		*	Metal quarries, crushers and all the plants should be located at least 500m from			
			university premises, the public sensitive and residential areas			
		*	Establishment of tire washing facility for the plants, yards or any other sites which			
			causing to bring mud particles with the vehicles.			
20.	Management of	*	In the event the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA,/C
	Self Operated		• Contractor shall comply with the environmental requirements/guidelines issued	Cost		onsultant Engineer
	Borrow Sites		by the CEA, GSMB and the respective local authorities with respect of locating			CEA, GSMB
			borrow areas and with regard to all operations related to excavation and			,
			transportation of earth from such sites.			
			• Contractor can also find suitable soil materials from currently operated licensed			
			borrow pits in the surrounding area, subject to approval of the Engineer			
			 No borrow-sites be used (current approved) or newly established within areas 			
			protected under FFPO and FO and within productive land/agricultural land and			
			environment and public sensitive locations			
			 Borrow areas shall not be opened without having a valid mining license from the 			
			GSMB. The location, depth of excavation and the extent of the pit or open cut			
			area shall be as approved by the Engineer.			
			 All borrow pits/areas should be rehabilitated at the end of their use by the 			
			contractor in accordance with the requirements/guidelines issued by the CEA and			
			the respective local authority (Refer Annex II for guidelines).			
			 Establishment of borrow pits/areas and its operational activities shall not cause 			
			any adverse impact to the near-by properties. Also, shall not be a danger of			
			health hazard to the people.			
			• Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits.			
21	0		In the event the contractor manages a self-owned existing quarry sites available in the	En ele conte e	Control at a n	
21.	Quarry	*		Engineering	Contractor	PMU/PIU/RDA,/C
	Operations and	.*.	project area They should be approved by CEA with valid EPL (Environment Protection Licenses)	Cost		onsultant Engineer CEA,GSMB
	Management of	*				CEA, USIVID
	Self Operated	.*.	and GSMB with valid IML (Industrial Mining Licenses);			
	Quarry Sites	*	Prior approval should be obtained from GSMB, CEA and local authorities such as			
			Pradeshiya Sabha.			
		*	Selected quarry sites should have proper safety measures such as warnings, safety			
			nets etc., and third-party insurance cover to protect external parties that may be			
			affected due to blasting.			
		*	Quarry sites should not be established within protected sites identified under the			
			FFPO and FO and not within productive land/agricultural land and environment and			
			public sensitive locations.			
		*	It is recommended not to seek material from quarries that have ongoing disputes with			

		community.	[
		community.			
		The maintenance and rehabilitation of the access roads in the event of damage by the Contractors accessibility of the Contractor.			
		Contractors operations shall be a responsibility of the Contractor.			
		 Copies of all relevant licenses should be maintained by the Contractor for review and 			
		documentation by the engineer	 .		
22.	Control of	• Debris material shall be disposed in such a manner that existing drainage paths are not	Engineering	Contractor	PMU/PIU/RDA/Co
	Sedimentation	blocked.	Cost		nsultant Engineer
	and Soil Erosion	 Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. 			
		 Silt traps will be constructed to avoid siltation into the water bodies/reservoirs and 			
		water ways, where necessary along the road corridor (Refer Annex III)			
		 To avoid siltation, drainage paths should not be directed to water bodies/reservoirs, 			
		waterways and water canals and they should be separated from such water bodies			
		 Temporary soil dumps should be removed from the construction sites as soon as 			
		possible. Until removal, these soil dumps should be covered with thick polythene			
		sheets.			
		◆ Temporary soil dumps should be placed at least 200m away from all water			
		bodies/reservoirs.			
		 Top soil shall be prevented to use for tree planting and turfing activities. 			
		 All fills and back fills should be compacted immediately to reach the specified degree 			
		of compaction and establishment of proper mulch.			
		♦ Work that lead to heavy erosion shall be avoided during the raining season. If such			
		activities need to be continued during rainy season prior approval must be obtained			
		from the Engineer by submitting a proposal on actions that will be undertaken by the			
		contractor to prevent erosion.			
		Construction activities: excavation and earth work around vulnerable area for soil			
		erosion mainly restricted to the dry periods and removal of green cover vegetation			
		shall be minimized.			
		The work, permanent or temporary shall consist of measures as per design or as			
		directed by the engineer to control soil erosion, sedimentation and water pollution to			
		the satisfaction of the engineer. Especially the waterways directed to Smanalawewa			
		Reservoir should have suitable silt traps as given below.			
		• Typical measures include the use of berms, dikes sediment basins, fiber mats,			
		mulches, grasses, slope drains and other devices.			
		• All sedimentation and pollution control work and maintenance thereof are			
		deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation.			
22	Noise from	 Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work 	Engineering	Contractor	PMU/PIU/RDA,/C
23.	Noise from vehicles,	that generating work should be infinited to daytime (0:00AM to 0:00PM). No work that generates excessive noise should be carried out during night hours where in close	Cost	Contractor	onsultant Engineer
		proximity to public sensitive receptors (temples, university), residential areas and	COSt		CEA
	machinery and equipment	forest area (from 6:00PM to 6:00AM on the following day).			CEA
	equipment	 Any parties vulnerable for excessive noise residing along the road especially near the 			
		University premises and within residential areas should be identified in advance and			
		measures as agreed with the Engineer should be implemented to minimize the impact.			
		 All equipment and machinery should be operated at noise levels that do not exceed 			
L		• An equipment and machinery should be operated at noise revers that do not exceed		1	

		 the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. Any parties vulnerable for excessive noise residing along the road especially near the University premises and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	 Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas (including forest area). Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship and households. All possible and practical measures to control noise emissions during drilling shall be Employed. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
25.	Impacts due to Vibration	 Satisfaction of the Engineer to keep hole revers at the minimum. Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. Any parties vulnerable for excessive vibration residing along the road especially near the University premises, Buddha shrine at starting point, temple at 1km and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. The contractor shall modify the method of construction until compliance with the 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer, GSMB

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		 criteria, if vibration levels exceed the relevant vibration criteria. Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. Blasting shall be carried out only with permission of the Engineer and approval from GSMB 			
26.	Pollution of Soil and Water via Fuel and Lubricants	 The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away at least 200m away from water ways and water bodies/reservoirs. Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws. 	Engineering Cost	Contractor	PMU/PIU/RDA,/C onsultant Engineer CEA
27.	Public Safety	 At all times, the Contractor shall provide safe and convenient passage for vehicles, pedestrians and livestock. Work that affects the use of existing accesses shall not be undertaken without providing adequate provisions to the prior satisfaction of the Engineer. The construction corridor should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) Safety signboards should be displayed at all necessary locations. The construction vehicles should be operated by experienced and trained operators under supervision. Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. 	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer

28.	Safety o Workers	* *	Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded Construction wastes should be removed within 24 hours from the site to ensure public safety. Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. Welder's protective eye-shields shall be provided to workers who are engaged in welding works. Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. In addition, the contractor shall maintain in stock at the site office, gloves, earnuffs, goggles, dust masks, safety harness and any other equipment considered necessary. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required.	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer
29.	Prevention o accidents	f * * * * * * * * * * * *	COVID-19 virus will be adhered to. Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and maintenance stages and take	Engineering Cost	Contractor	PMU/PIU/RDA/Co nsultant Engineer

			appropriate remedial actions			
30.	Operation of	*	Locations selected for labour camps should be approved by engineer and comply with	Engineering	Contractor	PMU/PIU/RDA/Co
30.	labor camps		guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction	Cost	Contractor	nsultant Engineer,
	lubbi cumps		of labourer's camps shall not be located within 200m from water bodies, waterways	Cost		CEA, LA
			and near to any other environment and social sensitive locations, such as the			0211, 211
			University and Rajawaka Proposed Forest Resrve.			
		**	The Contractor shall construct and maintain all labor accommodation in such a			
			fashion that uncontaminated water is available for drinking, cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every workplace/labor			
			camp site at suitable and easily accessible places and regular maintenance of such			
			facilities.			
		*	The sewage system for the camp are designed, built and operated in such a fashion			
			that no health hazards occurs and no pollution to the air, ground water or adjacent			
			water courses take place. Ensure adequate water supply is to be provided in all toilets			
			and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure that these are			
			regularly Emptied and disposed of in a hygienic manner			
31.	Management of	*	The contractor shall firstly follow all measures outlined for pandemic management by	Engineering	Contractor	PMU/PIU/RDA,/C
	the spread of		the Government of Sri Lanka, Ministry of Health and Local Public Health officers and	Cost		onsultant Engineer,
	Covid-19 or		adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-			МоН
	handling sudden		19). Please refer Annex 28 of ESMF of IRCDP for more details.			
	Pandemic	*	The contractor will ensure that there is set number of workers as per the guidance as			
	outbreaks		well as in labor camps to prevent overcrowding and to allow social distancing. Where			
			necessary in labor camps additional provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper handwashing and sanitation facilities			
			are available on the site.			
		*	Measures should be in place to undertake daily temperature checks of workforce and			
			enable social distancing at the work site and interactions with communities should be			
			minimized. Daily records of these checks should be maintained by the contractors site staff.			
		*	If a worker is diagnosed with symptoms related to the said pandemic the contractor			
		***	will immediately inform the PHI and follow instructions laid out by the national			
			health agencies.			
32.	Prevention of	*	Contractor shall take necessary actions to prevent breeding of mosquitoes at places of	Engineering	Contractor	PMU/PIU/RDA/Co
52.	Vector borne	•	work, labor camps, plus office and store buildings. Stagnation of water in all areas	Cost	Contractor	nsultant Engineer,
	Diseases		including gutters, used and empty cans, containers, tires, etc. shall be prevented.	0050		MoH
	2 1000000		Approved chemicals to destroy mosquitoes and larvae should be regularly applied.			
		*	All borrow sites should be rehabilitated at the end of their use by the contractor in			
			accordance with the requirements/guidelines issued by the Central Environmental			
			authority and relevant local authorities			
		*	Contractor shall keep all places of work, labor camps, plus office and store buildings			
			clean devoid of garbage to prevent breeding of rats and other vectors such as flies.			
33.	Gender issues	*	Equal opportunity shall be ensured while requirement of project staff including	Engineering	Contractor	PMU/PIU/RDA/Co
	including		contractors working force. The salary/ wages and other payments due on service			

	Gender base		provided to the project should not be classified on the Gender basis.	Cost		nsultant Engineer
	violence	*	The sanitary facilities in sites and labour camps should be designed with consideration	0050		insultant Engineer
	violence	•	of suitable location, comfortability for female users and safe access.			
		*	Institutional arrangement should be adopted to monitor and taking action against the			
		•	Sexual harassment can happen at the site to the workers and general public. The			
			confidential reporting mechanism for sexual harassment shall be incorporated in to			
			the Grievance readdress Mechanism of the Project.			
34.	Issues due to	*	Overcrowded or camp-based living conditions can significantly alter existing levels of	Engineering	Contractor	PMU/PIU/RDA/Co
	labor influx		communicable diseases including respiratory problems, diarrheal and vector-borne	Cost		nsultant Engineer,
			diseases and tuberculosis, which also increases the risks of disease being introduced			MoH
			and spreading through host communities. Priority should be given for workers who			
			are inhabited in area to reduce the influx of exotic population.			
		*	Adequate and comfortable accommodation and hygienic service facility should be			
			provided to Minimize the health risk of spreading disease			
		*	Awareness program on HIV and other venereal diseases should be conducted for all			
			the workers engaged in construction activities			
		*	Avoid or reduce labour influx where possible. Explore possibility of introducing a			
			requirement to hire local labour (at least a percentage) by the contractor. This should			
			be done through the Community Based Organizations (CBOs) in the area that will be			
			affected by the project interventions.			
		*	Contractors to implement robust measures to prevent sexual harassment, gender-based			
			violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies			
		*	Contractor shall maintain a logbook to record workers' grievances and complaint/			
			suggestion boxes can be placed at the supervision consultant's office.			
		*	A focal point will be designated to receive the complaints. The contact details of the			
			focal point will be displayed in notice board of respective office.			
		*	The workers will be made aware of GRM procedure through toolbox meetings.			
35.	Traffic	*	Contractor shall develop a traffic management plan with the relevant authorites to	Engineering	Contractor	PMU/PIU/RDA/Co
	Management		minimize inconvenience to road users as well as prevent road accidents and	Cost		nsultant Engineer,
			implement it.			Traffic Police
		*	Road signs and trained flagmen should be used to divert traffic as per the required			
			traffic management measures.			
		*	Clear instructions should be given if detours are used.			
		*	Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them			
		*	Improvement of the road surface and width will result in an increase of both the			
			number of vehicles and the vehicle operating speeds.			
		*	Therefore, after the construction is completed the contractor should erect relevant			
			road signs and road markings to guide the drivers to ensure the safety of the vehicles			
			and pedestrians			

due construction to construction for all houses and public properties which have already obtained access from the road. Cost Insultant Engineer construction * When construction work is in progress in one side, the other side will be opened for traffic & properly * At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. * If any physical cultural resources are identified along the project trace the contractor Engineering Contractor PMU/PIU/RDA/C	36.	Loss of Access	*	Temporary access will be provided when permanent access is blocked for	Engineering	Contractor	PMU/PIU/RDA/Co
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The contractor shall plant at least 3 good specimens of native trees over 5-year-old							
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Tool band of having at least sit height suitable for the location as identified by the			•				
Engineer. If the existing ROW is not sufficient for the tree planting, contractor would							

		be able to select a suitable place in public land for the purpose.			
		 The contractor shall build hardy structures around the trees for protection. 			
		The contractor shall be responsible for ensuring the well-being of the trees/plants until			
		the end of the contract			
		• Replanting should be as near as possible to the removal location planting of selected			
		fast growing trees which are of native species			
39.	Chance found	During construction, if a rare/threatened/endangered flora species is found, it shall be	Engineering	Contractor	PMU/PIU/RDA/Co
	important flora	immediately informed to the PIU/PMU and RDA by the contractor. All activities that	Cost		nsultant Engineer,
		could destroy such flora and/or its habitats shall be stopped with immediate effect.			DoF
		Such activities shall be started only after obtaining the Engineer's approval.			
		Contractor shall carry out all activities and plans that the Engineer instructed him to			
		take to conserve such flora and/or its habitat.			
40.	Loss, Damage	All works shall be carried out in such a manner that the destruction or disruption to	Engineering	Contractor	PMU/PIU/RDA/Co
	and disruption	the fauna and their habitats is minimal, especially within the road sections runs	Cost		nsultant Engineer
	to Fauna	through the Rajawaka Proposed Forest Reserve.			e
		Construction workers shall be instructed to protect fauna including wild animals and			
		aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by			
		project workers is not allowed.			
		 No solid or liquid waste should be dumped into natural habitats and erosion of soil to 			
		streams should also be avoided			
		 Regular and adequate fuel supplies of LPG or Kerosene to worker camps in order to 			
		avoid workers scavenging for fuel from the proposed forest reserves.			
41.	Chance found	 During construction, if a rare/threatened/endangered fauna species is found, it shall be 	Engineering	Contractor	PMU/PIU/RDA/Co
71.	important fauna	immediately informed to the PIU/PMU and RDA by the contractor. All activities that	Cost	Contractor	nsultant Engineer,
	important fauna	could destroy such fauna and/or its habitat shall be stopped with immediate effect.	Cost		DWLC/DoF
		Such activities shall be started only after obtaining the Engineer's approval. Contractor			D \\ 20, D \\
		shall carry out all activities and plans that the Engineer instructed him to undertake to			
		conserve such fauna and/or its habitat.			
42.	Prevention of the	 There is a possibility of introducing / spreading of invasive species during material 	Engineering	Contractor	PMU/PIU/RDA/Co
42.		transportation and disposing cleared vegetation from one site to another, thus the	Cost	Contractor	
	- I		Cost		nsultant Engineer
	Invasive Plant	following measures are to be undertaken.			
	Species	Close monitoring of transportation, storage of borrowing material for the spread of			
		any invasive species must be done.			
		✤ Vehicles should be covered during transportation of cleared vegetation to and from			
		the construction site.			
		• Borrow material to be brought from properly identified borrow pits and quarry sites,			
		the sites should be inspected in order to ensure that no invasive plant species are being			
		carried with the borrow material.			
		♦ Washing the vehicles should be conducted periodically to prevent carrying any			
		invasive species			
		◆ The construction site should be inspected periodically to ensure that no invasive			
		species are establishing themselves at the site.			
43.	Chance find	All fossils, coins, articles of value of antiquity, structures and other remains or things	Engineering	Contractor	PMU/PIU/RDA/Co
	procedures for	of geological or archaeological interest discovered on the site shall be the property of			

	PCRs and	1	the Government and shall be dealt with as per provisions of the relevant legislation.	Cost		nsultant Engineer
	Archeological	*	The Contractor will take reasonable precautions to prevent his workmen or any other	Cost		iisunant Engineer
		***	persons from removing and damaging any such article or thing. He will, immediately			
	Property					
			upon discovery thereof and before removal acquaint the Engineer of such discovery			
			and carry out the instructions for dealing with the same, waiting which all work shall			
			be stopped.			
		*	The Engineer will seek direction from the Archaeological Department of Sri Lanka			
			and inform the project EO to follow the Chance Find Procedures set forth.			
44.	Surface	*	Provide storm water drain system in the premises which will discharge water to	Engineering	Contractor	PMU/PIU/RDA/Co
	Drainage and		existing storm water drainage networks	Cost		nsultant Engineer
	Possible Water	*	Carry out overall storm water management in the premises during construction using			
	Stagnation		temporary ditches, sandbag barriers etc.			
	0	*	Proper drainage arrangements to be made, to avoid the overflowing of existing drains			
			due to cutting, excavation and other activities			
45.	Handling Social	*	The Contractor shall appoint a person responsible for community liaison and to	Engineering	Contractor	PMU/PIU/RDA/Co
	and		handle public complaints regarding environmental and social related matters. All	Cost		nsultant Engineer
	Environmental		public complaints will be entered into the Complaints Register. The Environmental			8
	Issues during		and Social Safeguards Officer (ESSO) will promptly investigate and review			
	Construction		environmental and social complaints and implement the appropriate corrective actions			
	Construction		to arrest or mitigate the cause of the complaints.			
		*	A register of all complaints is to be passed to the Engineer within 24 hrs. They are			
			received, with the action taken by the ESSO on complains thereof.			
46.	Prevention of	*	Contractor shall maintain records of recruitment and employment of contract workers	Engineering	Contractor	PMU/PIU/RDA/Co
40.	Sexual	•	(including subcontractors) with age verification to avoid child labor.	Cost	Contractor	nsultant Engineer
	exploitation,	*	Trafficking of children (forced/bonded labour) is prohibited under the project.	COSt		iisuitaiti Eligiiteei
	child trafficking	*	Institutional arrangement should be adopted to monitor and taking action against the			
	and child labour		Sexual exploitation can be happened at the site to the workers and general public. The			
			confidential reporting mechanism for sexual exploitation shall be incorporated in to			
			the Grievance readdress Mechanism of the Project.			
		**	Contractor shall not employ workers below the age of 14 years			
		*	If there are workers below the age of 18 years and 15 years, they should only be			
			engaged in nonhazardous work that would not interfere child's education			
	POST CONSTRUC	CTIC)N			
47.	Clearing/Closure	*	Contractor to prepare site restoration plans for approval by the engineer.	Engineering	Contractor	RDA,/Consultant
	of Construction	*	The plan is to be implemented by the Contractor prior to demobilization. This	Cost		Engineer, PRDA
	Site/Labor		includes borrow sites and storage yards as well			
	Camps	*	On completion of the works, all temporary structures will be cleared away, all rubbish			
	Campo	`	cleared, excreta or other disposal pits or trenches filled in and effectively sealed off			
		1	and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction			
		1	of the Engineer.			
		*				
		**	All solid waste will be disposed in preapproved sites or via the local authority once			
			the construction is complete.			
		*	No waste material or structured will be left behind on site once the contractor			

			demobilizes.			
48.	Environmental Enhancement/	*	Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
	Landscaping	*	The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP.			
49.	Road furnishing on safety.	*	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
50.	Hydrology and drainage	*	Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
51.	Replanting of trees	*	Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakeholde	er	Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	GramaNiladari - Kinchigune	Male	 This road provides access to Agriculture Department of Sabaragamuwa University and to Samanalawewa reservoir. Many people visit the reservoir. The people living along the road are engaged in farming.
11.03.2021	Owner of a commercial unit	Male	 There are around 50 houses along this road and there is a training center of the Ceylon Electricity Board. There are private and government lands along the road.

Stakeholder consultations conducted with communities living beside the road

2.4. ESMP of SR 04 – Wikiliya Pansala Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 04 - Wikiliya Pansala Road (2.1km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Wikiliya Pansala Road

Road length: 2.10km

Coordinates: Starting Point: 6° 36.909'N, 80° 44.145'E End Point: 6° 37.282'N, 80° 44.998'E

Location: District: Ratnapura DS Division: Balangoda EE Division: Pellmadulla GN Divisions: Wikiliya,Damahana

1. Introduction

The WikiliyaPansala Road (2.10km) starts from Kirimatitenna-Galgoda (B223) road and ends connecting Balangoda - Bowatte–Kaltota (B038) Road. This road is under the custody of Balangoda Pradeshiya Sabah (local authority). The surface of the road is concrete, interlock and degraded macadam. Road traverses along a hilly terrain and elevation of the trace vary between 505 - 575m MSL. The road runs parallel to a small stream located from 0.12km to 0.84km on RHS and crosses a stream at 1.87km.

2. Road Rehabilitation:

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.10km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and drain 0.7m (one side). The estimated time frame for construction of this road is four (4) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally erect along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases also there's a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Wikiliya Pansala road is around 6m and the average carriageway is 3.6m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Pradeshiya Sabah (local authority) of Balangoda will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Balangoda Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits:

The road links two national roads, Kirimatitenna-Galgoda (B223) road and Balangoda - Bowatte–Kaltota (B038) and therefore, it is important this road to be developed. There are agricultural activities such as paddy and vegetable cultivations and road development will facilitate the transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secoundary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from Project Management Unit f Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Wikiliya Pansala Road will have a majority of reversible, small-medium scale environmental and social impacts. The main environmental impacts include minor landlisde risks and temporary impacts to waterways and water quality. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area:

Settlements: There are about 30 households located on both sides of the road with an estimated population of 114. The majority of the people are Sinhala Buddhists. Some Indian Tamils families also live in some sections of the road. They are Hindus by religion.

• Land ownership: There are no squatters along the road. Lands are under private and government ownership. There are titleholders and permit holders.

- Livelihoods: Paddy and vegetable cultivation are the main sources of livelihoods. Some people work as wage labourers. Residents are also engaged in public and private sector jobs and self-employment.
- Local organisations: There are Farmer Organisations in the area.
- **Community infrastructure and resources:** There is a temple, Bo tree and Buddha shrine as shown in the Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

•

Table1: Community infrastructure and resources

Communityinfrastructure&resources	Location		Chai nge	Road side	Distance from the RoW
WijayaThennakonMudali ndaramaya Temple	6°37'9.89"N	80°44'53.06"E	1.6	RHS	10m
Wall of a Bo tree(Bodhigaraya)	6°37'9.74"N	80°44'46.35"E	1.42	RHS	Edge of the RoW
Buddha Shrine	6°37'17.00"N	80°44'59.85"E	End point	LHS	1.0 m

On-going development projects: None.

• Visitors to the area: The road provides access to surrounding recreational places and visitors use this road as an access road.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or

Screening Questions	Not known	Yes	No	Remarks
				reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			V	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Balangoda Pradesiya Sabha (local authority).
Is land acquisition likely to be necessary?			V	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by BalangodaPradesiya Sabha). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			v	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services			1	

Screening Questions	Not known	Yes	No	Remarks
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?				During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		V		There is a temple; a Bo tree and a Buddha shrine (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		V		Project area comes under the Weligepola Police station which is4.450km away from project site. Further, "MithuruPiyasa" ⁴ center is located in Balangoda hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		√		Both skilled and unskilled workers will be used by the

⁴ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
				contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		V		Priority will be taken to secure labor from the local community.
Will there be workers brought in from outside the project area?		V		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			V	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required
		for the project is approximately12.
		Priority will be given to hire the
		local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development ProjectSub-project:Wikiliya Pansala Road (SR.04)Location:District: Rathnapura
DS Division: BalangodaLength:2.1km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?		V	
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine			
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity			
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; dis figuration of landscape by road embankments, cuts, fills, and quarries?		N	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		\checkmark	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sedimentation streams affected by increased soil erosion at construction site?	V		No permanent stream diversion is needed. However streams at 4.4km where new culvert to be constructed and at 0.22, 0.52, 0.68, 0.71, 0.75, 0.82, 0.88, 0.97, 1.03, 1.18, 1.2 and 1.93 will be temporary diverted for culvert reconstructions. Water flow of these locations will be facilitated to the downstream and will be restored to original condition after the need is over.
			Soil erosion control measures such as silt traps and silt fences will be applied at

		waterbodies to minimize
	,	siltation.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	1	Road runs parallel to a small stream located from 0.12km to 0.84km on RHS, with 20- 100m distance downward, crosses a stream at 1.87 (Steel bridge) and small stream at 1.03km.
		This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	V	Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive
- Dislocation or involuntary resettlement of		receptors as given in the Question 8 of the Social Screening Checklist. $$
people		
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	\checkmark	Regular sprinkling of water to suppress dust and avoiding construction activities during night time.

 Hazardous driving conditions where construction interferes with pre-existing roads? Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? 	√		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Avoiding possibilities of water stagnation areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	V		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		\checkmark	
 Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road? 		1	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photographs of Wikiliya Pansala Road

Figure 1: Starting point of the road at Kirimetiyana -Galgoda road (B223)



Figure 2:Along the road



Figure 3: A damaged section of the road



Figure 4: Wijaya Thennakon Mudalindaramaya temple located at 1.6 km on RHS

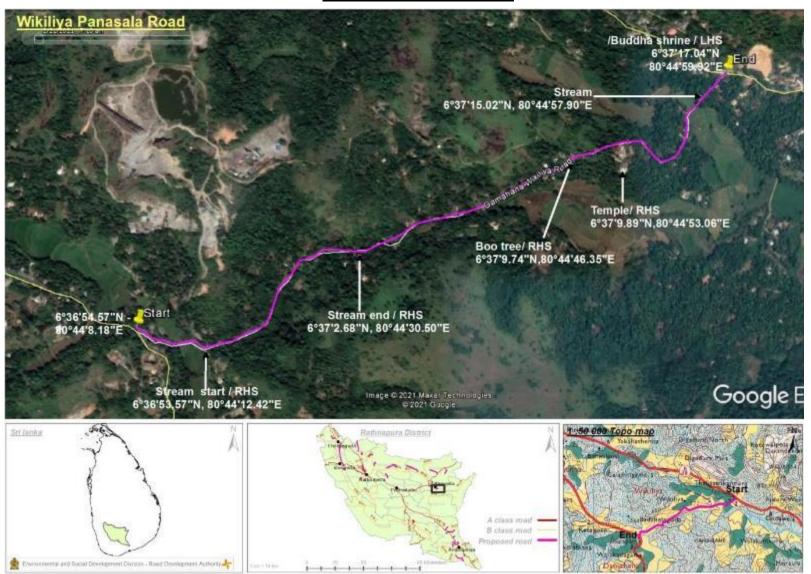


Figure 5: Bridge at 1.8 km



Figure 6: End point

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Wikiliya Pansala Road						
Risk Category assigned by E and S Screening	Moderate					
Design Recommendations and guidance						
Design Justification	Guidance to be Used					
Side drains and cross drains directed to the stream runs parallel to road from 0.12 - 0.84km, are recommended to have proper silt control measures (brush barriers) to avoid	• Section 10, 15, 39 of ESMP					
siltation of the stream. Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	 Section 11, 41 of ESMP Any guidance to be issued by NBRO 					
Details of Internal Submission of Design Recommendation	18					
Submitted by	Director - ESDD, RDA					
Date of submission	11 June 2021					
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA					
Mode of transmission (Email, hand delivery)	Email					

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 04 Wikiliya Pansala Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility					
	Ĩ			Implementation	Monitoring					
	PRE-CONSTRUCTION	PRE-CONSTRUCTION AND SITE PREPERATION								
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer					
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, ♦ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ♦ The technical justification for the trees that will be required to be removed will be documented accordingly. ♦ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer					

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			1		
		(if any) and wastewater should be disposed in an environmentally			
		acceptable manner (meeting the desired water quality standards)			
		with the approval of the Engineer. Adequate health care is to be			
		provided for the work force.			
		 Personal Protective Equipment (PPEs) such as helmet, boots, and 			
		earplugs for workers, first aid and firefighting equipment shall be			
		available at construction sites before start of construction. An			
		emergency plan shall be prepared to fight with any emergency			
		like fire.			
		 All construction camps shall have provision of rationing facilities 			
		particularly for kerosene/LPG so that dependence on firewood			
		for cooking is avoided to the extent possible			
		 Provision of paved area for unloading and storage of fuel oil, 			
		lubricant oil, away from storm water drainage and a provision of			
		roof where appropriate to avoid interception with the rain			
		Separate labor camps need to be provided for female migrant			
		laborers.			
		The instructions for the laborers should be provided in all three			
		languages.			
		 Labor camp sites after use should be cleared and the site should 			
		be reinstated to previous condition at the close of the construction			
		work and the agreement with the land owner should be			
		terminated properly and relevant documents should be handed			
		over to the Engineer for information.			
4.	Material Sourcing	The contractor is required to ensure that sand, aggregates and	Engineering	Contractor	PMU/PIU/RDA/Consultant
		other quarry material is sourced from licensed sources.	Cost		Engineer, CEA,GSMB
		 The contractor is required to maintain the necessary licenses and 			
		environmental clearances from GSMB and CEA for all borrow			
		and quarry material they are sourcing -including soil, fine			
		aggregate and coarse aggregate.			
		Sourcing of any material from protected areas and/or designated			
		natural areas, including tankbeds, are strictly prohibited.			
		 If the contractor uses a non-commercial borrow/quarry sites, the 			
		sites should be remediated accordingly once material sourcing			
		has been completed.			
		 The contractor should submit in writing all the relevant numbers 			
		and relevant details of all pre-requisite licenses etc. and report of			
		their status accordingly to the Engineer.			
5.	Water for	\clubsuit The contractor should arrange adequate supply of water for the		Contractor	PMU/PIU/RDA/Consultant
	Construction activities	project purpose throughout the construction period from a source	Cost		Engineer
		agreed upon with the engineer.			
		✤ Water may not be obtained for project purposes, including for			
		labor camps, from public or community water supply schemes			
		without a prior approval from the relevant authority. Extraction			
1		of water from ground water or surface water bodies without the	1	1	

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		permission from Engineer and the relevant authority (Water			
		Resources Board) NW&DB, Department of Irrigation, CBO) is			
		not allowed.			
		 Permission for the extraction of water should be obtained prior to 			
(the commencement of the project, from the relevant authority.	.		
6.	Work Site for	The contractor should identify an area to store construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials	materials and equipment at a site which should be approved by	Cost		Engineer
		the engineer.Storage yards cannot be located in community areas, such as			
		Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or			
		forested areas that require clearing.			
		 Parking, repairing vehicles, machinery and equipment shall be 			
		done stationed only at the work site and/or in any other			
		designated areas by the engineer.			
		 The contractor should provide instruction and advice should be 			
		given to drivers and operators (both companies owned and hired)			
		to park vehicles and store equipment at the work site or			
		designated areas by the engineer.			
7.	Information	 Discussions should be conducted with the residents who reside 	Engineering	Contractor/	PMU/PIU/RDA/Consultant
	Disclosure among	along the corridor of the road;	Cost	PMU/PIU	Engineer
	Stakeholders	• Residents have to be briefed of the project, purpose and			8
		design and outcomes and project's grievance redress			
		mechanism via a documented community consultation			
		session			
		• These sessions need to be conducted in both Sinhalese			
		and Tamil languages, given the ethnic composition of			
		the project area.			
		• This should be done immediately once the contractor is			
		mobilized.			
		• The contractor should take note of all impacts,			
		especially access issues and safety hazards that will be			
		of concern to the residents and take necessary measures			
		as stipulated in the ESMP to mitigate them.			
		✤ The contractor will maintain a log of any grievances/complains			
		and actions taken to resolve them.			
		• In case of any complaint referring to GN and DS level GRM, the			
		contractor should have the copy of the minutes of such decisions.			
		\clubsuit A copy of the ESMP should be available at all times at the			
		project supervision office on site.			

8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public in all local languages about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

10.	Hydrology and drainage	 Design of new culverts and other drainage structures i consultation and recommendations of the Irrigation an Provincial Irrigation Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevente and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and othe water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals an streams in a manner that adversely affect downstream intakes 	l cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	 Prior identification of erodible and landslide prone areas i proper consultation with National Building Research Organisation (NBRO) and Natural Resources Management Centre (NRMC). Existing slopes should not be disturbed to extent possible Incorporate the recommendations and guidelines of the NBRO and NRMC to the road designing. 	t cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC
12.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends of construction of cross drainages, lead away in the locations where required. If land need from the public, negotiation with property owner will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deedshall be born by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Balangoda PS

13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Balangoda PS
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	SE		L	
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the designated forest land and water bodies (stream runs parallel to the road) Avoid disposal on productive/agricultural land. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 community, in consultation with the E shall be approved by the LA, Pradeshiya Sa Minimize the construction debris/excavate as much as possible by balancing the requirements. The contractor should avoid any spillage of transporting such materials to the approved materisites. Debris, residual spoil and dismantled and demolishe should not be sited to the productive/agricult environmentally sensitive locations, water bodies. 	bha, ed materials cut and fill spoil when al dumping d structures	
16.	Protection of topsoil	Topsoil of the agricultural areas and any other prod	uctive areas Engineering Co	ontractor PMU/PIU/RDA/Consultant
		 where it has to be removed for the purpose of this prostripped to a specified depth of 150mm and stored is of height not exceeding 2m, as directed by the Engine If the contractor is in any doubt on whether to c topsoil or not for any given area, he shall obtain t from the Engineer in writing Removed topsoil could be used as a productive replanting trees and during turfing. Stockpiled topsoil must be returned to cover the area topsoil has been removed due to project activities topsoil must be distributed on adjoining/proximate as identified by the Engineer in a layer of thickness 150mm. Topsoil thus stockpiled for reuse shall not be su overburdened. As far as possible multiple handling of topsoil stock be kept to a minimum. 	ject shall be Cost n stockpiles er. onserve the he direction soil when s where the s. Residual parren areas of 75mm – rcharged or piles should	Engineer
17.	Protection of Ground	 Construction vehicle, machinery and equipment shall 	be used and Engineering Co	ontractor PMU/PIU/RDA/Consultant
	Cover and Vegetation	stationed only in the areas of work and in any		Engineer
	-	designated/ approved by the Engineer.		
		 Entry and exit of construction vehicles and machiner 		
		restricted to particular points as directed by the engine		
		 Contractor should provide necessary instructions 		
		operators and other construction workers not to des vegetation cover unnecessarily.	troy ground	
18.	Transport and Storage	 All material should be transported in fully cover 	ered trucks. Engineering Co	ontractor PMU/PIU/RDA/Consultant
10.	of construction	Overloading of vehicles with materials should be co		Engineer
	materials	done in a manner to suit the trucks capacity.		
		 Construction material such as cement, sand and meta 	al should be	
		stored in closed structures or in a contained		
		construction materials such as sand, metal, lime,		
		should be transported under cover to the site and s	tored under	

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		* * *	cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations as mentioned in No. 13. Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor			
19.	Emission of Dust	* * * * * * * *	In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.16. Any parties vulnerable for excessive dust residing along the road such as temple at 1.6km, and within residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Mud patches caused by material transporting vehicles in the access road should be immediately cleaned Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required times. Erection of dust barriers to the public, religious and other socially important locations Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
10	Management of Self Operated Borrow Sites	*	vehicles. In the event the contractor will use a self-operated borrow site O Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB

12.	Control	of	*	Debris material shall be disposed in such a manner that existing	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation	and		drainage paths are not blocked.	Cost		Engineer
	Soil Erosion		*	Drainage paths associated with irrigation structures should be			C
				improved / erected to drain rainwater properly.			
			*	Silt traps will be constructed to avoid siltation into the water			
				ways where necessary along the road corridor.			
			*	To avoid siltation, drainage paths should not be directed to			
				waterways and irrigation canals and they should be separated			
				from such water bodies			
			*	Temporary soil dumps should be removed from the construction			
				sites as soon as possible. Until removal, these soil dumps should			
				be covered with thick polythene sheets.			
			*	Temporary soil dumps should be placed at least 200m away from			
				all water bodies.			
			*	Top soil shall be prevented to use for tree planting and turfing			
				activities.			
			*	In Hilly terrain and areas with slopes			
				• Embankment slopes, slopes of cuts, etc. shall not be			
				unduly exposed to erosive forces.			
				• These exposed slopes shall be graded and covered by			
				grass or other suitable materials per the specifications.			
				• During the rainy season open cuts/slopes should be			
				covered with fixed polythene sheeting to avoid			
				excessive erosion.			
			*	All fills, back fills and slopes should be compacted immediately			
				to reach the specified degree of compaction and establishment of			
				proper mulch.			
			*	Work that lead to heavy erosion shall be avoided during the			
				raining season. If such activities need to be continued during			
				rainy season prior approval must be obtained from the Engineer			
				by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion.			
			*	Construction activities: excavation and earth work around			
			•	vulnerable area for soil erosion mainly restricted to the dry			
				periods and removal of green cover vegetation shall be			
				minimized.			
			*	The work, permanent or temporary shall consist of measures as			
			•	per design or as directed by the engineer to control soil erosion,			
				sedimentation and water pollution to the satisfaction of the			
				engineer.			
				• Typical measures include the use of berms, dikes			
				sediment basins, fiber mats, mulches, grasses, slope			
				drains and other devices.			
				• All sedimentation and pollution control work and			
				maintenance thereof are deemed, as incidental to the			

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		earthwork or other items of work and no separate			
		payment will be made for their implementation.			
		Erosion control measures as presented in Annex III should be used where			
		applicable.			
20.	Noise from vehicles,	 Noise generating work should be limited to daytime (6:00AM to 	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	machinery and	6:00PM). No work that generates excessive noise should be	Cost		Engineer CEA
	equipment	carried out during night hours where in close proximity to public			
		sensitive receptors (temples, hospitals) and residential areas			
		(from 6:00PM to 6:00AM on the following day).			
		✤ Any parties vulnerable for excessive noise residing along the			
		road such as temple at 1.6km and within residential areas should			
		be identified in advance and measures as agreed with the			
		Engineer should be implemented to minimize the impact.			
		 All equipment and machinery should be operated at noise levels 			
		that do not exceed the permissible level of 75 dB (during			
		construction) for the daytime. For all construction activities			
		undertaken during the nighttime, it is necessary to maintain the			
		noise level at below 50 dB as per the Central Environmental			
		Authority (CEA) noise control regulations. Special approval			
		should be obtained from CEA for night time work through PIU.			
		✤ All equipment should be in good serviced condition. Regular			
		maintenance of all construction vehicles and machinery to meet			
		noise control regulations stipulated by the CEA in 1996 (Gazette			
		Extra Ordinary, No 924/12) must be conducted for			
		vehicles/machinery that will be used in construction on site, for			
		transport and for plants (crushers, asphalt, concrete and batching			
		plants).			
		 Ideally noise generating work should not be carried out during 			
		public holidays and religious days. Special care should be taken			
		as there is a temple nearby.			
		✤ Labor gangs should be warned to work with minimum noise.			
		Strict labor supervision should be undertaken in this respect.			
	X7.1.4.1	Number of nighttime resident laborers should be minimized.	.		
21.	Vehicular noise	✤ Idling of temporary trucks or other equipment should not be	Engineering	Contractor	PMU/PIU/RDA/Consultant
	pollution at residential	permitted during periods of loading / unloading or when they are	Cost		Engineer
	/ sensitive receptors	not in active use. The practice must be ensured especially near residential /			
		The practice must be ensured especially near residential / commercial / sensitive areas.			
		Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include			
		places of worship, schools, medical centers and households.			
		 All possible and practical measures to control noise emissions 			
		during drilling shall be Employed.			
		 Contractor shall submit the list of high noise/vibration generating 			
		machinery & equipment to the engineer for approval.			
		machinery & equipment to the engineer for approval.			

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		*	Servicing of all construction vehicles and machinery must be			
			done regularly and during routine servicing operations, the			
			effectiveness of exhaust silencers will be checked and if found			
			defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be			
			regular and up to the satisfaction of the Engineer to keep noise			
			levels at the minimum.			
22.	Impacts due to	*	Contractor shall take appropriate action to ensure that	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		construction works do not result in damage to adjacent properties	Cost		Engineer, GSMB
			due to vibration.			
		*	Any parties vulnerable for excessive vibration residing along the			
			road such as temple at 1.6km, wall of the Bo tree at 1,4km,			
			Buddha shrine at end point and within residential areas, temple			
			and Buddha Shrine should be identified in advance and measures			
			as agreed with the Engineer should be implemented to minimize			
			the impact.			
		*	Prior to commencement of excavation, blasting activity, the			
			Contractor shall undertake a condition survey of existing			
			structures within the zone of influence, as agreed with the			
			relevant government agencies and the engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the			
			relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and blasts			
			shall be controlled blasting in nature. Notwithstanding to these			
			provisions contractor is liable for any damage caused by blasting			
			work.			
		*	Blasting shall be carried out only with permission of the Engineer			
			and approval from GSMB			
23.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
			from rivers, at least 200m away, water ways and streams.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate			
			the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not be			

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		disposed without meeting the disposal standards of the CEA.
		Wastewater from vehicle and plant maintenance and servicing
		stations shall be cleared of oil and grease and other contaminants
		to meet the relevant standards before discharging to the
		environment.
		◆ Contractor shall arrange for collection, storing and disposal of
		oily wastes to the pre-identified disposal sites (list to be
		submitted to Engineer) and approved by the Engineer. All spills
		and collected petroleum products will be disposed of in
		accordance with standards set by the CEA.
		 Engineer will certify that all arrangements comply with the
		guidelines of CEA or any other relevant laws.
24.	Public Safety	♦ At all times, the Contractor shall provide safe and convenient Engineering Contractor PMU/PIU/RDA/Consultant
		passage for vehicles, pedestrians and livestock. Cost Engineer
		✤ Work that affects the use of existing accesses shall not be
		undertaken without providing adequate provisions to the prior
		satisfaction of the Engineer.
		The construction corridor should be barricaded at all time in a
		day with adequate marking, safety tape, flags, reflectors etc. for
		safety of individuals using the site daily basis. (Items such as
		parking cones, lights, tubular markers, orange and white strips
		and barricades of a luminous nature for night visibility shall be
		procured where deemed necessary)
		 Safety signboards should be displayed at all necessary locations.
		◆ The contractor should obtain a Third-party insurance to
		compensate any damages, injuries caused to the public or
		laborers during the construction period.
		♦ All construction vehicles should be operated by experienced and
		trained operators under supervision.
		 Basic onsite safety training should be conducted for all laborers
		during the ESMP training prior to the start of the construction
		activities.
		 All digging and installation work should be completed in one go,
		if this task is not accomplished the area should be isolated using
		luminous safety tape and barricading structures surrounding the
		whole area.
		 Trenches should be progressively rehabilitated once work is
		completed.
		 Material loading and unloading should be done in an area, well
		away from traffic and barricaded
		 Construction wastes should be removed within 24 hours from the site to ensure public sofety.
		site to ensure public safety.
		Safety awareness programs should be conducted by the
		Contractor in annual basis targeting the public residing along the
		road in order to make the public aware on road safety especially

		T	during the operation period of the road			
25	Safaty of Workorg	· ·		Engineering	Contractor	DMIL/DILL/DDA/Consultant
25.	Safety of Workers	* * * * * * * * * * * * * * * * * * * *	during the operation period of the road. Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. Welder's protective eye-shields shall be provided to workers who are engaged in welding works. Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and manade	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		*	monitored on a monthly basis and recorded. National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to.			
26.	Prevention of accidents	* * * *	Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		✤ Night time illumination should be in place at every locatio			
		 Augment time information should be in place at every locator where the road is narrow, diverted and structures are repaired an any other places where the PIU recommends to do so Monitor and record road crashes during construction an maintenance stages and take appropriate remedial actions 	1		
27.	Operation of labor camps	 Locations selected for labour camps should be approved be engineer and comply with guidelines/ recommendations issue by the CEA/Local Authority (LA). Construction of labourer' camps shall not be located within 200m from waterways, stream and near to any other environment and social sensitive locations The Contractor shall construct and maintain all labour accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in ever workplace/labor camp site at suitable and easily accessible place and regular maintenance of such facilities. The sewage system for the camp are designed, built and operate in such a fashion that no health hazards occurs and no pollutio to the air, ground water or adjacent water courses take place Ensure adequate water supply is to be provided in all toilets an urinals. The contractor shall provide garbage bins in the camps an ensure that these are regularly Emptied and disposed of in hygienic manner 	1 Cost 5 5 7 5 7 5 7 5 7 7 5 1 1 1 1 1 1 1 1 1	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA
28.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	 The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka Ministry of Health and Local Public Health officers and adhere t all relevant guidelines applicabl (https://www.hpb.health.gov.lk/en/covid-19). Please reference Annex 28 of ESMF of IRCDP for more details. The contractor will ensure that there is set number of workers a per the guidance as well as in labor camps to prever overcrowding and to allow social distancing. Where necessary i labor camps additional provisioning will be made for spacing. The contractor will at all times, ensure proper hand washing an sanitation facilities are available on the site. Measures should be in place to undertake daily temperatur checks of workforce and enable social distancing at the work sit and interactions with communities should be minimized. Dail records of these checks should be maintained by the contractor site staff. If a worker is diagnosed with symptoms related to the sai pandemic the contractor will immediately inform the PHI an follow instructions laid out by the national health agencies. 	, Cost Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer, MoH

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29.	Prevention of Vector borne Diseases	 Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	 Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		 Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers grievances and complaint/ suggestion boxes can be placed at th supervision consultant's office. A focal point will be designated to receive the complaints. Th 			
		 contact details of the focal point will be displayed in notice boar of respective office. The workers will be made aware of GRM procedure throug to the matrix. 			
32.	Traffic Management	 toolbox meetings. Contractor shall develop a traffic management plan with relevant authorities to minimize inconvenience to road users a well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic a per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in a increase of both the number of vehicles and the vehicle operation, speeds. Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide th drivers to ensure the safety of the vehicles and pedestrians 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
33.	Loss of Access due to construction	 Temporary access will be provided when permanent access i blocked for construction. When construction work is in progress in one side, the other sid will be opened for traffic & properly At the end of each day, debris that blocked access path will b cleared away under the supervision of the Engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreewith the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civit works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace.
35.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impiges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose The contractor shall be responsible for ensuring the well-being of
36.	Loss, Damage and disruption to Fauna	the trees/plants until the end of the contract Engineering Contractor PMU/PIU/RDA/Consultant • All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Engineering Contractor PMU/PIU/RDA/Consultant • Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. Image: Contractor PMU/PIU/RDA/Consultant • No solid or liquid waste should be dumped into natural habitats. Image: Contractor Image: Contractor PMU/PIU/RDA/Consultant

37.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasiv species during material transportation and disposing cleare vegetation from one site to another, thus the following measure are to be undertaken. Close monitoring of transportation, storage of borrowing materia for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleare vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order t ensure that no invasive plant species are being carried with th borrow material. Washing the vehicles should be inspected periodically to ensur that no invasive species are establishing themselves at the site. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Chance find procedures for PCRs and Archeological Property	 All fossils, coins, articles of value of antiquity, structures an other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevan legislation. The Contractor will take reasonable precautions to prevent hi workmen or any other persons from removing and damaging an such article or thing. He will, immediately upon discover thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological discovery and carry set forth. 	t Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Surface Drainage and Possible Water Stagnation	 Provide storm water drain system in the premises which wild discharge water to existing storm water drainage networks Carry out overall storm water management in the premise during construction using temporary ditches, sandbag barrier etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Handling Social and Environmental Issues during Construction	The Contractor shall appoint a person responsible for communit liaison and to handle public complaints regarding environmental social related matters. All public complaints will be entered int the Complaints Register. The Environmental and Socia Safeguards Officer (ESSO) will promptly investigate and review environmental complaints and implement the appropriat	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

· · · · ·		1				
			corrective actions to arrest or mitigate the cause of the			
			complaints.			
			A register of all complaints is to be passed to the Engineer within			
			24 hrs. They are received, with the action taken by the ESSO on			
			complains thereof.			
41.	Prevention of		Contractor should strictly follow necessary slope protection	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	landslides		measures such as gabion walls, retaining walls, soil nailing etc	Cost		Engineer, NBRO
			as per the designs given in the Contract documents and any other			
			measures instructed by the Engineer.			
			Contractor should incorporate proper drainage network to reduce			
			flow of water in to vulnerable slopes using interceptor drains,			
			trench drains etc and to drain off water collected within the soil			
			mass of the slopes using perforated pipes and diverting to nearby			
			existing channel during intense rains			
		*	Contractor should not unnecessarily disturb steep slopes which			
			can result landslides and prior approval should be obtained from			
			Engineer and NBRO if directed by the Engineer if contractor			
			needs additional cutting or filling.			
		*	It is necessary to monitor the possible locations of landslides			
			during construction phase in close coordination with NBRO			
			especially where cuts and fills are to be practiced and if found			
			general public including road users and residents should be kept			
			away from these sites especially during intense rainfalls			
42.	Prevention of Sexual	*	Contractor shall maintain records of recruitment and employment	Engineering	Contractor	PMU/PIU/RDA/Consultant
	exploitation, child		of contract workers (including subcontractors) with age	Cost		Engineer
	trafficking and child		verification to avoid child labor.			
	labour	*	Trafficking of children (forced/bonded labour) is prohibited			
			under the project.			
		*	Institutional arrangement should be adopted to monitor and			
			taking action against the Sexual exploitation can be happened at			
			the site to the workers and general public. The confidential			
			reporting mechanism for sexual exploitation shall be			
			incorporated in to the Grievance readdress Mechanism of the			
			Project.			
		*	Contractor shall not employ workers below the age of 14 years			
		*	If there are workers below the age of 18 years and 15 years, they			
			should only be engaged in nonhazardous work that would not			
			interfere child's education			
	POST CONSTRUCTIO	N				
43.	Clearing/Closure of	*	Contractor to prepare site restoration plans for approval by the	Engineering	Contractor	RDA,/Consultant Engineer,
	Construction		engineer.	Cost		PRDA
	Site/Labor Camps		The plan is to be implemented by the Contractor prior to			
	Sitt, Lubor Cump5		demobilization. This includes borrow sites and storage yards as			
		· · · · · · · · · · · · · · · · · · ·	active metaletistic mit includes conton sites and storage yards as	I		

		 well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	
44.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	RDA/Consultant Engineer, PRDA
45.	Road furnishing on safety.	 The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	RDA,/Consultant EngineerPRDA
46.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow Engineering Contractor, I 	PRDA PRDA, RDA/Consultant Engineer
47.	Replanting of trees	 ✤ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years Engineering Contractor Cost 	PRDA, RDA/Consultant Engineer

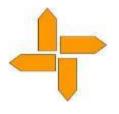
Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultations conducted for IRCDP.

Date	Details of Stakehold	er	Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	Social Service Officer, Balangoda Divisional Secretariat	Male	 The road needs to be developed. The villagers will support the project. People in the area engage in agricultural activities. There are poor people in the project area.
11.03.2021	Resident	Male	• There are around 30 families along the road and majority is Sinhalese.

Stakeholder consultations conducted with communities living beside the road

2.5. ESMP of SR 05 - Kumaragama Randola Road (3.4km)



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 05 - Kumaragama Randola Road (3.4km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Kumaragama Randola Road

Road length: 3.4km

Coordinates: Starting Point 6° 38.108'N, 80° 42.177'E End Point: 6° 37.623'N, 80° 43.222'E

Location:

District: Ratnapura DS Division: Balangoda EE Division: Pellmadulla GN Divisions: Thalangama, Kirimetitenna

1. Introduction

The Kumaragama Randola Road (3.4km) starts at Colombo-Ratnapuara-Wellawaya-Batticaloa Road (A004), and provides a connection to Kirimatitenna-Galgoda (B223) road. This road is under the custody of Balangoda Pradesiya Sabha (local authority). The surface of the road is concrete and damaged macadam. Road traverses along a hilly terrain and elevation of the trace vary between 445 - 557m MSL. Road surface is damaged macadam and there are few scatted locations with concrete. Road crosses a small stream at 0.4km. This section of the road is not located within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing RoW for 3.4 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and a drain 0.7m (one side). The estimated construction period for this road is five (5) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls normally are erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right of way (RoW) of the Kumaragama Randola road is around 5m, and the average carriageway is 4m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Balangoda Pradeshiya Sabah (local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Balangoda Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo-Ratnapuara-Wellawaya-Batticaloa Road (A004) and provides a connection to Kirimatitenna-Galgoda (B223) road. There are tea cultivations and home gardens grown with minor cash crops such as pepper in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kumaragama Randola Road will have a majority of reversible, small-medium scale environmental and social impacts. Temporary streams diversions and water quality impacts are the environmental impacts could be generated which are restricted to the construction phase of the project. The main social impacts will be temporary loss of access to residents and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements:

- There are about 13 households and 13 small shops located on both sides of the road with an estimated population of 100. The majority of the people are Sinhalese. There are also Indian Tamil and Muslim families living in some sections of the road. Buddhism, Hinduism and Islam are the religions of the people.
- Land ownership: There are no squatters along the road. All the lands are private and Government lands
- **Livelihoods:** Tea cultivation is the major source of livelihood and income. Home gardens grown with minor crops such as pepper alsogenerate incomes for the residents. Some people are engaged in wage labour, public and private sector jobs and self-employment.
- Local organisations: There are Farmer organisations in the area
- **Community infrastructure and resources:** There's one school in the vicinity (Table 1). The access to the school will not be affected due to road rehabilitation work.

Table 1: Community infrastructure and resources

	Community infrastructure & resources	Loc	Location		Road side	Distance from the RoW
0	School	6°38'1.90"N	80°42'12.60"E	0+200	LHS	100 m

n-going development projects: None.

• Visitors to the area: There is a tea factory in the project area. Thus, frequent visitors are expected for trading activities.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		×		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of		~		The road surface will be upgraded

Screening Questions	Not known	Yes	No	Remarks
existing facilities?				with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		V		This road is currently under the custody of Balangoda Pradesiya Sabha(local authority)
Is land acquisition likely to be necessary?			V	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		~		The RoW is owned by Balangoda Pradeshiya Sabha (local authority). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			 ✓ 	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			v	

Screening Questions	Not known	Yes	No	Remarks
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		√		None of the people will be affected as the development work will be carried out within the existing ROW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There's one school in the vicinity (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		~		Project area comes under the Balangoda Police station which is 2km away from project site.Further, <i>"MithuruPiyasa"</i> ⁵ center is located in the Balangoda hospital.

⁵ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Is the project site in a populated area and/or with high vehicular traffic volume?			 ✓ 	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		V		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		~		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			√	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A

2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development ProjectSub-project:Kumaragama Randola Road (SR5)Length:3.4 kmLocation:District: Rathnapura
DS Division: Balangoda

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?		V	
- Cultural heritage site			
- Protected Area			
- Wetland			
- Mangrove			
- Estuarine			
- Buffer zone of protected area			
- Special area for protecting biodiversity			
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?			
- Encroachment on precious ecology (e.g. sensitive or protected areas)?			
 Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sedimentation streams affected by increased soil erosion at construction site? 	V		Permanent alteration of streams will not be required. However temporary diversion of streams will be required at new culvert; 2.3km and culverts to be reconstruct at 0.45, 0.98, 1.26, 2.04, 2.48, 2.58, 2.71, 2.84, 2.9, 2.91 and 2.96km. Water flow to the downstream will be facilitated during construction phase at above locations and streams will be restored to original condition after the requirement is over.

			will be applied to minimize siltation of above streams.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	V		Road crosses a small stream at 0.4km (a bridge is located) and minor canals at 0.98km and 2.48km.
			This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	\checkmark		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	1		Blasting works will not be necessary. Noise and vibration levels generated due to civil works will be managed within the particular national standards. Specially the sensitive receptors as given in the Question 8 of the Social Screening Checklist.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the			Regular sprinkling of water to suppress dust and avoiding

project areas that may trigger cases of upper respiratory problems and stress?			construction activities during night time.
- Hazardous driving conditions where construction interferes with pre-existing roads?		\checkmark	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	V		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Avoiding possibilities of water stagnation areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 		V	
- Increased noise and air pollution resulting from traffic volume?		\checkmark	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photographs of Kumaragama Randola Road

Figure 1: Starting point of the road at Colombo-Batticaloa highway (A004)



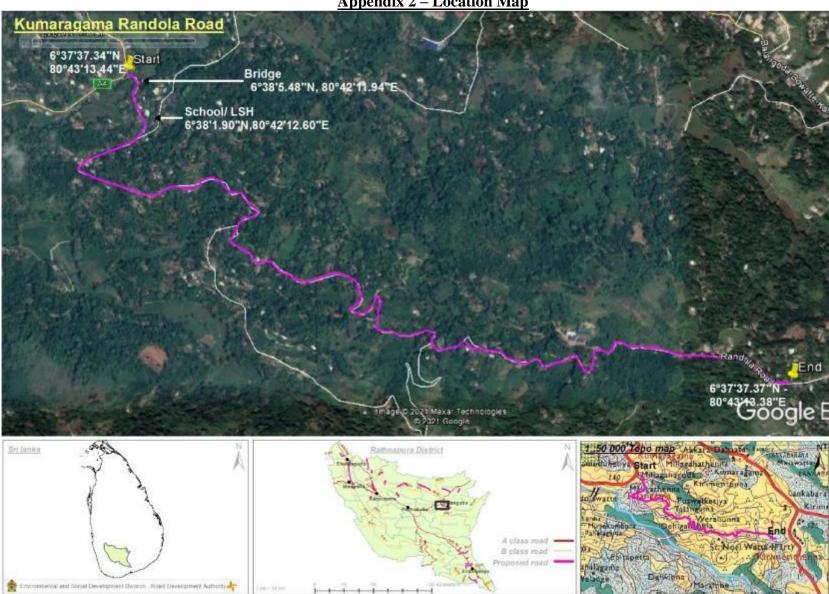
Figure 2: Settlements located on both sides of the road



Figure 3: Along the road



Figure 4:End point of the road



Appendix 2 – Location Map

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kumaragama Randola Road							
Risk Category assigned by E and S Screening	Moderate						
Design Recommendations and guidance							
Design Justification	Guidance to be Used						
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO. Public highlighted that there is no proper drain system along the road. Therefore water flows over the road and road is slippery during rainy season. Therefore, it is recommended to introduce additional culverts, lead away drains and side drains etc. to improve the drainage along the road.	 Section 11, 41 of ESMP Any guidance to be issued by NBRO Section 10 of ESMP Bridge design manual of RDA 						
Details of Internal Submission of Design Recommendations							
Submitted by	Director - ESDD, RDA						
Date of submission	11 June 2021						
Name of RDA design team member submission was made	Project Director – IRCDP,						
to	RDA						
Mode of transmission (Email, hand delivery)	Email						

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 05 Kumaragama Randola <u>Road</u>

	Activities and	Protection and preventive measures	Mitigation	Re	sponsibility
	Associated Impacts		cost	Implementation	Monitoring
	PRE-CONSTRUCTION				
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat. Compensatory plantation by way of Replantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

	l				
		vegetation.			
		• Removed trees of economic value must be handed over to the			
		Timber Corporation.			
		• Provision shall be made for additional compensatory tree			
		plantation. Any leftover of trees shall be removed and disposed			
		in approved manner.			
3.	Labor and Labor 🛠	The contractor should give priority to hiring labor from the	Engineering	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant
	Camps, Construction	surrounding areas to avoid the need for labor camps.	Cost		Engineer
	Camps, temporary 🛠	If labor camps are required to house migrant workers, they should be			
	office and other	placed well away from settlements or sensitive receptors, water			
	temporary facilities	bodies and boundaries and buffer zones of protected/forested areas			
		and preferably located on land which is not productive (barren/waste			
		lands presently). If these are not possible, private lands maybe taken			
		on lease as standard practice. The location, layout and basic facility			
		provision of the labor camp must be submitted to Engineer of the			
		relevant managing department prior to their construction.			
	*	The construction will commence only upon the written approval of			
		the Engineer and then the relevant local authority.			
	*	Separate labor camps need to be provided for female migrant			
		laborers.			
	*	The instructions for the laborers should be provided in all three			
		languages.			
	*	Provision of proper drainage facilities to the labour camps and			
		prevent breeding of mosquitoes, flies and other vector borne diseases.			
	*				
		ancillary facilities in a functional and hygienic manner and as			
		approved by the Engineer.			
	*				
		including water, urinals, toilets, bathing facilities, mosquito nets with			
		adequate capacity of septic tanks and soak pits.			
	*				
		such a fashion that uncontaminated water is available for drinking,			
		cooking and washing.			
	*	The sewage system for the camp must be planned and implemented			
		with concurrence from the local Public Health Inspector (PHI)			
	*				
		acceptable manner. The solid waste shall be handed over to the waste			
		collecting system of the Local Authority (LA) of the area (if any) and			
		wastewater should be disposed in an environmentally acceptable			
		manner (meeting the desired water quality standards) with the			
		approval of the Engineer. Adequate health care is to be provided for			
		the work force.			
	×	Personal Protective Equipment (PPEs) such as helmet, boots, and			
		earplugs for workers, first aid and firefighting equipment shall be			
		available at construction sites before start of construction. An			
L	1	a construction sites before suit of construction. The		1	

		-				
			emergency plan shall be prepared to fight with any emergency like			
			fire.			
		**	All construction camps shall have provision of rationing facilities			
			particularly for kerosene/LPG so that dependence on firewood for			
			cooking is avoided to the extent possible			
		**	Separate labor camps need to be provided for female migrant			
			laborers.			
		**	The instructions for the laborers should be provided in all three			
			languages			
		**	Labor camp sites after use should be cleared and the site should be			
			reinstated to previous condition at the close of the construction work.			
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates and other	Engineering	Contractor	PMU/PIU/RDA/Consultant
			quarry material is sourced from licensed sources.	Cost		Engineer, CEA,GSMB
		**	The contractor is required to maintain the necessary licenses and			
			environmental clearances from GSMB and CEA for all borrow and			
			quarry material they are sourcing -including soil, fine aggregate and			
			coarse aggregate.			
		**	Sourcing of any material from protected areas and/or designated			
			natural areas, including tank beds, are strictly prohibited.			
		**	If the contractor uses a non-commercial borrow/quarry sites, the sites			
			should be remediated accordingly once material sourcing has been			
			completed.			
		**	The contractor should submit in writing all the relevant numbers and			
			relevant details of all pre-requisite licenses etc. and report of their			
			status accordingly to the Engineer.			
5.	Water for Construction	**	The contractor should arrange adequate supply of water for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	activities		project purpose throughout the construction period from a source	Cost		Engineer
			agreed upon with the engineer.			
		**	Water may not be obtained for project purposes, including for labor			
			camps, from public or community water supply schemes without a			
			prior approval from the relevant authority Extraction of water from			
			ground water or surface water bodies without the permission from			
			Engineer and the relevant authority (Water Resources Board,			
			NW&DB, Department of Irrigation, CBO) will not be allowed.			
		**	Permission for the extraction of water should be obtained prior to the			
			commencement of the project, from the relevant authority.			
6.	Work Site for	**	The contractor should identify an area to store construction materials	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials		and equipment at a site which should be approved by the engineer.	Cost		Engineer
		**	Storage yards cannot be located in community areas, such as			
			playgrounds, close to water ways, cause access issues to locals or			
			forested areas that require clearing.			
		**	Parking, repairing vehicles, machinery and equipment shall be done			
			stationed only at the work site and/or in any other designated areas by			
			the engineer.			

	*	• The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer.			
7.	Information Disclosure among Stakeholders	 the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT

		T				
			utility disruption			
		*	Approval shall be obtained from DOI for any proposed construction			
			works on irrigation canals			
		*	Advance notice to the public in all local languages about time and the			
			duration of utility disruption			
		*	Use of well trained and experienced machinery operators for the			
			shifting/reestablishment of utilities to minimize accidental damage			
			and functional purposes			
		*	Special attention shall be taken to provide relevant services to the			
			public without long delay			
		*	Water and other utilities shall be provided to the public if long delay			
			to re-establish services with the instruction of PIU			
10.	Hydrology and	*	Design of new culverts and other drainage structures in consultation	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
	drainage	ľ	and recommendations of the Irrigation and Provincial Irrigation	cost	001111001111001110	Engineer, DoI
	ui uiiuge		Department	•••••		
		•••	Temporary diversion of water ways during construction should be			
		ľ	ensured that no obstruction to natural water flow			
		•••	Construction work affecting water bodies should be prevented and			
		•	work should be scheduled during the dry season			
		*	Excavation of beds of any streams, irrigation systems, and other			
		•	water resources shall be avoided by the contractor			
		*	Contractor shall not divert, close, block existing canals and streams in			
		•	a manner that adversely affect downstream intakes			
11.	Identification of		Prior identification of erodible and landslide prone areas in proper	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
11.	erodible and landslide	***	consultation with National Building Research Organisation (NBRO)	Engineering	Contractor/PiviO/PiU	Engineer, NBRO, NRMC
		*	Incorporate the recommendations and guidelines of the NBRO to the	cost		Eligineei, NBKO, NKMC
	prone areas	***	road designing.			
12						
12.	Land donation	*	Land donation will be involved only for the land required for the		PMU/PIU	PMU/PIU/RDA/Consultant
			design requirements including realignment of bends or construction			Engineer, Balangoda PS
			of cross drainages, lead away drains in the locations where required.			
		*	If land need from the public, negotiation with property owners will be			
			carried out with involvement of a third party, the respective			
			Divisional Secretariat.			
		*	All effort will be made to minimize the land donation for the project			
		**	Agreement between the donor and the recipient shall be executed as			
			per the format prepared for land donation.			
		*	Survey fees, notary charges for modifying the deed shall be borne by			
		1	the project to free any legal encumbrances caused as a result of taking			
	.		the lands for road works.			
13.	Land Acquisition (if	*	Land acquisition is not envisaged in IRCDP. However, Resettlement	Land	PIU/PMU of RDA	RDA, Balangoda PS
	required)		Policy Framework (RPF) is prepared for the project to guide land	Acquisition		
		1	acquisition if there's any need arises. The Land acquisition process	cost		
			will be initiated as per the Land Acquisition Act and its regulations.			
			The payment of compensation will be done according to Entitlement			

	1	matrix of RPF.			
14.	Identifying locations to provide temporary access * CONSTRUCTION PHASE	Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHASE				
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials *	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the designated forest land and water bodies (stream runs parallel to the road) Avoid disposal on productive/agricultural land. should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

16	Protection of tange	• Topsoil c	of the agricultural areas and any other productive grass where	Engineering	Contractor	PMII/PIII/PDA/Consultant
16.		 it has to be a specific exceeding If the common for an in writing Removed trees and Stockpile topsoil has must be a by the End 	A topsoil could be used as a productive soil when replanting during turfing. ed topsoil must be returned to cover the areas where the as been removed due to project activities. Residual topsoi distributed on adjoining/proximate barren areas as identified agineer in a layer of thickness of 75mm – 150mm. thus stockpiled for reuse shall not be surcharged o	Cost r r g e 1	Contractor	PMU/PIU/RDA/Consultant Engineer
			s possible multiple handling of topsoil stockpiles should be minimum.	2		
17.	Protection of Ground		tion vehicle, machinery and equipment shall be used and	l Engineering	Contractor	PMU/PIU/RDA/Consultant
17.	Cover and Vegetation	 stationed approved Entry and restricted Contractor and othe 	only in the areas of work and in any other area designated by the Engineer. d exit of construction vehicles and machinery should be to particular points as directed by the engineer or should provide necessary instructions to drivers, operator er construction workers not to destroy ground vegetation necessarily.	Cost		Engineer
18.	Transport and Storage		erial should be transported in fully covered trucks	. Engineering	Contractor	PMU/PIU/RDA/Consultant
10.	of construction materials	Overload in a mann	ling of vehicles with materials should be controlled and don- ner to suit the trucks capacity.	e Cost	Contractor	Engineer
		 stored in materials under co sheeting (place with of the sheeting to the sheeting) sheeting (place with of the sheeting) sheeting (place	tion material such as cement, sand and metal should be closed structures or in a contained manner.All construction such as sand, metal, lime, bricks etc. should be transported ver to the site and stored under cover at the sight. Plastic (of about 6 mm minimum thickness) can be used and held in h weights, such as old tires or cinder blocks, with the edge eeting buried, or by the use of other anchoring systems. unloading and transport of materials shall not be ient to the road side community or road users of sites for stock piling with the approval of Engineer away ironment and public sensitive locations of fuel, lubricant and chemicals use for the construction on paved surface without contamination to the environmen n water runoff I shall be taken prior to use of local roads from relevan es and need to maintenance during the use by the Contractor	n 1 2 3 5 2 6 7 7 1 1		

19.	Emission of Dust	. *.	In order to minimize the levels of airborne dust all construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
17.	Emission of Dust	**	material/debris should be stored as per the instructions provided	Cost	Contractor	Engineer
			above No.18.	COSt		Engineer
		•••	Mud patches caused by material transporting vehicles in the access			
		•	road should be immediately cleaned			
		•	Continual water sprinkling should be carried out in the work and fill			
		•	areas, material extraction sites, processing plants and the access road			
			if dust stir is observed. Water sprinkling should be done more			
			frequently on days that are dry and windy (at least four time's day) as			
			the levels of dust can be elevated during dry periods.			
		*	Any parties vulnerable for excessive dust residing along the road			
			especially within residential areas and around the School at 0.2km			
			should be identified in advance and measures as agreed with the			
			Engineer should be implemented to minimize the impact.			
		*	Dust masks should be provided to the laborers for the use at required			
			times.			
		*	Erection of dust barriers to the public, religious and other socially			
			important locations			
		*	Metal quarries, crushers and all the plants should be located at least			
			500m form the public sensitive and residential areas			
		*	Establishment of tire washing facility for the plants, yards or any			
			other sites which causing to bring mud particles with the vehicles.			
10	Management of Self	*	In the event the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow Sites	0	real real real real real real real real	Cost		Engineer CEA, GSMB
			requirements/guidelines issued by the CEA, GSMB and the			
			respective local authorities with respect of locating borrow areas			
			and with regard to all operations related to excavation and			
			transportation of earth from such sites.			
		0	· · · · · · · · · · · · · · · · · · ·			
			operated licensed borrow pits in the surrounding area, subject to			
			approval of the Engineer			
		0	No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive			
			land/agricultural land and environment and public sensitive			
			locations			
		0	~			
			license from the GSMB. The location, depth of excavation and the			
			extent of the pit or open cut area shall be as approved by the			
			Engineer.			
		0				
			by the contractor in accordance with the requirements/guidelines			
			issued by the CEA and the respective local authority (Refer Annex			
			II for guidelines).			
		0				
			shall not cause any adverse impact to the near-by properties. Also,			

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			with fixed polythene sheeting to avoid excessive erosion.			
		*	All fills, back fills and slopes should be compacted immediately to			
			reach the specified degree of compaction and establishment of proper			
			mulch.			
		*	Work that lead to heavy erosion shall be avoided during the raining			
			season. If such activities need to be continued during rainy season			
			prior approval must be obtained from the Engineer by submitting a			
			proposal on actions that will be undertaken by the contractor to			
			proposal on denois and will be undertaken by the confluctor to prevent erosion.			
		*	Construction activities: excavation and earth work around vulnerable			
		•	area for soil erosion mainly restricted to the dry periods and removal			
			of green cover vegetation shall be minimized.			
		*	The work, permanent or temporary shall consist of measures as per			
			design or as directed by the engineer to control soil erosion,			
			sedimentation and water pollution to the satisfaction of the engineer.			
			• Typical measures include the use of berms, dikes sediment			
			basins, fiber mats, mulches, grasses, slope drains and other			
			devices.			
			• All sedimentation and pollution control work and maintenance			
			thereof are deemed, as incidental to the earthwork or other			
			items of work and no separate payment will be made for their			
			implementation.			
		*	Refer Annex III for erosion control measures which should be used at			
			applicable locations.			
20.	Noise from vehicles,	*	Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	machinery and		6:00PM). No work that generates excessive noise should be carried	Cost		Engineer CEA
	equipment		out during night hours where in close proximity to public sensitive			C
	- 1F		receptors (temples, hospitals) and residential areas (from 6:00PM to			
			6:00AM on the following day).			
		**	Any parties vulnerable for excessive noise residing along the road			
		•	especially within residential areas and around the School at 0.2km			
			should be identified in advance and measures as agreed with the			
			Engineer should be implemented to minimize the impact.			
		*	All equipment and machinery should be operated at noise levels that			
		•••				
			do not exceed the permissible level of 75 dB (during construction) for			
			the daytime. For all construction activities undertaken during the			
			nighttime, it is necessary to maintain the noise level at below 50 dB			
			as per the Central Environmental Authority (CEA) noise control			
			regulations. Special approval should be obtained from CEA for night			
			time work through PIU.			
1		**	All equipment should be in good serviced condition. Regular			
1		1	maintenance of all construction vehicles and machinery to meet noise			
			control regulations stipulated by the CEA in 1996 (Gazette Extra			
			control regulations stipulated by the CEA in 1996 (Gazette Extra			

				1		
			(crushers, asphalt, concrete and batching plants).			
		*	Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a			
		*	temple nearby.			
		**	Labor gangs should be warned to work with minimum noise. Strict			
			labor supervision should be undertaken in this respect. Number of			
	** * *		nighttime resident laborers should be minimized.	.	G	
21.	Vehicular noise	**	Idling of temporary trucks or other equipment should not be	Engineering	Contractor	PMU/PIU/RDA/Consultant
	pollution at residential /		permitted during periods of loading / unloading or when they are not	Cost		Engineer
	sensitive receptors		in active use.			
		*	The practice must be ensured especially near residential / commercial			
			/ sensitive areas.			
		*	Stationary construction equipment will be kept at least 500m away			
			from sensitive receptors, where possible. These include places of			
			worship, schools, medical centers and households.			
		*	All possible and practical measures to control noise emissions during			
			drilling shall be employed.			
		*	Contractor shall submit the list of high noise/vibration generating			
			machinery & equipment to the engineer for approval.			
		*	Servicing of all construction vehicles and machinery must be done			
			regularly and during routine servicing operations, the effectiveness of			
			exhaust silencers will be checked and if found defective will be			
			replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be regular			
			and up to the satisfaction of the Engineer to keep noise levels at the			
			minimum.			
22.	Impacts due to	*	Contractor shall take appropriate action to ensure that construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		works do not result in damage to adjacent properties due to vibration.	Cost		Engineer, GSMB
		*	Any parties vulnerable for excessive vibration residing along the road			
			especially within residential areas and around the School at 0.2km			
			should be identified in advance and measures as agreed with the			
			Engineer should be implemented to minimize the impact.			
		*	Prior to commencement of excavation, blasting activity, the			
			Contractor shall undertake a condition survey of existing structures			
			within the zone of influence, as agreed with the relevant government			
			agencies and the engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment causing			
			vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the relevant			
			vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be determined			
			so that excessive vibration can be avoided, and blasts shall be			
				•		

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			controlled blasting in nature. Notwithstanding to these provisions			
			contractor is liable for any damage caused by blasting work.			
		*	Blasting shall be carried out only with permission of the Engineer			
			and approval from GSMB			
23.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
			from rivers, at least 200m away, water ways and streams.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate the			
			ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not be			
			disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants to			
			meet the relevant standards before discharging to the environment.			
		*	Contractor shall arrange for collection, storing and disposal of oily			
		•	wastes to the pre-identified disposal sites (list to be submitted to			
			Engineer) and approved by the Engineer. All spills and collected			
			petroleum products will be disposed of in accordance with standards			
			set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
		•	guidelines of CEA or any other relevant laws.			
24.	Public Safety	*	At all times, the Contractor shall provide safe and convenient passage	Engineering	Contractor	PMU/PIU/RDA/Consultant
24.	I ublic Safety	••	for vehicles, pedestrians and livestock.	Cost	Contractor	Engineer
		*	Work that affects the use of existing accesses shall not be undertaken	COSt		Elignicei
		••	without providing adequate provisions to the prior satisfaction of the			
			Engineer.			
		*	The construction corridor should be barricaded at all time in a day			
			with adequate marking, safety tape, flags, reflectors etc. for safety of			
			individuals using the site daily basis. (Items such as parking cones,			
			lights, tubular markers, orange and white strips and barricades of a			
			luminous nature for night visibility shall be procured where deemed			
			necessary)			
			Safety signboards should be displayed at all necessary locations.			
		**	The contractor should obtain a Third-party insurance to compensate			
		•	any damages, injuries caused to the public or laborers during the			
			construction period.			
		*	All construction vehicles should be operated by experienced and			
		•	trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers			
		•				
		<u> </u>	during the ESMP training prior to the start of the construction			

		1		r		1
1			activities.			
		*	All digging and installation work should be completed in one go, if			
			this task is not accomplished the area should be isolated using			
			luminous safety tape and barricading structures surrounding the			
			whole area.			
		*	Trenches should be progressively rehabilitated once work is			
			completed.			
		*	Material loading and unloading should be done in an area, well away			
			from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the site			
			to ensure public safety.			
		*	Safety awareness programs should be conducted by the Contractor in			
		•	annual basis targeting the public residing along the road in order to			
			make the public aware on road safety especially during the operation			
			period of the road.			
25	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
25.	Salety of workers	**	workers as per the ILO Convention No. 62 and Safety & Health	Cost	Contractor	
				COSt		Engineer
			Regulations of the Factory Ordinance of Sri Lanka to the extent that			
		.•.	those are applicable to this contract.			
		*	The contractor shall supply all necessary safety measures at site.			
		**	Protective footwear and protective goggles should be provided to all			
			workers Employed on mixing of materials like cement, concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers who are			
			engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise, and			
			workers working in crushing, compaction, or concrete mixing			
			operation.			
		*	The contractor shall supply all necessary safety appliances such as			
			safety goggles, helmets, safety belts, ear plugs, mask etc. to workers			
			and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office,			
			gloves, earmuffs, goggles, dust masks, safety harness and any other			
			equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
			consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	All workers should be made aware about Workers GRM and they			
			should be facilitated to approach relevant GRCs as and when required			
		*	National and World Bank requirements (such as providing necessary			
		ľ	personal protective equipment, taking temperature checks etc.) for			
			prevention of the spread of COVID-19 virus will be adhered to.			
26.	Prevention of accidents	*	Prevention of accidents involving human beings, animals or vehicles	Engineering	Contractor	PMU/PIU/RDA/Consultant
20.	r revenuon or accidents	•	falling or accidents due to open trenches/manholes during	Cost	Contractor	Engineer
			construction period. This needs to be ensured with proper	COSt		Lingmool
			barricading, signage boards and lighting etc.			
L		1	barricaung, signage boards and fighting etc.			1

		*	Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA.			
		*	A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times			
		*	Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.			
		*	Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.			
		*	Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other			
		*	places where the PIU recommends to do so Monitor and record road crashes during construction and			
	Our set is a final in		maintenance stages and take appropriate remedial actions	Engin	Contro aton	
27.	Operation of labor	•••	Locations selected for labour camps should be approved by engineer	Engineering	Contractor	PMU/PIU/RDA/Consultant
	camps		and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall	Cost		Engineer, CEA, LA
			not be located within 200m from waterways, streams and near to any			
			other environment and social sensitive locations			
		••	The Contractor shall construct and maintain all labor accommodation			
		•	in such a fashion that uncontaminated water is available for drinking,			
			cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every			
		•	workplace/labor camp site at suitable and easily accessible places and			
			regular maintenance of such facilities.			
		*	The sewage system for the camp are designed, built and operated in			
			such a fashion that no health hazards occurs and no pollution to the			
			air, ground water or adjacent water courses take place. Ensure			
			adequate water supply is to be provided in all toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure			
			that these are regularly Emptied and disposed of in a hygienic manner			
28.		*	The contractor shall firstly follow all measures outlined for pandemic	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	spread of Covid-19 or		management by the Government of Sri Lanka, Ministry of Health and	Cost		Engineer, MoH
	handling sudden		Local Public Health officers and adhere to all relevant guidelines			
	Pandemic outbreaks		applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer			
			Annex 28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and			
			to allow social distancing. Where necessary in labor camps additional			
			provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper hand washing and			
		•	sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature checks of			
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		*	workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.			
29.	Prevention of Vector borne Diseases	*	 Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities ♦ Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	* *	Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	* * *	Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage)	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		1		r		
			by the contractor. This should be done through the Community Based			
			Organizations (CBOs) in the area that will be affected by the project			
			interventions.			
		*	Contractors to implement robust measures to prevent sexual			
		1	harassment, gender-based violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies			
		*	Contractor shall maintain a logbook to record workers' grievances			
			and complaint/ suggestion boxes can be placed at the supervision			
			consultant's office.			
		*	A focal point will be designated to receive the complaints. The			
			contact details of the focal point will be displayed in notice board of			
			respective office.			
		*	The workers will be made aware of GRM procedure through toolbox			
			meetings.			
32.	Traffic Management	*	Contractor shall develop a traffic management plan with the relavant	Engineering	Contractor	PMU/PIU/RDA/Consultant
	_	1	authorities to minimize inconvenience to road users as well as	Cost		Engineer, Traffic Police
			prevent road accidents and implement it.			
		*	Road signs and trained flagmen should be used to divert traffic as per			
			the required traffic management measures.			
		*	Clear instructions should be given if detours are used.			
		*	Also, any pits should be enclosed to prevent pedestrians or vehicles			
			falling into them			
		*	Improvement of the road surface and width will result in an increase			
			of both the number of vehicles and the vehicle operating speeds.			
		*	Therefore, after the construction is completed the contractor should			
		1	erect relevant road signs and road markings to guide the drivers to			
		1	ensure the safety of the vehicles and pedestrians			
33.	Loss of Access due to	*	Temporary access will be provided when permanent access is	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction	1	blocked for construction.	Cost		Engineer
		*	When construction work is in progress in one side, the other side will			
		1	be opened for traffic & properly			
		*	At the end of each day, debris that blocked access path will be			
		1	cleared away under the supervision of the Engineer.			
34.	Protection of Physical	*	If any physical cultural resources are identified along the project trace	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources	1	the contractor will ensure that protective fencing as agreed with the	Cost		Engineer
	(PCRs) close to the Site.		community and or head of the physical cultural resource (ie temple,			_
	-		mosque, place of worship, grave site, monument, statue, tree or any			
		1	site designated of importance by the community) is established to			
			avoid any impacts during the civil works.			
		*	If the site is within 5 meters of the proposed road trace the contractor			
L				1	1	1

		 shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be
		tolerated and will be penalized. Workers should not be allowed to trespass in to such areas.
		 Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace.
35.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall put at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the puppose The contractor shall build hardy structures around the trees for protection. The contractor shall build hardy structures around the trees for protection.
36.	Loss, Damage and disruption to Fauna	 All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna
		including wild animals and aquatic life as well as their habitats.

		T	TT			
			Hunting, poaching and unauthorized fishing by project workers is			
			not allowed.			
			• No solid or liquid waste should be dumped into natural habitats.		-	
	Prevention of the	**	There is a possibility of introducing / spreading of invasive species	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Spread of Invasive		during material transportation and disposing cleared vegetation from	Cost		Engineer
	Plant Species		one site to another, thus the following measures are to be undertaken.			
		*	Close monitoring of transportation, storage of borrowing material for			
			the spread of any invasive species must be done.			
			• Vehicles should be covered during transportation of cleared			
			vegetation to and from the construction site.			
			Borrow material to be brought mom properly ratinities borrow			
			pits and quarry sites, the sites should be inspected in order to			
			ensure that no invasive plant species are being carried with the			
			borrow material.			
			• Washing the vehicles should be conducted periodically to prevent			
			carrying any invasive species			
• •			that no invasive species are establishing themselves at the site.	 .	Q , , ,	
	Chance find procedures	•	The robbins, come, and cost of value of analysis, subclares and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	for PCRs and		other remains or things of geological or archaeological interest	Cost		Engineer
	Archeological Property		discovered on the site shall be the property of the Government			
			and shall be dealt with as per provisions of the relevant			
			legislation.			
			• The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any			
			such article or thing. He will, immediately upon discovery thereof			
			and before removal acquaint the Engineer of such discovery and			
			carry out the instructions for dealing with the same, waiting which			
			all work shall be stopped.			
			• The Engineer will seek direction from the Archaeological			
			Department of Sri Lanka and inform the project EO to follow the			
			Chance Find Procedures set forth.			
39.	Surface Drainage and	*	Provide storm water drain system in the premises which will	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Possible Water	ľ	discharge water to existing storm water drainage networks	Cost	Contractor	Engineer
	Stagnation	$\dot{\cdot}$	Carry out overall storm water management in the premises during	2050		Linginicer
		ľ	construction using temporary ditches, sandbag barriers etc.			
		*	Proper drainage arrangements to be made, to avoid the overflowing			
			of existing drains due to cutting, excavation and other activities			
40.	Handling Social and	*	The Contractor shall appoint an Environmental and Social Safeguards	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Environmental Issues		Officer (ESSO) who is responsible for community liaison and to	Cost		Engineer
	during Construction		handle public complaints regarding environmental/ social related			-
	U		matters. All public complaints will be entered into the Complaints			
			Register. The ESSO will promptly investigate and review			
			environmental and social complaints and implement the appropriate			

						
		*	corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24			
		ľ	hrs. They are received, with the action taken by the ESSO on			
			complains thereof.			
41.	Prevention of landslides	*	Contractor should strictly follow necessary slope protection measures	Engineering	Contractor	PMU/PIU/RDA,/Consultant
			such as gabion walls, retaining walls, soil nailing etc as per the	Cost		Engineer, NBRO
			designs given in the Contract documents and any other measures			
			instructed by the Engineer.			
		*	Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench			
			drains etc and to drain off water collected within the soil mass of			
			the slopes using perforated pipes and diverting to nearby existing			
			channel during intense rains			
		*	Contractor should not unnecessarily disturb steep slopes which can			
			result landslides and prior approval should be obtained from Engineer			
			and NBRO if directed by the Engineer if contractor needs additional			
			cutting or filling.			
		*	It is necessary to monitor the possible locations of landslides during			
			construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public			
			including road users and residents should be kept away from these			
			sites especially during intense rainfalls			
42.	Prevention of Sexual	*	Contractor shall maintain records of recruitment and employment of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	exploitation, child		contract workers (including subcontractors) with age verification to	Cost		Engineer
	trafficking and child		avoid child labor.			
	labour	*	Trafficking of children (forced/bonded labour) is prohibited under the			
		**	project. Institutional arrangement should be adopted to monitor and taking			
		•••	action against the Sexual exploitation can be happened at the site to			
			the workers and general public. The confidential reporting			
			mechanism for sexual exploitation shall be incorporated in to the			
			Grievance readdress Mechanism of the Project.			
		*	Contractor shall not employ workers below the age of 14 years			
		*	If there are workers below the age of 18 years and 15 years, they			
			should only be engaged in nonhazardous work that would not interfere child's education			
	POST CONSTRUCTION	J		<u> </u>		
		·				
43.	Clearing/Closure of	*	Contractor to prepare site restoration plans for approval by the	Engineering	Contractor	RDA,/Consultant Engineer,
	Construction		engineer.	Cost		PRDA
	Site/Labor Camps	*	The plan is to be implemented by the Contractor prior to			
1		*	demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared			
1						
		***	away, all rubbish cleared, excreta or other disposal pits or trenches			

							1
		* *	filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes.				
44.	Environmental Enhancement/	*	Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid	Engineering Cost	Contractor	RDA/Consu PRDA	ltant Engineer,
	Landscaping	*	Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP.				
45.	Road furnishing on safety.	*	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	0 0		ıltant DA
46.	Hydrology and drainage	*	Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, Engineer	RDA/Consultant
47.	Replanting of trees	*	Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, Engineer	RDA/Consultant

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakehol	der	Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	Grama Niladari - Thalangama	Male	 All three ethnicities, Sinhalese, Tamil and Muslims live along this road. This road is very unsafe to use during rainy days as it's slippery. People along the road engage in wage labor and agriculture.
11.03.2021	Resident	Male	 The storm water flows along the road and road gets damage. The drainage needs to be improved along the road. Many people use this road and it's good to develop the road.
11.03.2021	Road User	Male	 It is difficult to use this road as it is damaged. There are many road users, and it is good to develop the road.

Stakeholder consultation conducted with communities living beside the road

2.6. ESMP of SR 06 – Berenduwa - Banagala - Kempanawatta - Batewela Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 06 – Berenduwa - Banagala - Kempanawatta -Batewela Road (4km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Berenduwa- Banagoda – Kempanawatta - Batewela Road

Length: 4.0km

Coordinates: Starting Point : 6° 40.149'N, 80° 30.211'E End Point : 6° 41.415'N , 80° 29.816'E

Location: District: Rathnapura DS Division: Pelmadulla, Rathnapura EE Division: Rathnapura GN Divisions: Berenduwa, Banagoda, Heen Berenduwa

1. Introduction

Berenduwa-Banagoda-Kempanawatta-Batewela Road (4.0km) starts from a provincial road called Hettikanda and provides connection to Wewalwatta Bellangana Road. This road is under the custody of Pelmadulla and Rathnapura Pradeshiya Sabahs (local authorities). Road is located within medium terrain area. Elevation of the trace varies between 134 - 244m MSL. The road surface is damaged macadam. Proposed section of the road is not located within or adjacent to a protected area.

2. Road Rehabilitaton

This road was selected for improvements under Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved.. Proposed improvements to the road section: carriageway 3.3m, shoulder 0.5m (both sides), drain 0.7m (one side). Estimated construction time period of this road is six (6) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan also. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Berenduwa Banagoda – Kempanawatta - Batewela Road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Rathnapura and Pelmadulla Pradeshiya Sabahs (local authorites) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from respective Pradeshiya Sabahs (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to two national roads, Colombo-Ratnapuara-Wellawaya-Batticaloa Road (A004) and provides a connection to Kirimatitenna-Galgoda (B223) road. There are tea cultivations and home gardens with minor crops such as pepper in the project area. The road is used for transportation of these agricultural produce.

It is important to develop this road as the surface is damaged and the road is a bus route. Therefore, it's difficult for commuters to travel in this road. Residents in the project area thus, welcomed this development project There are tea cultivations such as Tea, Rubber and Cinnamon in the project area. The road is used for transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared Draft Environment and Social Screening Checklists, and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information for the social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Berenduwa-Banagoda-Kempanawatta-Batewela Road will have a majority of reversible, small-medium scale environmental and social impacts. Temporary diversions of streams to reconstruct culverts and landlisde riks are the anticipated environmental impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this subproject therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this subproject to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1. Project Impact Area

- **Settlements:** There are about 43households living along the road. There are also about 8 shops along the road. The population is around 194.All residents are Sinhala Buddhists.
- Land ownership: There are private and government lands along the road.
- **Livelihoods:** There are tea, rubber and cinnamon cultivations along the road. The people in the area engage in these cultivation activities. Residents are engaged in public and private sector jobs as well.
- Local organisations: There is a tea smallholders' organisation within the area.
- **Community infrastructure and resources:** There is a school, preschool, temple and a shrine (Table 1). During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

•	Community in Prastructure & n resources	Location - GF	'S Coordinate	Road side	Distance from the RoW
	Lellopitiya Tamil School i	N 6°40'10.10	E 80°30'12.31"	LHS	4m
	Shrine g	N6°40'31.87"	E80°30'10.85"	RHS	7m
	Pæschool e	N6°40'30.50"	E80°30'10.54"	RHS	12m
	Temple l	N6°40'43.76"	E 80°30'8.49"	RHS	9m

Table 1: Community infrastructure and resources

pment projects: None.

• Visitors to the area: There are tea, rubber and cinnamon cultivations along the road. Therefore, people from outside come for trading activities in the project area.

7.1. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This roadis currentlyunder thecustody ofPelmadullaandRatnapuraPradeshiyaSabhas(localauthorities).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		V		The RoW is owned by Pelmadulla and Ratnapura Pradeshiya Sabhas (local authorities). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			\checkmark	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what			~	

period?			
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		~	
Is the project area located near schools, clinics, hospitals, places of worship?	\checkmark		There is a school, a preschool, a temple and a shrine (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	~		Project area comes under the Pelmadulla Police station which is 8km away from the project site. Further, "MithuruPiyasa" ⁶ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?		~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		~	
Labour Influx			
How many workers will be needed for the sub- project, with what skill set, and for what period?	\checkmark		Both skilled and unskilled workers will be

 $^{^{6}}$ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

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				used by the contractors. Approximately 25 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		~		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	,	✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	,	\checkmark		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 25. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Berenduwa – Banagoda – Kempanawatta – Bateweala Road (SR06)Road Length:4 kmLocation:District: RatnapuraDivisional Secretariat: Pelmadulla, Rathnapura

G/N Division: Berenduwa, Heen Berenduwa

A. Project Location √ Is the Project area adjacent to or within any of the following environmentally sensitive areas? √ - Cultural heritage site √ - Protected Area √ - Wetland √ - Magrove √ - Buffer zone of protecting biodiversity √ - Buffer zone of protected area √ - Special area for protecting biodiversity √ B. Potential Environmental Impacts ✓ Will the Project cause ✓ - Encroachment on historical/cultural areas; dis figuration of landscape by road embankments, cuts, fills, and quarries? ✓ - Alteration of surface water hydrology of waterways crossed by roads, resulting in increased soil erosion at construction site? ✓ - Alteration of surface water hydrology of increased soil erosion at construction site? ✓ - Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction? √ - Deterioration of surface water quality use to silt and chemicals used in construction? √	SCREENING QUESTIONS	YES	NO	REMARKS
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			chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	V		Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting along the road is not necessary.
 Dislocation or involuntary resettlement of people Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? 	,	V	Settlements are located at 0.0km – 0.2km. Excessive dust problem will result inconvenience to living conditions and cause respiratory disease. Frequent watering of the dry surfaces shall be practiced to avoid dust problem at above location when commence the works. Night time works shall be avoided to minimize stress issues.
- Hazardous driving conditions where construction interferes with pre-existing roads?		V	

- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	\checkmark		Location of labor camps only at approved sites and sanitary facilities should be increased to avoid common diseases such as Amoebic dysentery and diarrhea.
- Creation of temporary breeding habitats for mosquito vectors of disease?			
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?			
- Increased noise and air pollution resulting from traffic volume?		V	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?			

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Berenduwa – Banagoda – Kempanawatta – Bateweala Road



Figure 1: Sarting point of the road



Figure 2: Lellopitiya school located at 0.07 km on LHS of the road



Figure 3: Cinnamon cultivated lands near the road

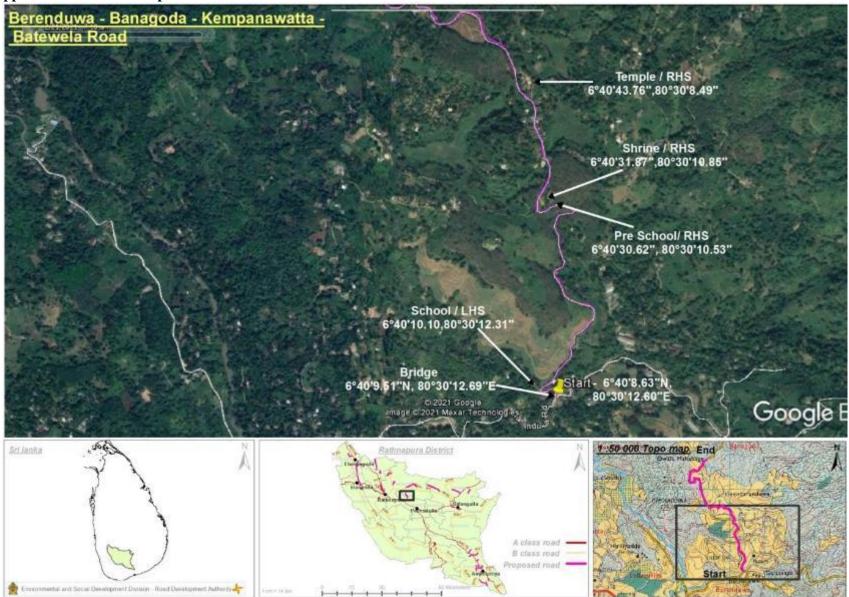


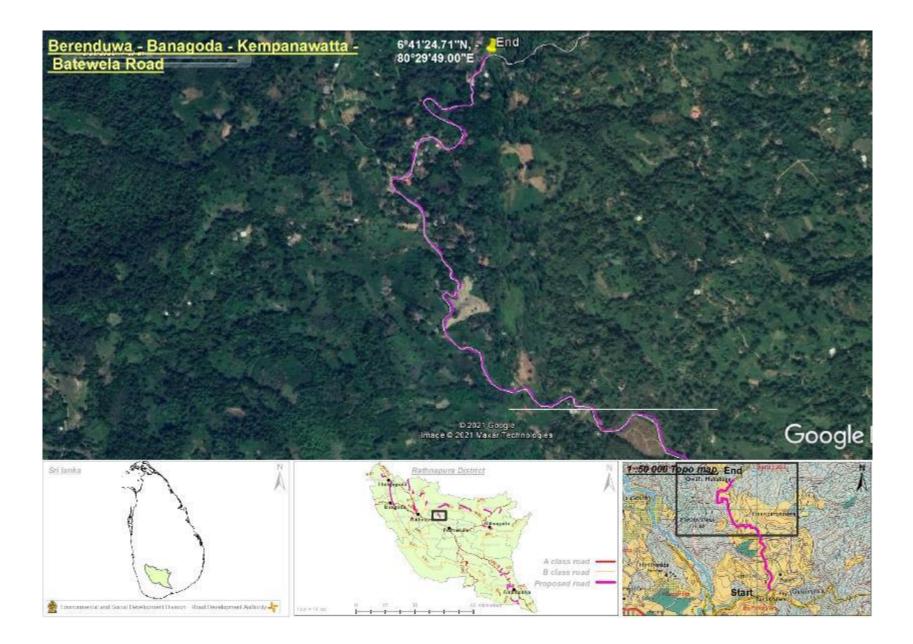
Figure 4: Preschool located at 1.260 km on RHS of the road



Figure 5: End point of the road

Appendix 2 - Location Map





Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Berenduwa Banagala Kempanawatta Batewela Road						
Risk Category assigned by E and S Screening	Moderate					
Design Recommendations and guidance						
Design Justification	Guidance to be Used					
Existing slopes at Ch 0+050- 0+200 km LHS should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO. Adequate safety measures to be taken during the construction as well as operation stage preschool located at	 Section 11 of ESMP Section 42 of ESMP Any guidance to be issued by NBRO Section 25 & 27 of ESMP 					
1+260 km RHS						
Details of Internal Submission of Design Recommendation	ns					
Submitted by	Director - ESDD, RDA					
Date of submission	11 June 2021					
Name of RDA design team member submission was made	Project Director – IRCDP,					
to RDA						
Mode of transmission (Email, hand delivery)	Email					

Environmental and Social Management Plan (ESMP) for Rehabilitation of Berenduwa-Banagoda-Kempanawatta-Batewela Road under the Inclusive Rural Connectivity and Development Project of Sabaragamuwa Province

	Activities and	Protection and preventive measures	Mitigation	R	esponsibility
	Associated Impacts		cost	Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPARATION			
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineer's review and approval. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		<u> </u>	• The contractor shall adhere to the guidelines and			
			• The contractor shall adhere to the guidelines and recommendations made by the Central Environmental			
			Authority, if any with regard to felling of trees and removal			
			of vegetation.			
			• Removed trees of economic value must be handed over to			
			the Timber Corporation.			
			• Provision shall be made for additional compensatory tree			
			plantation. Any leftover of trees shall be removed and			
			disposed in approved manner.			
3.	Labor and Labor	*	The contractor should give priority to hiring labor from the	Engineering	Contractor, PMU/PIU	PMU/PIU/RDA/Consultant
	Camps, Construction		surrounding areas to avoid the need for labor camps.	Cost		Engineer
	Camps, temporary	*	If labor camps are required to house migrant workers, they			
	office and other		should be placed well away from settlements or sensitive			
	temporary facilities		receptors, water bodies and boundaries and buffer zones of			
			protected/forested areasand preferably located on land which is			
			not productive (barren/waste lands presently). If these are not			
			possible, private lands maybe taken on lease as standard			
			practice. The location, layout and basic facility provision of the			
			labor camp must be submitted to Engineer of the relevant			
			managing department prior to their construction.			
		*	The construction will commence after receiving the written			
			approval of the Engineer as well as Local Authority.			
		*	Separate labor camps need to be provided for female migrant			
			laborers.			
		*	The instructions for the laborers should be provided in all three			
			languages.			
		*	Provision of proper drainage facilities to the labour camps and			
			prevent breeding of mosquitoes, flies and other vector borne			
			diseases.			
		*	The contractor shall maintain necessary living accommodation			
			and ancillary facilities in a functional and hygienic manner and			
			as approved by the Engineer.			
		*	Provision of proper sanitary facilities to the labour camps and			
			offices including water, urinals, toilets, bathing facilities,			
			mosquito nets with adequate capacity of septic tanks and soak			
			pits.			
		*	All temporary accommodation must be constructed and			
			maintained in such a fashion that uncontaminated water is			
			available for drinking, cooking and washing.			
		*	The sewage system for the camp must be planned and			
			implemented with concurrence from the Local Public Health			
			Officer (PHI)			
		*	Provision shall be made for domestic solid waste disposal in			
			acceptable manner. The solid waste shall be handed over to the			
			waste collecting system of the Local Authority (LA) of the area			
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		 (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	 The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed sources. The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed. Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6	Wards Cta form	*	The contractor should identify on area to store construction	En ain sonir -	Contractor	DMU/DU/DDA/Consultant
6.	Work Site for	*	The contractor should identify an area to store construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials		materials and equipment at a site which should be approved by	Cost		Engineer
		*	the engineer. Storage yards cannot be located in community areas, such as			
		*	playgrounds, close to water ways, cause access issues to locals			
			or forested areas that require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall be			
			done stationed only at the work site and/or in any other			
			designated areas by the engineer.			
		*	The contractor should provide instruction and advice should be			
			given to drivers and operators (both companies owned and			
			hired) to park vehicles and store equipment at the work site or			
-			designated areas by the engineer.		a	
7.	Information Disclosure	*	Discussions should be conducted with the residents who reside	Engineering	Contractor/	PMU/PIU/RDA/Consultant
	among Stakeholders		along the corridor of the road;	Cost	PMU/PIU	Engineer
			• Residents have to be briefed of the project, purpose and			
			design and outcomes via a documented community			
			consultation session			
			• This should be done immediately once the contractor is			
			mobilized.			
			• The contractor should take note of all impacts, especially			
			access issues and safety hazards that will be of concern to			
			the residents and take necessary measures as stipulated in			
			the ESMP to mitigate them.			
		*	The contractor will maintain a log of any grievances/complains			
			and actions taken to resolve them.			
		*	A copy of the ESMP should be available at all times at the			
			project supervision office on site.			
8.	Selection of temporary	*	Efforts shall be taken to minimize use of temporary land for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	use lands		construction activities	Cost		Engineer
		*	Selection of temporary lands with considering of social and			
			environmental background adhering to laws and regulations in			
			the country			
		*	Approval for the temporary use lands shall be obtained from			
			Engineer and need to sign lease agreement with the land owners			
			and the contractor.			
		*	Once the use of the particular land is over, the agreement should			
			be terminated and the documents should be handed over to the			
			Engineer for information.			

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9.	Shifting of public utilities	Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant EngineerCEB,NW&DB, SLT
		 Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long 			
10.	Hydrology and	 delay to re-establish services with the instruction of PIU Design of new culverts and other drainage structures in 	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Agrarian Department and Provincial Irrigation Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Prior approval should be taken for canal diversion from the relevant government organization and farmer's organizations. Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	cost	Contractor/PMIU/PIU	Engineer, DoI
11.	Identification of erodible and landslide prone areas	 Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). Existing slopes should not be disturbed to extent possible Incorporate the recommendations and guidelines of the NBRO to the road designing. 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC

12.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Pelmadulla PS and Ratnapura PS
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer, Pelmadulla PS and Ratnapura PS
	CONSTRUCTION PHA	E			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. The contractor shall identify the sites for disposal of material cleared. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. Plants, shrubs and other vegetation cleared should not be burned on site. During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

16.	Protection of topsoil	 damaged / affected and that the traffic is not interrupted Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in non-residential areas located in the downwind side Located at least 100m away from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc). Avoid disposal on productive/agricultural land. should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA Pradeshiya shabha, Minimize the construction debris/excavated materilas by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering	Contractor	PMU/PIU/RDA/Consultant
		 where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Cost		Engineer
17.	Protection of Ground	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area 	Engineering	Contractor	PMU/PIU/RDA/Consultant

	Cover and Vegetation	designated/ approved by the Engineer.	Cost		Engineer
	Cover and Vegetation	 Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 			
18.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the Contractor 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
19.	Emission of Dust	 In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. Mud patches caused by material transporting vehicles in the access road should be immediately cleaned Vulnerable receptors for high dust levels such as school 0.07km, pre school 1.260km, temple 1.610km and residential area should be identified by the Contractor in advance and necessary location specific measures as agreed with the Engineer should be applied to mitigate the impact. Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required times. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 Erection of dust barriers to the public, religious and other socially important locations Metal quarries, crushers and all the plants should eb located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any 			
		other sites which causing to bring mud particles with the			
		vehicles.			
20.	Management of Self Operated Borrow Sites	 vehicles. In the event the contractor will use a self-operated borrow site Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not be a danger of health hazard to the people. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB
		 Contractor shall take all steps necessary to ensure the stability 			
		 Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and 			
		borrow pits.			
21.	Quarry Operations	✤ In the event the contractor manages a self-owned existing quarry	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	and Management of	sites available in the project area	Cost		Engineer CEA,GSMB
	Self Operated Quarry	They should be approved by CEA with valid EPL (Environment			
	Sites	Protection Licenses) and GSMB with valid IML (Industrial			
		Mining Licenses);			
		 Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. 			
		 Selected quarry sites should have proper safety measures such as 			
		warnings, safety nets etc., and third-party insurance cover to			
L		protect external parties that may be affected due to blasting.			<u> </u>
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		*	Quarry sites should not be established within protected sites			
			identified under the FFPO and FO and not within productive			
			land/agricultural land and environment and public sensitive			
			locations.			
		*	It is recommended not to seek material from quarries that have			
			ongoing disputes with community.			
		*	The maintenance and rehabilitation of the access roads in the			
			event of damage by the Contractors operations shall be a			
			responsibility of the Contractor.			
		*	Copies of all relevant licenses should be maintained by the			
			Contractor for review and documentation by the engineer			
22.	Control of	*	Debris material shall be disposed in such a manner that existing	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation and Soil	-	drainage paths are not blocked.	Cost		Engineer
	Erosion	*	Drainage paths associated with irrigation structures should be	0000		Lightee
			improved / erected to drain rainwater properly.			
		*	Silt traps will be constructed to avoid siltation into the water			
		•	ways where necessary along the road corridor.			
		*	To avoid siltation, drainage paths should not be directed to			
		•	waterways and irrigation canals and they should be separated			
			from such water bodies			
		*	Temporary soil dumps should be removed from the construction			
		•	sites as soon as possible. Until removal, these soil dumps should			
			be covered with thick polythene sheets.			
		*	Temporary soil dumps should be placed at least 200m away			
		•••	from all water bodies.			
		*	Top soil shall be prevented to use for tree planting and turfing			
		•••	activities.			
		*	In Hilly terrain and areas with slopes			
		***	 Embankment slopes, slopes of cuts, etc. shall not be unduly 			
			exposed to erosive forces.			
			or other suitable materials per the specifications.			
			• During the rainy season open cuts/slopes should be covered			
		.*.	with fixed polythene sheeting to avoid excessive erosion.			
		*	All fills, back fills and slopes should be compacted immediately			
			to reach the specified degree of compaction and establishment of			
			proper mulch.			
		*	Work that lead to heavy erosion shall be avoided during the			
			raining season. If such activities need to be continued during			
			rainy season prior approval must be obtained from the Engineer			
			by submitting a proposal on actions that will be undertaken by			
			the contractor to prevent erosion.			
		*	Construction activities, excavation and earth work around			
			vulnerable area for soil erosion mainly restricted to the dry			
			periods and removal of green cover vegetation shall be			

			minimized.			
		*	The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion,			
			sedimentation and water pollution to the satisfaction of the			
			engineer.			
			• Typical measures include the use of berms, dikes sediment			
			basins, fiber mats, mulches, grasses, slope drains and other devices.			
			• All sedimentation and pollution control work and			
			maintenance thereof are deemed, as incidental to the			
			earthwork or other items of work and no separate payment			
		*	will be made for their implementation. Erosion control measures as given in Annex III should applied			
		×	where necessary.			
23.	Noise from vehicles,	*	Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	machinery and		6:00PM). No work that generates excessive noise should be	Cost		Engineer CEA
	equipment		carried out during night hours where in close proximity to public			
			sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day).			
		*	All equipment and machinery should be operated at noise levels			
			that do not exceed the permissible level of 75 dB (during			
			construction) for the daytime. For all construction activities			
			undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental			
			Authority (CEA) noise control regulations. Special approval			
			should be obtained from CEA for night time work through PIU.			
		*	Vulnerable receptors for high noise levels such as school at			
			0.07km, shine at starting point, pre school 1.260km, temple at			
			1.610km and houses located adjacent to the ROW should be identified by the Contractor in advance and necessary location			
			specific measures as agreed with the Engineer should be applied			
			to mitigate the impact.			
		*	All equipment should be in good serviced condition. Regular			
			maintenance of all construction vehicles and machinery to meet			
			noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for			
			vehicles/machinery that will be used in construction on site, for			
			transport and for plants (crushers, asphalt, concrete and batching			
			plants).			
		*	Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken			
			as there is a temple nearby.			
		*	Labor gangs should be warned to work with minimum noise.			
			Strict labor supervision should be undertaken in this respect.			
			Number of nighttime resident laborers should be minimized.			

24.	Vehicular noise pollution at residential	*	Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
	/ sensitive receptors		not in active use.	Cost		Engineer
	/ sensitive receptors	*	The practice must be ensured especially near residential /			
			commercial / sensitive areas.			
		*	Stationary construction equipment will be kept at least 500m			
			away from sensitive receptors, where possible. These include			
			places of worship, schools, medical centers and households.			
		*	All possible and practical measures to control noise emissions			
			during drilling shall be Employed.			
		*	Contractor shall submit the list of high noise/vibration			
			generating machinery & equipment to the engineer for approval.			
		*	Servicing of all construction vehicles and machinery must be			
			done regularly and during routine servicing operations, the			
			effectiveness of exhaust silencers will be checked and if found defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be			
		**	regular and up to the satisfaction of the Engineer to keep noise			
			levels at the minimum.			
25.	Impacts due to	*	Contractor shall take appropriate action to ensure that	Engineering	Contractor	PMU/PIU/RDA/Consultant
23.	-	•	construction works do not result in damage to adjacent	Cost	Contractor	Engineer, GSMB
	Vibration		properties due to vibration.	Cost		Engineer, Cont
		*	Vulnerable receptors for high vibration levels such as School			
		•	0.07km, shine at starting point, pre school 1.260km, temple			
			1.610km and the houses located adjacent to the road should be			
			identified by the Contractor in advance and necessary location			
			specific measures as agreed with the Engineer should be applied			
			to mitigate the impact.			
		*	Prior to commencement of compaction, excavation, blasting			
			activity, the Contractor shall undertake a condition survey of			
			existing structures within the zone of influence, as agreed with			
			the relevant government agencies and the engineer.			
		*	Contractor shall compensate or repair any damage occurred to			
			third party property/ies as a result of his activity as agreed with			
			the affected party and the Engineer			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
		**	blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and			
			blasts shall be controlled blasting in nature. Notwithstanding to			
	1	1	biasis shan be controlled biasting in nature. Notwithstaliding to	I	1	

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			these provisions contractor is liable for any damage caused by			
			excessive vibration and blasting work.			
		*	Blasting shall be carried out only with permission of the			
			Engineer and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
	Dubilcults		from rivers, at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and			
		•	equipment operation, maintenance and refueling will be carried			
			out in such a fashion that spillage of fuels and lubricants does			
		•	not contaminate the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not			
			be disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants			
			to meet the relevant standards before discharging to the			
			environment.			
		*	Contractor shall arrange for collection, storing and disposal of			
			oily wastes to the pre-identified disposal sites (list to be			
			submitted to Engineer) and approved by the Engineer. All spills			
			and collected petroleum products will be disposed of in			
			accordance with standards set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
		•	guidelines of CEA or any other relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
			passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			8
			undertaken without providing adequate provisions to the prior			
			satisfaction of the Engineer.			
		*	The construction corridor should be barricaded at all time in a			
		·•·	day with adequate marking, safety tape, flags, reflectors etc. for			
			safety of individuals using the site daily basis. (Items such as			
			parking cones, lights, tubular markers, orange and white strips			
			and barricades of a luminous nature for night visibility shall be			
			procured where deemed necessary)			
		*	Safety signboards should be displayed at all necessary locations.			
		*	The contractor should obtain a Third-party insurance to			
			compensate any damages, injuries caused to the public or			
			laborers during the construction period.			
		*	All construction vehicles should be operated by experienced and			
			trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers	1	1	

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			during the ESMP training prior to the start of the construction			
			activities.			
		*	All digging and installation work should be completed in one			
			go, if this task is not accomplished the area should be isolated			
			using luminous safety tape and barricading structures			
			surrounding the whole area.			
		*	Trenches should be progressively rehabilitated once work is			
			completed.			
		*	Material loading and unloading should be done in an area, well			
		·	away from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from			
			the site to ensure public safety.			
		*				
		**	Safety awareness programs should be conducted by the			
			Contractor in annual basis targeting the public residing along the			
		1	road in order to make the public aware on road safety especially			
			during the operation period of the road.		~	
28.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
			workers as per the ILO Convention No. 62 and Safety & Health	Cost		Engineer
			Regulations of the Factory Ordinance of Sri Lanka to the extent			
			that those are applicable to this contract.			
		*	The contractor shall supply all necessary safety measures at site.			
		*	Protective footwear and protective goggles should be provided			
			to all workers Employed on mixing of materials like cement,			
			concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers			
			who are engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise,			
			and workers working in crushing, compaction, or concrete			
			mixing operation.			
		*	The contractor shall supply all necessary safety appliances such			
		•	as safety goggles, helmets, safety belts, ear plugs, mask etc. to			
			workers and staffs.			
		*	In addition, the contractor shall maintain in stock at the site			
		**				
			office, gloves, earmuffs, goggles, dust masks, safety harness and			
			any other equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
		1	consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	Safety awareness programs should be conducted by the			
			Contractor in annual basis targeting the public residing along the			
			road in order to make the public aware on road safety especially			
			during the operation period of the road.			
		*	National and World Bank requirements (such as providing			
			necessary personal protective equipment, taking temperature			
			checks etc.) for prevention of the spread of COVID-19 virus will			
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29.	Prevention of accidents	 be adhered to. First aid facilities and nursing staff to be provided at work places Provision of adequate transport facilities for moving injured persons to the nearest hospital All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. Prevention of accidents involving human beings, animals or 	Engineering Contractor	PMU/PIU/RDA/Consultant
		 Vehicles falling or accidents involving infinite beings, timinals of vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Cost	Engineer
30.	Operation of labor camps	 Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all 	Engineering Cost	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

			toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and			
			ensure that these are regularly Emptied and disposed of in a			
			hygienic manner			
31.	Management of the	*	The contractor shall firstly follow all measures outlined for	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	spread of Covid-19 or		pandemic management by the Government of Sri Lanka,	Cost		EngineerMoH
	handling sudden		Ministry of Health and Local Public Health officers and adhere			6
	Pandemic outbreaks		to all relevant guidelines applicable			
			(https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex			
			28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as			
		·•·	per the guidance as well as in labor camps to prevent			
			overcrowding and to allow social distancing. Where necessary			
		•	in labor camps additional provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper handwashing and			
			sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature			
			checks of workforce and enable social distancing at the work			
			site and interactions with communities should be minimized.			
			Daily records of these checks should be maintained by the			
			contractors site staff.			
		*	If a worker is diagnosed with symptoms related to the said			
			pandemic the contractor will immediately inform the PHI and			
			follow instructions laid out by the national health agencies.			
32.	Prevention of Vector	*	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	borne Diseases		mosquitoes at places of work, labor camps, plus office and store	Cost		Engineer, MoH
			buildings. Stagnation of water in all areas including gutters, used			8,
			and empty cans, containers, tires, etc. shall be prevented.			
			Approved chemicals to destroy mosquitoes and larvae should be			
			regularly applied.			
		*	All borrow sites should be rehabilitated at the end of their use by			
		·•·	the contractor in accordance with the requirements/guidelines			
			issued by the Central Environmental authority and relevant local			
			authorities			
		*	Contractor shall keep all places of work, labor camps, plus			
			office and store buildings clean devoid of garbage to prevent			
			breeding of rats and other vectors such as flies.			
33.	Gender issues	*	Equal opportunity shall be ensured while requirement of project	Engineering	Contractor	PMU/PIU/RDA/Consultant
	including Gender base		staff including contractors working force. The salary/ wages and	Cost		Engineer
	violence		other payments due on service provided to the project should not			
			be classified on the Gender basis.			
		*	The sanitary facilities in sites and labour camps should be			
			designed with consideration of suitable location, comfortability			
			for female users and safe access.			
		1		I	I	J

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		*	Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at			
			the site to the workers and general public. The confidential			
			reporting mechanism for sexual harassment shall be			
			incorporated in to the Grievance readdress Mechanism of the			
			Project.			
34.	Issues due to labor	*	Overcrowded or camp-based living conditions can significantly	Engineering	Contractor	PMU/PIU/RDA/Consultant
54.	influx	·	alter existing levels of communicable diseases including	Cost	Contractor	Engineer, MoH
			respiratory problems, diarrheal and vector-borne diseases and			
			tuberculosis, which also increases the risks of disease being			
			introduced and spreading through host communities. Priority			
			should be given for workers who are inhabited in area to reduce			
			the influx of exotic population.			
		*	Adequate and comfortable accommodation and hygienic service			
			facility should be provided to Minimize the health risk of			
			spreading disease			
		*	Awareness program on HIV and other venereal diseases should			
			be conducted for all the workers engaged in construction			
			activities			
		*	Avoid or reduce labour influx where possible. Explore			
			possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done			
			through the Community Based Organizations (CBOs) in the area			
			that will be affected by the project interventions.			
		*	Contractors to implement robust measures to prevent sexual			
		·	harassment, gender-based violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies			
		*	Contractor shall maintain a logbook to record workers'			
			grievances and complaint/ suggestion boxes can be placed at the			
			supervision consultant's office.			
		*	A focal point will be designated to receive the complaints. The			
			contact details of the focal point will be displayed in notice			
			board of respective office.			
		*	The workers will be made aware of GRM procedure through			
25	Trueffe Marrowst		toolbox meetings.	Enginerrin	Contractor	
35.	Traffic Management	*	Contractor shall develop a traffic management plan with relevant authorites to minimize inconvenience to road users as	Engineering	Contractor	PMU/PIU/RDA/Consultant
			well as prevent road accidents and implement it.	Cost		Engineer, Traffic Police
		*	Road signs and trained flagmen should be used to divert traffic			
		•	as per the required traffic management measures.			
		*	Clear instructions should be given if detours are used.			
L	1	•	ciem instructions should be given it detours are doed.		1	

36.	Loss of Access due to construction	 Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians Temporary access will be provided when permanent access is blocked for construction. When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft heigh suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	 All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. No solid or liquid waste should be dumped into natural habitats. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

41.	Chance find procedures for PCRs and Archeological Property		ngineering Contractor ost	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation		ngineering Contractor ost	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The Environmental Officer will promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the Environmental Officer on complains thereof. 		
44.	Prevention of landslides	✤ Contractor should strictly follow necessary slope protection Er	ngineering Contractor ost	PMU/PIU/RDA,/Consultant Engineer NBRO

45.	Prevention of Sexual exploitation, child trafficking and child labour	 needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Contractor PMU/PIU/RDA/Consultant Engineer
46.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well Rehabilitation of quarry / borrow pits are to be a safe and secure area quarry / borrow pits can be backfilled with construction waste On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	Contractor RDA,/Consultant EngineerPRDA

47.	Environmental	*	Landscape plantation, including turfing of shoulders, slopes, edge	Engineering	Contractor	RDA/Consult	ant Engineer,
	Enhancement/		treatment of water bodies shall be taken up as per either detailed	Cost		PRDA	
			design or typical design guidelines given as part of the Bid				
	Landscaping		Documents.				
		*	The Contactor also shall remove all debris, piles of unwanted				
			earth, spoil material, away from the workplaces and disposed at				
			locations designated or acceptable to the Engineer or as per the				
			stipulated waste management criteria of this ESMP.				
48.	Road furnishing on	*	The Contractor will ensure that all safety signage and indicative	Engineering	Contractor	RDA,/Consul	tant
	safety.		road markings are installed on site as per the guidance of the	Cost		EngineerPRD	A
			design prior to demobilization.				
49.	Hydrology and	*	Rooting maintenance, repairing, removal of sediments and	Engineering	Contractor, PRDA	PRDA,	RDA/Consultant
	drainage		rubbish to avoid drainage congestions and obstructions to storm	Cost		Engineer	
			water flow				
50.	Replanting of trees	*	Growth and survival of trees planted shall be ensured and	Engineering	Contractor	PRDA,	RDA/Consultant
			monitoring done at least for a period of three years	Cost		Engineer	

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Venue	Date	Details of Stakeh	older	Key concerns raised/Suggestions Provided		
		Type of Stakeholder	Number of Participants			
			(M / F)			
SR 06: Berenduwa – Banagoda – Kemanawatta – Batewela Road	12.03.2021	GramaNiladhari - HeenBerenduwa	Male	 There are agriculture lands. Ex: Tea, Rubber, Cinnamon Land ownership is Government and Private. People in the area work in agriculture lands. People in the area are Sinhala Buddhists. 		
	11.03.2021	Counsellor, Ratnapura Divisional Secretariat Division	Male	 There are no NGOs working on GBV in the project area. This area is an agricultural area. These rural roads need to be developed and people will welcome the project. 		
	11.03. 2021	Technical Officer, RDA	Male	• The road development is needed as road is not developed for a long time.		
	11.03.2021	Road User	Female	 The road is damaged, and we like the development. Majority of people in the area are Sinhalese. 		

Stakeholder consultation conducted with the communities living beside of the road.

2.7. ESMP of SR07 – Dambuluwana Galathura Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 07 - Dambuluwana Galathura Road (2km)

Environmental and Social Mamangement Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Dambuluwana – Galathura Road

Length: 2.0km

Coordinates: Start:	6° 42.854'N, 80° 17.977'E				
End:	6° 42.575'N, 80° 17.430'E				

Location:

District: Ratnapura DS Division: Ayagama, Elapatha EE Division: Ratnapura GN Divisions: Galathura, Kahawattha

1. Introduction

The Dambuluwana – Galathura Road (2.0km) starts from already developed and asphalted section of the same road and connects with Idangoda – Ayagama (B160) Road. This road is under the custody of the Provincial Road Development Authority (PRDA,Sabaragamuwa). The surface of the road is damaged macadam. The road is located along an undulating terrain and elevation of the trace varies between 26 and 84m MSL. The Galathura stream which is a tributary of Kalu Ganga is crossed by the road at 1.8km. Area around 1.8km and the starting point are prone to floods when the area receives heavy rains which last for more than 2 days. Proposed section of the road does not fall within or adjacent to a protected area.

2. Road Rehabilitation

This road was selected for improvements under Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drains as required. The estimated time for construction of the road is three (3) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the Row. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The average RoW of the Dambulwana – Galatura road is 5.8m and average carriageway is 3.8m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

Community members expressed the need for developing this road with proper drainage. Settlements can be observed at the middle and end sections of the 2km section of road. There is rubber, tea and paddy cultivations along the road intermittently with settlements. Thus, the road development will facilitate the transportation of agricultural produces and all-weather condition travel for commuters.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic map sand secoundary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladharis and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Dambuluwana Galathura Road will have a majority of reversible, small-medium scale environmental and social impacts. The key temporary environmental impacts would be impacts to waterways due to siltation (Galathura Stream) and temporary alteration of streams for reconstruction of culverts. The main social impacts will be temporary loss of access, impact of dust, noise and vibration to the residents especially within 1km. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occured.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: The settlements are in middle and end sections of the road. More than 45 households and 5 small shops are on both sides of the road. The population is about 190. They are Sinhalese and Indian Tamils . They are Buddhists, Hindus and Christians by faith.
- Land ownership: The majority of residents are title holders. An Indian Tamil population living in small houses on the estate land was observed at 0+900km.
 - **Livelihoods:** The Indian Tamil population works as labourers in rubber and tea plantations. There are also people running small businesses such as grocery shops
 - Local organisations: There are community-based organisations such as Farmer Organizations and Samurdhi societies in the project area.

• Community infrastructure and resources: None

On-going development projects: None

• Visitors to the area: People come for trading activities linked to rubber and tea.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			\checkmark	
Is the site chosen for this work free from encumbrances		\checkmark		This road is

Screening Questions	Not	Yes	No	Remarks
and in possession of the Ministry/ or relevant government agency?	known			currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			\checkmark	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		V		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			√	
Loss of Livelihood Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other			✓	
encumbrances? Will there be any permanent or temporary loss of incomes			✓	
and livelihood? If so, for what period? Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services Will people lose access to facilities, services or natural resources during the construction period?			✓	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals,			\checkmark	

Screening Questions	Not known	Yes	No	Remarks
places of worship?	KIIOWII			
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Idangoda Police station which is (3.5km away from the project site. Further, <i>"MithuruPiyasa"</i> ⁷ center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume? Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			✓ ✓	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		~		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		\checkmark		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			✓	

Estimates of Specific Impacts

⁷ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Dambuluwana Galathura Road (SR07)Road Length:2.0 kmLocation:District: Ratnapura
DS Division: Ayagama and Elapatha

EE Division: Rathnapura

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			1
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		~	
- Protected Area		~	
- Wetland		~	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		~	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permeant alteration of waterways will be required. In construction new hume pipe culvert at 1.43km, stream shall be temporarily diverted during the construction period. This impact will be mitigated by keeping continuous flow rate to the downstream and avoiding disturbance to the flow pattern of the water pathways.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-	\checkmark		Storing construction materials containing small/ fine particles in places which are not

based camps and chemicals used in construction? Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing? Noise and vibration due to blasting and other civil works?		subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies (especially around 1.8km) will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.Noise and vibration will be resulted due to most of field construction activities, However Noise and vibration levels of construction activities shall be maintained below maximum permissible levels of the national standards. A special
- Dislocation or involuntary resettlement of		standards. A special consideration will be paid to the settlements around 1.1km of the road.
people		This impact will occur at
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper	V	settlements located adjacent to the road around 1.1km. Regular sprinkling of water to

 respiratory problems and stress? Hazardous driving conditions where construction interferes with pre-existing roads? 		~	suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities will mitigate this impact.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	~		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will minimize the requirement of labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	~		Avoiding possibilities of water stagnation within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will ensure occupational and public safety. Proper storing of chemicals, regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		\checkmark	
 Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road? 		\checkmark	

Attachments:

Appendix 1: Photographs of the road Appendix 2: Location map of the road



Appendix 1 - Photographs of Dambuluwana Galathura Road

Figure 1: Start of the Road



Figure 2: Tea lands near the road



Figure 3: Rubber estates at either side of the road



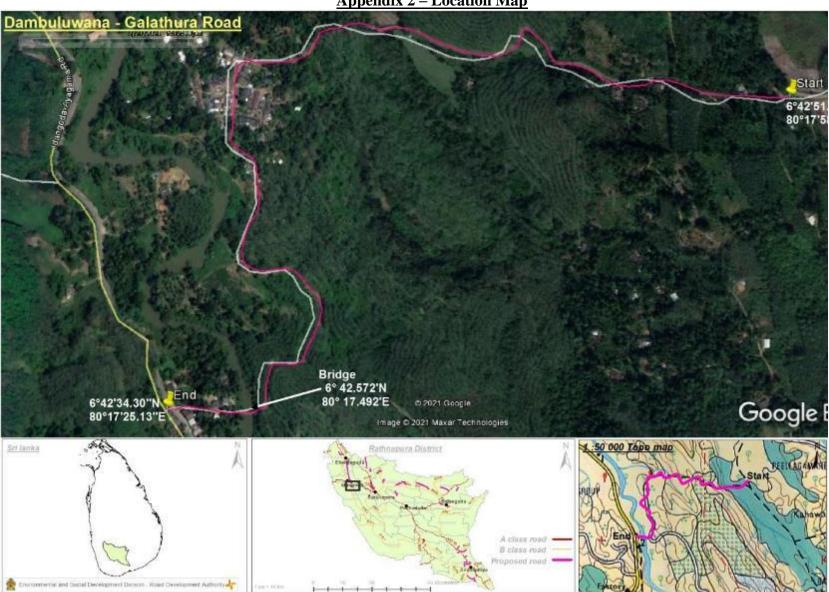
Figure 4: Settlements along the edge of the road around 1.1km



Figure 5: Galathura stream crossing



Figure 6: End of the road (To the reverse direction)



Appendix 2 – Location Map

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Dambuluwana Galathura Road						
Risk Category assigned by E and S Screening	Moderate					
Design Recommendations and guidance						
Design Justification	Guidance to be Used					
It is recommended to incorporate necessary measures to withstand the road against flood conditions occur around the starting point and from 1.5km – end point such as concreting the road surface and improving the vertical alignment of the road etc	 Section 10 of ESMP Bridge design manual of RDA 					
Public highlighted that runoff gets accumulated around the end point of the road even during a minor rain event due to absence of proper drainage facilities. Therefore it is recommended to introduce additional culverts, lead away drains and side drains etc to improve the drainage at this location.	 Section 10, 15, 22, 42 of ESMP Bridge design manual of RDA 					
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	 Section 11, 44 of ESMP Any guidance to be issued by NBRO 					
Side drains and temporary drains (during construction phase) directed to Galathura stream 1.8km are recommended to have silt traps in adequate capacity and other silt control measures.	• Section 10, 15, 22 of ESMP					
It is recommended to include safety sign boards and other safety measures around 1km where houses are located on both sides of the road and where there is a sharp bend.	• Section 27 and 36 of ESMP					
It is recommended to recheck the design on ground not to affect any private land or structures especially around 1km and along the road. In case of any occurrence of need of private land strips for safety improvements, consult social experts of the project prior to final design.						
Details of Internal Submission of Design Recommendation						
Submitted by	Director - ESDD, RDA					
Date of submission	11 June 2021					
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA					
Mode of transmission (Email, hand delivery)	Email					

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPARATION	I	I	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Engineers review and approval. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Ayagama and Elapath). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

Environmental and Social Management Plan (ESMP) for Rehabilitation of Dambuluwana Galathura Road (SR07)

		• The contractor shall adhere to the guidelines and
		recommendations made by the Central
		Environmental Authority, if any with regard to
		felling of trees and removal of vegetation.
		• Removed trees of economic value must be handed
		over to the Timber Corporation.
		• Provision shall be made for additional compensatory
		tree plantation. Any leftover of trees shall be
		removed and disposed in approved manner.
3.	Tahan and Tahan	
5.	Labor and Labor	
	Camps, Construction	surrounding areas to avoid the need for labor camps.
	Camps, temporary	✤ If labor camps are required to house migrant workers, they
	office and other	should be placed well away from settlements or sensitive
	temporary facilities	receptors, water bodies and boundaries and buffer zones of
		protected/forested areas and preferably located on land which
		is not productive (barren/waste lands presently). If these are
		not possible, private lands maybe taken on lease as standard
		practice. The location, layout and basic facility provision of
		the labor camp must be submitted to Engineer prior to their
		construction.
		 Separate labor camps need to be provided for female migrant
		laborers.
		The instructions for the laborers should be provided in all
		three languages.
		The construction of the labor camp will commence only upon
		the written approval of the Engineer and then from the
		relevant local authority.
		✤ Adequate measures should be provided for proper drainage
		facilities to the labour camps and to prevent breeding of
		mosquitoes, flies and other vector borne diseases.
		The contractor shall maintain necessary living accommodation
		and ancillary facilities in a functional and hygienic manner
		and as approved by the Engineer.
		Provision of proper sanitary facilities to the labour camps and
		offices including water, urinals, toilets, bathing facilities,
		mosquito nets with adequate capacity of septic tanks and soak
		pits.
		All temporary accommodation must be constructed and
		maintained in such a fashion that uncontaminated water is
		available for drinking, cooking and washing.
		✤ The sewage system for the camp must be planned and implemented with approximate from the Local Public Health
		implemented with concurrence from the Local Public Health
		Inspector (PHI)
		Provision shall be made for domestic solid waste disposal in

r					[]	
			acceptable manner. The solid waste shall be handed over to			
			the waste collecting system of the Local Authority (LA) of the			
			area (if any) and wastewater should be disposed in an			
			environmentally acceptable manner (meeting the desired water			
			quality standards) with the approval of the Engineer. Adequate			
			health care is to be provided for the work force.			
		*	Personal Protective Equipment (PPEs) such as helmet, boots,			
		•	and earplugs for workers, first aid and firefighting equipment			
			shall be available at construction sites before start of			
			construction. An emergency plan shall be prepared to fight			
			with any emergency like fire.			
		*	All construction camps shall have provision of rationing			
			facilities particularly for kerosene/LPG so that dependence on			
			firewood for cooking is avoided to the extent possible			
		*	Labor camp sites after use should be cleared and the site			
			should be reinstated to previous condition at the close of the			
			construction work and the agreement with the land owner			
			should be terminated properly and relevant documents should			
			be handed over to the Engineer for information.			
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	5		other quarry material is sourced from sources which are	Cost		Engineer, CEA,GSMB
			operated with a valid license.			
		*	The contractor is required to maintain the necessary licenses			
			and environmental clearances from GSMB and CEA for all			
			borrow and quarry material they are sourcing -including soil,			
			fine aggregate and coarse aggregate.			
		*	Sourcing of any material from protected areas and/or			
		•	designated natural areas, including tank beds, are strictly			
			prohibited.			
		*	If the contractor uses a non-commercial borrow/quarry sites,			
		•	the sites should be remediated accordingly once material			
			sourcing has been completed.			
		.*.				
		*	The contractor should submit in writing all the relevant			
			numbers and relevant details of all pre-requisite licenses etc.			
5.	XX 7 4 C		and report of their status accordingly to the Engineer.	<u>г</u>		
э.	Water for	*	The contractor should arrange adequate supply of water for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Construction activities		project purpose throughout the construction period from a	Cost		Engineer
			source agreed upon with the engineer.			
		*	Water may not be obtained for project purposes, including for			
			labor camps, from public or community water supply schemes			
				1		
			without a prior approval from the relevant authority.			
			Extraction of water from ground water or surface water bodies			
			Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant			
			Extraction of water from ground water or surface water bodies			

		 Permission for 	or the extraction of water should be obtained prior			
			mencement of the project, from the relevant			
		authority.	increasing of the project, from the forevant			
6.	Work Site for		or should identify an area to store construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials		l equipment at a site which should be approved by	Cost		Engineer
		the engineer.				
			s cannot be located in community areas, such as			
			close to water ways, cause access issues to locals			
			reas that require clearing.			
			airing vehicles, machinery and equipment shall be			
			ed only at the work site and/or in any other			
			reas by the engineer.			
			or should provide instruction and advice should			
			lrivers and operators (both companies owned and			
			k vehicles and store equipment at the work site or			
		· •	reas by the engineer.			
7.	Information Disclosure	 Discussions 	should be conducted with the residents and other	Engineering	Contractor/	PMU/PIU/RDA/Consultant
	among Stakeholders	stakeholders	who reside along the corridor of the road;	Cost	PMU/PIU	Engineer
	5		sidents have to be briefed of the project, purpose			
		and	d design and outcomes and project's grievance			
		red	lress mechanism via a documented community			
		COI	nsultation session			
		o Th	ese sessions need to be conducted in both			
		Sir	halese and Tamil languages, given the ethnic			
		COL	mposition of the project area.			
			is should be done immediately once the			
		COL	ntractor is mobilized.			
		o Th	e contractor should take note of all impacts,			
			becially access issues and safety hazards that will			
		be	of concern to the residents and take necessary			
		me	asures as stipulated in the ESMP to mitigate			
		the				
		✤ The contr	0 5			
			omplains and actions taken to resolve them.			
			y complaint referring to GN and DS level GRM,			
			or should have the copy of the minutes of such			
		decisions.				
l			ne ESMP should be available at all times at the			
		project super	vision office on site.			

8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners. Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant EngineerCEB,NW&DB, SLT
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department and Department of Agrarian Development Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes Existing locations where drainage is poor should be improved with inclusion of necessary measures such as additional culverts, 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

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			lead-away drains, side drains etc (E.g.: immediately before the end point of the road) Location specific measures should be incorporated to the design to withstand the road against flooding situations occur at the starting and end points of the road.			
11.	Identification of erodible and landslide prone areas	* *	Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO). Existing slopes should not be disturbed to extent possible Incorporate the recommendations and guidelines of the NBRO to the road designing.	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	* * *	Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. All effort will be made to minimize the land donation for the project If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	*	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.		PIU/PMU of RDA	RDA, PRDA (Sabaragamuwa)

14.	Identifying locations to provide temporary access	 blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. Houses located within the 1km should have special attention in allocating access 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	SE			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	need to be taken, not to damage crops and trees in private lands.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		should not be sited to the productive/agricultural lands,			
		environmentally sensitive locations such as forest lands, water			
		bodies.			
16.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		kept to a minimum.			
17.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. Storage of fuel, lubricant and chemicals use for the construction 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		1				
			activities on paved surface without contamination to the			
			environment and storm water runoff			
		*	Approval shall be taken prior to use of local roads from relevant			
			authorities and need to maintenance during the use by the Contractor			
19.	Emission of Dust	*	In order to minimize the levels of airborne dust all construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
			material/debris should be stored as per the instructions provided	Cost		Engineer
			above No.18.			
		*	Any parties vulnerable for excessive dust residing along the road			
			especially within residential areas within around 1km should be			
			identified in advance and measures as agreed with the Engineer			
			should be implemented to minimize the impact.			
		*	Mud patches caused by material transporting vehicles in the access			
			road should be immediately cleaned			
		*	Continual water sprinkling should be carried out in the work and fill			
			areas, material extraction sites, processing plants and the access road			
			if dust stir is observed. Water sprinkling should be done more			
			frequently on days that are dry and windy (at least four time's day)			
			as the levels of dust can be elevated during dry periods.			
		*	Special attention should be paid to the line houses located adjoining			
		•	to the ROW around 1km			
		*	Dust masks should be provided to the laborers for the use at required			
		•	times.			
		*	Erection of dust barriers to the public, religious and other socially			
		**				
		*	important locations Metal quarries, crushers and all the plants should be located at least			
		**				
			500m form the public sensitive and residential areas			
		*	Establishment of tire washing facility for the plants, yards or any			
• •			other sites which causing to bring mud particles with the vehicles.		-	
20.	Management of Self	*	In the event the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	Operated Borrow Sites		• Contractor shall comply with the environmental	Cost		Engineer CEA, GSMB
			requirements/guidelines issued by the CEA, GSMB and the			
			respective local authorities with respect of locating borrow			
			areas and with regard to all operations related to excavation and			
			transportation of earth from such sites.			
			• Contractor can also find suitable soil materials from currently			
			operated licensed borrow pits in the surrounding area, subject			
			to approval of the Engineer			
			• No borrow-sites be used (current approved) or newly			
			established within areas protected under FFPO and FO and			
			within productive land/agricultural land and environment and			
			public sensitive locations			
			• Borrow areas shall not be opened without having a valid			
			mining license (Industrial Mining License (IML)) from the			
			GSMB. The location, depth of excavation and the extent of the			
			pit or open cut area shall be as approved by the Engineer.			
		1	pre of open cut area shan be as approved by the Eligniter.			

		 All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the GSMG, CEA and the respective local authority (Refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and Management of Self Operated Quarry Sites	 In the event the contractor manages a self-owned existing quarry sites available in the project area They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML; Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. It is recommended not to seek material from quarries that have ongoing disputes with community. The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	 Contractor for review and documentation by the engineer Debris material shall be disposed in such a manner that existing drainage paths are not blocked. Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. Silt traps will be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g: near Galathura Stream). To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. Temporary soil dumps should be placed at least 200m away from all water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

			т		
		 Top soil shall be prevented to use for tree planting and turfing 			
		activities.			
		 In hilly terrain and areas with slopes; 			
		• Embankment slopes, slopes of cuts, etc. shall not be unduly			
		exposed to erosive forces.			
		• These exposed slopes shall be graded and covered by grass or			
		other suitable materials per the specifications.			
		• During the rainy season open cuts/slopes should be covered			
		with fixed polythene sheeting to avoid excessive erosion.			
		All fills, back fills and slopes should be compacted immediately to			
		reach the specified degree of compaction and establishment of			
		proper mulch.			
		 Work that lead to heavy erosion shall be avoided during the raining 			
		season. If such activities need to be continued during rainy season			
		prior approval must be obtained from the Engineer by submitting a			
		proposal on actions that will be undertaken by the contractor to			
		proposal on actions that will be undertaken by the contractor to prevent erosion.			
		 Construction activities: excavation and earth work around 			
		vulnerable area for soil erosion mainly restricted to the dry periods			
		and removal of green cover vegetation shall be minimized.			
		 The work, permanent or temporary shall consist of measures as per 			
		design or as directed by the engineer to control soil erosion,			
		sedimentation and water pollution to the satisfaction of the engineer.			
		basins, fiber mats, mulches, grasses, slope drains and other			
		devices.			
		• All sedimentation and pollution control work and maintenance			
		thereof are deemed, as incidental to the earthwork or other			
		items of work and no separate payment will be made for their			
		implementation.			
		 Erosion control measures as given in Annex III should be applied 			
		where feasible.			
23.	Noise from vehicles,	✤ Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	machinery and	6:00PM). No work that generates excessive noise should be carried	Cost		Engineer CEA
	equipment	out during night hours where in close proximity to public sensitive			
		receptors (temples, hospitals) and residential areas (from 6:00PM to			
		6:00AM on the following day).			
		 Any parties vulnerable for high noise residing along the road 			
		especially within residential areas within around 1km should be			
		identified in advance and measures as agreed with the Engineer			
		should be implemented to minimize the impact.			
		All equipment and machinery should be operated at noise levels that			
		do not exceed the permissible level of 75 dB (during construction)			
		for the daytime. For all construction activities undertaken during the			
		nighttime, it is necessary to maintain the noise level at below 50 dB			
		nighttime, it is necessary to maintain the noise level at below 50 dB			

		*	as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of			
			nighttime resident laborers should be minimized.		-	
24.	Vehicular noise pollution at residential / sensitive receptors		Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas. Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. All possible and practical measures to control noise emissions during drilling shall be Employed. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to	*	Contractor shall take appropriate action to ensure that construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		works do not result in damage to adjacent properties due to vibration (E.g: line houses around 1km). Any parties vulnerable for excessive vibration residing along the road especially within residential areas within around 1km should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the	Cost		Engineer, GSMB

		1		1		
			relevant government agencies and the engineer.			
		*	Contractor shall compensate or repair any damage occurred to third			
			party property/ies as a result of his activity as agreed with the			
			affected party and the Engineer			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment causing			
			vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the relevant			
			vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be determined			
			so that excessive vibration can be avoided, and blasts shall be			
			controlled blasting in nature. Notwithstanding to these provisions			
			contractor is liable for any damage caused by blasting work.			
		*	Blasting shall be carried out only with permission of the Engineer			
			and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
			from rivers, at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate the			
			ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not be			
			disposed without meeting the disposal standards specified under the			
			NEA. Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants to			
			meet the relevant standards before discharging to the environment.			
		*	Contractor shall arrange for collection, storing and disposal of oily			
			wastes to the pre-identified disposal sites (list to be submitted to			
			Engineer) and approved by the Engineer. All spills and collected			
			petroleum products will be disposed of in accordance with standards			
			set under the NEA.			
		*	Engineer will certify that all arrangements comply with the			
			standards specified under NEA and guidelines of CEA or any other			
		<u> </u>	relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
		Ι.	passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			
			undertaken without providing adequate provisions to the prior			
			satisfaction of the Engineer.			

				1		
		*	The construction corridor should be barricaded at all time in a day			
			with adequate marking, safety tape, flags, reflectors etc. for safety of			
			individuals using the site daily basis. (Items such as parking cones,			
			lights, tubular markers, orange and white strips and barricades of a			
			luminous nature for night visibility shall be procured where deemed			
			necessary)			
		*	Safety signboards should be displayed at all necessary locations.			
		*	The contractor should obtain a Third-party insurance to compensate			
			any damages, injuries caused to the public or laborers during the			
			construction period.			
		*	All construction vehicles should be operated by experienced and			
		•	trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers			
			during the ESMP training prior to the start of the construction			
			activities.			
		*	All digging and installation work should be completed in one go, if			
			this task is not accomplished the area should be isolated using			
			luminous safety tape and barricading structures surrounding the			
			whole area.			
		*	Trenches should be progressively rehabilitated once work is			
			completed.			
		*	Material loading and unloading should be done in an area, well			
			away from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the			
			site to ensure public safety.			
		*	Safety awareness programs should be conducted by the Contractor			
			in annual basis targeting the public residing along the road in order			
			to make the public aware on road safety especially during the			
			operation period of the road.			
28.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
20.	Safety of Workers	•	workers as per the ILO Convention No. 62 and Safety & Health	Cost	Contractor	Engineer
			Regulations of the Factory Ordinance of Sri Lanka to the extent that	COSt		Lingineer
			those are applicable to this contract.			
		*	The contractor shall supply all necessary safety measures at site.			
		*	Protective footwear and protective goggles should be provided to all			
		.*.	workers Employed on mixing of materials like cement, concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers who are			
		.*.	engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise, and			
		•	workers working in crushing, compaction, or concrete mixing			
			operation.			
		*	The contractor shall supply all necessary safety appliances such as			
		•	safety goggles, helmets, safety belts, ear plugs, mask etc. to workers			
		1	and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office,			
			in addition, the contractor shan maintain in stock at the site office,			

			gloves, earmuffs, goggles, dust masks, safety harness and any other			
			equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
			consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	All workers should be made aware about Workers GRM and they			
			should be facilitated to approach relevant GRCs as and when			
			required.			
		*	National and World Bank requirements (such as providing necessary			
			personal protective equipment, taking temperature checks, not			
			allowing large gatheringsetc.) for prevention of the spread of			
			COVID-19 virus will be adhered to.			
		*	National and World Bank requirements (such as providing necessary			
		•••	personal protective equipment, taking temperature checks etc.) for			
			prevention of the spread of COVID-19 virus will be adhered to.			
		*	First aid facilities and nursing staff to be provided at work places			
		*	Provision of adequate transport facilities for moving injured persons			
•••			to the nearest hospital	Б., ,	0	
29.	Prevention of	**	Prevention of accidents involving human beings, animals or vehicles	Engineering	Contractor	PMU/PIU/RDA/Consultant
	accidents		falling or accidents due to open trenches/manholes during	Cost		Engineer
			construction period. This needs to be ensured with proper			
			barricading, signage boards and lighting etc.			
		*	Adequate signboards shall be placed much ahead of diversion site to			
			caution the road users. The road signs should comply with the Road			
			Safety Manual of RDA.			
		*	A readily available first aid unit including an adequate supply of			
			sterilized dressing materials and appliances should be available at			
			the site office at all times			
		*	Availability of suitable transport at all times to take injured or sick			
			person(s) to the nearest hospital should also be insured.			
		\diamond	Names and contact information for emergency services such as			
			Ambulance services, hospitals, police and the fire brigade should be			
			prepared as a sign board and displayed at the work site.			
		*	Night time illumination should be in place at every location where			
			the road is narrow, diverted and structures are repaired and any other			
			places where the PIU recommends to do so			
		*	Monitor and record road crashes during construction and			
			maintenance stages and take appropriate remedial actions			
30.	Operation of labor	*	Locations selected for labour camps should be approved by engineer	Engineering	Contractor	PMU/PIU/RDA/Consultant
	camps		and comply with guidelines/ recommendations issued by the	Cost		Engineer, CEA, LA, DoF
			CEA/Local Authority (LA). Construction of labourer's camps shall			
			not be located within 200m from waterways, within an area coming			
			under DoF, and near to any other environment and social sensitive			
			locations			
		*	The Contractor shall construct and maintain all labor			
-						

		accommodation in such a fashion that uncontaminated water is			
		 accommodation in such a fashion that uncontaininated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 			
31.	Management of the		Engineering	Contractor	PMU/PIU/RDA,/Consultant
	spread of Covid-19 or	pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant	Cost		EngineerMoH
	handling sudden Pandemic outbreaks	guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19).			
		Please refer Annex 28 of ESMF of IRCDP for more details.			
		The contractor will ensure that there is set number of workers as per			
		the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps			
		additional provisioning will be made for spacing.			
		* The contractor will at all times, ensure proper handwashing and			
		sanitation facilities are available on the site.			
		Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and			
		interactions with communities should be minimized. Daily records			
		of these checks should be maintained by the contractors site staff.			
		If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow			
		instructions laid out by the national health agencies.			
32.	Prevention of Vector	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	borne Diseases	mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used	Cost		Engineer, MoH
		and empty cans, containers, tires, etc. shall be prevented. Approved			
		chemicals to destroy mosquitoes and larvae should be regularly			
		applied. All borrow sites should be rehabilitated at the end of their use by the			
		All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by			
		the Central Environmental authority and relevant local authorities			
		Contractor shall keep all places of work, labor camps, plus office			
		and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.			
33.	Gender issues	Equal opportunity shall be ensured while requirement of project	Engineering	Contractor	PMU/PIU/RDA/Consultant
	including Gender base	staff including contractors working force. The salary/ wages and	Cost		Engineer

		1				
	violence		other payments due on service provided to the project should not be			
			classified on the Gender basis.			
		*	The sanitary facilities in sites and labour camps should be designed			
			with consideration of suitable location, comfortability for female users and safe access.			
		*	Institutional arrangement should be adopted to monitor and taking			
			action against the Sexual harassment can happen at the site to the			
			workers and general public. The confidential reporting mechanism			
			for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.			
24	Jaguag due te leber		Overcrowded or camp-based living conditions can significantly alter	Engineering	Contractor	PMU/PIU/RDA/Consultant
34.	Issues due to labor influx	***	existing levels of communicable diseases including respiratory	Engineering Cost	Contractor	Engineer, MoH
	IIIIIux		problems, diarrheal and vector-borne diseases and tuberculosis,	Cost		Eligineer, Mor
			which also increases the risks of disease being introduced and			
			spreading through host communities. Priority should be given for			
			workers who are inhabited in area to reduce the influx of exotic			
			population.			
		*	Adequate and comfortable accommodation and hygienic service			
		•	facility should be provided to Minimize the health risk of spreading			
			disease			
		*	Awareness program on HIV and other venereal diseases should be			
			conducted for all the workers engaged in construction activities			
		*	Avoid or reduce labour influx where possible. Explore possibility of			
			introducing a requirement to hire local labour (at least a percentage)			
			by the contractor. This should be done through the Community			
			Based Organizations (CBOs) in the area that will be affected by the			
			project interventions.			
		*	Contractors to implement robust measures to prevent sexual			
			harassment, gender-based violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies			
		*	Contractor shall maintain a logbook to record workers' grievances			
			and complaint/ suggestion boxes can be placed at the supervision			
			consultant's office.			
		*	A focal point will be designated to receive the complaints. The			
			contact details of the focal point will be displayed in notice board of			
			respective office.			
		*	The workers will be made aware of GRM procedure through			
			toolbox meetings.			
35.	Traffic Management	*	Contractor shall develop a traffic management plan with relevant		Contractor	PMU/PIU/RDA/Consultant
			authorities to minimize inconvenience to road users as well as	Cost		Engineer, Traffic Police
			prevent road accidents and implement it.			

		 Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to 			
		ensure the safety of the vehicles and pedestrians			
36.	Loss of Access due to construction	 Temporary access will be provided when permanent access is blocked for construction (Especially for houses around 1km). When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 Created away under the supervision of the Engineer. If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

 advance and carry out public consultation and report on the same should be submitted to the Engineer. ❖ Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to felling of trees and removal of vegetation. ❖ Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be 	
 Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be 	
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Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be	
Timber Corporation. Documentation on the process should be	
shared with the engineer and maintained by the contractor.	
 The contractor shall plant at least 3 good specimens of native trees 	
over 5-year-old root-balled or having at least 3ft height suitable for	
the location as identified by the Engineer. The planting should take	
place in public land suitable for the purpose	
◆ The contractor shall build hardy structures around the trees for	
protection.	
\checkmark The contractor shall be responsible for ensuring the well-being of	
the trees/plants until the end of the contract	
39. Loss, Damage and ♦ All works shall be carried out in such a manner that the destruction Engineering Contractor PMU/PIU/RDA/Con	sultant
disruption to Fauna or disruption to the fauna and their habitats is minimal.	Surtuit
Construction workers shall be instructed to protect fauna including	
wild animals and aquatic life as well as their habitats. Hunting,	
poaching and unauthorized fishing by project workers is not	
allowed.	
 No solid or liquid waste should be dumped into natural habitats. 	
	aultont
40. Prevention of the Spread of Invasive	suitant
Plant Species one site to another, thus the following measures are to be undertaken.	
Close monitoring of transportation, storage of borrowing material	
for the spread of any invasive species must be done.	
♦ Vehicles should be covered during transportation of cleared	
vegetation to and from the construction site.	
 Borrow material to be brought from properly identified borrow pits 	
and quarry sites, the sites should be inspected in order to ensure that	
no invasive plant species are being carried with the borrow material.	
✤ Washing the vehicles should be conducted periodically to prevent	
carrying any invasive species	
The construction site should be inspected periodically to ensure that	
no invasive species are establishing themselves at the site.	
41.ChancefindAll fossils, coins, articles of value of antiquity, structures and otherEngineeringContractorPMU/PIU/RDA/Con	sultant
procedures for PCRs remains or things of geological or archaeological interest discovered Cost Engineer	
and Archeological on the site shall be the property of the Government and shall be dealt	
Property with as per provisions of the relevant legislation.	
✤ The Contractor will take reasonable precautions to prevent his	
workmen or any other persons from removing and damaging any	

42.	Surface Drainage and Possible Water Stagnation	 such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint an Environmental and Socia Safeguards Officer (ESSO) who is responsible for community liaison and to handle public complaints regarding environmental social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review environmental and social complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO or complains thereof. 			
44.	Prevention of landslides		Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer NBRO

45.	 exploitation, child trafficking and child labour contract workers (including subcontractors) with age very avoid child labor. Trafficking of children (forced/bonded labour) is prohethe project. Institutional arrangement should be adopted to monito action against the Sexual exploitation can be happened the workers and general public. The confidentia mechanism for sexual exploitation shall be incorporat Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 If there are workers below the age of 18 years and 15 		Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTION	N				
46.	Clearing/Closure of Construction Site/Labor Camps	* * * *	Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes.	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
47.	Environmental Enhancement/ Landscaping	*	Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP.	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	*	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
49.	Hydrology and drainage	*	Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer

50	Replanting of trees	* Growth and survival of trees planted shall be ensured an	Engineering Cont	ntractor PRDA, RDA/Consultant
		monitoring done at least for a period of three years	Cost	Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakehold	ler	Key concerns raised/Suggestions		
	Type of Stakeholder	Number of Participants (M/F)	Provided		
11.03.2021	Owner of a commercial unit	Male	 The road gets inundated at several locations and water level goes to 11/2 feet high at settlements of estate laborers located in the middle of the road section The culverts need to be repaired and replaced at the end of the road. 		
11.03.2021	Resident	Female	 Both men and women in the area work as estate laborers. The estate workers in this area live here for long time. 		
12.03.2021	Grama Niladari - Galathura	Male	 There are tea and rubber lands in the project area and people work in these lands. There are community-based organizations such as Framer organizations. 		
12.03.2021	Grama Niladari - Kahawatta	Female	 There are paddy and tea cultivations in the project area. Only Sinhalese people live in this GN Division. 		

2.8. ESMP of SR08 – Devipahala - Deraniyagala Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 8 – Devipahala - Deraniyagala Road (5.6km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background

Devipahala Deraniyagala Road

Road length: 5.60km

Coordinates: Starting Point: 6° 48.309'N, 80° 21.814'E End Point: 6° 50.700'N, 80° 21.421'E

Location:

District: Ratnapura EE Division: Ratnapura DS Division: Kuruvita GN Divisions: Kirigala, Wathuyaya, Devipahala, Endiriyanwala

1. Introduction

The Devipahala Deraniyagala road starts from a provincial road connected to Colombo - Ratnapura - Wellawaya – Batticaloa (A004) road and ends on the same road after traversing 5.60km. This road is currently under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. The rroad traverses along an undulating to hilly terrain. Elevation of the trace varies between 100m - 235m MSL. The proposed road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 5.6km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The estimated time for construction of the road is six (6) months.

3. Right of Way

There is no demarcation established at site laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW, as in some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right-of-way (RoW) of the Devipahala – Deraniyagala road is around 5.5m and the average carriageway is 3.2m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA, Sabaragamuwa will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road connects with access road to the waterfall "Bopath Ella". Therefore, many foreign and local tourists use this road. There are tea, rubber, pepper, cinnamon, banana and paddy cultivations in the project area. Thus, the road development will facilitate the tourism and transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit o all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Devipahala Deraniyagala Road will have a majority of reversible, small-medium scale environmental and impacts. The main social impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration while drainage improvement such construction of drains and culverts will result temporary environmental impacts. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements:

There are about 207 households and 35 shops located on either side of the road. The population is estimated at 920. A majority of the population is Sinhala Buddhists. There are also Tamil and Muslim families living in scattered sections of the road who are Islamic and Hindu by faith.

- Land ownership: There are titleholders, people having permits for their land and people living on estate lands along the road.
- **Livelihoods:** There are tea, rubber, pepper, cinnamon, banana and paddy cultivations and home gardens along the road. People are engaged in these agricultural activities. People are also engaged in wage labour, self-employment and government and private sector jobs.
- **Local organisations:** There are three Rural Development Societies, Farmer Societies, Elders' Societies, Welfare societies and Samurdhi societies
- **Community infrastructure and resources:** are schools, temples, community halls and shrines along the road as described in Table 1. During construction period, the access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community	Location - GPS Coordinate		Road side	Distance from the RoW
infrastructure &				
resources				
Suwapiyasa Praja	6°48'51.91"N	80°21'47.51"E	RHS	4m
Padanama Hall				
Gangarama Temple	6°48'51.86"N	80°21'47.48"E	RHS	Temple: 100m SewaPiyasa:
SewaPiyasa				50 m
Suwadivi Medical				Suwadivi Medical
Centre				Centre:60 m
RA / Sri	6°49'8.88"N	80°21'43.58"E	LHS	5m
SaranajothiTissa				
School				
Community Hall and	6°49'21.28"N	80°21'39.09"E	LHS	7m
Pre School				
Temple	6°49'25.65"N	80°21'40.55"E	RHS	Entrance to the temple: 5m
				Cash box ("Pinpettiya":
				2mTemple: 7m
Gamidiriya	6°50'14.03"N	80°21'28.89"E	RHS	7m
Community hall				

Table 1: Community infrastructure and resources

On-going development projects: None

• **Visitors to the area:** This road is connected to the access road to "Bopath Ella" waterfall. Therefore, local and foreign visitors frequently visit the project area.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		~		The RoW is owned by PRDA (Sabaragamuwa). The current usage of land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			\checkmark	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other			~	

Screening Questions	Not known	Yes	No	Remarks
encumbrances?				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?			~	
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			\checkmark	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There are schools, temples, community halls and shrines along the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		V		Project area comes under the Kuruvita Police station which is.420km from the project site. Further, " <i>MithuruPiyasa</i> " ⁸ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	

⁸ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			√	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		V		Both skilled and unskilled workers will be used by the contractors.
				Approximately20laborerswillberecruitedfortheproject.
Will the project hire workers from the local workforce?		V		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		~		There is a possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		-
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimate of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	No
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 20.
		Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Devipahala - Deraniyagala Road (SR08)Road Length:5.6kmLocation:District: Ratnapura
DS Division, Kuruwita

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location	l	1	1
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		~	
- Mangrove		\checkmark	
- Estuarine		~	
- Buffer zone of protected area		~	
- Special area for protecting biodiversity		~	
B. Potential Environmental Impacts			l
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		\checkmark	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	~		Permanent diversion will not be required. However temporary diversion will be needed at the new culvert at 1.3 and 5.2km and culverts to be reconstructed at 0.1, 0.6, 0.9, 3.05, 3.3, 3.32, 3.42 and 5.15km. Temporary diversion of waterway will be restored to its original condition soon after the rehabilitation of the structures at relevant locations. Temporary soil dumps and material storing at above locations will be avoided as much as possible.

		
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	√	Soilerosionconservationmeasuressuch as silt traps,coveringthe material dumpswillbepracticedifmaterialsaretobestored.Soilerosionmanagementmeasuresmanagementmeasuressilttraps,siltfencesshallbeappliedattheabovewaterwaystominimizesoilgettingeroded togettingconstructionmaterialscontainingsmall/fineparticlesinplaceswhichsubjectedtowaterbodieswaterbodieswillminimizethisimpactStoringand
		this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for labor camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓ 	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	At following locations, boulders are found close to the RoW where rock blasting is necessary. 2.67km, 3.12km & 5.0km. Noise and vibration impacts

			will be generated due to most of field construction activities shall be maintained below the maximum permissible levels of the national standards. Special precaution will be applied at sensitive receptors as given in the Question 6 on the social screening checklist.
- Dislocation or involuntary resettlement of people		~	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?		~	
- Hazardous driving conditions where construction interferes with pre-existing roads?		~	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	~		Avoiding possibilities of water stagnation within the constriction sites, keeping hygienic conditions in labor camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	~		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting		\checkmark	

from traffic volume?		
Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	\checkmark	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of Devipahala Deraniyagala Road



Figure 1: Strating point of the road



Figure 2: Cooperative shop located at 1.240km on RHS of the road



Figure 3: School located at 1.800 km on LHS of the road



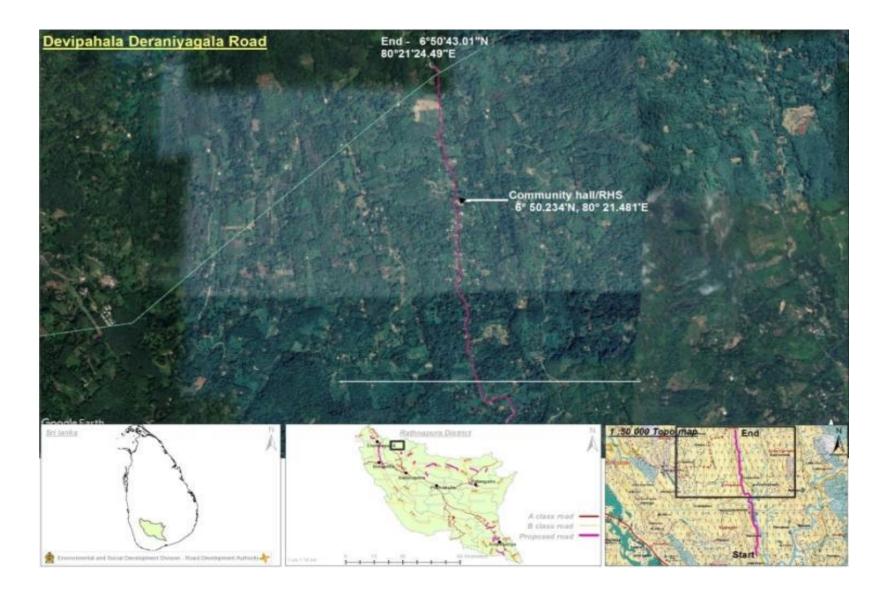
Figure 4: Temple located at 2.250 km on RHS of the road



Figure 5: End point of the road



Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Devipahala – Deraniyagala Road				
Risk Category assigned by E and S Screening	Moderate			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Existing slopes should not be disturbed with the road	• Section 11, 44 of ESMP			
rehabilitation. Appropriate slope protection measures	• Any guidance to be			
should be included if slopes are to be disturbed with the	issued by NBRO			
recommendation of the Engineer and NBRO.	-			
Necessary safety measures such as speed barriers,	Section 27, 29 and 36 of			
pedestrian crossings, sign boards etc should be	ESMP.			
introduced to the school at 1.8km.				
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director – IRCDP,			
to	RDA			
Mode of transmission (Email, hand delivery)	Email			

	Activities and Associated Impacts	Protection and preventive measures	eventive measures Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPERATION	[<u> </u>	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Kuruvita). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

Environmental and Social Management Plan (ESMP) for Rehabilitation of Devipahala – Deraniyagala Road (SR08)

		 recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. Removed trees of economic value must be handed over to the Timber Corporation. Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner.
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	 The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands mpresently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camps must be submitted to Engineer of the relevant to cal authority Separate labor camps need to be provided for female migrant laborers. The instructions for the laborers should be provided in all three languages. Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. The contractor shall maintain necessary living accommodation and ancillary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. All temporary accommodation must be constructed and mintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The swage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) Provision shall be made for domestic solid waste disposal in

		 acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the are (if any) and wastewater should be disposed in a environmentally acceptable manner (meeting the desired wate quality standards) with the approval of the Engineer. Adequat health care is to be provided for the work force. Personal Protective Equipment (PPEs) such as helmet, boot and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start or construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationin facilities particularly for kerosene/LPG so that dependence of firewood for cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site shoul be reinstated to previous condition at the close of the construction work. 	1 1 2 4 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1		
4.	Material Sourcing	 The contractor is required to ensure that sand, aggregates an other quarry material is sourced from licensed sources. The contractor is required to maintain the necessary licenses an environmental clearances from GSMB and CEA for all borror and quarry material they are sourcing –including soil , fin aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designate natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, th sites should be remediated accordingly once material sourcin has been completed. The contractor should submit in writing all the relevant number and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Cost d d d g g	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labor camps, from public or community water supply scheme without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority(Water Resources Board, NW&DB, Department of Irrigation, CBC will not be allowed. Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority 	e Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use of lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public utilities	Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer, CEB,NW&DB, SLT
		to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case,			
		 Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations 			
		 Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT)to minimize time and the duration of utility disruption 			
		Approval shall be obtained from DOI for any proposed construction works on irrigation canals			
		 Advance notice to the public about time and the duration of utility disruption 			
		 Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes 			
		 Special attention shall be taken to provide relevant services to the public without long delay 			
		 Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the of the Irrigation Department, Provincial Irrigation Department and Agrarian 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
		 Department Temporary diversion of water ways during construction should 			
		 be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season 			
		 Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor 			
		 Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 			
11.	Identification of erodible and landslide prone areas	 Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) Existing slopes should not be disturbed to extent possible Incorporate the recommendations and guidelines of the NBRO to 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
		the road designing.			

12.	Land donation	 Land donation should be involved only for the land required f the design requirements including realignment of bends construction of cross drainages, lead aways in the location where required. If land need from the public, negotiation with property owne will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall borne by the project to free any legal encumbrances caused as result of taking the lands for road works. 	r s e e e	PMU/PIU	PMU/PIU/RDA/Consultant Engineer, RDA, PRDA (Sabaragamuwa)
13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. Howeve Resettlement Policy Framework (RPF) is prepared for th project to guide land acquisition if there's any need arises. Th Land acquisition process will be initiated as per the Lan Acquisition Act and its regulations. The payment compensation will be done according to Entitlement matrix RPF.	e Acquisition e cost d f	PIU/PMU of RDA	RDA, PRDA (Sabaragamuwa)
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the acces of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrine temples and schools, the temporary access needs to be discusse with care takers or heads of schools. If the structures of common properties are located close to road safety measures need to be identified to protect the structures. 	,	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	E			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debumust be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, ext care need to be taken, not to damage crops and trees in privalands. The contractor shall identify the sites for disposal of matericleared. 	Cost a e	Contractor	PMU/PIU/RDA/Consultant Engineer

		 Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies Avoid disposal on productive/agricultural land. should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials on the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water burnet during the content and should be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water burnet during the contractor such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet during sensitive locations such as forest lands, water burnet durin
16.	Protection of topsoil	 bodies. Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas

		as identified by the Engineer in a layer of this 1			
		as identified by the Engineer in a layer of thickness of 75mm –			
		150mm.			
		Topsoil thus stockpiled for reuse shall not be surcharged or			
		overburdened.			
		As far as possible multiple handling of topsoil stockpiles should			
17		be kept to a minimum.			
17.	Protection of Ground	Construction vehicle, machinery and equipment shall be used	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cover and Vegetation	and stationed only in the areas of work and in any other area	Cost		Engineer
		designated/ approved by the Engineer.			
		• Entry and exit of construction vehicles and machinery should be			
		restricted to particular points as directed by the engineer			
		Contractor should provide necessary instructions to drivers,			
		operators and other construction workers not to destroy ground			
10		vegetation cover unnecessarily.	.		
18.	Transport and	✤ All material should be transported in fully covered trucks.	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Storage of	Overloading of vehicles with materials should be controlled and	Cost		Engineer
	construction materials	done in a manner to suit the trucks capacity.			
		Construction material such as cement, sand and metal should be			
		stored in closed structures or in a contained manner.All			
		construction materials such as sand, metal, lime, bricks etc.			
		should be transported under cover to the site and stored under			
		cover at the sight. Plastic sheeting (of about 6 mm minimum			
		thickness) can be used and held in place with weights, such as			
		old tires or cinder blocks, with the edges of the sheeting buried,			
		or by the use of other anchoring systems.			
		✤ Loading, unloading and transport of materials shall not be			
		inconvenient to the road side community or road users			
		Selection of sites for stock piling with the approval of Engineer			
		away from environment and public sensitive locations.Storage of fuel, lubricant and chemicals use for the construction			
		activities on paved surface without contamination to the environment and storm water runoff			
		 Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the 			
		Contractor			
19.	Emission of Dust	 Contractor In order to minimize the levels of airborne dust all construction 	Engineering	Contractor	PMU/PIU/RDA/Consultant
15.	Emission of Dust	material/debris should be stored as per the instructions provided	Cost	Contractor	Engineer
		above No.18.	CUSI		Englice
		 Any parties vulnerable for excessive dust residing along the road 			
		such as school (1.8km), medical center, houses located adjacent			
		to the ROW etc should be identified in advance and measures			
		as agreed with the Engineer should be implemented to minimize			
		the impact.			
		 Mud patches caused by material transporting vehicles in the 			
		* muu patenes caused by material transporting venicles in the	L		

-					r		1
				ad should be immediately cleaned			
		*		al water sprinkling should be carried out in the work and			
				s, material extraction sites, processing plants and the			
			access re	bad if dust stir is observed. Water sprinkling should be			
			done mo	bre frequently on days that are dry and windy (at least			
			four time	e's day) as the levels of dust can be elevated during dry			
			periods.				
		*		sks should be provided to the laborers for the use at			
			required				
		*		of dust barriers to the public, religious and other			
		•		important locations			
		*		arries, crushers and all the plants should eb located at			
				om form the public sensitive and residential areas			
		.*.					
		*		ment of tire washing facility for the plants, yards or any			
				tes which causing to bring mud particles with the			
20		-	vehicles.		.		
20.	Sement of Sem	*		ent the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow		0	Contractor shall comply with the environmental	Cost		Engineer CEA, GSMB
	Sites			requirements/guidelines issued by the CEA, GSMB			
				and the respective local authorities with respect of			
				locating borrow areas and with regard to all operations			
				related to excavation and transportation of earth from			
				such sites.			
			0	Contractor can also find suitable soil materials from			
				currently operated licensed borrow pits in the			
				surrounding area, subject to approval of the Engineer			
			0	No borrow-sites be used (current approved) or newly			
				established within areas protected under FFPO and FO			
				and within productive land/agricultural land and			
				environment and public sensitive locations			
			0	Borrow areas shall not be opened without having a			
			0	valid mining license from the GSMB. The location,			
				depth of excavation and the extent of the pit or open			
				cut area shall be as approved by the Engineer.			
				All borrow pits/areas should be rehabilitated at the end			
			0				
				of their use by the contractor in accordance with the			
				requirements/guidelines issued by the CEA and the			
				respective local authority.			
			0	Establishment of borrow pits/areas and its operational			
				activities shall not cause any adverse impact to the			
				near-by properties. Also, shall not be a danger of			
				health hazard to the people.			
			0	Contractor shall take all steps necessary to ensure the			
				stability of slopes including those related to temporary			
				works and borrow pits.			

21. Quarry Operations	• In the event the contractor manages a self-owned existing quarry	Engineering	Contractor	PMU/PIU/RDA,/Consultant
and Management of	sites available in the project area	Cost		Engineer CEA,GSMB
Self Operated Quarry	They should be approved by CEA with valid EPL (Environment)			
Sites	Protection Licenses) and GSMB with valid IML (Industrial			
	Mining Licenses);			
	◆ Prior approval should be obtained from GSMB, CEA and local			
	authorities such as Pradeshiya Sabha.			
	Selected quarry sites should have proper safety measures such as			
	warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.			
	• Quarry sites should not be established within protected sites			
	identified under the FFPO and FO and not within productive			
	land/agricultural land and environment and public sensitive			
	locations.			
	• It is recommended not to seek material from quarries that have			
	ongoing disputes with community.			
	✤ The maintenance and rehabilitation of the access roads in the			
	event of damage by the Contractors operations shall be a			
	responsibility of the Contractor.			
	✤ Copies of all relevant licenses should be maintained by the			
	Contractor for review and documentation by the engineer			
22. Control of	 Debris material shall be disposed in such a manner that existing 	Engineering	Contractor	PMU/PIU/RDA/Consultant
Sedimentation and	drainage paths are not blocked.	Cost		Engineer
Soil Erosion	 Drainage paths associated with irrigation structures should be 			-
	improved / erected to drain rainwater properly.			
	Silt traps will be constructed to avoid siltation into the water			
	ways. Where necessary along the road corridor.			
	✤ To avoid siltation, drainage paths should not be directed to			
	waterways and irrigation canals and they should be separated			
	from such water bodies			
	 Temporary soil dumps should be removed from the construction 			
	sites as soon as possible. Until removal, these soil dumps should			
	be covered with thick polythene sheets.			
	◆ Temporary soil dumps should be placed at least 200m away			
	from all water bodies.			
	Top soil shall be prevented to use for tree planting and turfing			
	activities.			
	 In Hilly terrain and areas with slopes 			
	• Embankment slopes, slopes of cuts, etc. shall not be			
	unduly exposed to erosive forces.			
	• These exposed slopes shall be graded and covered by			
	grass or other suitable materials per the specifications.			
	• During the rainy season open cuts/slopes should be			
	covered with fixed polythene sheeting to avoid excessive erosion.			

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		✤ All fills, back fills and slopes should be compacted immediately		
		to reach the specified degree of compaction and establishment of		
		proper mulch.		
		\diamond Work that lead to heavy erosion shall be avoided during the		
		raining season. If such activities need to be continued during		
		rainy season prior approval must be obtained from the Enginee		
		by submitting a proposal on actions that will be undertaken by		
		the contractor to prevent erosion.		
		 Construction activities: excavation and earth work around 		
		vulnerable area for soil erosion mainly restricted to the dry		
		periods and removal of green cover vegetation shall be		
		minimized.		
		 The work, permanent or temporary shall consist of measures as 		
		per design or as directed by the engineer to control soil erosion		
		sedimentation and water pollution to the satisfaction of the		
		engineer.		
		• Typical measures include the use of berms, dikes		
		sediment basins, fiber mats, mulches, grasses, slope		
		drains and other devices.		
		• All sedimentation and pollution control work and		
		maintenance thereof are deemed, as incidental to the		
		earthwork or other items of work and no separate		
		payment will be made for their implementation.		
		 Erosion control measures as given in Annex III should be 		
		applied where feasible.		
23.	Noise from vehicles,	✤ Noise generating work should be limited to daytime (6:00AM to	Contractor	PMU/PIU/RDA,/Consultant
	machinery and	6:00PM). No work that generates excessive noise should be		Engineer CEA
	equipment	carried out during night hours where in close proximity to public		
		sensitive receptors (temples, hospitals) and residential areas		
		(from 6:00PM to 6:00AM on the following day).		
		✤ Any parties vulnerable for excessive noise residing along the		
		road such as school (1.8km), temple (2.25km), medical center		
		houses located adjacent to the ROW etc should be identified		
		in advance and measures as agreed with the Engineer should be		
		implemented to minimize the impact.		
		✤ All equipment and machinery should be operated at noise levels		
		that do not exceed the permissible level of 75 dB (during		
		construction) for the daytime. However noise level generated a		
		the school at 1.8km should be controlled during schooling hours		
		For all construction activities undertaken during the nighttime, i		
		is necessary to maintain the noise level at below 50 dB as per the		
		Central Environmental Authority (CEA) noise contro		
		regulations. Special approval should be obtained from CEA for		
		night time work through PIU.		
		All equipment should be in good serviced condition. Regulation		

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			maintenance of all construction vehicles and machinery to meet			
			noise control regulations stipulated by the CEA in 1996 (Gazette			
			Extra Ordinary, No 924/12) must be conducted for			
			vehicles/machinery that will be used in construction on site, for			
			transport and for plants (crushers, asphalt, concrete and batching			
			plants).			
		*	Ideally noise generating work should not be carried out during			
			public holidays and religious days. Special care should be taken			
			as there is a temple nearby.			
		*	Labor gangs should be warned to work with minimum noise.			
		•	Strict labor supervision should be undertaken in this respect.			
			Number of nighttime resident laborers should be minimized.			
24	Vehicular noise	*	Idling of temporary trucks or other equipment should not be	Engineering	Contractor	PMU/PIU/RDA/Consultant
24.		**	permitted during periods of loading / unloading or when they are	Cost	Contractor	Engineer
	pollution at residential			Cost		Engineer
	/ sensitive receptors	.•.	not in active use.			
		**	The practice must be ensured especially near residential / commercial / sensitive areas.			
		*	Stationary construction equipment will be kept at least 500m			
		*	away from sensitive receptors, where possible. These include			
		.*.	places of worship, schools, medical centers and households.			
		*	All possible and practical measures to control noise emissions			
			during drilling shall be Employed.			
		*	Contractor shall submit the list of high noise/vibration			
			generating machinery & equipment to the engineer for approval.			
		*	Servicing of all construction vehicles and machinery must be			
			done regularly and during routine servicing operations, the			
			effectiveness of exhaust silencers will be checked and if found			
			defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be			
			regular and up to the satisfaction of the Engineer to keep noise			
			levels at the minimum.			
25.	Impacts due to	*	Contractor shall take appropriate action to ensure that	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		construction works do not result in damage to adjacent	Cost		Engineer, GSMB
	• IVI ativii		properties due to vibration.			
		*	Any parties vulnerable for excessive vibration located along the			
			road such as school (1.8km), temple (2.25km), medical center,			
			houses located adjacent to the ROW etc should be identified			
			in advance and measures as agreed with the Engineer should be			
			implemented to minimize the impact.			
		*	Prior to commencement of excavation, compaction, blasting			
			activity, the Contractor shall undertake a condition survey of			
			existing structures within the zone of influence, as agreed with			
			the relevant government agencies and the engineer.			
		*	Contractor shall compensate or repair any damaged occurred to			
			third party properly as result of his activities as agreed with the			
		1	and party property as result of his activities as agreed with the			

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			affected party and engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the			
			relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and blasts			
			shall be controlled blasting in nature. Notwithstanding to these			
			provisions contractor is liable for any damage caused by blasting			
			work.			
		*	Blasting shall be carried out only with permission of the			
			Engineer and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance sites shall be located away from rivers,			
			at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such			
			a fashion that spillage of fuels and lubricants does not			
			contaminate the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Waste water shall not			
			be disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants			
			to meet the relevant standards before discharging to the			
			environment.			
		*	Contractor shall arrange for collection, storing and disposal of			
			oily wastes to the pre-identified disposal sites (list to be			
			submitted to Engineer) and approved by the Engineer. All spills			
			and collected petroleum products will be disposed of in			
			accordance with standards set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
			guidelines of CEA or any other relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
	- <i>U</i>		passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			
			undertaken without providing adequate provisions to the prior			
			satisfaction of the Engineer.			
		*	The construction corridor should be barricaded at all time in a			
			day with adequate marking, safety tape, flags, reflectors etc. for			
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		 safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) Safety signboards should be displayed at all necessary locations. The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. All construction vehicles should be operated by experienced and trained operators under supervision. Basic onsite safety training prior to the start of the construction activities. All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area. Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded Construction should be removed within 24 hours from the site to ensure public safety. Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public residing along the road in order to make the public avare on road safety especially
28.	Safety of Workers	during the operation period of the road. Engineering PMU/PIU/RDA/Consultant Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. Contractor shall supply all necessary safety measures at site. Cost Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. Welder's protective eye-shields shall be provided to workers who are engaged in welding works. Hearth and the contractor of concrete mixing operation. The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. Hearth and staffs. Hearth and staffs.

any other equipment considered necessary. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. Prevention accidents Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA.	t
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site to caution the road users. The road signs should comply with the Road Safety Manual of RDA.	
the Road Safety Manual of RDA.	
✤ A readily available first aid unit including an adequate supply of	
sterilized dressing materials and appliances should be available	
at the site office at all times	
 Availability of suitable transport at all times to take injured or 	
sick person(s) to the nearest hospital should also be insured.	
 Names and contact information for emergency services such as 	
Ambulance services, hospitals, police and the fire brigade should	
be prepared as a sign board and displayed at the work site.	
✤ Night time illumination should be in place at every location	
where the road is narrow, diverted and structures are repaired	
and any other places where the PIU recommends to do so	
 Monitor and record road crashes during construction and 	
maintenance stages and take appropriate remedial actions	
30. Operation of labor	t
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camps engineer and comply with guidelines/ recommendations issued Cost Engineer, CEA, LA, Do by the CEA/Local Authority (LA). Construction of labourer's Engineer and comply with guidelines/ recommendations issued Cost	
camps shall not be located within 200m from waterways, within	
an area coming under DoF, and near to any other environment	
and social sensitive locations	
The Contractor shall construct and maintain all labor	
accommodation in such a fashion that uncontaminated water is	
available for drinking, cooking and washing.	
Supply of sufficient quantity of potable water (as per IS) in	
every workplace/labor camp site at suitable and easily accessible	
places and regular maintenance of such facilities.	
The sewage system for the camp are designed, built and operated	
in such a fashion that no health hazards occurs and no pollution	

		*	to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	* * *	The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
32.	Prevention of Vector borne Diseases	*	Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues including Gender base violence	*	Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability	
	 for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	
34. Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. The workers will be made aware of GRM procedure through toolbox meetings. 	PMU/PIU/RDA/Consultant Engineer, MoH

35.	Traffic Management	Contractor sha	ll develop a traffic management plan with the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	France Management	relevant autho	rities to minimize inconvenience to road users as		Conductor	Engineer, Traffic Police
		1	road accidents and implement it. d trained flagmen should be used to divert traffic			
			ired traffic management measures.			
			ons should be given if detours are used.			
			s should be enclosed to prevent pedestrians or			
		vehicles falling	g into them			
			of the road surface and width will result in an			
			h the number of vehicles and the vehicle operating			
		speeds.				
			er the construction is completed the contractor			
			levant road signs and road markings to guide the			
26	Tana Charana Ing As		re the safety of the vehicles and pedestrians	En eine enin e	Cantastan	
36.	Loss of Access due to	 Temporary ac blocked for co 	cess will be provided when permanent access is	0 0	Contractor	PMU/PIU/RDA/Consultant
	construction		struction. cated access should be provided for the school at	Cost		Engineer
			the devotees of the temple at 2.25km.			
			tion work is in progress in one side, the other side			
			for traffic & properly			
			each day, debris that blocked access path will be			
			nder the supervision of the Engineer.			
37.	Protection of Physical	 If any physical 	cultural resources are identified along the project	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources		actor will ensure that protective fencing as agreed			Engineer
	(PCRs) close to the		unity and or head of the physical cultural resource			C C
	Site.		osque, place of worship, grave site, monument,			
			r any site designated of importance by the			
		community) is	established to avoid any impacts during the civil			
		works.				
			within 5 meters of the proposed road trace the			
			l conduct and document a crack survey of the site			
			uction to ensure that no damage is caused due to			
			pciated with the civil works and will take all			
			ires to ensure so.			
			r shall not, park vehicles or store construction			
			se proximity to the PCR or site labor camps in nity of the PCR.			
			briefed to ensure that no acts of vandalism will be			
			vill be penalized. Workers should not be allowed			
		to trespass in t				
			with the community the contractor shall not block			
			known places of worship or PCRs along the			
		project trace.	mona praces of worship of rends along the			
	Loss, Damage and		be carried out in a manner that the destruction to	Engineering	Contractor	PMU/PIU/RDA/Consultant

	1				P ·
	disruption to Flora	 the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose The contractor shall build hardy structures around the trees for protection. 			Engineer
39.	Loss, Damage and disruption to Fauna	 All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. No solid or liquid waste should be dumped into natural habitats. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
40.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		borrow material.				
		 Washing the vehicles shou prevent carrying any invasive The construction site should that no invasive species are experience. 	be inspected periodically to ensure stablishing themselves at the site.			
41.	Chance find procedures for PCRs and Archeological Property	 other remains or things of g discovered on the site shall and shall be dealt with a legislation. The Contractor will take rea workmen or any other person such article or thing. He thereof and before remova discovery and carry out the same, waiting which all work The Engineer will seek d Department of Sri Lanka and Chance Find Procedures set f 	eological or archaeological interest be the property of the Government s per provisions of the relevant sonable precautions to prevent his s from removing and damaging any will, immediately upon discovery a cquaint the Engineer of such instructions for dealing with the shall be stopped. irrection from the Archaeological inform the project EO to follow the orth.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	 discharge water to existing st Carry out overall storm wa during construction using te etc. Proper drainage arrangement 		Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	 liaison and to handle public c social related matters (Env. Officer (ESSO)). All public Complaints Register. The E review environmental and so appropriate corrective action the complaints. A register of all complaints within 24 hrs. They are rece ESSO on complains thereof. 	a person responsible for community omplaints regarding environmental/ ronmental and Social Safeguards complaints will be entered into the SSO will promptly investigate and cial complaints and implement the s to arrest or mitigate the cause of a is to be passed to the Engineer ived, with the action taken by the			
44.	Prevention of landslides	 Contractor should strictly the measures such as gabion wal as per the designs given in the measures instructed by the Enternation Contractor should incorporate 	s, retaining walls, soil nailing etc e Contract documents and any other	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

45.	Prevention of Sexual exploitation, child trafficking and child labour	 trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTIO	N	
46.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	RDA,/Consultant EngineerPRDA

47.	Environmental Enhancement/	edge t	cape plantation, including turfing of shoulders, slope reatment of water bodies shall be taken up as per eithe	er Cost	Contractor	RDA/Consul PRDA	tant Engineer,
	Landscaping	Bid Do The C earth, locatio	d design or typical design guidelines given as part of the ocuments. ontactor also shall remove all debris, piles of unwante spoil material, away from the workplaces and disposed a ns designated or acceptable to the Engineer or as per the ted waste management criteria of this ESMP.	d it			
48.	Road furnishing on safety.	The Control of the	ontractor will ensure that all safety signage and indicativ narkings are installed on site as per the guidance of the prior to demobilization.		Contractor	RDA,/Consu EngineerPRI	
49.	Hydrology and drainage		g maintenance, repairing, removal of sediments an h to avoid drainage congestions and obstructions to storn flow	0 0	Contractor, PRDA	PRDA, Engineer	RDA/Consultant
50.	Replanting of trees		h and survival of trees planted shall be ensured an pring done at least for a period of three years	d Engineering Cost	Contractor	PRDA, Engineer	RDA/Consultant

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakeholder		Key concerns raised/Suggestions
	Type of Stakeholder	Gender (M/F)	Provided
11.03.2021	Resident	Male	 Road is damaged and need to be developed. This road is an access road to Bopath Ella waterfall
11.03.2021	Rod user	Male	 Main livelihood of the area is agriculture. This road has a public transport service.
11.03.2021	Small shop owner	Male	 The road development is good. Get an income from selling tea to people who visit waterfall. This is our only income and I also sell betel and king coconut.
12.03.2021	Women Development Officer, Kuruvita DS Division	Female	 Many women in project area do not work. So, we encourage them to engage in self-employment. The road development is good.
11.03.2021	Grama Niladari, Devipahala	Male	 This road is used by local and foreign tourists to go to Bopath Ella. This road development will facilitate tourists and residents in the area.

2.9. ESMP of SR09 – Erathna - Thundola Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 9 – Erathna – Thundola Road (2.48km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background

Erathna Thundola Road

Length: 2.48km

Coordinates: Starting Point: 6° 47.013'N, 80° 22.543'E End Point: 6° 47.740'N,80° 22.555'E

Location: District: Ratnapura DS Division: Kuruvita, Ratnapura EE Division: Ratnapura GN Divisions: Ekneligoda – North, Walandura

1. Introduction

The Erathna Thundola Road starts from Kuruvita – Erathna Road and traverses a half a circle and connects to the same road. The road is under the custody of Kuruvita Pradeshiya Sabha (local authority). The road runs along flat to undulating terrain. Elevation of the trace varies between 38m - 167m MSL. The existing road surface condition is damaged macadam, and a few sections with concrete. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drain 0.7m (one side). The construction period for this road is estimated as four (4) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Erathna Thundola road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Kuruvita Pradeshiya Sabah (local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Kuruvita Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

This road serves as a bypass road to Kuruvita – Erathna Road. There are tea and rubber cultivations in the area. The road development will facilitate the transportation of agricultural produceand private and government sector employees to reach their working places easily.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 4 for persons contacted). The tachnical details were obtained from the Project Management Unit of the Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Erathna Thundola Road will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible economic displacement to the small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration and temporary impacts to waterways due to reconstruction of culverts and drains. These impacts are specifically limited to the construction phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: There are about 93 households and 07 small shops located on either side of the road. The population is estimated at380. The majority of the population are Sinhalese. There are also Tamil and Muslim families living in scattered sections. The majority of the people are Buddhists by religion while others are Islamic and Hindu.
- Land ownership: There is a small shop located in 2+750km (RHS) of the existing RoW. However, the shop will not be affected by civil works (see Annex 3 for details). The other residents in the area are titleholders, permit holders and people living on estate lands.
- Livelihoods: There is tea, rubber plantations and home gardens along the road. Many people are engaged in day today labour work in these plantations. Others are involved in self-employment, and government and private sector jobs. Private sector employment is mainly in the garment factories.
- Local organisations: There are Rural Development Societies, Farmers Societies, Elders' Societies and Samurdhi societies in the project area.
- **Community infrastructure and resources:** There is a Buddha shrine, a community hall and a volleyball ground as shown in Table 1. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Community infrastructure & resources	Location - GPS Coordinate		Road side	Distance from RoW
Buddha Shrine	6°47'0.68"N	80°22'32.52"E	RHS	Stairs to the Buddha Shrine:05m Buddha Shrine: 3m
Community hall and volleyball Ground	6°47'1.78"N	80°22'56.18"E	LHS	8m

Table 1: Community infrastructure and resources

On-going development projects: None

• Visitors to the area: People come to the area for trading activities connected with tea and rubber.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		V		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Kuruvita Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		V		The RoW is owned by Kuruvita Pradeshiya Sabah (local authority). The current usage of the land is road. There is a small shop located in the existing RoW.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			\checkmark	
Loss of Livelihood				

Screening Questions	Not known	Yes	No	Remarks
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		V		There is a small shop located in the existing RoW. However, shop will not be affected. Refer Appendix 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			\checkmark	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		 ✓ 		There are no affected people as the development is carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There is a Buddha shrine, a community hall and a volleyball ground (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		√		Project area comes under the Kuruvita Police station which is 1.68km away from the

Screening Questions	Not known	Yes	No	Remarks
				project site.Further, " <i>MithuruPiyasa</i> " ⁹ center is located in Kuruwita hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors.
				Approximately12laborerswillberecruitedfortheproject.
Will the project hire workers from the local workforce?		V		Priority will be given to secure labor from the local community.
Will there he markers brought in from outside the		√		There is possibility of employing outside labor if local labor is
Will there be workers brought in from outside the project area?				not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		V		

⁹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Erathna - Thundola Road (SR09)Road Length:2.48kmLocation:District: Ratnapura
DS Division: Kuruwita

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			1
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	~		Permanent alteration will not be required. Reconstruction of culverts at 0.43, 0.53, 1.6, 1.7, 1.97, 2.08, 2.28, 2.4 and 2.8 will require temporary diversion of streams. Waterways which are temporally diverted will be restored to its original condition and water supply to downstream will be continued. Avoiding dumping unsuitable and construction material near water bodies and application of soil conservation measures to avoid siltation of water

		bodies will minimize these impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Labor camps will be established only after approval from local authority and their recommendations will be practiced.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	~	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	Rock blasting is not necessary along the road. Noise and vibration levels generated due to most of field construction activities will be maintained below maximum permissible levels of the national standards while taking special precautions at sensitive receptors as given in the Question 6 of the social screening checklist.
- Dislocation or involuntary resettlement of people		\checkmark
- Other social concerns relating to	\checkmark	Settlements are located close

inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			to the road around $0.0 - 0.1$ km & 2.8km. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities.
- Hazardous driving conditions where construction interferes with pre-existing roads?		~	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	~		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labour camps.
 Creation of temporary breeding habitats for mosquito vectors of disease? 	~		Avoiding possibilities of water stagnation within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic material sand loss of life? 	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		\checkmark	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 3: Information on Encroachers/Squatters

Appendix 1 -- Photographs of Erathna - Thundola Road



Figure 1:Strating point of the road



Figure 2: Road along the home gardens



Figure 3: Death Donation Society hall and volleyball court located at 1.375 km on the RHS of the road



Figure 4:A squatter observed at 2.750 km on RHS of the road



Figure 5: Road along the agricultural lands



Figure 6:End point of the road

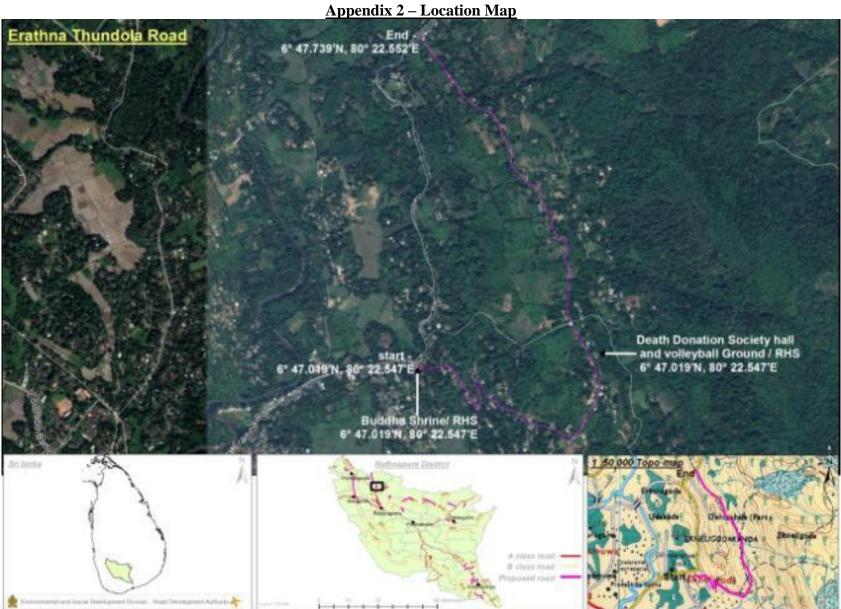


Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	6°47'37.73"N 80°22'37.94"E	2m from the edge of the carriage way	Owner of the small shop is Miss. N.G. Sumanawathi. She sells king coconut, toffee and biscuits. Her main income is tea plucking. Shop is an additional income for her. Her monthly income is about Rs. 10,000. There are 04 family members in her family. She is doing this business for 02 years.	The proposed improvements to the road include carriageway 3m, shoulder 0.5m (both sides) and drain 0.7m (one side). Therefore, the shop will not be affected. However, there will be temporary impacts such as dust, noise, vibration and disturbance to access during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels

Appendix 3: Information on Encroachers/squatters within the RoW

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Erathna - Thundola Road						
Risk Category assigned by E and S Screening	Moderate					
Design Recommendations and guidance						
Design Justification	Guidance to be Used					
Side drains and cross drains directed to streams are	Section 10,15,22,42 of ESMP					
recommended to have proper silt control measures to avoid						
siltation of the streams.						
A small shop is located on the existing ROW at right side of	ARAP will provide guidance					
2.750km. If the lottery stall needs to be relocated, consult social	for relocation					
experts of the project prior to final design.						
Details of Internal Submission of Design Recommendation	18					
Submitted by	Director - ESDD, RDA					
Date of submission	11 June 2021					
Name of RDA design team member submission was made	Project Director – IRCDP,					
to	RDA					
Mode of transmission (Email, hand delivery)	Email					

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 09 Erathna - Thundola Road

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility				
	_			Implementation	Monitoring				
	PRE-CONSTRUCTION	PRE-CONSTRUCTION AND SITE PREPARATION							
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer				
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Kuruvita). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer				

		 recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. Removed trees of economic value must be handed over to the Timber Corporation. Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner.
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	 The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camps must be submitted to Engineer of the relevant managing department prior to their construction. The constructions for the laborers should be provided in all three languages. Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and obter vector borne diseases. The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and offices including water, urinals, toilets, baching facilities, mosquito nets with adequate capacity of septic tanks and soak pits. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) Provision shall be made for domestic solid waste disposal in

			acceptable manner. The solid waste shall be handed over to the			
			waste collecting system of the Local Authority (LA) of the area			
			(if any) and wastewater should be disposed in an environmentally			
			acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be			
			provided for the work force.			
		*	Personal Protective Equipment (PPEs) such as helmet, boots, and			
		•	earplugs for workers, first aid and firefighting equipment shall be			
			available at construction sites before start of construction. An			
			emergency plan shall be prepared to fight with any emergency			
			like fire.			
		*	All construction camps shall have provision of rationing facilities			
			particularly for kerosene/LPG so that dependence on firewood			
			for cooking is avoided to the extent possible			
		*	Labor camp sites after use should be cleared and the site should			
			be reinstated to previous condition at the close of the			
4	Matal	•	construction work.	г · ·	0.1.1	
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
		*	The contractor is required to maintain the necessary licenses and	COSt		Engineer, CEA, OSWID
		•	environmental clearances from GSMB and CEA for all borrow			
			and quarry material they are sourcing -including soil, fine			
			aggregate and coarse aggregate.			
		*	Sourcing of any material from protected areas and/or designated			
			natural areas, including tank beds, are strictly prohibited.			
		*	If the contractor uses a non-commercial borrow/quarry sites, the			
			sites should be remediated accordingly once material sourcing			
			has been completed.			
		*	The contractor should submit in writing all the relevant numbers			
			and relevant details of all pre-requisite licenses etc. and report of			
5.	Water for	*	their status accordingly to the Engineer. The contractor should arrange adequate supply of water for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Construction activities	•	project purpose throughout the construction period from a source	Cost	Contractor	Engineer
	construction activities		agreed upon with the engineer.	2350		2
		*	Water may not be obtained for project purposes, including for			
			labor camps, from public or community water supply schemes			
			without a prior approval from the relevant authority Extraction of			
			water from ground water or surface water bodies without the			
			permission from Engineer and the relevant authority(Water			
			Resources Board, NW&DB, Department of Irrigation, CBO)			
		*	Permission for the extraction of water should be obtained prior to			
			the commencement of the project, from the relevant authority.			

6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals on forested areas that require clearing. Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting utilities	of	public	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT
10.	Hydrology drainage	y	and	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department and Agrarian Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI

11.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead always in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Kuruwita PS
12.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Acquisition	PIU/PMU of RDA	RDA, Kuruwita PS
13.	Commercial units located within the existing ROW (Preparation and Implementation of ARAP)	 In case the small shop located within the ROW at 0.750km on LHS is affected, the preparation of the ARAP and obtaining the WB approval is required prior to the commencement of civil works. The civil work can commence only after the relocation of the small shop to an alternate location and (if required) payment of due compensation. The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU in the implementation of the ARAP 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Kuruwita PS

14.	Identifying locations to provide temporary access	* * *	Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	SE				
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	* * *	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies Avoid disposal on productive/agricultural land. should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiyasabha, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		requirements.			
		 The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structure should not be sited to the productive/agricultural lands environmentally sensitive locations such as forest lands, wate bodies. 			
16.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive area where it has to be removed for the purpose of this project shall b stripped to a specified depth of 150mm and stored in stockpile of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve th topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil must be distributed on adjoining/proximate barren area as identified by the Engineer in a layer of thickness of 75mm 150mm. Topsoil thus stockpiled for reuse shall not be surcharged o overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should b restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should b stored in closed structures or in a contained manner. Al construction materials such as sand, metal, lime, bricks etc should be transported under cover to the site and stored unde cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such a old tires or cinder blocks, with the edges of the sheeting buried 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff Approval shall be taken prior to use of local roads from relevant authorities and need to maintenance during the use by the 		
19.	Emission of Dust	 Contractor In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.18. Any parties vulnerable for excessive dust residing along the road such as houses located adjacent to the ROW etc should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Mud patches caused by material transporting vehicles in the access road should be immediately cleaned Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required times. Erection of dust barriers to the public, religious and other socially important locations Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 	neering Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self Operated Borrow Sites		neering Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB

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21.	Quarry Operations and Management of Self Operated Quarry Sites	 No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. In the event the contractor manages a self-owned existing quarry sites available in the project area They should be approved by CEA with valid IML (Industrial Michaele). 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB
		Mining Licenses);			
		 Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. 			
		 Selected quarry sites should have proper safety measures such as 			
		warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.			
		✤ Quarry sites should not be established within protected sites			
		identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive			
		locations.			
		 It is recommended not to seek material from quarries that have ongoing disputes with community. 			
		✤ The maintenance and rehabilitation of the access roads in the			
		event of damage by the Contractors operations shall be a			
		responsibility of the Contractor.Copies of all relevant licenses should be maintained by the			
		Contractor for review and documentation by the engineer			
22.	Control of	 Debris material shall be disposed in such a manner that existing 	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation and	drainage paths are not blocked.	Cost		Engineer
	Soil Erosion	 Drainage paths associated with irrigation structures should be 			
		improved / erected to drain rainwater properly.			

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	*	Silt traps will be constructed to avoid siltation into the water		
		ways. Where necessary along the road corridor.		
	*	To avoid siltation, drainage paths should not be directed to		
		waterways and irrigation canals and they should be separated		
		from such water bodies		
	*	Temporary soil dumps should be removed from the construction		
		sites as soon as possible. Until removal, these soil dumps should		
		be covered with thick polythene sheets.		
	*	Temporary soil dumps should be placed at least 200m away from		
		all water bodies.		
	*	Top soil shall be prevented to use for tree planting and turfing		
	•	activities.		
	*	In Hilly terrain and areas with slopes		
	*			
		• Embankment slopes, slopes of cuts, etc. shall not be		
		unduly exposed to erosive forces.		
		• These exposed slopes shall be graded and covered by		
		grass or other suitable materials per the specifications.		
		• During the rainy season open cuts/slopes should be		
		covered with fixed polythene sheeting to avoid		
		excessive erosion.		
	· · · · · · · · · · · · · · · · · · ·	All fills, back fills and slopes should be compacted immediately		
		to reach the specified degree of compaction and establishment of		
		proper mulch.		
	*	Work that lead to heavy erosion shall be avoided during the		
		raining season. If such activities need to be continued during		
		rainy season prior approval must be obtained from the Engineer		
		by submitting a proposal on actions that will be undertaken by		
		the contractor to prevent erosion.		
	*	Construction activities: excavation and earth work around		
		vulnerable area for soil erosion mainly restricted to the dry		
		periods and removal of green cover vegetation shall be		
		minimized.		
	*	The work, permanent or temporary shall consist of measures as		
		per design or as directed by the engineer to control soil erosion,		
		sedimentation and water pollution to the satisfaction of the		
		engineer.		
1		• Typical measures include the use of berms, dikes		
1		sediment basins, fiber mats, mulches, grasses, slope		
1		drains and other devices.		
		• All sedimentation and pollution control work and		
		maintenance thereof are deemed, as incidental to the		
1		earthwork or other items of work and no separate		
		payment will be made for their implementation.		
	*	Erosion control measures as given in Annex III should be applied		
1		where feasible.		
L		where redshule.		1

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23.	Noise from vehicles, machinery and equipment	 Noise generating work should be limited to daytime (6:00AM t 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to publi sensitive receptors (temples, hospitals) and residential area (from 6:00PM to 6:00AM on the following day). Any parties vulnerable for excessive noise residing along th road such as houses located adjacent to the ROW etc should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. All equipment and machinery should be operated at noise level that do not exceed the permissible level of 75 dB (durin construction) for the daytime. For all construction activitie undertaken during the nighttime, it is necessary to maintain th noise level at below 50 dB as per the Central Environmenta Authority (CEA) noise control regulations. Special approva should be obtained from CEA for night time work through PIU. All equipment should be in good serviced condition. Regula maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazett Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batchin plants). Ideally noise generating work should not be carried out durin public holidays and religious days. Special care should be take as there is a temple nearby. 	e Cost S S S S S S S S S S S S S S S S S S S	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
24.	Vehicular noise pollution at residential / sensitive receptors	 Idling of temporary trucks or other equipment should not b permitted during periods of loading / unloading or when they ar not in active use. The practice must be ensured especially near residential commercial / sensitive areas. Stationary construction equipment will be kept at least 500r away from sensitive receptors, where possible. These includ places of worship, schools, medical centers and households. All possible and practical measures to control noise emission during drilling shall be Employed. Contractor shall submit the list of high noise/vibration generatin machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must b done regularly and during routine servicing operations, th effectiveness of exhaust silencers will be checked and if foun defective will be replaced. 	e Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		*	Maintenance of vehicles, equipment and machinery shall be			
			regular and up to the satisfaction of the Engineer to keep noise			
		•	levels at the minimum.			
25.	impueto due to	*	Contractor shall take appropriate action to ensure that		Contractor	PMU/PIU/RDA/Consultant
	Vibration		construction works do not result in damage to adjacent properties	Cost		Engineer, GSMB
			due to vibration.			
		*	Any parties vulnerable for excessive vibration residing along the			
			road such as houses located adjacent to the ROW etc should be			
			identified in advance and measures as agreed with the Engineer			
			should be implemented to minimize the impact.			
		*	Prior to commencement of excavation, blasting activity, the			
			Contractor shall undertake a condition survey of existing			
			structures within the zone of influence, as agreed with the			
			relevant government agencies and the engineer.			
		*	Contractor shall compensate or repair any damaged occurred to			
			third party properly as result of his activities as agreed with the			
			affected party and engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the			
			relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and blasts			
			shall be controlled blasting in nature. Notwithstanding to these			
			provisions contractor is liable for any damage caused by blasting			
			work.			
		*	Blasting shall be carried out only with permission of the			
			Engineer and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
			from rivers, at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate			
			the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA.Wastewater shall not be			
			disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants			

			to meet the relevant standards before discharging to the			
			environment.			
		*	Contractor shall arrange for collection, storing and disposal of			
			oily wastes to the pre-identified disposal sites (list to be			
			submitted to Engineer) and approved by the Engineer. All spills			
			and collected petroleum products will be disposed of in			
			accordance with standards set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
			guidelines of CEA or any other relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
	· ·		passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			C
		·	undertaken without providing adequate provisions to the prior			
			satisfaction of the Engineer.			
		*	The construction corridor should be barricaded at all time in a			
		**				
			day with adequate marking, safety tape, flags, reflectors etc. for			
			safety of individuals using the site daily basis. (Items such as			
			parking cones, lights, tubular markers, orange and white strips			
			and barricades of a luminous nature for night visibility shall be			
			procured where deemed necessary)			
		*	Safety signboards should be displayed at all necessary locations.			
		*	The contractor should obtain a Third-party insurance to			
		·	compensate any damages, injuries caused to the public or			
			laborers during the construction period.			
		*	All construction vehicles should be operated by experienced and			
		**				
		•	trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers			
			during the ESMP training prior to the start of the construction activities.			
		.*.				
		*	All digging and installation work should be completed in one go,			
			if this task is not accomplished the area should be isolated using			
			luminous safety tape and barricading structures surrounding the			
			whole area.			
		*	Trenches should be progressively rehabilitated once work is			
			completed.			
		*	Material loading and unloading should be done in an area, well			
			away from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the			
			site to ensure public safety.			
		*	Safety awareness programs should be conducted by the			
		•••				
			Contractor in annual basis targeting the public residing along the			
			road in order to make the public aware on road safety especially			
L			during the operation period of the road.			
28.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
			workers as per the ILO Convention No. 62 and Safety & Health			

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		 Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement concrete etc. Welder's protective eye-shields shall be provided to workers whare engaged in welding works. Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. In addition, the contractor shall maintain in stock at the sit office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. A safety inspection checklist should be prepared taking interconsideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. All workers should be made aware about Workers GRM and the should be facilitated to approach relevant GRCs as and whe required. National and World Bank requirements (such as providin necessary personal protective equipment, taking temperatur checks etc.) for prevention of the spread of COVID-19 virus will 			Engineer
29.	Prevention of accidents	 be adhered to. Prevention of accidents involving human beings, animals of vehicles falling or accidents due to open trenches/manhole during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available a the site office at all times Availability of suitable transport at all times to take injured of sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such a Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired an any other places where the PIU recommends to do so 	s Cost r f t s l	Contractor	PMU/PIU/RDA/Consultant Engineer

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		♦ Monitor and record road crashes during construction and			
		maintenance stages and take appropriate remedial actions		~	
30.	Operation of labor camps	 Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment andsocial sensitive locations The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	 The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details. The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
		 site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 			

	home Diggerer	mosquitoes at places of work, labor camps, plus office and store	Cost		Engineer Mell
	borne Diseases	 hosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 			Engineer, MoH
33.	Gender issues	 Equal opportunity shall be ensured while requirement of project 	Engineering	Contractor	PMU/PIU/RDA/Consultant
	including Gender base violence	 Equal opportunity shall be classified while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Cost		Engineer
34.	Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		 Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. The workers will be made aware of GRM procedure through toolbox meetings. 			
35.	Traffic Management	 Contractor shall develop a traffic management plan with the relevant authorites to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in ar increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	 Temporary access will be provided when permanent access is blocked for construction including access of houses, public properties and places of worship. When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civit works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to the contractor shall conduct and document actions. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

			vibuations associated with the sivil works and will take all			
		* '	vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in			
			immediate vicinity of the PCR.			
			Labors will be briefed to ensure that no acts of vandalism will be			
			tolerated and will be penalized. Workers should not be allowed to trespass in to such areas.			
			Unless agreed with the community the contractor shall not block			
			access to any known places of worship or PCRs along the project trace.			
38.	Loss, Damage and	• .	All works shall be carried out in a manner that the destruction to	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Flora		the flora and their habitats is minimized.	Cost		Engineer
			Trees and vegetation shall be felled / removed only if that			
			impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior			
			approval from the Engineer.			
			Contractor shall make every effort to avoid removal and/or			
			destruction of trees of religious, cultural and aesthetic			
			significance.			
			If such action is unavoidable the Engineer shall be informed in			
			advance and carry out public consultation and report on the same should be submitted to the Engineer.			
			Contractor shall adhere to the guidelines and recommendations			
		1	made by the CEA, if any with regard to felling of trees and			
			removal of vegetation.			
			Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be			
			shared with the engineer and maintained by the contractor.			
			The contractor shall plant at least 3 good specimens of native			
			trees over 5-year-old root-balled or having at least 3ft height			
		5	suitable for the location as identified by the Engineer. The			
			planting should take place in public land suitable for the purpose			
			The contractor shall build hardy structures around the trees for			
			protection.			
			The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract			
39.	Loss, Damage and		All works shall be carried out in such a manner that the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna		destruction or disruption to the fauna and their habitats is	Cost		Engineer
			minimal.			
			Construction workers shall be instructed to protect fauna			
			including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is			
			not allowed.			
L	I	1	not unowed.	1		

		• No solid or liquid waste should be dumped into natural habitats.			
40.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	 All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	 Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 		Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental social related matters Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and			

44.	Prevention of Sexual exploitation, child trafficking and child labour	 of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education. 	ontractor PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTIO	Ň	
45.	Clearing/Closure of Construction Site/Labor Camps	 engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	ontractor RDA,/Consultant Engineer PRDA
46.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	ontractor RDA/Consultant Engineer, PRDA

47.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant Engineer PRDA
48.	Hydrology and drainage	nd Rooting maintenance, repairing, removal of sediments and H rubbish to avoid drainage congestions and obstructions to storm water flow		Contractor, PRDA	PRDA, RDA/Consultant Engineer
49.	Replanting of trees	Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
50.	Commercial units located within the existing ROW (Post monitoring of ARAP)	 PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. The shop owners will be linked with relevant local authorities to (if necessary) for further assistance. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation for IRCDP.

Date	Details of Stakeholder		Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	GramaNiladari — Ekneligoda	Female	 There are tea and rubber cultivations. People engage in day today labor activities in these cultivations. Majority of population is Sinhalese.
11.03.2021	Squatter	Female	 The main income is tea plucking. Also operate this small shop when not going for tea plucking. Derive an income by selling king coconuts in the shop.
11.03.2021	Motor Mechanic	Male	 This road is damaged and its difficult for vehicle users. Around 500m section of the road is in a dilapidated condition and villagers informed the authorities to construct at least that section.
11.03.2011	Road User	Female	 People in the area work in the garment factory. The vehicles that transport garment workers do not come to this area as road is damaged. People must walk to the main road because of that. The lorries that transport tea also use this road.

2.10. ESMP of SR 10 – Guruluwana - Ekneligoda Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 10 – Guruluwana – Ekneligoda Road (3.60km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background

Guruluwana Eknaligoda Road

Road length: 3.60km

Coordinates: Starting Point : 6° 46.973'N, 80° 26.058'E End point : 6° 46.357'N, 80° 24.638'E

Location: District: Ratnapura DS Division: Ratnapura EE Division: Ratnapura GN Divisions: Guruluwana, Ketawala, Gilimale North

1. Introduction

Guruluwana Eknaligoda Road starts from Malwala – Carney (B265) road and traverses for 3.60km. The road is under the custody of Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged macadam. The Road traverses along a hilly terrain and the elevation of the trace varies between 225m - 283m MSL. The proposed road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 3.6km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.3m, shoulder 0.5m (both sides), and a drain 0.7m (one side). The construction period for this road is estimated as five (5) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, o there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Guruluwana – Eknaligoda road is around 5m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a

representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road surface is damaged, and the road development is important. There is tea, cinnamon, rubber and paddy cultivation in the area. The road development will facilitate the transportation of these agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Guruluwana Eknaligoda Road will have a majority of reversible, small-medium scale environmental and social impacts. The impacts are temporary diversion of streams for culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the construction phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 110 households and 20 small shops located on either side of the road. The population is around 494. The majority of the population are Sinhalese. There are Tamil families as well. They are Buddhists and Hindus by faith.

Land ownership: There are no squatters along the road. There are private and government lands.

- Livelihoods: There are tea, cinnamon, rubber and paddy cultivations and home gardens along the road. People are engaged in day today labour work in these cultivations and there are also people who are self-employed and those in government and private sector jobs.
- Local organisations: There are Rural Development Societies, Farmer Societies, Elders' Societies, Samurdhi Societies and Sanasa societies functioning in the area.
- **Community infrastructure and resources:** There is a temple, a bank, a police station, a shrine and Bo tree, a school and a service centre of the local/village level administrators along the road as shown in Table 1. During construction period, the access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location -	GPS Coordinate	SPS Coordinate Road side	
Sri Lanka Police - Guruluwana	6°47'0.10"N	80°25'55.29"E	RHS	2m
Sanasa Bank	6°47'0.10"N	80°25'55.29"E	LHS	20m
Sri Priyadarsanaramaya Temple	6°46'51.26"N	80°25'42.71"E	LHS	2m.
School (Ketawala)	6°46'42.84"N	80°25'18.38"E	RHS	5m
Service Centre (Sewapiyasa) of the local level administrators	6°46'43.40"N	80°25'11.25"E	LHS	4m
Bo Tree and Buddha Shrine	6°46'24.74"N	80°24'54.67"E	LHS	3m

On-going development projects: None

• Visitors to the area: Traders frequently come to buy the agricultural produce in the area.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			v	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			~	RoW
Is the ownership status and current usage of land known?		✓		The RoW is owned by PRDA (Sabaragamuwa). The current usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works?			√	

Screening Questions	Not known	Yes	No	Remarks
(Is the land free of squatter/informal settlements or other encumbrances?				
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing ROW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			\checkmark	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		~		There is a temple, a bank, a police station, a shrine and Bo tree, a school and a service centre along the road (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		~		Project area comes under the Guruluwana police station located close to the site.

Screening Questions	Not known	Yes	No	Remarks
				Further, " <i>Mithuru</i> <i>Piyasa</i> " ¹⁰ center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			 ✓ 	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		~		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		V		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-		\checkmark		

¹⁰Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
economic, cultural, religious or demographic background?				
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Guruluwana to Ekneligoda road (SR10)Road Length:3.6kmLocation:District: Rathnapura
DS Division: Rathnapura
GN Divisions: Guruluwana, Ketawala, Gilimale north

	YES	NO	REMARKS
SCREENING QUESTIONS			
A. Project Location			
Is the Project area adjacent to or within any of the			

following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		~	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	
 Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site? 	V		Culverts will be reconstructed at 0.18, 0.32, 0.5, 0.59, 1.51, 1.78, 2.33, 2.72, 3.1 and 3.5km and streams will be temporary altered. Waterways will be restored to its original condition if stream will be diverted for rehabilitation of structures. Unsuitable material and construction materials will be properly handled to avoid erosion and soil erosion control measures will be applied at every water body to minimize soil erosion impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	 ✓ 		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies will minimize this impact. Storing and protecting construction materials such as cement, bitumen and other chemicals including any harmful substances in

		protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to crushing, cutting and filling works, chemicals from asphalt processing?		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and civil works?	other 🗸	Rock blasting not necessary along the road. Noise and vibration levels generated due to civil works will be managed within the permissible level as specified in the national standards. Special precautions will be taken at sensitive receptors as given in the Question 6 on the social screening checklist.
- Dislocation or involuntary resettleme people	nt of	\checkmark
 Other social concerns relating inconveniences in living conditions i project areas that may trigger cases of respiratory problems and stress? 	n the	Settlements are located close to the road around 0.1km, 0.5km & 3.6km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time while providing special attention to settlement areas.

 Hazardous driving conditions where construction interferes with pre-existing roads? Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? 	~	✓	Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much
			as possible will reduce the need of the labor camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Avoiding water collection areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic material sand loss of life? 	V		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and providing PPE for labor will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		√	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 -Photographs of Guruluwana – Ekneligoda Road



Figure 1: Starting point of the road



Figure 2: Temple located at 0.800km on LHS of the road



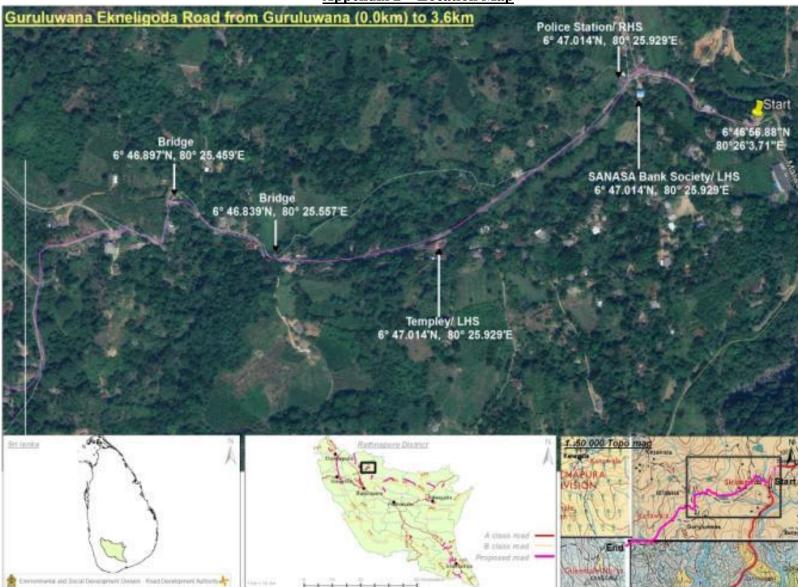
Figure 3: Bridge located at 1.350km of the road



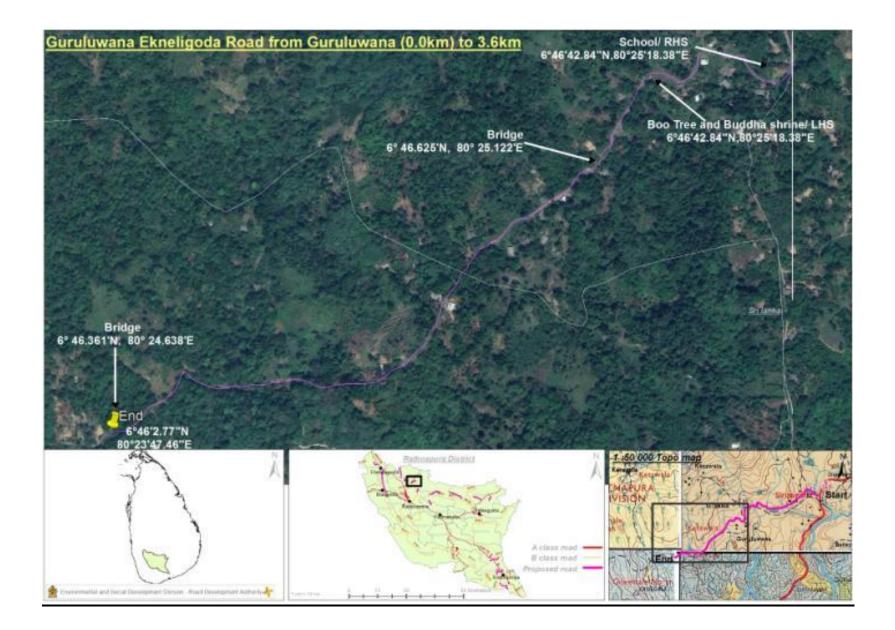
Figure 4: School located at 1.900km on RHS of the road



Figure 5: End point of the road



Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Guruluwana -Ekneligoda Road				
Risk Category assigned by E and S ScreeningModerate				
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Alignment of the road should ensure that the temple at				
0.8km shall not be encroached. And it is recommended to				
improve the access to the temple with the consultation of				
the chief priest.				
It is recommended to improve the road safety at the school	• Section 27 and 36 of			
located at 1.9km by introducing pedestrian crossings, speed	ESMP			
barriers, sign boards etc				
Existing slopes should not be disturbed with the road	• Section 11, 42 of ESMP			
rehabilitation. Appropriate slope protection measures	• Any guidance to be			
should be included if slopes are to be disturbed with the	issued by NBRO			
recommendation of the Engineer and NBRO.	_			
Details of Internal Submission of Design Recommendation	ns			
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director – IRCDP,			
to	RDA			
Mode of transmission (Email, hand delivery)	Email			

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 10 - Guruluwana - Ekneligoda Road

	Activities and Associated Impacts	1		Re	sponsibility
			cost	Implementation	Monitoring
	PRE-CONSTRUCTIO	N AND SITE PREPERATION	I		
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		 public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. Removed trees of economic value must be handed over to the Timber Corporation. Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner.
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	 The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. The construction will commence only upon the written approval of the Engineer and then from the relevant local authority Separate labor camps need to be provided for female migrant laborers. The instructions for the laborers should be provided in all three languages. Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. Provision of proper soluding vaccimedation to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is

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		 available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) Provision shall be made for domestic solid waste disposal in acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction camps shall have provision of rationing facilities particularly for kerosen/LPG so that dependence on firewood for cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the
4.	Material Sourcing	 construction work. The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer.

5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority(Water Resources Board, NW&DB, Department of Irrigation, CBO) Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 		Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT

10.	Hydrology and drainage	 consultation ar Department, Pro Department Temporary dive should be ensure Construction w prevented and w season Excavation of be other water resource 	culverts and other drainage structures in nd recommendations of the Irrigation ovincial Irrigation Department and Agrarian ersion of water ways during construction ed that no obstruction to natural water flow york affecting water bodies should be work should be scheduled during the dry eds of any streams, irrigation systems, and urces shall be avoided by the contractor not divert, close, block existing canals and	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	streams in a n intakes Prior identificati proper consulta Organisation (NI Existing slopes s	nanner that adversely affect downstream on of erodible and landslide prone areas in ation with National Building Research BRO). should not be disturbed to extent possible recommendations and guidelines of the	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO, NRMC
12.	Land donation	 for the design reason or construction locations where a location where a location where a location is the respective Di location of the respective Di location of the respective Di location of the locatio	will be involved only for the land required equirements including realignment of bends of cross drainages, lead always in the required. From the public, negotiation with property earried out with involvement of a third party, ivisional Secretariat. The made to minimize the land donation for the even the donor and the recipient shall be the format prepared for land donation. The ary charges for modifying the deed shall be object to free any legal encumbrances caused ing the lands for road works.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, PRDA (Sabaragamuwa)

13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Acquisition cost	PIU/PMU of RDA	RDA, PRDA (Sabaragamuwa)
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	CONSTRUCTION PHASE			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated extra care need to be taken, not to damage crops and trees in private lands. The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

				dymaina			,
				dumping			
			0	Should be located in nonresidential areas located in the downwind side			
			0	Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies			
			0	Avoid disposal on productive/agricultural land.			
			0	should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha,			
			0	Minimize the construction debris/excavated materials as much as possible by balancing the cur and fill requirements.			
		*	transport dumping Debris,	tractor should avoid any spillage of spoil when ing such materials to the approved material sites. residual spoil and dismantled and demolished s should not be sited to the productive/agricultural			
			lands, ei	nvironmentally sensitive locations such as forest ater bodies.			
16.	Protection of topsoil	*	Topsoil areas wh	of the agricultural areas and any other productive here it has to be removed for the purpose of this	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
			stored in	hall be stripped to a specified depth of 150mm and stockpiles of height not exceeding 2m, as directed			
			by the Er	ngineer. ntractor is in any doubt on whether to conserve the			
			topsoil o	or not for any given area, he shall obtain the			
				from the Engineer in writing d topsoil could be used as a productive soil when			
			replantin	g trees and during turfing.			
				ed topsoil must be returned to cover the areas where oil has been removed due to project activities.			
			Residual	topsoil must be distributed on adjoining/proximate			
				reas as identified by the Engineer in a layer of $s \circ f 75$ mm – 150mm.			
		*		thus stockpiled for reuse shall not be surcharged or			
				s possible multiple handling of topsoil stockpiles e kept to a minimum.			

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17.	Protection of Ground Cover and Vegetation	*	Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		**	should be restricted to particular points as directed by the engineer			
		*	Contractor should provide necessary instructions to drivers,			
			operators and other construction workers not to destroy			
			ground vegetation cover unnecessarily.			
18.	Transport and	*	All material should be transported in fully covered trucks.	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Storage of		Overloading of vehicles with materials should be controlled	Cost		Engineer
	construction	•	and done in a manner to suit the trucks capacity.			
	materials	*	Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All			
			construction materials such as sand, metal, lime, bricks etc.			
			should be transported under cover to the site and stored			
			under cover at the sight. Plastic sheeting (of about 6 mm			
			minimum thickness) can be used and held in place with			
			weights, such as old tires or cinder blocks, with the edges of			
			the sheeting buried, or by the use of other anchoring			
		•	systems.			
		*	Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users			
		*	Selection of sites for stock piling with the approval of			
		•	Engineer away from environment and public sensitive			
			locations			
		*	Storage of fuel, lubricant and chemicals use for the			
			construction activities on paved surface without			
			contamination to the environment and storm water runoff			
		*	Approval shall be taken prior to use of local roads from			
			relevant authorities and need to maintenance during the use by the Contractor			
19.	Emission of Dust	*	In order to minimize the levels of airborne dust all	Engineering	Contractor	PMU/PIU/RDA/Consultant
			construction material/debris should be stored as per the instructions provided above No.18.	Cost		Engineer
		*	Any parties vulnerable for excessive dust located along the			
			road such as school (1.9km), temple (0.8km), medical			
			center, houses located adjacent to the ROW etc should be			
			identified in advance and measures as agreed with the			
		*	Engineer should be implemented to minimize the impact. Mud patches caused by material transporting vehicles in the			
		*	access road should be immediately cleaned			
		*	Continual water sprinkling should be carried out in the work			
			and fill areas, material extraction sites, processing plants and			
			the access road if dust stir is observed. Water sprinkling			

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				be done more frequently on days that are dry and			
				at least four time's day) as the levels of dust can be			
				during dry periods.			
		*		sks should be provided to the laborers for the use at			
			required	times.			
		*	Erection	of dust barriers to the public, religious and other			
			socially	important locations			
		*		arries, crushers and all the plants should be located			
		-		500m form the public sensitive and residential areas			
		*		ment of tire washing facility for the plants, yards or			
		·		r sites which causing to bring mud particles with the			
			vehicles.				
20.	Management of Self	*		vent the contractor will use a self-operated borrow	Engineering	Contractor	PMU/PIU/RDA,/Consultant
20.		**		vent the contractor will use a sen-operated borrow	Engineering	Contractor	
	Operated Borrow		site		Cost		Engineer CEA, GSMB
	Sites		0	Contractor shall comply with the environmental			
				requirements/guidelines issued by the CEA,			
				GSMB and the respective local authorities with			
				respect of locating borrow areas and with regard to			
				all operations related to excavation and			
				transportation of earth from such sites.			
			0	Contractor can also find suitable soil materials			
				from currently operated licensed borrow pits in the			
				surrounding area, subject to approval of the			
				Engineer			
			0	No borrow-sites be used (current approved) or			
			0	newly established within areas protected under			
				FFPO and FO and within productive			
				land/agricultural land and environment and public			
				sensitive locations			
				Borrow areas shall not be opened without having a			
			0				
				valid mining license from the GSMB. The			
				location, depth of excavation and the extent of the			
				pit or open cut area shall be as approved by the			
				Engineer.			
			0	All borrow pits/areas should be rehabilitated at the			
				end of their use by the contractor in accordance			
				with the requirements/guidelines issued by the			
				CEA and the respective local authority Refer			
				Annex II for guidelines).			
			0	Establishment of borrow pits/areas and its			
				operational activities shall not cause any adverse			
				impact to the near-by properties. Also, shall not be			
				a danger of health hazard to the people.			
			0	Contractor shall take all steps necessary to ensure			
			-	the stability of slopes including those related to			
		1		and statisticy of stopes including alose fetaled to	I	1	

		temporary works and borrow pits.			
21.	Quarry Operations and Management of Self Operated Quarry Sites	✤ In the event the contractor manages a self-owned existing Ex	ingineering fost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB
22.	Control of Sedimentation and Soil Erosion	◆ Debris material shall be disposed in such a manner that E	ngineering	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. Construction activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation.
		✤ Refer Annex III.
23.	Noise from vehicles, machinery and equipment	 Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals) and residential areas (from 6:00PM to 6:00AM on the following day). Any parties vulnerable for excessive noise residing along the road such as school (1.9km), temple (1.9km), medical center, houses located adjacent to the ROW etc should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations.

			Special approval should be obtained from CEA for night			
			time work through PIU.			
		*	All equipment should be in good serviced condition. Regular			
			maintenance of all construction vehicles and machinery to			
			meet noise control regulations stipulated by the CEA in			
			1996 (Gazette Extra Ordinary, No 924/12) must be			
			conducted for vehicles/machinery that will be used in			
			construction on site, for transport and for plants (crushers,			
			asphalt, concrete and batching plants).			
		*	Ideally noise generating work should not be carried out			
			during public holidays and religious days. Special care			
			should be taken as there is a temple nearby.			
		*	Labor gangs should be warned to work with minimum noise.			
			Strict labor supervision should be undertaken in this respect.			
			Number of nighttime resident laborers should be minimized.			
24.	Vehicular noise	*	Idling of temporary trucks or other equipment should not be	Engineering	Contractor	PMU/PIU/RDA/Consultant
1	pollution at	•	permitted during periods of loading / unloading or when	Cost		Engineer
	residential / sensitive		they are not in active use.	2050		
	receptors	*	The practice must be ensured especially near residential /			
	receptors	*	commercial / sensitive areas.			
		*	Stationary construction equipment will be kept at least 500m			
		*				
			away from sensitive receptors, where possible. These			
			include places of worship, schools, medical centers and			
			households.			
		*	All possible and practical measures to control noise			
			emissions during drilling shall be Employed.			
		*	Contractor shall submit the list of high noise/vibration			
			generating machinery & equipment to the engineer for			
			approval.			
		*	Servicing of all construction vehicles and machinery must			
			be done regularly and during routine servicing operations,			
			the effectiveness of exhaust silencers will be checked and if			
			found defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be			
			regular and up to the satisfaction of the Engineer to keep			
			noise levels at the minimum.			
25.	Terrer of a description	*	Contractor shall take appropriate action to ensure that	Engineering	Contractor	PMU/PIU/RDA/Consultant
43.	Impacts due to	*	construction works do not result in damage to adjacent	Cost	Contractor	Engineer, GSMB
	Vibration			COSI		Engineer, OSWID
			properties due to vibration.			
		*	Any parties vulnerable for excessive vibration residing along			
			the road such as temple at 0.8km, school, medical center,			
			houses located adjacent to the ROW etc should be			
			identified in advance and measures as agreed with the			
			Engineer should be implemented to minimize the impact.			
		*	Prior to commencement of excavation, blasting activity, the			

		*	Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. Contractor shall compensate or repair any damaged occurred to third party properly as result of his activities as agreed with the affected party and engineer. Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment			
		*	causing vibrations are used. The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. Contractor shall pay due consideration on vibration impacts			
			of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work.			
		*	Blasting shall be carried out only with permission of the Engineer and approval from GSMB			
26.	Pollution of Soil and Water via Fuel and Lubricants	*	The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
		*	lubricants does not contaminate the ground. All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Waste water shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of			
		*	in accordance with standards set by the CEA. Engineer will certify that all arrangements comply with the guidelines of CEA or any other relevant laws.			

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27.	Public Safety		the Contractor shall provide safe and	Engineering	Contractor	PMU/PIU/RDA/Consultant
			age for vehicles, pedestrians and livestock.	Cost		Engineer
			ts the use of existing accesses shall not be			
			nout providing adequate provisions to the			
			n of the Engineer.			
			n corridor should be barricaded at all time in			
			quate marking, safety tape, flags, reflectors			
			of individuals using the site daily basis. (
			arking cones, lights, tubular markers, orange			
			s and barricades of a luminous nature for			
		night visibility s	hall be procured where deemed necessary)			
		 Safety signboar 	ds should be displayed at all necessary			
		locations.				
			should obtain a Third-party insurance to			
			damages, injuries caused to the public or			
			the construction period.			
			vehicles should be operated by experienced			
			ators under supervision.			
			fety training should be conducted for all			
		laborers during	the ESMP training prior to the start of the			
		construction acti				
		✤ All digging and	l installation work should be completed in			
		one go, if this t	ask is not accomplished the area should be			
		isolated using	luminous safety tape and barricading			
		structures surrou	inding the whole area.			
		 Trenches should 	be progressively rehabilitated once work is			
		completed.				
			g and unloading should be done in an area,			
			traffic and barricaded			
		 Construction was 	astes should be removed within 24 hours			
		from the site to e	ensure public safety.			
			ss programs should be conducted by the			
		Contractor in a	annual basis targeting the public residing			
		along the road	in order to make the public aware on road			
			during the operation period of the road.			
28.	Safety of Workers		comply with the requirements for safety of	Engineering	Contractor	PMU/PIU/RDA/Consultant
		the workers as p	er the ILO Convention No. 62 and Safety &	Cost		Engineer
			ons of the Factory Ordinance of Sri Lanka to			
			nose are applicable to this contract.			
		$\clubsuit \text{The contractor s}$	shall supply all necessary safety measures at			
		site.				
			wear and protective goggles should be			
		provided to all	workers Employed on mixing of materials			
		like cement, con				
		 Welder's protect 	ive eye-shields shall be provided to workers			

		*	Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.			
		*	be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.			
		*	diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should			
29.	Prevention of accidents	*	Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		*	National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to.			
		*	All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required			
		*	A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.			
		*	such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. In addition, the contractor shall maintain in stock at the site office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary.			
		*	Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances			

	camps	 issued by the CEA/Local Authority (LA). Construction of laborer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Cost	Engineer, CEA, LA, DoF
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	 The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28 of ESMF of IRCDP for more details. The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing. The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site. Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies. 	Engineering Cost	PMU/PIU/RDA,/Consultant Engineer MoH
32.	Prevention of Vector borne Diseases	Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc.	Engineering Contractor Cost	PMU/PIU/RDA/Consultant Engineer, MoH

		 shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies. 			
33.	Gender issues including Gender base violence	 Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		 Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. The workers will be made aware of GRM procedure through toolbox meetings. 		
35.	Traffic Management	 Contractor shall develop a traffic management plan with the relevant authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Engineering Cost	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	 Temporary access will be provided when permanent access is blocked for construction. Safe access to the temple at 0.8km should be ensured for devotees. When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the 	Engineering Contractor Cost	PMU/PIU/RDA/Consultant Engineer

		site prior to construction to ensure that no demage is severe			
		 site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalisn will be tolerated and will be penalized. Workers should no be allowed to trespass in to such areas. Unless agreed with the community the contractor shall no 			
		block access to any known places of worship or PCRs along			
38.	Loss, Damage and	 the project trace. All works shall be carried out in a manner that the 	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Flora	 destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if tha impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report or the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens or native trees over 5-year-old root-balled or having at least 3f height suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose 	Cost		Engineer
		 The contractor shall be responsible for ensuring the well- being of the trees/plants until the end of the contract 			
39.	Loss, Damage and disruption to Fauna	 All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		including wild animals and aquatic life as well as their			
		habitats. Hunting, poaching and unauthorized fishing by			
		project workers is not allowed.			
		• No solid or liquid waste should be dumped into natural habitats.			
40.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be inspected periodically to prevent carrying any invasive species The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Chance find procedures for PCRs and Archeological Property	 All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

42.	Surface Drainage and Possible Water Stagnation	 Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters Environmental and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
44.	Prevention of landslides	 Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc as per the designs given in the Contract documents and any other measures instructed by the Engineer. Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls 	Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO
45.	Prevention of Sexual exploitation, child trafficking and child labour	 Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	
	POST CONSTRUCTION	ON	
46.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	RDA,/Consultant Engineer PRDA
47.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	RDA/Consultant Engineer, PRDA
48.	Road furnishing on safety.	 The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. Engineering Contractor 	RDA,/Consultant Engineer PRDA

49.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow Engineering Contractor, PRDA 	PRDA, Engineer	RDA/Consultant
50.	Replanting of trees	 ✤ Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years Cost 	PRDA, Engineer	RDA/Consultant

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakeholder		Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
12.03.2011	Grama Niladari- Ketawala	Male	There are tea rubber, cinnamon and paddy cultivations.The proposed development of the road is good.
12.03.2011	Grama Niladari- Gilimale North	Male	 Although there are big trees in this area, it is not a protected reserve Land is private landand some people own 5-8 acres.
11.03.2011	Road user	Male	 Tea cultivation is the main agricultural activity. This road is used for transportation of tea leaves and it is good to develop the road.
11.03.2011	Resident	Female	 All people living in this area are titleholders of their respective lands. People also sell jaggery to people who visit Adam's Peak.

2.11. ESMP of SR 11 – Illukwatta Rathganga Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 11 – Illukwatta Rathganga Road (2.82km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Illukwatta - Rathgaga Road

Road length: 2.82km

Coordinates: Starting Point: 6° 43.574'N, 80° 26.287'E End Point : 6° 44.493'N, 80° 26.741'E

Location:District: Ratnapura

DS Division: Ratnapura EE Division: Ratnapura GN Divisions: Gileemale South, Durekkanda

1. Introduction

The Illukwatta Rathganga Road starts from Mallawa – Carney (B265) Road and traverse for 2.82km provide access to Rathgama village. This road is under the custody of Ratnapura Pradeshiya Sabha (local authority). The surface of the road is damaged macadam. The road is located within a low terrain area. Elevation of the trace varies between 35 - 61m MSL. Rath Ganga (a stream) is crossed by the road at 0.12 – 0.16km. Road is prone to flood at this location due to spilling of Rath Ganga during heavy rainfall events which lasts for more than 2 days. Road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation:

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will be carried out within the existing Right of Way (RoW) for 2.82 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), and drains as required. The construction period is estimated as three (3) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Illukwatte – Rathganga road is around 4.5m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Ratnapura Pradeshiya Sabah (local authority) will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Ratnapura Pradeshiya Sabah (local authority) will function as a member of the Grievance Redress Committee as a member.

5. Community Response and Perceived Benefits

It is important to develop this road as the road is in a dilapidated condition. This road is used by pilgrims to reach Rathgama temple (Punchi Dambadiwa). There are also tea cultivations in the area. Thus, road development is important to facilitate the residents, pilgrims and transportation of tea.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Illukwatta Rathgaga Road will have a majority of reversible, small-medium scale environmental impacts. The main environmental and social impacts will be flood risks at the starting point, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements:

There are about 33 households and about 6 business places located along the road. The population along the road is around 148. They are Sinhala Buddhists.

Land ownership: There are private and government lands along the road.

- **Livelihoods**: People in the project area engage in tea cultivation and gem mining. Also, some are in public and private sector jobs. (
- Local organisations: There is a farmer organisation within the Madagama area.
- **Community infrastructure and resources:** There is a preschool as shown in Table 1. During construction period, access to this place will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Pre - School N 6°44'10.25" E080°26'28.58" RHS 20m	Community infrastructure & resources	Location - G	PS Coordinate	Road side	Distance from the RoW
0	Pre - School	N 6°44'10.25"	E080°26'28.58"	RHS	20m

n

-going development projects: None

• Visitors to the area: This road is used by pilgrims to reach Rathgama temple (Punchi Dambadiwa). Thus, the area has frequent visitors from outside. There are also gem mining and tea cultivations. Therefore, traders also arrive for commercial purposes.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of

Screening Questions	Not known	Yes	No	Remarks
				such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Ratnapura Pradeshiya Sabha (local authority).
Is land acquisition likely to be necessary?			✓	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		✓		The RoW is owned by Ratnapura Pradeshiya Sabha (Local authority). The current usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood			-	
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		√		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			√	

Screening Questions	Not known	Yes	No	Remarks
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals, places of worship?		\checkmark		Thereisapreschool(seeTable 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		✓		Project area comes under the Siripagama police station which is 9km away from the project site. Further, <i>"MithuruPiyasa"</i> ¹¹ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				

¹¹ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
How many workers will be needed for the sub-project, with what skill set, and for what period?		✓		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		✓		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?		√		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		V		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceDistrict:RathnapuraSub-project:Ilukwatta - Rathgaga Road (SR11)Road Length:2.82kmLocation:District: Rathnapura
DS Division: Rathnapura
GN Divisions: Durekkanda, Gilimale South

SCREENING QUESTIONS		NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		~	
- Mangrove		~	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		√	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	✓		No permanent alteration is required. Stream at 2.56km will be temporary altered for reconstruction of the culvert. Water flow at this location will be continued to downstream and restored to original condition once the requirement is over. Erosion control measures such as silt traps and silt fences will be applied at streams crossings;

- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	✓	Rath ganga 0.12 - 0.16km, 0.74 & 2.04km in order to minimize siltation.Surface water quality of streams above mentioned will be deteriorated due to surface runoff contaminated with silt. Appropriate measures shall be taken to avoid contamination of surface runoff by silt and
		other chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting will not be necessary along the road.
- Dislocation or involuntary resettlement of people		✓
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper	\checkmark	Special attention required to settlements located close to the road area from 0.00 to

respirator	y problems and stress?			0.30km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time will mitigate these impacts.
- Hazardou construct roads?	6		~	
construct possible	itation and solid waste disposal in ion camps and work sites, and transmission of communicable from workers to local populations?	~		Location of labor camps only at approved sites and sanitary facilities should be increased to avoid common diseases such as diarrhea.
	of temporary breeding habitats for vectors of disease?	V		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labor camps will minimize creation of mosquito breeding sites.
vehicular	risks associated with increased traffic, leading to accidental spills of erials and loss of life?	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls and provision of PPE for lobores will mitigate these impacts.
- Increased from traft	noise and air pollution resulting fic volume?		✓ 	
grease an	risk of water pollution from oil, d fuel spills, and other materials icles using the road?		 ✓ 	Regular vehicle maintenance, good housekeeping of vehicle yards, deployed of qualified mechanical supervisors will be recommended to avoid risk of contamination of pollutants such as oil, grease and fuel.

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1: Photographs of Ilukwatta - Rathgaga road



Figure 1:Starting point of the road



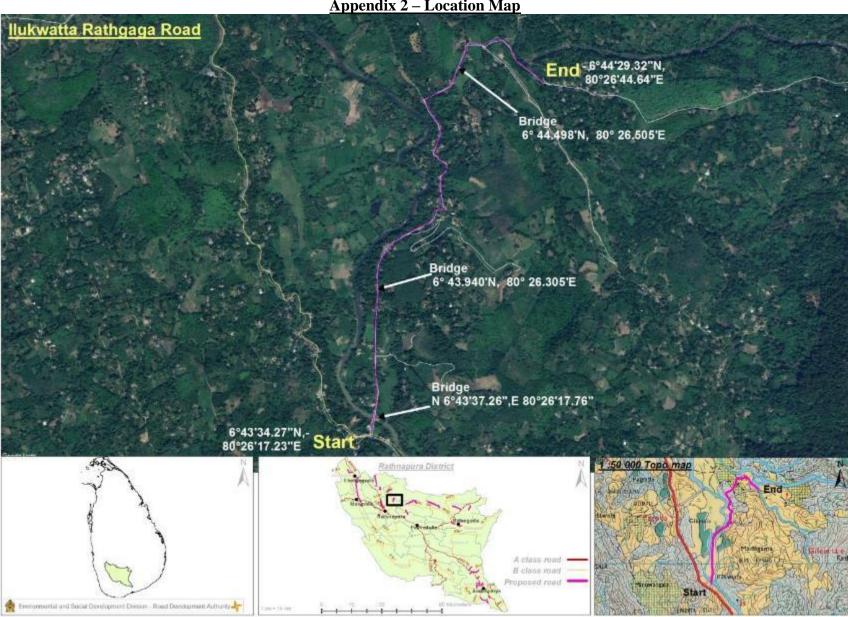
Figure 2: River crossing at 0.1km



Figure 3: Along the road



Figure 4: End point of the road



Appendix 2 – Location Map

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Illukwatta Rathganga Road			
Risk Category assigned by E and S Screening	Moderate		
Design Recommendations and guidance			
Design Justification	Guidance to be Used		
It is recommended to incorporate necessary measures to withstand the road against flood conditions occur around the starting point to ch 2+100 such as concreting the road surface, increase the span number or openings of the existing culvert/small bridges (Ch 2+040) and improving the vertical alignment of the road etc.	 Section 10 of ESMP Bridge design manual of RDA 		
Measures to be taken to avoid wash off the road surface and hard shoulders from starting point to end point due to highly flood sensitive area.	• Measures to be incorporated to detail design		
Side drains and drains directed to Rathganga at ch 0+120- 0+165 km are recommended to have silt traps with adequate capacity and other silt control measures.	• Section 22 of ESMP		
Details of Internal Submission of Design Recommendations			
Submitted by	Director - ESDD, RDA		
Date of submission	11 June 2021		
Name of RDA design team member submission was made	Project Director – IRCDP,		
to	RDA		
Mode of transmission (Email, hand delivery)	Email		

	Activities and Associated Impacts		Mitigation cost	Re	sponsibility
	-			Implementation	Monitoring
	PRE-CONSTRUCTION	N AND SITE PREPERATION	I	<u> </u>	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, ★ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ★ The technical justification for the trees that will be required to be removed will be documented accordingly. ★ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

Environmental and Social Management Plan (ESMP) for Rehabilitation of Illukwatta Rathgaga Road (SR11)

		 recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. Removed trees of economic value must be handed over to the Timber Corporation. Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner.
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	 The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and boundaries and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camps need to be provided for female migrant laborers. The construction will commence after receiving the written approval of the Engineer as well as Local Authority. Separate labor camps need to be provided for female migrant laborers. The instructions for the laborers should be provided in all three languages. Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. The contractor shall maintain necessary living accommodation and ancillary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septic tanks and soak pits. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) Provision shall be made for domestic solid waste disposal in

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4.	Material Sourcing	*	acceptable manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (LA) of the area (if any) and wastewater should be disposed in an environmentally acceptable manner (meeting the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force. Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. The contractor is required to ensure that sand, aggregates and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	material Sourcing		other quarry material are sourced from licensed sources.	Cost	Contractor	Engineer, CEA,GSMB
		*	The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all			
			borrow and quarry material they are sourcing -including soil,			
		*	fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or			
		~	designated natural areas, including tank beds, are strictly			
		*	prohibited. If the contractor uses a non-commercial borrow/quarry sites,			
			the sites should be remediated accordingly once material			
		*	sourcing has been completed. The contractor should submit in writing all the relevant			
		•	numbers and relevant details of all pre-requisite licenses etc.			
L			and report of their status accordingly to the Engineer.		~	
5.	Water for Construction	*	The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
	activities		source agreed upon with the engineer.	CUSI		Linginicol
		*	Water may not be obtained for project purposes, including for			
			labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction			
			of water from ground water or surface water bodies without			
			the permission from Engineer and the relevant authority			
			(Water Resources Board, NW&DB, Department of Irrigation, CBO) will not be allowed.			
		*	Permission for the extraction of water should be obtained prior			
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		to the commencement of the project, from the relevant authority.			
6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer

8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT)to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant EngineerCEB,NW&DB, SLT

10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Prior approval should be taken for canal diversion from the relevant government organization and farmer's organizations. Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification of erodible and landslide prone areas	 Prior identification of erodible and landslide prone areas in proper consultation with National Building Research Organisation (NBRO) Incorporate the recommendations and guidelines of the NBRO to the road designing. 	cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO
12.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort should be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
13.	Land Acquisition (if required)	 Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF. 	Acquisition cost	PIU/PMU of RDA	RDA, Ratnapura PS

14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA	SE			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. The contractor shall identify the sites for disposal of materia cleared. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. Plants, shrubs and other vegetation cleared should not be burned on site. During the site clearance and disposal of debris, contractor will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is no interrupted Spoil and other disposal materials should only be dumped a sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in non-residential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc). Avoid disposal on productive/agricultural land. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA Pradeshiya Shabha, Minimize the construction debris/excavated materilas as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, 			
16.	Protection of topsoil	 water bodies. Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	TransportandStorageofconstruction	All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

10	materials	 Construction material such as cement be stored in closed structures or in construction materials such as sand, should be transported under cover to t cover at the sight. Plastic sheeting (of thickness) can be used and held in pla old tires or cinder blocks, with the buried, or by the use of other anchoring Loading, unloading and transport of inconvenient to the road side communi Selection of sites for stock piling Engineer away from environment locations. Storage of fuel, lubricant and cc construction activities on paved surfac to the environment and storm water run Approval shall be taken prior to us relevant authorities and need to mainted the Contractor 	a contained manner.All metal, lime, bricks etc. he site and stored under f about 6 mm minimum ce with weights, such as edges of the sheeting g systems. materials shall not be ty or road users with the approval of and public sensitive hemicals use for the e without contamination noff se of local roads from enance during the use by	Contractor	PMI1/PI1/PDA/Consultant
19.	Emission of Dust	 In order to minimize the levels construction material/debris should instructions provided above No.18. Mud patches caused by material tran access road should be immediately cle: Any parties vulnerable for excessive road especially within residential area: advance and measures as agreed with implemented to minimize the impact. Continual water sprinkling should be and fill areas, material extraction site the access road if dust stir is obse should be done more frequently on windy (at least four time's day) as the elevated during dry periods. Dust masks should be provided to the required times. Erection of dust barriers to the pub socially important locations Metal quarries, crushers and all the pla least 500m form the public sensitive ar Establishment of tire washing facility any other sites which causing to bring vehicles. 	be stored as per the Cost sporting vehicles in the aned dust residing along the s should be identified in the Engineer should be carried out in the work s, processing plants and rved. Water sprinkling days that are dry and he levels of dust can be e laborers for the use at lic, religious and other ants should eb located at and residential areas for the plants, yards or	Contractor	PMU/PIU/RDA/Consultant Engineer
20.	Management of Self	 In the event the contractor will use a set 	elf-operated borrow site Engineering	Contractor	PMU/PIU/RDA,/Consultant
40.	Operated Borrow	 Contractor shall comply v 		Contractor	i mori iorichi și consultant
	-Printer Bollow	shan comply (

	Sites	requirements/guidelines issued by the CEA, GSMB Cost	Engineer CEA, GSMB
		and the respective local authorities with respect of	
		locating borrow areas and with regard to all	
		operations related to excavation and transportation	
		of earth from such sites.	
		• Contractor can also find suitable soil materials from	
		currently operated licensed borrow pits in the	
		surrounding area, subject to approval of the	
		Engineer	
		• No borrow-sites be used (current approved) or	
		newly established within areas protected under	
		FFPO and FO and within productive	
		land/agricultural land and environment and public	
		sensitive locations	
		• Borrow areas shall not be opened without having a	
		valid mining license from the GSMB. The location,	
		depth of excavation and the extent of the pit or open	
		cut area shall be as approved by the Engineer.	
		• All borrow pits/areas should be rehabilitated at the	
		end of their use by the contractor in accordance with	
		the requirements/guidelines issued by the CEA and	
		the respective local authority (Please refer Annex II	
		for guidelines).	
		• Establishment of borrow pits/areas and its	
		operational activities shall not cause any adverse	
		impact to the near-by properties. Also, shall not be a	
		danger of health hazard to the people.	
		• Contractor shall take all steps necessary to ensure	
		the stability of slopes including those related to	
		temporary works and borrow pits.	
21.	Quarry Operations		Contractor PMU/PIU/RDA,/Consultant
	and Management of	quarry sites available in the project area Cost	Engineer CEA,GSMB
	Self Operated Quarry	They should be approved by CEA with valid EPL	
	Sites	(Environment Protection Licenses) and GSMB with valid IML	
		(Industrial Mining Licenses);	
		✤ Prior approval should be obtained from GSMB, CEA and	
		local authorities such as Pradeshiya Sabha.	
		 Selected quarry sites should have proper safety measures such 	
		as warnings, safety nets etc., and third-party insurance cover	
		to protect external parties that may be affected due to blasting.	
		 Quarry sites should not be established within protected sites 	
		identified under the FFPO and FO and not within productive	
		land/agricultural land and environment and public sensitive	
		locations.	
		 It is recommended not to seek material from quarries that have 	

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			ongoing disputes with community.			
		*	The maintenance and rehabilitation of the access roads in the			
			event of damage by the Contractors operations shall be a			
			responsibility of the Contractor.			
		*				
			Contractor for review and documentation by the engineer			
22.	Control of	*	Debris material shall be disposed in such a manner that	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation and		existing drainage paths are not blocked.	Cost		Engineer
	Soil Erosion	*	Drainage paths associated with irrigation structures should be			
			improved / erected to drain rainwater properly.			
		*	Silt traps will be constructed to avoid siltation into the water			
			ways. where necessary along the road corridor.			
		*				
			waterways and irrigation canals and they should be separated			
			from such water bodies			
		*				
			construction sites as soon as possible. Until removal, these soil			
			dumps should be covered with thick polythene sheets.			
		*				
			from all water bodies.			
		*				
		•	activities.			
		*				
		•	• Embankment slopes, slopes of cuts, etc. shall not be			
			unduly exposed to erosive forces.			
			• These exposed slopes shall be graded and covered			
			by grass or other suitable materials per the			
			specifications.			
			 During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid 			
			excessive erosion.			
		*				
		*				
			immediately to reach the specified degree of compaction and			
			establishment of proper mulch.			
		*				
			raining season. If such activities need to be continued during			
			rainy season prior approval must be obtained from the			
			Engineer by submitting a proposal on actions that will be			
			undertaken by the contractor to prevent erosion.			
		*	Construction activities, excavation and earth work around			
			vulnerable area for soil erosion mainly restricted to the dry			
			periods and removal of green cover vegetation shall be			
			minimized.			
		*	The work, permanent or temporary shall consist of measures			
			as per design or as directed by the engineer to control soil			

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		erosion, sedimentation and water pollution to the satisfaction			
		of the engineer.			
		• Typical measures include the use of berms, dikes			
		sediment basins, fiber mats, mulches, grasses, slope			
		drains and other devices.			
		• All sedimentation and pollution control work and			
		maintenance thereof are deemed, as incidental to the			
		earthwork or other items of work and no separate			
		payment will be made for their implementation.			
		 Please refer Annex III 			
22	Noise from vehicles,	 Noise generating work should be limited to daytime (6:00AM) 	Engineering	Contractor	PMU/PIU/RDA,/Consultant
23.			Engineering	Contractor	
	machinery and	to 6:00PM). No work that generates excessive noise should be	Cost		Engineer CEA
	equipment	carried out during night hours where in close proximity to			
		public sensitive receptors (temples, hospitals and residential			
		areas from 6:00PM to 6:00AM on the following day).			
		✤ All equipment and machinery should be operated at noise			
		levels that do not exceed the permissible level of 75 dB			
		(during construction) for the daytime. For all construction			
		activities undertaken during the nighttime, it is necessary to			
		maintain the noise level at below 50 dB as per the Central			
		Environmental Authority (CEA) noise control regulations.			
		Special approval should be obtained from CEA for night time			
		work through PIU.			
		✤ Any parties vulnerable for excessive noise levels residing			
		along the road especially at schools, temple, medical centers			
		and within residential areas should be identified in advance			
		and measures as agreed with the Engineer should be			
		implemented to minimize the impact.			
		 All equipment should be in good serviced condition. Regular 			
		maintenance of all construction vehicles and machinery to			
		meet noise control regulations stipulated by the CEA in 1996			
		(Gazette Extra Ordinary, No 924/12) must be conducted for			
		vehicles/machinery that will be used in construction on site,			
		for transport and for plants (crushers, asphalt, concrete and			
		batching plants).			
		 Ideally noise generating work should not be carried out during 			
		public holidays and religious days. Special care should be			
		taken as there is a temple nearby.			
		✤ Labor gangs should be warned to work with minimum noise.			
		Strict labor supervision should be undertaken in this respect.			
		Number of nighttime resident laborers should be minimized.			
24.	Vehicular noise	✤ Idling of temporary trucks or other equipment should not be	Engineering	Contractor	PMU/PIU/RDA/Consultant
	pollution at	permitted during periods of loading / unloading or when they	Cost		Engineer
	residential / sensitive	are not in active use.			
		✤ The practice must be ensured especially near residential /			
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	receptors		commercial / sensitive areas.			
		*	Stationary construction equipment will be kept at least 500m			
			away from sensitive receptors, where possible. These include			
			places of worship, schools, medical centers and households.			
		*	All possible and practical measures to control noise emissions			
			during drilling shall be Employed.			
		*	Contractor shall submit the list of high noise/vibration			
			generating machinery & equipment to the engineer for			
			approval.			
		*	Servicing of all construction vehicles and machinery must be			
			done regularly and during routine servicing operations, the			
			effectiveness of exhaust silencers will be checked and if found			
			defective will be replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be			
			regular and up to the satisfaction of the Engineer to keep noise			
			levels at the minimum.			
25.	Impacts due to	*	Contractor shall take appropriate action to ensure that	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		construction works do not result in damage to adjacent	Cost		Engineer, GSMB
	VIDIALION		properties due to vibration.			
		*	Any parties vulnerable for excessive vibration levels residing			
			along the road especially at school, temple and within			
			residential areas located very close to the ROW should be			
			identified in advance and measures as agreed with the			
			Engineer should be implemented to minimize the impact.			
		*	Prior to commencement of excavation, compaction, blasting			
			activity, the Contractor shall undertake a condition survey of			
			existing structures within the zone of influence, as agreed with			
			the relevant government agencies and the engineer.			
		*	Contractor shall carry out monitoring at the nearest vibration			
			sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the			
			relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and			
			blasts shall be controlled blasting in nature. Notwithstanding			
			to these provisions contractor is liable for any damage caused			
			by excessive vibration and blasting work.			
		*	Blasting shall be carried out only with permission of the			
			Engineer and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		parking locations, fuel/lubricants storage sites, vehicle,	Cost		Engineer CEA
			machinery and equipment maintenance and refueling sites			

	Lubricants	shall be located away from rivers, at least 200m away, water	
		ways and water bodies.	
		✤ Contractor shall ensure that all vehicle/machinery and	
		equipment operation, maintenance and refueling will be	
		carried out in such a fashion that spillage of fuels and	
		lubricants does not contaminate the ground.	
		 All vehicle and plant maintenance and servicing stations shall 	
		be located and operated as per the conditions and /or	
		guidelines stipulated under the EPL issued by CEA.	
		Wastewater shall not be disposed without meeting the disposal	
		standards of the CEA. Wastewater from vehicle and plant	
		maintenance and servicing stations shall be cleared of oil and	
		grease and other contaminants to meet the relevant standards	
		before discharging to the environment.	
		 Contractor shall arrange for collection, storing and disposal of 	
		oily wastes to the pre-identified disposal sites (list to be	
		submitted to Engineer) and approved by the Engineer. All	
		spills and collected petroleum products will be disposed of in	
		accordance with standards set by the CEA.	
		 Engineer will certify that all arrangements comply with the 	
		guidelines of CEA or any other relevant laws.	
27.	Public Safety	✤ At all times, the Contractor shall provide safe and convenient Engineering Contractor	PMU/PIU/RDA/Consultant
		passage for vehicles, pedestrians and livestock. Cost	Engineer
		♦ Work that affects the use of existing accesses shall not be	
		undertaken without providing adequate provisions to the prior	
		satisfaction of the Engineer. The construction corridor should be barricaded at all time in a	
		day with adequate marking, safety tape, flags, reflectors etc.	
		for safety of individuals using the site daily basis. (Items such	
		as parking cones, lights, tubular markers, orange and white	
		strips and barricades of a luminous nature for night visibility	
		shall be procured where deemed necessary)	
		Safety signboards should be displayed at all necessary	
		locations.	
		✤ The contractor should obtain a Third-party insurance to	
		compensate any damages, injuries caused to the public or	
		laborers during the construction period.	
		♦ All construction vehicles should be operated by experienced	
		and trained operators under supervision.	
		◆ Basic onsite safety training should be conducted for all	
		laborers during the ESMP training prior to the start of the	
		construction activities.	
		✤ All digging and installation work should be completed in one	
		go, if this task is not accomplished the area should be isolated	
		using luminous safety tape and barricading structures	

		surrounding the whole area.
		✤ Trenches should be progressively rehabilitated once work is
		completed.
		✤ Material loading and unloading should be done in an area,
		well away from traffic and barricaded
		 Construction wastes should be removed within 24 hours from
		the site to ensure public safety.
		Safety awareness programs should be conducted by the
		Contractor in annual basis targeting the public residing along
		the road in order to make the public aware on road safety
		especially during the operation period of the road
28.	Safety of Workers	Contractor shall comply with the requirements for safety of Engineering Contractor PMU/PIU/RDA/Consultant
		the workers as per the ILO Convention No. 62 and Safety & Cost Engineer
		Health Regulations of the Factory Ordinance of Sri Lanka to
		the extent that those are applicable to this contract.
		✤ The contractor shall supply all necessary safety measures at
		site.
		 Protective footwear and protective goggles should be provided
		to all workers Employed on mixing of materials like cement,
		concrete etc.
		✤ Welder's protective eye-shields shall be provided to workers
		who are engaged in welding works.
		✤ Earplugs shall be provided to workers exposed to loud noise,
		and workers working in crushing, compaction, or concrete
		mixing operation.
		✤ The contractor shall supply all necessary safety appliances
		such as safety goggles, helmets, safety belts, ear plugs, mask
		etc. to workers and staffs.
		✤ In addition, the contractor shall maintain in stock at the site
		office, gloves, earmuffs, goggles, dust masks, safety harness
		and any other equipment considered necessary.
		✤ A safety inspection checklist should be prepared taking into
		consideration what the workers are supposed to be wearing
		and monitored on a monthly basis and recorded.
		✤ All workers should be made aware about Workers GRM and
		they should be facilitated to approach relevant GRCs as and
		when required.
		✤ National and World Bank requirements (such as providing
		necessary personal protective equipment, taking temperature
		checks etc.) for prevention of the spread of COVID-19 virus
		will be adhered to.
		✤ First aid facilities and nursing staff to be provided at work
		places
		Provision of adequate transport facilities for moving injured
		persons to the nearest hospital
L	I	

29.	Prevention of accidents	 Prevention of accidents involving human beings, animals ovehicles falling or accidents due to open trenches/manhole: during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps	 Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways within an area coming under DoF, and near to any othe environment and social sensitive locations The Contractor shall construct and maintain all labo accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camps are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courset take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that these are regularly Emptied and disposed of in a hygienic manner 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
31.	Management of the	✤ The contractor shall firstly follow all measures outlined fo	- Engineering	Contractor	PMU/PIU/RDA,/Consultant

				0.1		
	spread of Covid-19 or		pandemic management by the Government of Sri Lanka,	Cost		EngineerMoH
	handling sudden		Ministry of Health and Local Public Health officers and			
	Pandemic outbreaks		adhere to all relevant guidelines applicable			
			(https://www.hpb.health.gov.lk/en/covid-19). Please refer			
			Annex 28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers			
			as per the guidance as well as in labor camps to prevent			
			overcrowding and to allow social distancing. Where necessary			
			in labor camps additional provisioning will be made for			
			spacing.			
		*	The contractor will at all times, ensure proper handwashing			
			and sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature			
		•	checks of workforce and enable social distancing at the work			
			site and interactions with communities should be minimized.			
			Daily records of these checks should be maintained by the			
			contractors site staff.			
		*				
		**	If a worker is diagnosed with symptoms related to the said			
			pandemic the contractor will immediately inform the PHI and			
			follow instructions laid out by the national health agencies.	.	a	
32.	Prevention of Vector	*	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	borne Diseases		mosquitoes at places of work, labor camps, plus office and	Cost		Engineer, MoH
			store buildings. Stagnation of water in all areas including			
			gutters, used and empty cans, containers, tires, etc. shall be			
			prevented. Approved chemicals to destroy mosquitoes and			
			larvae should be regularly applied.			
		*	All borrow sites should be rehabilitated at the end of their use			
			by the contractor in accordance with the			
			requirements/guidelines issued by the Central Environmental			
			authority and relevant local authorities			
		*	Contractor shall keep all places of work, labor camps, plus			
			office and store buildings clean devoid of garbage to prevent			
			breeding of rats and other vectors such as flies.			
33.	Gender issues	*	Equal opportunity shall be ensured while requirement of	Engineering	Contractor	PMU/PIU/RDA/Consultant
55.	including Gender	•	project staff including contractors working force. The salary/	Cost	Contractor	Engineer
	base violence		wages and other payments due on service provided to the	2000		Lighter
	bast violence		project should not be classified on the Gender basis.			
		*	The sanitary facilities in sites and labour camps should be			
		•	designed with consideration of suitable location,			
			comfortability for female users and safe access.			
		*	Institutional arrangement should be adopted to monitor and			
			taking action against the Sexual harassment that can happen at			
			the site to the workers and general public. The confidential			
			reporting mechanism for sexual harassment shall be			
			incorporated in to the Grievance readdress Mechanism of the			

	1	Project	1		
34.	Issues due to labor influx	 Project. Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/'suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. The workers will be made aware of GRM procedure through toolbox meetings. 		Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
35.	Traffic Management	 Contractor shall develop a traffic management plan with respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police

r	1 1		1		
36.	Loss of Access due to construction	 Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians Temporary access will be provided when permanent access is blocked for construction. When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

				T	
		 advance and carry out public consultation and reporsame should be submitted to the Engineer. Contractor shall adhere to the guideling recommendations made by the CEA, if any with a felling of trees and removal of vegetation. Removed trees of significant value must be handed or Timber Corporation. Documentation on the process shared with the engineer and maintained by the contration on the contractor shall plant at least 3 good specimens trees over 5-year-old root-balled or having atleast 3 suitable for the location as identified by the Engine planting should take place in public land suitable purpose 	s and egard to er to the hould be etor. of native ft height eer The for the		
		• The contractor shall build hardy structures around the	trees for		
		protection.The contractor shall be responsible for ensuring the w	all being		
		• The contractor shall be responsible for ensuring the w of the trees/plants until the end of the contract	en-benig		
39.	Loss, Damage and	• All works shall be carried out in such a manner	that the Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna	destruction or disruption to the fauna and their ha	bitats is Cost		Engineer
		minimal.Construction workers shall be instructed to prote	et fauna		
		 Construction workers shall be instructed to prote including wild animals and aquatic life as well 			
		habitats. Hunting, poaching and unauthorized fis			
		project workers is not allowed.No solid or liquid waste should be dumped into	natural		
		 No solid of liquid waste should be dumped linte habitats. 	natura		
40.	Prevention of the	There is a possibility of introducing / spreading of		Contractor	PMU/PIU/RDA/Consultant
	Spread of Invasive Plant Species	species during material transportation and disposing vegetation from one site to another, thus the f measures are to be undertaken.			Engineer
		 Close monitoring of transportation, storage of b 	prrowing		
		material for the spread of any invasive species must be			
		• Vehicles should be covered during transportation o	cleared		
		vegetation to and from the construction site.Borrow material to be brought from properly i	lantified		
		• Borrow material to be brought from property f borrow pits and quarry sites, the sites should be insp			
		order to ensure that no invasive plant species are bein with the borrow material.			
		• Washing the vehicles should be conducted period	cally to		
1		prevent carrying any invasive species	11 (
1		 The construction site should be inspected period ensure that no invasive species are establishing them 			
		the site.	forves at		

41.	Chance find procedures for PCRs and Archeological Property	•	All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	Surface Drainage and Possible Water Stagnation	*	Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
43.	Handling Social and Environmental Issues during Construction	*	The Contractor shall appoint an Environmental and Social Safeguards Officer (ESSO) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof.			
44.	Prevention of landslides	*	Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc as per the designs given in the Contract documents and any other measures instructed by the Engineer. Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer NBRO

45.	Prevention of Sexual exploitation, child trafficking and child labour	 from Engineer and NBRO if directed by the Engineer contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslide during construction phase in close coordination with NBR especially where cuts and fills are to be practiced and if four general public including road users and residents should the kept away from these sites especially during intense rainfalls Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years, they should only be engaged in nonhazardous work that woul not interfere child's education 	es O d de Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
46.	POST CONSTRUCTIO	 Contractor to prepare site restoration plans for approval by th engineer. 	e Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
	Site/Labor Camps	 The plan is to be implemented by the Contractor prior is demobilization. This includes borrow sites and storage yard as well Rehabilitation of quarry / borrow pits are to be a safe ar secure area quarry / borrow pits can be backfilled with construction wast On completion of the works, all temporary structures will the cleared away, all rubbish cleared, excreta or other disposal pit or trenches filled in and effectively sealed off and the site le clean and tidy, at the contractor's expenses, to the entities attisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site one the contractor demobilizes. 	ao d e e e e ts fft re e e e e		
47.	Environmental	 Landscape plantation, including turfing of shoulders, slope 	s, Engineering	Contractor	RDA/Consultant Engineer,

	Enhancement/	detailed design or typical design guidelines given as part of the Bid Documents.	Cost		PRDA
	Landscaping	The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP.			
48.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
49.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
50.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Venue		Stakeholder Consulted	Gender	Views Raised
SR 11: Illukwatta Rathganga road	12.03.2021	Grama Niladari - Gileemale	Male	 Many pilgrims who visit Adam's peak visit Rathgama temple and they use this road. Majority of people are Sinhalese, and the main livelihoods are tea cultivation and gem mining. There are farmer's organizations operating in Medagama area.
	11.03.2021	Road user	Male	 The road development is good as the road is damaged. This road is used to access Athuraliya, Rathgama and Malkella villages.
	11.03.2021	Road user	Male	 The road gets inundated during heavy rains. Many people use this road and its good to develop the road.

2.12. ESMP of SR 12 - Dehenakanda Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 12 - Dehenakanda Road (12.1km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background Dehenakanda Road

Road length: 12.1km

Coordinates: Starting Point: 6° 42.807'N, 80° 29.709'E End Point: 6° 43.223'N,80° 32.840'E

Location:

District: Ratnapura

DS Division: Ratnapura EE Division: Ratnapura GN Divisions: Dehenakanda, Hapugasthenna

1. Introduction

The Dehenakanda Road starts from Ratnapura - Wewalwatta (B391) Road and traverses for 12km. This road is currently under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is macadam and damaged mecadam. The Road is located within a hilly terrain area. Elevation of the trace varies between 354 –769 MSL. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

The Deherakanda road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 12.1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 4m (0.000km-2.000km), 3.2m(2.000km - 2.500), 3m (2.500km-12.100km), shoulder 0.5m (both sides), and drains as required. The estimated time for construction of this road is nine (9) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Dehenakanda road is around 4.9m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The Dehenakanda road provides access to several villages. There are waterfalls and many people visit the area. Hapugastenna tea estate is located along the road, and the road provides access to tea factories as well. Thus, this road development will facilitate convenience for the residents, recreational activities and transportation of tea.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Dehenakanda Road will have a majority of reversible, small-medium scale environmental and social impacts, specifically limited to the construction phase of the project including water quality impacts, temporary diversion of streams for culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration that can be managed by site specific mitigation measures therefore this sub-project can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: There are about 64 households and 25 shops along the road. The population is around 338. The majority of the population is Indian Tamil. There are also Sinhalese families. The religion of these people is Hinduism and Buddhism.
- Land ownership: The majority of the lands along the road are estate lands alienated under long-term lease agreements. There are also private lands along the road.
- Livelihoods: People are mainly engaged in tea cultivation. The Indian Tamil population work on tea estates as labourers. There are also people working in garment factories.
- **Local organisations**: There are two farmer organisations called Arunalu farmer organization and Dehenakanda Bambarakotuwa Joint farmer organization.
- **Community infrastructure and resources:** There are schools, a preschool, shrines, kovils and a maternity ward along the road as shown in the Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	Location - (ocation - GPS Coordinate		Distance from the RoW
Cemetery	N 6°42'54.06"	E 080°29'51.70"	LHS	10m
Shrine (Christian)	N 6°42'56.08"	E 080°29'51.50"	LHS	1m
Ra/ Kaleimagal Tamil Vidyalaya	N 6°43'5.62"	E080°30'2.51"	RHS	15m
Kovil	N 6°43'6.65"	E 080°30'4.65"	Both sides	1m
Sri Muththumari Ambal Kovil	N 6°43'12.53"	E 080°30'30.95"	LHS	Boundary wall of the Kovil: 1m Kovil: 15m
Primary Medical Care Unit with Maternity word and MoH	N 6°43'19.41"	E 080°30'42.06"	Both sides	30m
Pre - School	N 6°44'02.04"	E 080°31'43.68"	LHS	30m
Ra/ Sri NawalerVidyalaya	N 6°43'59.01"	E 080°31'40.01"	RHS	15m
Kovil	N 6°43'56.35"	E 080°32'5.09"	Both	2m

 Table 1: Community infrastructure and resources

			sides	
o ^{Kovil}	N 6°43'55.77"	E 080°32'13.65"	RHS	2m
h	L			

-going development projects: None \

• Visitors to the area: There are tea factories in the project area. People from outside come to these factories for trading activities. There are also waterfalls and many people visit the area for recreational activities.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		V		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			V	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		V		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing

Screening Questions	Not known	Yes	No	Remarks
				RoW.
Is the ownership status and current usage of land known?		√		The RoW is owned by PRDA (Sabaragamuwa). The usage of the land is road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			\checkmark	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			V	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		✓		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through			~	

Screening Questions	Not known	Yes	No	Remarks
land-use related changes?				
Is the project area located near schools, clinics, hospitals, places of worship?		 ✓ 		There are ten (10) numbers of common properties as shown in Table 1
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		V		Project area comes under the Wewalwatta olice station which is 10km away from the project site. Further, <i>"MithuruPiyasa"</i> ¹² center is located in the Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			 ✓ 	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 25 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.

¹² Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Will there be workers brought in from outside the project area?		~		There is possibility of employing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?		✓		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 25. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Dehenakanda Road (SR12)Road Length:12.1kmLocation:District: Rathnapura
DS Division: Rathnapura
GN Divisions: Hapugastenna, Dehenkanda,

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			
following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas;		\checkmark	
disfiguration of landscape by road			
embankments, cuts, fills, and quarries?			
- Encroachment on precious ecology (e.g.		\checkmark	
sensitive or protected areas)?			
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	×		No permanent or temporary diversion of streams required. Soil erosion control measures such as silt traps and silt fences will be applied at stream crossings; 1.23 (Culvert), 2.2 (Bridge), 3.54 (Bridge), 7.78 (Bridge), 9.05 (culvert), 11.4 (culvert), 12.6 (Culvert) and 11.9km (Bridge). A water fall of Kudugal Ella is located at 12.08km LHS (Height-6.8 m) and one stream is located parallel to road at from 9.4 – 9.5km.
			Sediments will be deposited in low terrain area. Site specific soil conservation measures shall be applied in order to minimize siltation of these

		water bodies. Waterways if altered will be restored to the original condition.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	V	Surface water quality at above mentioned streams will be deteriorated due to surface runoff contaminated with silt. Appropriate measures shall be taken to avoid contamination of surface runoff by silt and other chemicals used for construction and wastewater from workers camps. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	Noise and ground vibration will be increased due to compaction and heavy vehicle movement. All work will be within regulated noise and vibration levels and suitable measures to be taken to reduce ground vibration and noise accordingly. Blasting will not be necessary.
- Dislocation or involuntary resettlement of people		\checkmark
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓	Special attention required to small towns located from 1.6 - 1.85km and 5.2 – 5.3km. Regular sprinkling of water to suppress dust and avoiding construction activities during night time.

 Hazardous driving conditions where construction interferes with pre-existing roads? Poor sanitation and solid waste disposal in 	✓	✓ 	Location of labor camps only
construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?			at approved sites and sanitary facilities should be increased to avoid common diseases such as Amoebic dysentery and diarrhea.
- Creation of temporary breeding habitats for mosquito vectors of disease?	~		Avoiding water collection areas within the construction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	 ✓ 		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls and providing PPE to laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photographs of Dehenakanda road

Figure 1: Starting point of the proposed road



Figure 2: Stream crossing at 1.9km



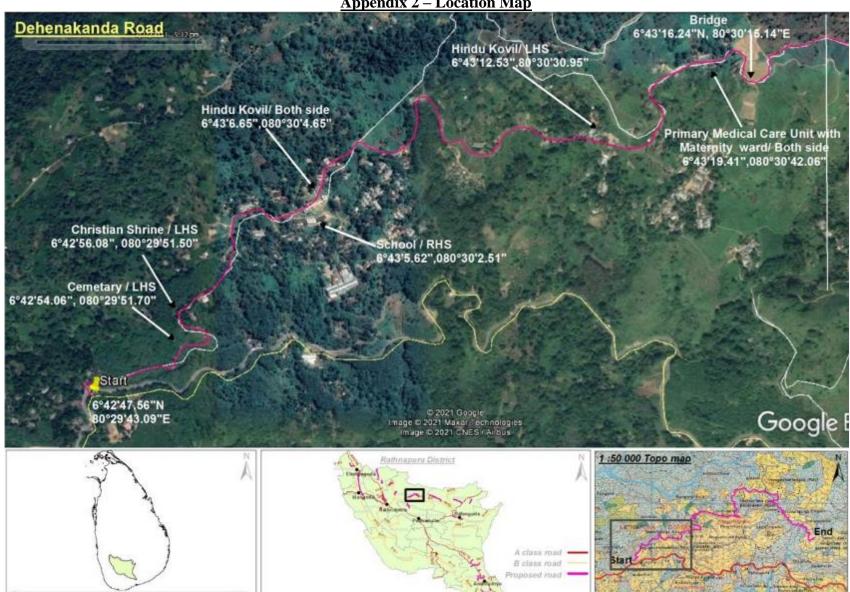
Figure 3: Sri Muththumari Ambal Kovil located at 3.13km



Figure 4: Tea cultivation located near to the road

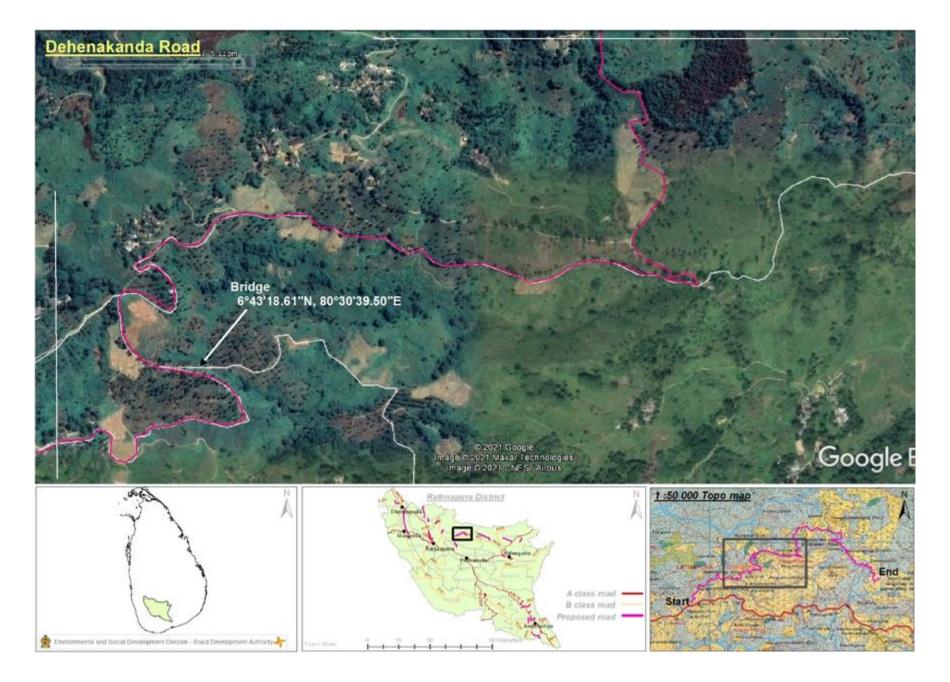


Figure 5: End point of the road



Environmental and Social Development Dimine - Road Development Authority

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Dehenakanda Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated and over flow due to inadequacy of culvert at Ch 1+700-1+800 km and Ch 2+990 km of the road. Therefore it is recommended to introduce additional culverts, lead away drains and side drains etc. to improve the drainage at these locations.	 Section 10 of ESMP Bridge design manual of RDA
Existing slopes should not be disturbed with the road rehabilitation. Appropriate slope protection measures should be included at 0+354 km to 0+769 km,1+900 km and Ch 3+030 km if slopes are to be disturbed with the recommendation of the Engineer and NBRO.	 Section 11 of ESMP Any guidance to be issued by NBRO
Adequate safety measures to be taken during the construction as well as operation stage settlement area located at 1+600 and 5+200 km	• Section 27 and 36 of ESMP
An access road to be provided for visitors who visit Kudugal Ella water fall located adjoining to road (5 m away from the road)	• Section 14 of ESMP
Details of Internal Submission of Design Recommendation	ons
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA
Mode of transmission (Email, hand delivery)	Email

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
	inspectated impacts		0000	Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPARATION	I		
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

Environmental and Social Management Plan (ESMP) for Rehabilitation of Dehenakanda Road (SR12)

		 CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. Removed trees of economic value must be handed over to the Timber Corporation. Provision shall be made for additional compensatory tree plantation. Any leftover of trees shall be removed and disposed in approved manner. 		
3.	Labor and Labor Camps, Construction Camps, temporary office and other temporary facilities	 The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. If labor camps are required to house migrant workers, they should be placed well away from settlements or sensitive receptors, water bodies and buffer zones of protected/forested areas and preferably located on land which is not productive (barren/waste lands presently). If these are not possible, private lands maybe taken on lease as standard practice. The location, layout and basic facility provision of the labor camps need to be provided for female migrant laborers. The instructions for the labores should be provided in all three languages. The construction will commence after receiving the written approval of the Engineer as well as Local Authority. Provision of proper drainage facilities to the labour camps and prevent breeding of mosquitoes, flies and other vector borne diseases. The constructor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. Provision of proper sanitary facilities to the labour camps and offices including water, urinals, toilets, bathing facilities, mosquito nets with adequate capacity of septit taks and soak pits. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with concurrence from the Local Public Health Officer (PHI) 	,	/RDA/Consultant

		-		1		1
		*	Provision shall be made for domestic solid waste disposal in			
			acceptable manner. The solid waste shall be handed over to			
			the waste collecting system of the Local Authority (LA) of			
			the area (if any) and wastewater should be disposed in an			
			environmentally acceptable manner (meeting the desired			
			water quality standards) with the approval of the Engineer.			
			Adequate health care is to be provided for the work force.			
		*	Personal Protective Equipment (PPEs) such as helmet, boots,			
			and earplugs for workers, first aid and firefighting			
1			equipment shall be available at construction sites before start			
			of construction. An emergency plan shall be prepared to			
			fight with any emergency like fire.			
1		*	All construction camps shall have provision of rationing			
ł			facilities particularly for kerosene/LPG so that dependence			
			on firewood for cooking is avoided to the extent possible			
		*	Labor camp sites after use should be cleared and the site			
			should be reinstated to previous condition at the close of the			
			construction work and the agreement with the land owner			
			should be terminated properly and relevant documents			
			should be handed over to the Engineer for information.			
4.	Material Sourcing	*	The contractor is required to ensure that sand, aggregates	Engineering	Contractor	PMU/PIU/RDA/Consultant
			and other quarry material are sourced from licensed sources.	Cost		Engineer, CEA,GSMB
		*	The contractor is required to maintain the necessary licenses			
			and environmental clearances from GSMB and CEA for all			
1			borrow and quarry material they are sourcing –including soil			
			, fine aggregate and coarse aggregate.			
		*	Sourcing of any material from protected areas and/or			
			designated natural areas, including tank beds, are strictly			
			prohibited.			
		*	If the contractor uses a non-commercial borrow/quarry sites,			
			the sites should be remediated accordingly once material			
			sourcing has been completed.			
		*	The contractor should submit in writing all the relevant			
			numbers and relevant details of all pre-requisite licenses etc.			
5.	Watan Para		and report of their status accordingly to the Engineer.	En sin sonis	Contractor	
э.	Water for Construction activities	*	The contractor should arrange adequate supply of water for the project purpose throughout the construction period from	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Construction activities		a source agreed upon with the engineer.	COSt		Engineer
		*	Water may not be obtained for project purposes, including			
		**	for labor camps, from public or community water supply			
			schemes without a prior approval from the relevant authority			
			Extraction of water from ground water or surface water			
			bodies without the permission from Engineer and the			
			relevant authority (Water Resources Board, NW&DB,			
		1	relevant authority (water Kesources Board, NW&DB,		l	

· · · ·		1				,
		*	Department of Irrigation, CBO) will not be allowed. Permission for the extraction of water should be obtained			
		•	prior to the commencement of the project, from the relevant			
			authority.			
6.	Work Site for	*	The contractor should identify an area to store construction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials		materials and equipment at a site which should be approved	Cost		Engineer
			by the engineer.			
		*	Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to			
			locals or forested areas that require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall			
			be done stationed only at the work site and/or in any other			
			designated areas by the engineer.			
		*	The contractor should provide instruction and advice should			
			be given to drivers and operators (both companies owned			
			and hired) to park vehicles and store equipment at the work site or designated areas by the engineer.			
7.	Information	*	Discussions should be conducted with the residents and	Engineering	Contractor/	PMU/PIU/RDA/Consultant
	Disclosure among	·	other stakeholders who reside along the corridor of the road;	Cost	PMU/PIU	Engineer
	Stakeholders		• Residents have to be briefed of the project, purpose and			0
			design and outcomes via a documented community			
			consultation session			
			• This should be done immediately once the contractor is			
			mobilized.The contractor should take note of all impacts,			
			especially access issues and safety hazards that will be			
			of concern to the residents and take necessary measures			
			as stipulated in the ESMP to mitigate them.			
		*	The contractor will maintain a log of any			
			grievances/complains and actions taken to resolve them.			
		*	A copy of the ESMP should be available at all times at the project supervision office on site			
8.	Selection of temporary	*	project supervision office on site. Efforts shall be taken to minimize use of temporary land for	Engineering	Contractor	PMU/PIU/RDA/Consultant
	use lands	•	the construction activities	Cost	Contractor	Engineer
		*	Selection of temporary lands with considering of social and			
			environmental background adhering to laws and regulations			
			in the country			
		*	Approval for the temporary use lands shall be obtained from			
			Engineer and need to sign lease agreement with the land owners and the contractor.			
		*	Once the use of the particular land is over, the agreement			
		•	should be terminated and the documents should be handed			
			over to the Engineer for information.			

0	Chifting of	hlio	Decad on the proliminary studies utilities observed along the read are	Engineering	Contractor/Service	DMII/DIII/DDA/Congultant
9.	Shifting of pu utilities	i		Engineering Cost	providers	PMU/PIU/RDA/Consultant EngineerCEB,NW&DB, SLT
10.	Hydrology drainage	and	◆ Design of new culverts and other drainage structures in	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Identification erodible and lands prone areas	of slide	✤ Prior identification of erodible and landslide prone areas in	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, NBRO,

12.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Sabaragamuwa PRDA
13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Sabaragamuwa PRDA
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. A permanat access should be allocated for the entrance to the Kudugal Ella water fall. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHA				
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. The contractor shall identify the sites for disposal of material cleared. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 Plants, shrubs and other vegetation cleared should not be burned on site. During the site clearance and disposal of debris, contracto will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted Spoil and other disposal materials should only be dumped a sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in non-residential areas located in the downwind side Located at least 100m from the boundaries and buffe 		
		zones of protected/forested areas and water bodies		
		stream, etc).		
		 Avoid disposal on productive/agricultural land. should be located with the consensus of the loca 		
		community, in consultation with the Engineer and		
		shall be approved by the LA Pradeshiya shabha,		
		 Minimize the construction debris/excavated materilas by balancing the cut and fill requirements. 		
		* The contractor should avoid any spillage of spoil when		
		transporting such materials to the approved materia		
		dumping sites. ✤ Debris, residual spoil and dismantled and demolished		
		structures should not be sited to the productive/agricultura		
		lands, environmentally sensitive locations such as fores lands, water bodies.		
16.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this 	Contractor	PMU/PIU/RDA/Consultant
		project shall be stripped to a specified depth of 150mm and		Engineer
		stored in stockpiles of height not exceeding 2m, as directed		
		by the Engineer.		
		 If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction 		
		from the Engineer in writing		
		 Removed topsoil could be used as a productive soil when 		
		 replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where 		
		the topsoil has been removed due to project activities		
		Residual topsoil must be distributed on adjoining/proximate		
		barren areas as identified by the Engineer in a layer of		

		thickness of 75mm – 150mm.		
		 Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. 		
		 As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 		
17.	Protection of Ground		neering Contractor	PMU/PIU/RDA/Consultant
	Cover and Vegetation	used and stationed only in the areas of work and in any other Cost		Engineer
	5	area designated/ approved by the Engineer.		C
		 Entry and exit of construction vehicles and machinery 		
		should be restricted to particular points as directed by the		
		engineer		
		Contractor should provide necessary instructions to drivers,		
		operators and other construction workers not to destroy ground vegetation cover unnecessarily.		
18.	Transport and Storage		neering Contractor	PMU/PIU/RDA/Consultant
	of construction	Overloading of vehicles with materials should be controlled Cost		Engineer
	materials	and done in a manner to suit the trucks capacity.		e
		 Construction material such as cement, sand and metal should 		
		be stored in closed structures or in a contained manner. All		
		construction materials such as sand, metal, lime, bricks etc.		
		should be transported under cover to the site and stored		
		under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with		
		weights, such as old tires or cinder blocks, with the edges of		
		the sheeting buried, or by the use of other anchoring		
		systems.		
		✤ Loading, unloading and transport of materials shall not be		
		inconvenient to the road side community or road users		
		Selection of sites for stock piling with the approval of		
		Engineer away from environment and public sensitive locations.		
		Storage of fuel, lubricant and chemicals use for the		
		construction activities on paved surface without		
		contamination to the environment and storm water runoff		
		✤ Approval shall be taken prior to use of local roads from		
		relevant authorities and need to maintenance during the use		
		by the Contractor		
19.	Emission of Dust		neering Contractor	PMU/PIU/RDA/Consultant
		construction material/debris should be stored as per the Cost		Engineer
		 instructions provided above No.18. Mud patches caused by material transporting vehicles in the 		
		access road should be immediately cleaned		
		 Any parties vulnerable for excessive dust located along the 		
		road especially at schools, medical centers and within		

		residential areas should be identified in advance and			
		 residential areas should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required times. Erection of dust barriers to the public, religious and other socially important locations Metal quarries, crushers and all the plants should eb located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the 			
		vehicles.			
20.	Management of Self Operated Borrow Sites	 In the event the contractor will use a self-operated borrow site Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Please refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the nearby properties. Also, shall not be a danger of health hazard to the people. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA, GSMB

				I	1
		• Contractor shall take all steps necessary to ensure the			
		stability of slopes including those related to temporary			
		works and borrow pits.			
21.	Quarry Operations and Management of Self Operated Quarry Sites	 In the event the contractor manages a self-owned existing quarry sites available in the project area They should be approved by CEA with valid EPL (Environment Protection Licenses) and GSMB with valid IML (Industrial Mining Licenses); Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha. Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA,GSMB
		 Quarry sites should not be established within protected sites identified under the FFPO and FO and not within productive land/agricultural land and environment and public sensitive locations. It is recommended not to seek material from quarries that have ongoing disputes with community. The maintenance and rehabilitation of the access roads in the event of damage by the Contractors operations shall be a responsibility of the Contractor. Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer 			
22.	Control of Sedimentation and Soil Erosion	 Debris material shall be disposed in such a manner that existing drainage paths are not blocked. Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. Silt traps will be constructed to avoid siltation into the water ways. where necessary along the road corridor. To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. Temporary soil dumps should be placed at least 200m away from all water bodies. Top soil shall be prevented to use for tree planting and turfing activities. In Hilly terrain and areas with slopes Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. These exposed slopes shall be graded and covered by 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

	•	· · · · · · · · · · · · · · · · · · ·
		 grass or other suitable materials per the specifications. During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive errosion. All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. Refer Annex III
23.	Noise from vehicles, machinery and equipment	 Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU. Any parties vulnerable for excessive noise residing along the road including schools, kovils, medical centers and residential areas located near to ROW should be implemented to minimize the impact.

		 All equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). Ideally noise generating work should not be carried out during public holidays and religious days. Special care should be taken as there is a temple nearby. Labor gangs should be warned to work with minimum noise. 				
		Strict labor supervision should be undertaken in this respect.				
24.	Vehicular noise pollution at residential / sensitive receptors	Number of nighttime resident laborers should be minimized. Mumber of nighttime resident laborers should be minimized. cular noise tion at residential Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are Cost Contractor PMU/PIU/RDA/Con Engineer				
25.	Impacts due to Vibration	 regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. Any parties vulnerable for excessive vibration residing along the road especially at school, kovil, medical centers and within residential areas located adjacent to ROW should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Contractor shall compensate or repair any damage occurred to 	PMU/PIU/RDA/Consultant Engineer, GSMB			

		r	<u>, , , , , , , , , , , , , , , , , , , </u>	1		
			third party property/ies as a result of his activity as agreed with the affected party and the Engineer			
		*	Contractor shall carry out monitoring at the nearest vibration			
		•	sensitive receptor during blasting or when other equipment			
			causing vibrations are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the			
			relevant vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of			
			blasting on adjoining structures. Explosive loads shall be			
			determined so that excessive vibration can be avoided, and blasts			
			shall be controlled blasting in nature. Notwithstanding to these			
			provisions contractor is liable for any damage caused by excessive vibration and blasting work.			
		*	Blasting shall be carried out only with permission of the Engineer			
		•	and approval from GSMB			
26.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away			
			from rivers, at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
		•	located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA.Wastewater shall not be			
			disposed without meeting the disposal standards of the CEA.			
			Wastewater from vehicle and plant maintenance and servicing			
			stations shall be cleared of oil and grease and other contaminants			
			to meet the relevant standards before discharging to the			
			environment.			
		*	Contractor shall arrange for collection, storing and disposal of aily wastes to the pro-identified disposal sites (list to be			
			oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills			
			and collected petroleum products will be disposed of in			
			accordance with standards set by the CEA.			
		*	Engineer will certify that all arrangements comply with the			
			guidelines of CEA or any other relevant laws.			
27.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
			passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			
			undertaken without providing adequate provisions to the prior satisfaction of the Engineer.			
		*	The construction corridor should be barricaded at all time in a			
		·•·	The construction contraot should be barricaded at all time in a			

		day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the site daily basis. (Items such as			
		 safety of individuals using the site daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility shall be procured where deemed necessary) Safety signboards should be displayed at all necessary locations. The contractor should obtain a Third-party insurance to compensate any damages, injuries caused to the public or laborers during the construction period. All construction vehicles should be operated by experienced and trained operators under supervision. Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities. All digging and installation work should be isolated using luminous safety tape and barricading structures surrounding the whole area. Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded Construction wastes should be removed within 24 hours from the site to ensure public safety. 			
		road in order to make the public aware on road safety especially			
28	Safety of Workers	 during the operation period of the road. Contractor shall comply with the requirements for safety of the 	Engineering	Contractor	PMU/PIU/RDA/Consultant
28.	Safety of Workers	 Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract. The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, concrete etc. Welder's protective eye-shields shall be provided to workers who are engaged in welding works. Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs. In addition, the contractor shall maintain in stock at the site 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 office, gloves, earmuffs, goggles, dust masks, safety harness and any other equipment considered necessary. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for prevention of the spread of COVID-19 virus will be adhered to. First aid facilities and nursing staff to be provided at work places 			
		 Provision of adequate transport facilities for moving injured 			
29.	Prevention of accidents	 vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
30.	Operation of labor camps		Engineering C Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

		ar	orkplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.			
		 TI op po pl to TI 	he sewage system for the camps are designed, built and perated in such a fashion that no health hazards occurs and no ollution to the air, ground water or adjacent water courses take lace. Ensure adequate water supply is to be provided in all bilets and urinals. he contractor shall provide garbage bins in the camps and			
			nsure that these are regularly Emptied and disposed of in a vgienic manner			
31.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	 Ti pa of re (h A Ti pe ov la Ti sa Ti sa Ch ar re si si fi pa 	he contractor shall firstly follow all measures outlined for andemic management by the Government of Sri Lanka, Ministry f Health and Local Public Health officers and adhere to all guidelines applicable <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicable</u> <u>applicabl</u>	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant EngineerMoH
32.	Prevention of Vector borne Diseases	 Communication Communication A Communication Communication	ontractor shall take necessary actions to prevent breeding of nosquitoes at places of work, labor camps, plus office and store uildings. Stagnation of water in all areas including gutters, used nd empty cans, containers, tires, etc. shall be prevented. pproved chemicals to destroy mosquitoes and larvae should be egularly applied. Ill borrow sites should be rehabilitated at the end of their use by ne contractor in accordance with the requirements/guidelines sued by the Central Environmental authority and relevant local authorities contractor shall keep all places of work, labor camps, plus office nd store buildings clean devoid of garbage to prevent breeding f rats and other vectors such as flies.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
33.	Gender issues		qual opportunity shall be ensured while requirement of project	Engineering	Contractor	PMU/PIU/RDA/Consultant

			~		T
	including Gender base violence	staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.	Cost		Engineer
		The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfortability			
		for female users and safe access.			
		◆ Institutional arrangement should be adopted to monitor and			
		taking action against the Sexual harassment can be happened at			
		the site to the workers and general public. The confidential			
		reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.			
34.	Issues due to labor	 Overcrowded or camp-based living conditions can significantly 	Engineering	Contractor	PMU/PIU/RDA/Consultant
34.	Issues due to labor influx	alter existing levels of communicable diseases including		Contractor	Engineer, MoH
	mnux	respiratory problems, diarrheal and vector-borne diseases and	COSt		Engineer, worr
		tuberculosis, which also increases the risks of disease being			
		introduced and spreading through host communities. Priority			
		should be given for workers who are inhabited in area to reduce			
		the influx of exotic population.			
		* Adequate and comfortable accommodation and hygienic service			
		facility should be provided to Minimize the health risk of			
		spreading disease			
		\diamond Awareness program on HIV and other venereal diseases should			
		be conducted for all the workers engaged in construction activities			
		\clubsuit Avoid or reduce labour influx where possible. Explore possibility			
		of introducing a requirement to hire local labour (at least a			
		percentage) by the contractor. This should be done through the			
		Community Based Organizations (CBOs) in the area that will be affected by the project interventions.			
		 Contractors to implement robust measures to prevent sexual 			
		harassment, gender-based violence (GBV)			
		 Training of workforce – on unacceptable conduct 			
		 Informing workers about national laws 			
		 Worker Code of Conduct as part of the employment contract 			
		 Introduce sanctions for non-compliance (e.g., termination) 			
		Cooperation with law enforcement agencies			
		♦ Contractor shall maintain a logbook to record workers'			
		grievances and complaint/ suggestion boxes can be placed at the			
		supervision consultant's office.			
		✤ A focal point will be designated to receive the complaints. The			
		contact details of the focal point will be displayed in notice board			
		of respective office.			
		The workers will be made aware of GRM procedure through toolhow mactings.			
		toolbox meetings.			

35.	Traffic Management	 Contractor shall develop a traffic management plan with the respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
36.	Loss of Access due to construction	 Temporary access will be provided when permanent access is blocked for construction. Special consideration to be provided at the Kaleimagal Tamil Viddyalaya and Kovil at 3.13km. When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 		Contractor	PMU/PIU/RDA/Consultant Engineer
37.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
38.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

39.	Loss, Damage and disruption to Fauna	 Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having atleast 3ft heigh suitable for the location as identified by the Engineer The planting should take place in public land suitable for the purpose The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		 minimal. Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed. 			
40.	Prevention of the Spread of Invasive Plant Species	 No solid or liquid waste should be dumped into natural habitats. There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		carrying any invasive species			
		✤ The construction site should be inspected periodically to ensure			
		that no invasive species are establishing themselves at the site.			
41.	Chance find	$\boldsymbol{\diamondsuit}$ All fossils, coins, articles of value of antiquity, structures and	Engineering	Contractor	PMU/PIU/RDA/Consultant
	procedures for PCRs	other remains or things of geological or archaeological interest	Cost		Engineer
	and Archeological	discovered on the site shall be the property of the Government			-
	Property	and shall be dealt with as per provisions of the relevant			
		legislation.			
		◆ The Contractor will take reasonable precautions to prevent his			
		workmen or any other persons from removing and damaging any			
		such article or thing. He will, immediately upon discovery thereof			
		and before removal acquaint the Engineer of such discovery and			
		carry out the instructions for dealing with the same, waiting			
		which all work shall be stopped.			
		✤ The Engineer will seek direction from the Archaeological			
		Department of Sri Lanka and inform the project EO to follow the			
		Chance Find Procedures set forth.			
42.	Surface Drainage and	 Provide storm water drain system in the premises which will 	Engineering	Contractor	PMU/PIU/RDA/Consultant
.2.	Possible Water	discharge water to existing storm water drainage networks	Cost	contractor	Engineer
	Stagnation	 Carry out overall storm water management in the premises during 	0000		
	Sugnation	construction using temporary ditches, sandbag barriers etc.			
		 Proper drainage arrangements to be made, to avoid the 			
	overflowing of existing drains due to cutting, excavation and				
		other activities			
12	Handling Social and	✤ The Contractor shall appoint an Environmental and Social			
43.	Environmental Issues	Safeguards Officer (ESSO) responsible for community liaison			
		and to handle public complaints regarding environmental/ social			
	during Construction	related matters. All public complaints regarding environmental/ social			
		Complaints Register. The ESSO will promptly investigate and			
		review environmental and social complaints and implement the			
		appropriate corrective actions to arrest or mitigate the cause of			
		the complaints.			
		✤ A register of all complaints is to be passed to the Engineer within			
		24 hrs. They are received, with the action taken by the ESSO on			
<u> </u>	D (*	complains thereof.			
44.	Prevention of	✤ Contractor should strictly follow necessary slope protection	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	landslides	measures such as gabion walls, retaining walls, soil nailing etc	Cost		Engineer NBRO
		as per the designs given in the Contract documents and any other			
		measures instructed by the Engineer.			
		Contractor should incorporate proper drainage network to reduce			
		flow of water in to vulnerable slopes using interceptor drains,			
		trench drains etc and to drain off water collected within the soil			
		mass of the slopes using perforated pipes and diverting to nearby			

45.	Prevention of Sexual exploitation, child trafficking and child labour	 existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		 in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 			
	POST CONSTRUCTION	٩			
46.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well Rehabilitation of quarry / borrow pits are to be a safe and secure area quarry / borrow pits can be backfilled with construction waste On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once 	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA

		the contractor demobilizes.					
47.	Environmental Enhancement/			RDA/Consultant Engineer, PRDA			
	Landscaping	 Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 					
48.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.		Contractor	RDA,/Consultant EngineerPRDA		
49.	Hydrology and drainage	Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow		Contractor, PRDA	PRDA, RDA/Consultant Engineer		
50.	Replanting of trees	Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer		

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Stakeholder consulted	Gender	Views raised
12.03.2021	GramaNiladari - Dehenakanda	Male	 The lands along the road are under 99-year lease estate lands. Majority of people are Indian Tamil, and they work in estates as laborers. There are farmer organizations operating in the area.
11.03.2021	Shop Owner	Female	 There are five buses working on this road. People use this road to go to Bambarakanda and Dehenakanda areas. There are tea factories and waterfalls in the area. Therefore, people visit the area for trading and recreational activities.
11.03.2021	Estate laborer	Female	Work in the tea estate and work for 8 hours.Paid daily for our work.
11.03.2021	Shop Owner	Male	 Many people work in tea estates. Have deeds for our lands. Its good to develop the road.

2.13. ESMP of SR 13 - Iddamalgoda Sunderland via Moragala Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 13 - Iddamalgoda Sunderland via Moragala Road (3.8km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background Iddamalgoda Sunderland via Moragala Road

Road length: 3.80km

Coordinates: Starting Point: 6° 51.646'N, 80° 15.268'E End Point: 6° 52.276'N, 80° 14.009'E

Location: District: Ratnapura DS Division: Eheliyagoda EE Division: Rathnapura GN Divisions: Ganegoda, Bulugahapitiya, Pelpitiya, Moragala

1. Introduction

The Iddamalgoda Sunderland via Moragala Road starts from Colombo – Rathnapura – Wellawaya - Batticaloa Road (A004) and provides access to Karandana Road. This road is under the custody of the Provincial Road Development Authority (PRDA), Sabaragamuwa. The existing average right of way (RoW) of the road is around 5m and the average carriageway is 2.5m. The surface of the road is damaged macadam. Iddamalgoda Sunderland via Moragala Road has an undulating terrain and the elevation varies between 34 -134m MSL. People reported that drainage of storm water is an issue at the starting point of the road. Road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 3.8km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.2m, shoulder 0.5m (both sides), and drains as required. The estimated construction period of the road is six (6) months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e., RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average right of way (RoW) of the Iddamalgoda Sunderland via Moragala road is around 5m and the average carriageway is 2.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA (Sabaragamuwa) will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA (Sabaragamuwa) will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

People expressed the need for road improvement since the road has not been rehabilitated for a long period. There are rubber, paddy and tea cultivations along the road. The road development will facilitate travel convenience for the residents as well as the transportation of their agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 4 for the persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Iddamalgoda Sunderland via Moragala will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible economic displacement to the lottery stall located within the existing ROW. The other impacts are temporary diervsion of streams, water quality impacts, flood risks, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk.**

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occured.

7. Screening of Social Impacts

7.1Project Impact Area

• Settlements:

There are about 64 households and 4 small shops located on either side of the road. The population is around 260. A majority of the population is Sinhalese. Indian Tamil and Muslim families are also living in some sections of the road. By religion, they are Buddhists, Hindus and Islamic.

• Land ownership: There is a lottery stall located within the existing RoW at the starting point (RHS) of the road. However, this will not be affected by the proposed development and the civil works (see Annex 3 for details of this lottery stall). Apart from that land is owned by titleholders, permit holders and people living on estate lands located beside the road.

Livelihoods:There are rubber, paddy, tea cultivations and home gardens along the road. Indian Tamil people are engaged in day today labour activities on rubber estates. Some people work in garment factories. Self-employment and government sector jobs are other sources of livelihoods.

- Local organisations: There are community based organisations such as Rural Development Society, Farmers' Society, Elders' Society and Samurdhi societies.
- **Community infrastructure and resources:** There's a Buddha shrine at the end of the road and it is within the existing RoW (Table 1). Vibration levels generated by civil works can potentially damage the shrine. Therefore, specific vibration standards will be introduced to this particular location to prevent such damages. Also, a temporary access with proper barricading will be provided along the edge of the RoW during the construction period.

Community infrastructure & resources	Location		Change	Road side	Distance from carriageway
Buddha Shrine	6°51'30.29"N	80°14'20.70"E	0+000km	RHS	2.6m

Table 1: Community infrastructure and resources:

• **On-going development projects:** None

• Visitors to the area: Traders come to the village for commercial purposes connected with rubber, paddy, tea plantations and home gardens.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		 ✓ 		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			V	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of PRDA (Sabaragamuwa).
Is land acquisition likely to be necessary?			V	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		~		The RoW is owned by PRDA (Sabaragamuwa). The current usage of the land is road. There is also a lottery stall located within the existing

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
				RoW.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			v	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		~		There is a lottery stall located within the existing RoW. Refer Appendix 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		~		There is one lottery stall within the existing RoW However, it will not be affected. Refer Annexure 3 for details.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			~	
Is the project area located near schools, clinics, hospitals,		✓		There's a Buddha shrine at the end

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
places of worship?				point of the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		V		Project area comes under the Eheliyagoda Police station which is 1km from the project site. Further, <i>"MithuruPiyasa"</i> ¹³ center is located in Ratnapura hospital.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
How many workers will be needed for the sub-project, with what skill set, and for what period?		~		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be recruited for the project.
Will the project hire workers from the local workforce?		~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project		\checkmark		There is possibility of employing outside labor if

¹³ Mithuru Piyasa is a center established by Ministry of Health in main hospitals to support survivors of GBV.

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
area?				local labor is not sufficient.
Will the project require accommodation or service amenities to support the workforce during construction?		 ✓ 		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio- economic, cultural, religious or demographic background?		~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?			\checkmark	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately15. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:	Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project:	Iddamalgoda Sunderland via Moragala Road (SR. 13)
Location:	District: Rathnapura
	DS Division: Eheliyagoda

Road Length: 3.8 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		~	
- Wetland		~	
- Mangrove		~	
- Estuarine		~	
- Buffer zone of protected area		~	
- Special area for protecting biodiversity		~	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g.sensitive or protected areas)?		~	
 Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site? 	V		No permanent alteration of waterways. However waterways will be temporary altered for construction of new culvert at 3.06km and rehabilitation of culverts at 0.24 and 0.39km and they will be restored to its original condition once the requirement is over. Site specific mitigation measures such as silt traps, silt fences will be applied to minimize soil erosion at above streams.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-	~		Site specific soil conservation measures shall be practiced in

based camps and chemicals used in construction?			order to minimize impacts due to soil erosion at water bodies above mentioned. Labor from the host community shall be secured to the maximum possible so that requirement of labor camps will be minimum. Worker camps if required shall be established with the approval from the local authority and their recommendations shall be implemented to minimize impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	~		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓		Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards. Especial attention will be paid to the road section around 0.0 – 1.0km, 1.8km and 2.1km where houses are located at the edge of the road.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	V		Around 0.0 – 1.0km, 1.8km and 2.1km, water will be sprinkled to dry surfaces suppress dust. Air quality, noise and vibration levels will be maintained below particular standards in order to minimize these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?		~	

 Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? Creation of temporary breeding habitats for mosquito vectors of disease? 	✓ 	 ✓ 	Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	✓		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 3 - Information on Encroachers/squatters within the RoW

Appendix 1 - Photographs of Iddamalgoda Sunderland via Moragala



Figure 1: Starting point of the road



Figure 2: Road section along settlements (0.0 - 1.0 km)



Figure 3: Road along the rubber estate

Figure 4: End point of the road



Appendix 2 – Location Map



Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	6°52'16.45"N 80°14'0.56"E	2.4m from the edge of the existing carriage way at 0.000km.	Owner of the lottery stall is Mr. Chaminda Deshapriya. His monthly income is about Rs. 20,000. This is his only income source. There are 02 family members in his family. He is doing this business in the location for 15 years.	the edge of the RoW which is 5m. The improvement to the road include 3.2m carriageway, 0.5m shoulder (both sides) and drains as required. Therefore, the lottery stall will not be affected. However, there will be temporary impacts

Appendix 3 - Information on Encroachers/squatters within the RoW

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Iddamalgoda Sunderland via Moragala				
Risk Category assigned by E and S Screening	Moderate			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
The Buddha Shrine and the shed provided for the three wheeler taxi park located at the right hand side of the starting point of the road should not be affected. Therefore it is recommended to revise the cross section (if required) of the starting point accordingly.				
A lottery stall is located at the edge of the ROW at Right side of the starting point. If the lottery stall needs to be relocated, consult social experts of the project prior to final design.	• ARAP will provide guidance for relocation.			
Along the 1km, ROW of the road is restricted by the houses located on either side. Therefore, necessary design modifications can be used to utilize the available ROW effectively. For example, it is recommended to use "L" drains or to use cover slabs if lined drains are to be introduced for this section.				
It is recommended to recheck the design on ground not to affect any private land or structures especially around $0.0 - 1$ km, $2.2 - 2.2$ km and along the road. In case of any occurrence of need of private land strips for safety improvements, consult social experts of the project prior to final design.				
Erosion control mats or brush barriers should be constructed along the canal which flow along the road from $0.0 - 0.3$ km in order to control sedimentation of the canal.	 Annex III Section 23 of ESMP 			
Details of Internal Submission of Design Recommendation	18			
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA			
Mode of transmission (Email, hand delivery)	Email			

Environmental and Social Management Plan (ESMP) for Rehabilitation of Iddamalgoda Sunderland via Moragala Road (SR13)

	Activities and	Protection and preventive measures	Mitigation		esponsibility
	Associated Impacts		cost	Implementation	Monitoring
1.	PRE-CONSTRUCTION Finalization of the Environmental Method Statement on ESMP implementation	 AND SITE PREPERATION Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Engineers 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	 review and approval. As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Eheliyagoda). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

					1
		Timber Corporation.			
		• Provision shall be made for additional compensatory tree			
		plantation. Any leftover of trees shall be removed and			
		disposed in approved manner.			
3.	Labor and Labor	 The contractor should give priority to hire labor from the 	Engineering	Contractor	RDA/PMU/PIU/ Engineer
	Camps, Construction	surrounding areas to avoid the need for labor camps.	Cost		_
	Camps, temporary	 If labor camps are required to house migrant workers, they should 			
	office and other	be placed well away from settlements or sensitive receptors, water			
	temporary facilities	bodies and boundaries and buffer zones of protected/forested areas			
	·····F······	and preferably located on land which is not productive			
		(barren/waste lands presently). If these are not possible, private			
		lands maybe taken on lease as standard practice. The location,			
		layout and basic facility provision of the labor camp must be			
		submitted to Engineer prior to their construction.			
		written approval of the Engineer and then from the relevant local			
		authority.			
		Separate labor camps need to be provided for female migrant			
		laborers.			
		The instructions for the laborers should be provided in all three			
		languages.			
		 Adequate measures should be provided for proper drainage 			
		facilities to the labour camps and to prevent breeding of			
		mosquitoes, flies and other vector borne diseases.			
		 The contractor shall maintain necessary living accommodation 			
		and ancillary facilities in a functional and hygienic manner and as			
		approved by the Engineer.			
		 Provision of proper sanitary facilities to the labour camps and 			
		offices including water, urinals, toilets, bathing facilities,			
		mosquito nets with adequate capacity of septic tanks and soak pits.			
		 All temporary accommodation must be constructed and 			
		maintained in such a fashion that uncontaminated water is			
		available for drinking, cooking and washing.			
		 The sewage system for the camp must be planned and 			
		implemented with concurrence from the Local Public Health			
		Inspector (PHI)			
		 Provision shall be made for domestic solid waste disposal in 			
		acceptable manner. The solid waste shall be handed over to the			
		waste collecting system of the Local Authority (LA) of the area (if			
		any) and wastewater should be disposed in an environmentally			
		acceptable manner (meeting the desired water quality standards)			
		with the approval of the Engineer. Adequate health care is to be			
		provided for the work force.			
		 Personal Protective Equipment (PPEs) such as helmet, boots, and 			
		earplugs for workers, first aid and firefighting equipment shall be			

-				1	1
		 available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible Provision of paved area for unloading and storage of fuel oil, lubricant oil, away from storm water drainage and a provision of roof where appropriate to avoid interception with the rain Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work. 			
4.	Material Sourcing	 The contractor is required to ensure that sand, aggregates and other quarry material is sourced from sources which are operated with a valid license. The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board, NWS&DB, Department of Irrigation, CBO) is not allowed. Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such as playgrounds, close to water ways, cause access issues to locals or forested areas that require clearing. Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. In case of any complaint referring to GN and DS level GRM, the contractor should have the copy of the minutes of such decisions. A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners The land should be handed over to the owner with a written concurrence once the use is over. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

9.	Shifting of public	Based on the preliminary studies utilities observed along the road are	Engineering	Contractor/Service	PMU/PIU/RDA/Consultant
<i>·</i> ·	utilities	not necessary to be removed. However, it is worthwhile to include a	Cost	providers	Engineer, CEB,NW&DB,
	utilities	provision to relocate the utilities in case it is necessary in the design	COSt	providers	SLT
		stage to perfect the work. In such case,			SLI
		 Proper utility survey shall be carried out in order to identify the 			
		effected utilities and the exact locations			
		providers (CEB, NWS&DB and SLT) to minimize time and the			
		duration of utility disruption			
		 Approval shall be obtained from DOI for any proposed 			
		construction works on irrigation canals			
		Advance notice to the public in all local languages about time and			
		the duration of utility disruption			
		 Use of well trained and experienced machinery operators for the 			
		shifting/reestablishment of utilities to minimize accidental damage			
		and functional purposes			
		Special attention shall be taken to provide relevant services to the			
		public without long delay			
		✤ Water and other utilities shall be provided to the public if long			
1.0		delay to re-establish services with the instruction of PIU		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
10.	Hydrology and	 Design of new culverts and other drainage structures in 	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
	drainage	consultation and recommendations of the Irrigation and Provincial	cost		Engineer, DoI
		Irrigation Department and Department of Agrarian Development			
		 Temporary diversion of water ways during construction (if 			
		required) should be ensured that no obstruction to natural water			
		flow (E.g: Canal flows along the edge of the road from $0.0 -$			
		0.3km)			
		 Construction work affecting water bodies should be prevented and 			
		work should be scheduled during the dry season			
		 Excavation of beds of any streams, irrigation systems, and other 			
		water resources shall be avoided by the contractor			
		 Contractor shall not divert, close, block existing canals and 			
		streams in a manner that adversely affect downstream intakes			
11.	Identification of	 Prior identification of erodible and landslide prone areas in proper 	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
	erodible and landslide	consultation with National Building Research Organisation	cost		Engineer, NBRO
	prone areas	(NBRO.			
		 Existing slopes should not be disturbed to the extent possible 			
		 Incorporate the recommendations and guidelines of the NBRO to 			
		the road designing.			

12.	Land donation	*	Land donation will be involved only for the land required for the		PMU/PIU	PMU/PIU/RDA/Consultant
	Lanu uvnativn	•	design requirements, to improve safety including realignment of		11/10/110	Engineer
			bends, to avoid bottle necks or construction of cross drainages,			Engineer
			lead-away in the locations where required.			
		*	All effort will be made to minimize the land donation for the			
		**				
			project			
		*	If land need from the public, negotiation with property owners			
			will be carried out with involvement of a third party, the			
			respective Grama Niladari and/or Divisional Secretariat.			
		*	Agreement between the donor and the recipient shall be executed			
			as per the format prepared for land donation.			
		*	Survey fees, notary charges for modifying the deed shall be borne			
			by the project to free any legal encumbrances caused as a result of			
13.		L .	taking the lands for road works.			
13.	Small shops located	*	In case the lottery stall at the starting point is temporarily affected		PMU/PIU	PMU/PIU/RDA/Consultant
	within the existing		by construction work, the preparation of the ARAP and obtaining			Engineer, Sabaragamuwa
	ROW (Preparation		WB approval is required prior to the commencement of civil			PRDA
	and Implementation of		works.			
	ARAP)	*	The civil work should commence only after the relocation of the			
			lottery stall to an alternate location, and if necessary after paying			
			due compensation.			
		*	The procedure to be followed in this regard will be included in the			
			ARAP and contractor should assist the PMU for implementation			
14.		*	of the ARAP. Land acquisition is not envisaged in IRCDP. However,	Land	PIU/PMU of RDA	DDA Schemennen DDDA
14.	Land Acquisition (if	**	Resettlement Policy Framework (RPF) is prepared for the project	Acquisition	PIU/PMU 0I KDA	RDA, Sabaragamuwa PRDA
	required)		to guide land acquisition if there's any need arises. The Land	-		
			acquisition process will be initiated as per the Land Acquisition	cost		
			Act and its regulations. The payment of compensation will be			
			done according to Entitlement matrix of RPF.			
15.	Identifying locations to	*	Contractor shall identify locations where permanent access is	Engineering	Engineer, PIU/PMU	PMU/PIU/RDA/Consultant
15.	provide temporary	.*.	blocked for construction.	Cost	of RDA	Engineer
	access	*	The consultation with property owners is necessary if the access	COSt	Contractor	Engineer
	access		of residents and business places expected to be damaged during		Contractor	
			construction.			
		*	In cases of access of common properties including small shrines,			
			temples and schools, the temporary access needs to be discussed			
			with care takers or heads of schools.			
		*	If the structures of common properties are located close to roads,			
		•	safety measures need to be identified to protect the structures.			
	CONSTRUCTION PHAS	SE	survey measures need to be identified to protect the structures.	1	l	
16.	Clearing of road	SE ☆	During site clearance activities, removal of vegetation and debris	Engineering	Contractor	PMU/PIU/RDA/Consultant
	shoulders and Removal	•	must be carried out swiftly and in well-planned manner.	Cost	Contractor	Engineer
	and Disposal of	*	In places where the road RoW is not clearly demarcated, extra	2000		Luginooi
L		<u> </u>	In places where the road Row is not clearly demarcated, Exita	I	1	

			1		11
	construction debris	care need to be taken, not to damage crops and trees in private			
	and excavated	lands.			
	materials	 During the site clearance and disposal of debris, contractor will 			
		take full care to ensure that public or private properties are not			
		damaged / affected and that the traffic is not interrupted			
		The contractor shall identify the sites for disposal of material			
		cleared.			
		 Plants, shrubs and other vegetation cleared should not be burned 			
		on site.			
		 Spoil and other disposal materials should only be dumped at sites 			
		for which prior approval from relevant authorities such as the LA			
		have been obtained. Taking into account the following			
		• The dumping does not impact natural drainage courses			
		• No endangered / rare flora is impacted by such dumping			
		• Should be located in nonresidential areas located in the			
		downwind side			
		 Located at least 100m from the boundaries and buffer zones 			
		of protected/forested areas and water bodies			
		 Avoid disposal on productive/agricultural land. 			
		\circ should be located with the consensus of the local			
		community, in consultation with the Engineer and shall be			
		approved by the LA, Pradeshiya Sabha,			
		• Minimize the construction debris/excavated materials as			
		much as possible by balancing the cut and fill requirements.			
		 The contractor should avoid any spillage of spoil when 			
		transporting such materials to the approved material dumping			
		sites.			
		· · · · · · · · · · · · · · · · · · ·			
		should not be sited to the productive/agricultural lands,			
		environmentally sensitive locations such as forest lands, water			
		bodies.			
17.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas 	Engineering	Contractor	PMU/PIU/RDA/Consultant
		where it has to be removed for the purpose of this project shall be	Cost		Engineer
		stripped to a specified depth of 150mm and stored in stockpiles of			
		height not exceeding 2m, as directed by the Engineer.			
		 If the contractor is in any doubt on whether to conserve the topsoil 			
		or not for any given area, he shall obtain the direction from the			
		Engineer in writing			
		Removed topsoil could be used as a productive soil when			
		replanting trees and during turfing.			
		 Stockpiled topsoil must be returned to cover the areas where the 			
		topsoil has been removed due to project activities. Residual			
		topsoil must be distributed on adjoining/proximate barren areas as			
		identified by the Engineer in a layer of thickness of 75mm –			
		150mm.			

		Topsoil thus stockpiled for reuse shall not	be surcharged or		
		overburdened.	2		
		As far as possible multiple handling of top	osoil stockpiles should		
		be kept to a minimum.			
18.	Protection of Ground	 Construction vehicle, machinery and equip 		Contractor	PMU/PIU/RDA/Consultant
	Cover and Vegetation	stationed only in the areas of work and in	any other area Cost		Engineer
		designated/ approved by the Engineer.			
		 Entry and exit of construction vehicles and 			
		restricted to particular points as directed b			
		 Contractor should provide necessary instruction 			
		operators and other construction workers	not to destroy ground		
		vegetation cover unnecessarily.			
19.	Transport and Storage	All material should be transported in fully	covered trucks. Engineering	Contractor	PMU/PIU/RDA/Consultant
	of construction	Overloading of vehicles with materials sh			Engineer
	materials	done in a manner to suit the trucks capacit			
		Construction material such as cement, san			
		stored in closed structures or in a containe			
		construction materials such as sand, metal			
		be transported under cover to the site and			
		sight. Plastic sheeting (of about 6 mm min			
		used and held in place with weights, such			
		blocks, with the edges of the sheeting buri	ed, or by the use of		
		other anchoring systems.	. 1 1 11 / 1		
		 Loading, unloading and transport of mater inconvenient to the road side community of 			
		 Selection of sites for stock piling with the away from environment and public sensiti 			
		 Storage of fuel, lubricant and chemicals us 	the locations		
		activities on paved surface without contain			
		environment and storm water runoff			
		 Approval shall be taken prior to use of loc 	al roads from relevant		
		authorities and need to maintenance durin			
		Contractor	g the use by the		
20.	Emission of Dust	 In order to minimize the levels of airborne 	e dust all construction Engineering	Contractor	PMU/PIU/RDA/Consultant
	Langeren er Dust	material/debris should be stored as per the			Engineer
		above No.19.			2
		 Mud patches caused by material transport. 	ing vehicles in the		
		access road should be immediately cleane			
		 Continual water sprinkling should be carri 			
		fill areas, material extraction sites, process			
		access road if dust stir is observed. Water			
		done more frequently on days that are dry			
		time's day) as the levels of dust can be ele			
		periods.			
		Portous.		I	l

		 Special attention should be paid to the houses located adjoining to 	1		
		• Special attention should be paid to the houses located adjoining to the ROW from 0.0 to 1km and around $2.1 - 2.2$ km.			
		 Dust masks should be provided to the laborers for the use at 			
		required times.			
		 Erection of dust barriers to the public, religious and other socially 			
		important locations			
		 Metal quarries, crushers and all the plants should be located at 			
		least 500m form the public sensitive and residential areas			
		 Establishment of tire washing facility for the plants, yards or any 			
		other sites which causing to bring mud particles with the vehicles.			
21.	Management of Self	 In the event the contractor will use a self-operated borrow site 	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	Operated Borrow Sites	• Contractor shall comply with the environmenta		Confidetor	Engineer CEA, GSMB
	operated borrow blies	requirements/guidelines issued by the CEA, GSMB and			
		the respective local authorities with respect of locating			
		borrow areas and with regard to all operations related to			
		excavation and transportation of earth from such sites.			
		• Contractor can also find suitable soil materials from			
		currently operated licensed borrow pits in the surrounding			
		area, subject to approval of the Engineer	2		
		• No borrow-sites be used (current approved) or newly	7		
		established within areas protected under FFPO and FO and			
		within productive land/agricultural land and environmen			
		and public sensitive locations			
		• Borrow areas shall not be opened without having a valid	L		
		mining license (Industrial Mining License (IML)) from the	•		
		GSMB. The location, depth of excavation and the extent o	Ĩ		
		the pit or open cut area shall be as approved by the	•		
		Engineer.			
		• All borrow pits/areas should be rehabilitated at the end o			
		their use by the contractor in accordance with the			
		requirements/guidelines issued by the GSMG, CEA and			
		the respective local authority (Refer Annex II fo	:		
		guidelines).			
		 Establishment of borrow pits/areas and its operational 			
		activities shall not cause any adverse impact to the near-by			
		properties. Also, shall not be a danger of health hazard to			
		the people.			
		• Contractor shall take all steps necessary to ensure the			
		stability of slopes including those related to temporary	7		
		works and borrow pits.		~	
22.	Quarry Operations	✤ In the event the contractor manages a self-owned existing quarry	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	and Management of	sites available in the project area	Cost		Engineer CEA,GSMB
	Self Operated Quarry	 They should be approved by CEA with valid EPL (Environment 			
	Sites	Protection Licenses) and GSMB with valid IML;			
	l	 Prior approval should be obtained from GSMB, CEA and local 			

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			authorities such as Pradeshiya Sabha.			
		*	Selected quarry sites should have proper safety measures such as			
			warnings, safety nets etc., and third-party insurance cover to			
			protect external parties that may be affected due to blasting.			
		*	Quarry sites should not be established within protected sites			
			identified under the FFPO and FO and not within productive			
			land/agricultural land and environment and public sensitive			
			locations.			
		*	It is recommended not to seek material from quarries that have			
			ongoing disputes with community.			
		*	The maintenance and rehabilitation of the access roads in the			
			event of damage by the Contractors operations shall be a			
			responsibility of the Contractor.			
		*	Copies of all relevant licenses should be maintained by the			
		•	Contractor for review and documentation by the engineer			
23.	Control of	*	Debris material shall be disposed in such a manner that existing	Engineering	Contractor	PMU/PIU/RDA/Consultant
23.	Sedimentation and Soil		drainage paths are not blocked.	Cost	Contractor	Engineer
	Erosion	*	Drainage paths associated with irrigation structures should be	COSt		Engineer
	ETUSION		improved / erected to drain rainwater properly.			
		*	Silt traps will be constructed to avoid siltation into the water ways			
			where necessary along the road corridor (E.g. along the canal from			
			0.0 to 0.3km).			
		*	Erosion control mats or brush barriers should be constructed along			
		.*.	the canal from $0.0 - 0.3$ km in order to control sedimentation of the			
			canal (Please refer Annex III for details).			
		*	To avoid siltation, drainage paths should not be directed to			
		.*.	waterways and irrigation canals and they should be separated from			
			such water bodies			
		*	Temporary soil dumps should be removed from the construction			
		***	sites as soon as possible. Until removal, these soil dumps should			
			be covered with thick polythene sheets.			
		*	Temporary soil dumps should be placed at least 200m away from			
			all water bodies.			
		*	Top soil shall be prevented to use for tree planting and turfing			
			activities.			
		*	In hilly terrain and areas with slopes;			
			• Embankment slopes, slopes of cuts, etc. shall not be			
			unduly exposed to erosive forces.			
			• These exposed slopes shall be graded and covered by grass			
			or other suitable materials per the specifications.			
			• During the rainy season open cuts/slopes should be			
			covered with fixed polythene sheeting to avoid excessive			
		.*.	erosion.			
		*	All fills, back fills and slopes should be compacted immediately to			
		I	reach the specified degree of compaction and establishment of			

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		•	proper mulch.				
		*	Work that lead to heavy erosion shall be avoided during the				
			raining season. If such activities need to be continued during rainy				
			season prior approval must be obtained from the Engineer by				
			submitting a proposal on actions that will be undertaken by the				
			contractor to prevent erosion.				
		*	Construction activities: excavation and earth work around				
			vulnerable area for soil erosion mainly restricted to the dry periods				
			and removal of green cover vegetation shall be minimized.				
		*	The work, permanent or temporary shall consist of measures as				
			per design or as directed by the engineer to control soil erosion,				
			sedimentation and water pollution to the satisfaction of the				
			engineer.				
			• Typical measures include the use of berms, dikes sediment				
			basins, fiber mats, mulches, grasses, slope drains and other				
			devices.				
			• All sedimentation and pollution control work and				
			maintenance thereof are deemed, as incidental to the				
			earthwork or other items of work and no separate payment				
			will be made for their implementation.				
		**	Refer Annex III				
24.	Noise from vehicles,	*	Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA,	/Consultant
24.	machinery and	•	6:00PM). No work that generates excessive noise should be	Cost	Contractor	Engineer CEA	/Consultant
	equipment		carried out during night hours where in close proximity to public	COSt		Lingilieer CLA	
	equipment		sensitive receptors (temples, hospitals) and residential areas (from				
			6:00PM to 6:00AM on the following day).				
		*	Any vulnerable parties for high noise impact residing along the				
		•••	road especially within residential areas within $0.0 - 1$ km and $2.1 - 1$				
			2.2km should be identified in advance and measures as agreed				
		.*.	with the Engineer should be implanted to minimize the impact.				
		*	All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during				
			construction) for the daytime. For all construction activities				
			undertaken during the nighttime, it is necessary to maintain the				
			noise level at below 50 dB as per the Central Environmental				
			Authority (CEA) noise control regulations. Special approval				
			should be obtained from CEA for night time work through PIU.				
		*	All equipment should be in good serviced condition. Regular				
			maintenance of all construction vehicles and machinery to meet				
			noise control regulations stipulated by the CEA in 1996 (Gazette				
			Extra Ordinary, No 924/12) must be conducted for				
			vehicles/machinery that will be used in construction on site, for				
		•	transport and for plants (crushers, asphalt, concrate and batching	1	1	1	
			transport and for plants (crushers, asphalt, concrete and batching				
		*	plants). Ideally noise generating work should not be carried out during				

		public holidays and religious days. Special care should be taken as there is a temple nearby.			
		 Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of nighttime resident laborers should be minimized. 			
25.	Vehicular noise pollution at residential / sensitive receptors	 Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas. Stationary construction equipment will be kept at least 500m away from sensitive receptors, where possible. These include places of worship, schools, medical centers and households. All possible and practical measures to control noise emissions during drilling shall be employed. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
26.	Impacts due to Vibration	 Contractor shall take special care at the starting point of the road to protect the Buddha shrine located on Right Side as agreed with the Engineer and the caretakers of the shrine Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration (E.g: houses along 0.0 - 1km and 2.1 – 2.2.km). Any vulnerable parties for vibration impact residing along the road especially within residential areas within 0.0 – 1km and 2.1 – 2.2km should be identified in advance and measures as agreed with the Engineer should be implanted to minimize the impact. Prior to commencement of excavation, compaction, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, GSMB

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		*	compliance with the criteria, if vibration levels exceed the relevant vibration criteria. Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. Blasting shall be carried out only with permission of the Engineer and approval from GSMB			
27.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies.			
		*	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate			
			the ground.			
		*	All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines			
			stipulated under the EPL issued by CEA. Wastewater shall not be			
			disposed without meeting the disposal standards specified under			
			the NEA. Wastewater from vehicle and plant maintenance and			
			servicing stations shall be cleared of oil and grease and other			
			contaminants to meet the relevant standards before discharging to			
		*	the environment. Contractor shall arrange for collection, storing and disposal of oily			
		**	wastes to the pre-identified disposal sites (list to be submitted to			
			Engineer) and approved by the Engineer. All spills and collected			
			petroleum products will be disposed of in accordance with			
			standards set under the NEA.			
		*	Engineer will certify that all arrangements comply with the			
			standards specified under NEA and guidelines of CEA or any other relevant laws.			
28.	Public Safety	*	At all times, the Contractor shall provide safe and convenient	Engineering	Contractor	PMU/PIU/RDA/Consultant
	J		passage for vehicles, pedestrians and livestock.	Cost		Engineer
		*	Work that affects the use of existing accesses shall not be			
		1	undertaken without providing adequate provisions to the prior			
		*	satisfaction of the Engineer. The construction corridor should be barricaded at all time in a day			
			with adequate marking, safety tape, flags, reflectors etc. for safety			
		1	of individuals using the site daily basis. (Items such as parking			
			cones, lights, tubular markers, orange and white strips and			
		1	barricades of a luminous nature for night visibility shall be			
			procured where deemed necessary)			

		Safety signboards should be displayed at all necessary locations.			
		 The contractor should obtain a Third-party insurance to 			
		compensate any damages, injuries caused to the public or laborers			
		during the construction period.			
		 All construction vehicles should be operated by experienced and 			
		trained operators under supervision.			
		 Basic onsite safety training should be conducted for all laborers 			
		during the ESMP training prior to the start of the construction			
		activities.			
		All digging and installation work should be completed in one go,			
		if this task is not accomplished the area should be isolated using			
		luminous safety tape and barricading structures surrounding the			
		 whole area. Trenches should be progressively rehabilitated once work is 			
1		 Trenches should be progressively rehabilitated once work is completed. 			
		 Material loading and unloading should be done in an area, well 			
		away from traffic and barricaded			
		 Construction wastes should be removed within 24 hours from the 			
		site to ensure public safety.			
		Safety awareness programs should be conducted by the Contractor			
		in annual basis targeting the public residing along the road in			
		order to make the public aware on road safety especially during			
		the operation period of the road.			
29.	Safety of Workers	 Contractor shall comply with the requirements for safety of the 	Engineering	Contractor	PMU/PIU/RDA/Consultant
		workers as per the ILO Convention No. 62 and Safety & Health	Cost		Engineer
		Regulations of the Factory Ordinance of Sri Lanka to the extent			
		that these are applicable to this contract			
		that those are applicable to this contract.			
		The contractor shall supply all necessary safety measures at site.			
		 The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to 			
		 The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to all workers Employed on mixing of materials like cement, 			
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		 All workers should be made aware about Workers GRM and they should be facilitated to approach relevant GRCs as and when required. First aid facilities and nursing staff to be provided at work places Provision of adequate transport facilities for moving injured persons to the nearest hospital National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks, not allowing large gatheringsetc.) for prevention of the 		
30.	Prevention of accidents	 spread of COVID-19 virus will be adhered to. Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc. Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and 	Engineering Cost	ractor PMU/PIU/RDA/Consultant Engineer
31.	Operation of labor camps	 maintenance stages and take appropriate remedial actions Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under DoF, and near to any other environment and social sensitive locations The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure 	Engineering Cost	ractor PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF

			adequate water supply is to be provided in all toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure			
			that these are regularly Emptied and disposed of in a hygienic			
			manner			
32.	Management of the	*	The contractor shall firstly follow all measures outlined for	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	spread of Covid-19 or		pandemic management by the Government of Sri Lanka, Ministry	Cost		Engineer MoH
	handling sudden		of Health and Local Public Health officers and adhere to all			
	Pandemic outbreaks		relevant guidelines applicable			
			(https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex			
			28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as			
			per the guidance as well as in labor camps to prevent			
			overcrowding and to allow social distancing. Where necessary in			
			labor camps additional provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper handwashing and			
			sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature			
			checks of workforce and enable social distancing at the work site			
			and interactions with communities should be minimized. Daily			
			records of these checks should be maintained by the contractors			
			site staff.			
		*	If a worker is diagnosed with symptoms related to the said			
		•	pandemic the contractor will immediately inform the PHI and			
			follow instructions laid out by the national health agencies.			
33.	Prevention of Vector	*	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
55.	Borne Diseases	•	mosquitoes at places of work, labor camps, plus office and store	Cost	Contractor	Engineer, MoH
	Dorne Diseases		buildings. Stagnation of water in all areas including gutters, used	Cost		Linginicer, worr
			and empty cans, containers, tires, etc. shall be prevented.			
			Approved chemicals to destroy mosquitoes and larvae should be			
			regularly applied.			
		*	All borrow sites should be rehabilitated at the end of their use by			
			the contractor in accordance with the requirements/guidelines			
			issued by the Central Environmental authority and relevant local			
			authorities			
		*	Contractor shall keep all places of work, labor camps, plus office			
			and store buildings clean devoid of garbage to prevent breeding of			
			rats and other vectors such as flies.			
34.	Gender issues	*	Equal opportunity shall be ensured while requirement of project	Engineering	Contractor	PMU/PIU/RDA/Consultant
34.	including Gender base	***	staff including contractors working force. The salary/ wages and	Cost	Contractor	Engineer
	violence		other payments due on service provided to the project should not	COSI		Engineer
	violence		be classified on the Gender basis.			
		*	The sanitary facilities in sites and labour camps should be			
		**	designed with consideration of suitable location, comfortability			
			for female users and safe access.			
			tor remaie users and safe access.		l	

			1		
		 Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting 			
		mechanism for sexual harassment shall be incorporated into the Grievance readdress Mechanism of the Project.			
35.	Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
		toolbox meetings.		~	
36.	Traffic Management	 Contractor shall develop a traffic management plan with the respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. Clear instructions should be given if detours are used. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
		 Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them 			

		• T / C/I I C I 'I/I 'II I/'			
		 Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. Therefore, after the construction is completed the contractor 			
		should erect relevant road signs and road markings to guide the			
		drivers to ensure the safety of the vehicles and pedestrians			
37.	Loss of Access due to	 Temporary access will be provided when permanent access is 	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction	blocked for construction.	Cost		Engineer
		• When construction work is in progress in one side, the other side			
		will be opened for traffic & properly			
		At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer.			
20	Ductostion of Dhysical	 Cleared away under the supervision of the Engineer. If any physical cultural resources are identified along the project 	Engineering	Contractor	PMU/PIU/RDA/Consultant
38.	Protection of Physical Cultural Resources	trace the contractor will ensure that protective fencing as agreed	Cost	Contractor	Engineer
	(PCRs) close to the	with the community and or head of the physical cultural resource	COSI		Eligineei
	Site.	(ie temple, mosque, place of worship, grave site, monument,			
		statue, tree or any site designated of importance by the			
		community) is established to avoid any impacts during the civil			
		works.			
		If the site is within 5 meters of the proposed road trace the			
		contractor shall conduct and document a crack survey of the site			
		prior to construction to ensure that no damage is caused due to			
		vibrations associated with the civil works and will take all			
		requisite measures to ensure so.			
		The contractor shall not, park vehicles or store construction			
		material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.			
		 Labors will be briefed to ensure that no acts of vandalism will be 			
		tolerated and will be penalized. Workers should not be allowed to			
		trespass in to such areas.			
		 Unless agreed with the community the contractor shall not block 			
		access to any known places of worship or PCRs along the project			
		trace.			
39.	Loss, Damage and	• All works shall be carried out in a manner that the destruction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Flora	to the flora and their habitats is minimized.	Cost		Engineer
		• Trees and vegetation shall be felled / removed only if that			
		impinges directly on the permanent works or necessary			
		temporary works. In all such cases contractor shall take prior			
		approval from the Engineer.			
		• Contractor shall make every effort to avoid removal and/or			
		destruction of trees of religious, cultural and aesthetic			
		significance.			
		• If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the			
		in advance and carry out public consultation and report on the			

		same should be submitted to the Engineer.			
		• Contractor shall adhere to the guidelines and recommendations made by the CEA/DS, if any with regard to			
		felling of trees and removal of vegetation.			
		• Removed trees of significant value must be handed over to the			
		Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor.			
		 The contractor shall plant at least 3 good specimens of native 			
		trees over 5-year-old root-balled or having at least 3ft height			
		suitable for the location as identified by the Engineer. The			
		planting should take place in public land suitable for the			
		 purpose The contractor shall build hardy structures around the trees for 			
		• The contractor shall build hardy structures around the trees for protection.			
		• The contractor shall be responsible for ensuring the well-			
		being of the trees/plants until the end of the contract			
40.	Loss, Damage and	• All works shall be carried out in such a manner that the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna	destruction or disruption to the fauna and their habitats is	Cost		Engineer
		minimal.Construction workers shall be instructed to protect fauna			
		including wild animals and aquatic life as well as their			
		habitats. Hunting, poaching and unauthorized fishing by			
		project workers is not allowed.			
		• No solid or liquid waste should be dumped into natural			
41.	Prevention of the	 habitats. There is a possibility of introducing / spreading of invasive 	Engineering	Contractor	PMU/PIU/RDA/Consultant
41.	Spread of Invasive	species during material transportation and disposing cleared	Cost	contractor	Engineer
	Plant Species	vegetation from one site to another, thus the following measures			
		are to be undertaken.			
		 Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. 			
		 Vehicles should be covered during transportation of cleared 			
		vegetation to and from the construction site.			
		• Borrow material to be brought from properly identified			
		borrow pits and quarry sites, the sites should be inspected in			
		order to ensure that no invasive plant species are being carried with the borrow material.			
		 Washing the vehicles should be conducted periodically to 			
		• wasning the venicles should be conducted periodically to prevent carrying any invasive species			
		• The construction site should be inspected periodically to			
		ensure that no invasive species are establishing themselves at			
42	Chance for J	the site.	Engineering	Contractor	PMU/PIU/RDA/Consultant
42.	Chance find procedures for PCRs	• All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological	Engineering Cost	Contractor	Engineer
	Procodulos for Telks	unity of things of geological of arenaeological	0.000	1	Linghitter

	and Archeological Property	 interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
43.	Surface Drainage and Possible Water Stagnation	 Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises during construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
44.	Handling Social and Environmental Issues during Construction	 The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/ social related matters (Environment and Social Safeguards Officer (ESSO)). All public complaints will be entered into the Complaints Register. The Environmental and Social Safeguards Officer will promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. 			
45.	Prevention of landslides	 Contractor should strictly follow necessary slope protection measures such as gabion walls, retaining walls, soil nailing etc as per the designs given in the Contract documents and any other measures instructed by the Engineer. Contractor should incorporate proper drainage network to reduce flow of water in to vulnerable slopes using interceptor drains, trench drains etc and to drain off water collected within the soil mass of the slopes using perforated pipes and diverting to nearby existing channel during intense rains Contractor should not unnecessarily disturb steep slopes which can result landslides and prior approval should be obtained from Engineer and NBRO if directed by the Engineer if contractor needs additional cutting or filling. It is necessary to monitor the possible locations of landslides 	Engineering Cost	Contractor	PMU/PIU/RDA, /Consultant Engineer NBRO

		during construction phase in close coordination with NBRO especially where cuts and fills are to be practiced and if found general public including road users and residents should be kept away from these sites especially during intense rainfalls			
46. Prevention of Sexual exploitation, child trafficking and child labour		 Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTION	POST CONSTRUCTION			
47.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA
48.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 	Engineering Cost	Contractor	RDA/Consultant Engineer, PRDA
49.	Road furnishing on safety.	 The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA, /Consultant Engineer PRDA

50.	Hydrology and	Iydrology and Iv Routine maintenance, repairing, removal of sediments and rubbish		Engineering	Contractor, PRDA	PRDA,	RDA/Consultant
	drainage		to avoid drainage congestions and obstructions to storm water flow			Engineer	
51.	Replanting of trees S Growth and survival of trees planted shall be ensured and		Engineering	Contractor	PRDA,	RDA/Consultant	
			monitoring done at least for a period of three years	d of three years Cost Engineer			
52.	Commercial units	Commercial units PMU will carry out consultations with owners of affected			PMU/PIU	PMU/PIU/RDA/Consultant	
	located within the shops and discuss about their permanent relocation.			Engineer			
	existing ROW (Post	xisting ROW (Post * The shop owners will be linked with relevant local authorities		-			
	monitoring of ARAP)		to (if necessary) for further assistance.				

Stakeholder consultation notes

Refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakehold	ler	Key concerns raised/Suggestions Provided		
	Type of Stakeholder	Number of Participants (M/F)			
12.03.2021	Grama Niladari - Bulugahapitiya	Male	 People live in this GN division belong to Tamil ethnic community. People engage in wage labor and self-employment. 		
12.03.2021	Grama Niladari - Ganegoda	Male	 Majority people in this GN division are Sinhalese. People also work in garment factories and government institutions. 		
11.03.2021	Road user	Male	 This road needs to be developed. The road was not developed for a long time and now it's in dilapidated condition. 		

2.14. ESMP of SR 15 - Paper mill road from Kubugoda Ara junction to Thalawa road Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Environmental and Social Management Plan (ESMP)

of

SR 15– Paper mill road from Kubugoda Ara junction to Thalawa road Road

(4.15km)

Draft Final Report June 2021

Background Paper Mill Road from KubugodaAra Junction to Thalawa Road

Road length: 4.15km

Coordinates: Starting Point 6°18'7.55"N,80°49'45.43"E End Point 6°16'54.54"N, 80°51'30.70"E

Location:

District:RatnapuraDS Division:EmbilipitiyaEE Division:EmbilipitiyaGN Divisions:KumbugodaAra, Thorakolayaya, Halmilketiya and Hingura

1. Introduction

The Paper Mill Road from KubugodaAra junction to Thalawa Road (4.15km) starts at Embilipitiya Middeniya Road (B-486) and provides a connection to Thalawa Daberella Higura & Middeniya road. This road is under the custody of Embilipitiya Pradeshiya Sabha. The surface of the road is concrete and damaged macadam. The road traverses along a flat terrain where the elevation varies between 75 – 99m MSL. There is a small tank located between 3.7 to 4.1km on Left Hand Side of the road and seasonal water streams thatthe road crosses over. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.15 km. The surface will be rehabilitated with asphalt concrete or concrete as necessary and drainage will also be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 5 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Village Plans (FVP's), there are strips allotted for roads Final the and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW., In some cases the drains may need to be located leaving some gap to the RoW., In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Paper Mill Road from KubugodaAra Junction to Thalawa Roadis around 7m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from EmbilipitiyaPradeshiyaSabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Embilipitiya Middeniya Road (B-486). There are banana cultivations and home gardens. The road is used for transportation of these agricultural produce to the market. This road also provides acces to Embilipitiya Industrial Zone, Peper mill and Nelna farm.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and to takephotographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location), The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of the Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Paper mill road from Kubugoda Ara Junction to Thalawa Road will have a majority of reversible, small-medium scale environmental and social impacts, specifically limited to the civil works phase of the project including temporary loss of access to residents, common properties and the impact of dust, noise and vibration that can be managed by site specific mitigation measures therefore this sub-project can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this subproject to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1Project Impact Area

• Settlements: There are about 59 households and 12 small shops located at both side of the road. The estimated population is 270 persons. All of them are Sinhala Buddhists.

- Land ownership: There are no squatters along the road. All the lands are private and Government lands.
- Livelihoods: Agriculture is the main source of livelihood in the project area. Banana and pepper are the main agricultural crops. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations connected with agricultural activities such as *"GoviSamithi"*(Farmer Organizations).
- **Community infrastructure and resources:** Details of community infrastructure and resources are provided in Table 1. During construction period, the access to them will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

	-		
Community	Location	Chainage	Road
frastructure &		_	side

Table 1:Community infrastructure and resources

- inf RoW resources Midwife's Office 80°49'46.67"E 6°18'6.33"N 0 + 100RHS 1 m Pre - school 6°18'5.18"N 80°49'48.05"E 0 + 110LHS 1m Buddha shrine + 6°17'6.08"N 80°50'38.02"E RHS 2+5503m Bo- tree Emblipitiya 6°17'5.37"N 2 + 700LHS 80°50'42.78"E 5m Industrial Zone
 - **On-going development projects:** None
 - Visitors to the area: People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		\checkmark		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		\checkmark		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		\checkmark		This road is currently under the custody of Embilipitiya Pradeshiya Sabha(local authority).

Distance from the

Is land acquisition likely to be necessary?			Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?	~		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?		~	
Loss of Livelihood			
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		√	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?		~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	\checkmark		None of the people will be affected people as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		✓	surety measures at the site rever.
Is the project area located near schools, clinics, hospitals, places of worship?	 \checkmark		There is a Buddha shrine and a pre- school in the vicinity (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	✓		Project area comes under the Embilipitiya Police station which is3.12km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?		~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		~	
Labour Influx How many workers will be needed for the sub-project, with what skill set, and for what period?	 \checkmark		Both skilled and unskilled workers will be used by the contractors. Approximately 20 laborers will be recruited for the project.

Will the project hire workers from the local workforce?	V		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	V	/	There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		V	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	NO
8.	No. of workers to be brought from outside the project	The total number of labor required
	area	for the project is approximately
		20. Priority will be given to hire
		the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – SabaragamuwaProvinceSub-project:Paper mill road from Kubugoda Ara junction to Thalawa road (SR 15)Road Length:4.15kmLocation:District: Ratnapura
DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		V	
 Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site? 	×		Permanent alteration of streams will not be required however streams at 2.92km where new culvert is to be constructed and at culvert reconstructions; 0.48, 0.8, 1.73, 1.3, 1.87, 2.5, 3.52 and 3.73km will be temporary diverted. However water flow at these locations will be continued to downstream and restored to original condition. Soil erosion control measures such as silt traps and silt fences will be applied to minimize siltation

		impacts.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?		Site specific soil conservation measures shall be practiced especially at streams mentioned above and along the small tank from 3.7 to 4.1km on Left Hand Side in order to minimize impacts due to soil erosion. Local labor from the host community shall be secured to the maximum possible so that requirement of labor camps will be minimum. Worker camps if required shall be established with the prior approval from the local authority and their recommendations shall be implemented to minimize impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V	Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	 ✓ 	Blasting along the road is not necessary. All civil works shall be managed in compliance with the permissible levels of noise and vibration as specified in the national standards.
- Dislocation or involuntary resettlement of people		\checkmark
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	V	Regular sprinkling of water to suppress dust during the construction phase and avoiding project activities during the night time will mitigate these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?	V	Speed limits shall be applied and monitored for all construction vehicles during the construction phase.

- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Securing of local labor as much as possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	V		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		√	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	

List of Appendixes: Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 – Photos of Paper mill road from Kubugoda Ara junction to Thalawa road



Figure 1: Starting point of the road



Figure 2: Road along the home gardens





Figure 4: Acsses road of the Embilipitiya Industrial Zone located at 2.70km on LHS of the road



Figure 5: Buddha Shrine located at 2.55km on RHS of the road



Figure 6: End point of the road

Appendix 2 - Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Paper mill road from Kubugoda Ara junction to Thalawa road					
Risk Category assigned by E and S Screening	Moderate				
Design Recommendations and guidance					
Design Justification	Guidance to be Used				
It is recommended to modify alignment of the road if the small tank located from $3.7 - 4.1$ km on left hand side is going to be affected.	• Section 10 of ESMP				
Permanent silt control measures should be introduced to the small tank located at the edge of the road from $3.7 - 4.1$ km on left hand side.	• Annex III				
Details of Internal Submission of Design Recommendations					
Submitted by	Director - ESDD, RDA				
Date of submission	11 June 2021				
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA				
Mode of transmission (Email, hand delivery)	Email				

Environmental and Social Management Plan (ESMP) for Rehabilitation of SR 15 Peper mill road from Kubugoda Ara Junction to Thalawa road Road under the Inclusive Rural Connectivity and Development Project of Sabaragamuwa Province

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION ANI	D SITE PREPARATION	<u> </u>		
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Rathnapura). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		made by the Central Environmental Authority, if any with regard
		to felling of trees and removal of vegetation.
		• Removed trees of economic value must be handed over to the
		Timber Corporation.
		• Provision shall be made for additional compensatory tree
		plantation. Any leftover of trees shall be removed and disposed in
		approved manner.
3.	Labor and Labor	The contractor should give priority to hiring labor from the surrounding Engineering Cost Contractor, PMU/PIU PMU/PIU/RDA/Consultant
	Camps,Construction	areas to avoid the need for labor camps.
	Camps, temporary office	✤ If labor camps are required to house migrant workers, they should be
	and other temporary	placed well away from settlements or sensitive receptors, water bodies
	facilities	and boundaries and buffer zones of protected/forested areasand
	fuenties	preferably located on land which is not productive (barren/waste lands
		presently). If these are not possible, private lands maybe taken on lease
		as standard practice. The location, layout and basic facility provision of
1		the labor camp must be submitted to Engineer of the relevant managing
1		
		department prior to their construction.
		The construction will commence after receiving the written approval of
		the Engineer as well as Local Authority.
		 Separate labor camps need to be provided for female migrant laborers.
		✤ The instructions for the laborers should be provided in all three
		languages.
		 Provision of proper drainage facilities to the labour camps and prevent
		breeding of mosquitoes, flies and other vector borne diseases.
		◆ The contractor shall maintain necessary living accommodation and
		ancillary facilities in a functional and hygienic manner and as approved
		by the Engineer.
		 Provision of proper sanitary facilities to the labour camps and offices
		including water, urinals, toilets, bathing facilities, mosquito nets with
		adequate capacity of septic tanks and soak pits.
		 All temporary accommodation must be constructed and maintained in
1		such a fashion that uncontaminated water is available for drinking,
		cooking and washing.
		 The sewage system for the camp must be planned and implemented
		with concurrence from the Local Public Health Officer (PHI)
1		 Provision shall be made for domestic solid waste disposal in acceptable
		manner. The solid waste shall be handed over to the waste collecting
		system of the Local Authority (LA) of the area (if any) and wastewater
		should be disposed in an environmentally acceptable manner (meeting
1		
		the desired water quality standards) with the approval of the Engineer. Adequate health care is to be provided for the work force.
1		
1		Personal Protective Equipment (PPEs) such as helmet, boots, and combuse for workers. First aid and firstighting againment shall be
		earplugs for workers, first aid and firefighting equipment shall be

		available at construction sites before start of construction. An		
		emergency plan shall be prepared to fight with any emergency like fire.		
		 ♦ All construction camps shall have provision of rationing facilities 		
		particularly for kerosene/LPG so that dependence on firewood for		
		cooking is avoided to the extent possible		
		 Labor camp sites after use should be cleared and the site should be 		
		reinstated to previous condition at the close of the construction work.		
4.	Material Sourcing	◆ The contractor is required to ensure that sand, aggregates and other Engineer	ing Cost Contractor	PMU/PIU/RDA/Consultant
		quarry material are sourced from licensed sources.	8	Engineer, CEA,GSMB
		The contractor is required to maintain the necessary licenses and		5 , ,
		environmental clearances from GSMB and CEA for all borrow and		
		quarry material they are sourcing -including soil, fine aggregate and		
		coarse aggregate.		
		Sourcing of any material from protected areas and/or designated natural		
		areas, including tank beds, are strictly prohibited.		
		✤ If the contractor uses a non-commercial borrow/quarry sites, the sites		
		should be remediated accordingly once material sourcing has been		
		completed.		
		\clubsuit The contractor should submit in writing all the relevant numbers and		
		relevant details of all pre-requisite licenses etc. and report of their status		
		accordingly to the Engineer.		
5.	Water for Construction	✤ The contractor should arrange adequate supply of water for the project Engineer	ing Cost Contractor	PMU/PIU/RDA/Consultant
	activities	purpose throughout the construction period from a source agreed upon		Engineer
		with the engineer.		
		Water may not be obtained for project purposes, including for labor		
		camps, from public or community water supply schemes without a prior		
		approval from the relevant authority. Extraction of water from ground		
		water or surface water bodies without the permission from Engineer		
		and the relevant authority (Water Resources Board, NW&DB,		
		 Department of Irrigation, CBO) Permission for the extraction of water should be obtained prior to the 		
6.	Work Site for construction	 commencement of the project, from the relevant authority. The contractor should identify an area to store construction materials Engineer 	ing Cost Contractor	PMU/PIU/RDA/Consultant
0.	materials	and equipment at a site which should be approved by the engineer.	ling Cost Contractor	
	1110101 1015	 Storage yards cannot be located in community areas, such as 		Engineer
		playgrounds, close to water ways, cause access issues to locals or		
		forested areas that require clearing.		
		 Parking, repairing vehicles, machinery and equipment shall be done 		
		stationed only at the work site and/or in any other designated areas by		
		the engineer.		
		 The contractor should provide instruction and advice should be given to 		
		drivers and operators (both companies owned and hired) to park		
		vehicles and store equipment at the work site or designated areas by the		
		vehicles and store equipment at the work site or designated areas by the		

		engineer.			
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign lease agreement with the land owners and the contractor. The land should be handed over to the owner with a written concurrence once the use is over. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public about time and the duration of utility disruption 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB, NW&DB, SLT

		 Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU 			
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department, Agrarian Department and Farmers Organizations. Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Small tank located from 3.7 – 4.1km should not be encroached for road rehabilitation. Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes 	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, leader ways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
12.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	

13.	Identifying locations to provide temporary access CONSTRUCTION PHASE	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
14.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. During the site clearance and disposal of debris, contractor will take to full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in non-residential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies (stream, etc). Avoid disposal on productive/agricultural land. should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA Pradeshiya Shabha, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

15.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
16.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. Loading, unloading and transport of materials shall not be inconvenient to the road side community or road users Selection of sites for stock piling with the approval of Engineer away from environment and public sensitive locations. Storage of fuel, lubricant and chemicals use for the construction activities on paved surface without contamination to the environment and storm water runoff Approval shall be taken prior to use of local roads from relevant 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		authorities and need to maintenance during the use by the Contractor			
18.	Emission of Dust	 In order to minimize the levels of airborne dust all construction material/debris should be stored as per the instructions provided above No.17. Mud patches caused by material transporting vehicles in the access road 		Contractor	PMU/PIU/RDA/Consultant Engineer
		 should be immediately cleaned Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required 			
		 times. Erection of dust barriers to the public, religious and other socially important locations 			
		 Metal quarries, crushers and all the plants should eb located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. 			
19.	Management of Self	 In the event the contractor will use a self-operated borrow site 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow Sites	 Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guideliness issued by the CEA and the respective local authority (Refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not be a danger of health hazard to the people. 			Engineer CEA, GSMB

				I	17
		• Contractor shall take all steps necessary to ensure the stability of			
		slopes including those related to temporary works and borrow pits.			
20.		✤ In the event the contractor manages a self-owned existing quarry sites	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	Management of Self	available in the project area			Engineer CEA,GSMB
	Operated Quarry Sites	* They should be approved by CEA with valid EPL (Environment			
		Protection Licenses) and GSMB with valid IML (Industrial Mining			
		Licenses);			
		✤ Prior approval should be obtained from GSMB, CEA and local			
		authorities such as Pradeshiya Sabha.			
		Selected quarry sites should have proper safety measures such as			
		warnings, safety nets etc., and third-party insurance cover to protect			
		external parties that may be affected due to blasting.			
		• Quarry sites should not be established within protected sites identified			
		under the FFPO and FO and not within productive land/agricultural			
		land and environment and public sensitive locations.			
		• It is recommended not to seek material from quarries that have ongoing			
		disputes with community.			
		◆ The maintenance and rehabilitation of the access roads in the event of			
		damage by the Contractors operations shall be a responsibility of the			
		Contractor.			
		 Copies of all relevant licenses should be maintained by the Contractor 			
		for review and documentation by the engineer		C. A. A	
21.	Control of Sedimentation	 Debris material shall be disposed in such a manner that existing 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	and Soil Erosion	drainage paths are not blocked.Drainage paths associated with irrigation structures should be improved			Engineer
		 Drainage paths associated with irrigation structures should be improved / erected to drain rainwater properly. 			
		 Silt traps will be constructed to avoid siltation into the water ways. 			
		where necessary along the road corridor.			
		 Silt traps as given in Annex III should be incorporated to control 			
		siltation of the small tank located from 3.7 – 4.1km on left hand side.			
		 To avoid siltation, drainage paths should not be directed to waterways 			
		and irrigation canals and they should be separated from such water			
		bodies			
		 Temporary soil dumps should be removed from the construction sites as 			
		soon as possible. Until removal, these soil dumps should be covered			
		with thick polythene sheets.			
		 Temporary soil dumps should be placed at least 200m away from all 			
		water bodies.			
		Top soil shall be prevented to use for tree planting and turfing			
		activities.			
		 In Hilly terrain and areas with slopes 			
		 Embankment slopes, slopes of cuts, etc. shall not be unduly exposed 			
		to erosive forces.			
			1	1	

		 These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. 	
		 All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the contractor to prevent erosion. Construction activities, excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices. All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. 	
22.	Noise from vehicles, machinery and equipment	 ♦ Refer Annex III ♦ Noise generating work should be limited to daytime (6:00AM to 6:00PM). No work that generates excessive noise should be carried out during night hours where in close proximity to public sensitive receptors (temples, hospitals and residential areas from 6:00PM to 6:00AM on the following day). ♦ All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batching plants). ♦ Ideally noise generating work should not be carried out during public 	PMU/PIU/RDA,/Consultant Engineer CEA

					1
		holidays and religious days. Special care should be taken as there is a temple nearby.			
		 Labor gangs should be warned to work with minimum noise. Strict 			
		labor supervision should be undertaken in this respect. Number of			
		nighttime resident laborers should be minimized.			
23.	Vehicular noise pollution at	 Idling of temporary trucks or other equipment should not be permitted 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
23.	residential / sensitive	during periods of loading / unloading or when they are not in active use.	Lingineering Cost	Contractor	Engineer
	receptors	 The practice must be ensured especially near residential / commercial / 			Engineer
		sensitive areas.			
		 Stationary construction equipment will be kept at least 500m away from 			
		sensitive receptors, where possible. These include places of worship,			
		schools, medical centers and households.			
		✤ All possible and practical measures to control noise emissions during			
		drilling shall be Employed.			
		✤ Contractor shall submit the list of high noise/vibration generating			
		machinery & equipment to the engineer for approval.			
		Servicing of all construction vehicles and machinery must be done			
		regularly and during routine servicing operations, the effectiveness of			
		exhaust silencers will be checked and if found defective will be			
		replaced.			
		✤ Maintenance of vehicles, equipment and machinery shall be regular and			
		up to the satisfaction of the Engineer to keep noise levels at the			
		minimum.	F : : G /	Q , , , ,	
24.	Impacts due to	 Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Vibration	 Prior to commencement of excavation, compaction, blasting activity. 			Engineer, GSMB
		the Contractor shall undertake a condition survey of existing structures			
		within the zone of influence, as agreed with the relevant government			
		agencies and the engineer.			
		 Contractor shall compensate or repair any damage occurred to third 			
		party property/ies as a result of his activity as agreed with the affected			
		party and the Engineer			
		Contractor shall carry out monitoring at the nearest vibration sensitive			
		receptor during blasting or when other equipment causing vibrations are			
		used.			
		\clubsuit The contractor shall modify the method of construction until			
		compliance with the criteria, if vibration levels exceed the relevant			
		vibration criteria.			
		Contractor shall pay due consideration on vibration impacts of blasting			
		on adjoining structures. Explosive loads shall be determined so that			
		excessive vibration can be avoided, and blasts shall be controlled			
		blasting in nature. Notwithstanding to these provisions contractor is			
		liable for any damage caused by excessive vibration and blasting work.			

	1				
		Solution Blasting shall be carried out only with permission of the Engineer and			
	Delladian of Call and Wedness	approval from GSMB		0	
25.	Pollution of Soil and Water via Fuel and Lubricants	 The contractor shall ensure that all construction vehicle parking E locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water ways and water bodies. Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA.Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with standards set by the CEA. 	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
		 Engineer will certify that all arrangements comply with the guidelines 			
26.	Public Safety	of CEA or any other relevant laws.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 All digging and installation work should be completed in one go, if thi task is not accomplished the area should be isolated using luminou safety tape and barricading structures surrounding the whole area. Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded Construction wastes should be removed within 24 hours from the site to ensure public safety. Safety awareness programs should be conducted by the Contractor in annual basis targeting the public residing along the road in order to make the public aware on road safety especially during the operation period of the road. 		
27.	Safety of Workers	 Contractor shall comply with the requirements for safety of the worker as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those an applicable to this contract. The contractor shall supply all necessary safety measures at site. Protective footwear and protective goggles should be provided to al workers Employed on mixing of materials like cement, concrete etc. Welder's protective eye-shields shall be provided to workers who are engaged in welding works. Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation. The contractor shall supply all necessary safety appliances such a safety goggles, helmets, safety belts, ear plugs, mask etc. to worker and staffs. In addition, the contractor shall maintain in stock at the site office gloves, earmuffs, goggles, dust masks, safety harness and any othe equipment considered necessary. A safety inspection checklist should be prepared taking interconsideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded. All workers should be made aware about Workers GRM and the should be facilitated to approach relevant GRCs as and when required. National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) fo prevention of the spread of COVID-19 virus will be adhered to. 	Contractor	PMU/PIU/RDA/Consultant Engineer
28.	Prevention of accidents	 the nearest hospital Prevention of accidents involving human beings, animals or vehicle 	Contractor	PMU/PIU/RDA/Consultant
		falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage		Engineer

			boards and lighting etc.			
		*	Adequate signboards shall be placed much ahead of diversion site to caution the road users. The road signs should comply with the Road			
			Safety Manual of RDA.			
		*	A readily available first aid unit including an adequate supply of			
			sterilized dressing materials and appliances should be available at the			
			site office at all times			
		***	Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.			
		*	Names and contact information for emergency services such as			
			Ambulance services, hospitals, police and the fire brigade should be			
			prepared as a sign board and displayed at the work site.			
		*	Night time illumination should be in place at every location where the			
			road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so			
		*	Monitor and record road crashes during construction and maintenance			
			stages and take appropriate remedial actions			
29.	Operation of labor camps	*	Locations selected for labour camps should be approved by engineer	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
			and comply with guidelines/ recommendations issued by the			Engineer, CEA, LA, DoF
			CEA/Local Authority (LA). Construction of labourer's camps shall not be located within 200m from waterways, within an area coming under			
			DoF, and near to any other environment and social sensitive locations			
		*	The Contractor shall construct and maintain all labor accommodation in			
			such a fashion that uncontaminated water is available for drinking,			
			cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and			
			regular maintenance of such facilities.			
		*	The sewage system for the campsare designed, built and operated in			
			such a fashion that no health hazards occurs and no pollution to the air,			
			ground water or adjacent water courses take place. Ensure adequate			
		*	water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure that			
		•	these are regularly Emptied and disposed of in a hygienic manner			
30.		*	The contractor shall firstly follow all measures outlined for pandemic	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant
	of Covid-19 or handling		management by the Government of Sri Lanka, Ministry of Health and			EngineerMoH
	sudden Pandemic outbreaks		Local Public Health officers and adhere to all relevant guidelines applicable (https://www.hpb.health.gov.lk/en/covid-19). Please refer			
	outoreaks		Annex 28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as per the			
			guidance as well as in labor camps to prevent overcrowding and to			
			allow social distancing. Where necessary in labor camps additional			
			provisioning will be made for spacing.			

					,
		The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.			
		 Measures should be in place to undertake daily temperature checks of 			
		workforce and enable social distancing at the work site and interactions			
		with communities should be minimized. Daily records of these checks			
		should be maintained by the contractors site staff.			
		 If a worker is diagnosed with symptoms related to the said pandemic 			
		the contractor will immediately inform the PHI and follow instructions			
		laid out by the national health agencies.			
31.	Prevention of Vector Borne	Contractor shall take necessary actions to prevent breeding of	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
01.	Diseases	mosquitoes at places of work, labor camps, plus office and store	Linginitering cost	Contractor	Engineer, MoH
		buildings. Stagnation of water in all areas including gutters, used and			2
		empty cans, containers, tires, etc. shall be prevented. Approved			
		chemicals to destroy mosquitoes and larvae should be regularly applied.			
		All borrow sites should be rehabilitated at the end of their use by the			
		contractor in accordance with the requirements/guidelines issued by the			
		Central Environmental authority and relevant local authorities			
		Contractor shall keep all places of work, labor camps, plus office and			
		store buildings clean devoid of garbage to prevent breeding of rats and			
		other vectors such as flies.			
32.	Gender issues including	• Equal opportunity shall be ensured while requirement of project staff	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
	Gender base violence	including contractors working force. The salary/ wages and other			Engineer
		payments due on service provided to the project should not be classified			
		on the Gender basis.			
		✤ The sanitary facilities in sites and labour camps should be designed			
		with consideration of suitable location, comfortability for female users			
		and safe access.			
		✤ Institutional arrangement should be adopted to monitor and taking			
		action against the Sexual harassment can be happened at the site to the			
		workers and general public. The confidential reporting mechanism for			
		sexual harassment shall be incorporated in to the Grievance readdress			
	T 1 / 1 1 · //	Mechanism of the Project.	.		
33.	Issues due to labor influx	• Overcrowded or camp-based living conditions can significantly alter	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
		existing levels of communicable diseases including respiratory			Engineer, MoH
		problems, diarrheal and vector-borne diseases and tuberculosis, which			
		also increases the risks of disease being introduced and spreading			
		through host communities. Priority should be given for workers who			
		 are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility 			
		* Adequate and comfortable accommodation and nyglenic service facility should be provided to Minimize the health risk of spreading disease			
		 Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities 			
		✤ Avoid or reduce labour influx where possible. Explore possibility of			

					1
		 introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision 			
		 consultant's office. A focal point will be designated to receive the complaints. The contact 			
		details of the focal point will be displayed in notice board of respective office.			
		 The workers will be made aware of GRM procedure through toolbox meetings. 			
34.	Traffic Management	 Contractor shall develop a traffic management plan with respective authorities to minimize inconvenience to road users as well as prevent road accidents and implement it. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, Traffic Police
		 Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures. 			
		 Clear instructions should be given if detours are used. Also, any pits should be enclosed to prevent pedestrians or vehicles falling into them 			
		 Improvement of the road surface and width will result in an increase of both the number of vehicles and the vehicle operating speeds. 			
		 Therefore, after the construction is completed, the contractor should erect relevant road signs and road markings to guide the drivers to ensure the safety of the vehicles and pedestrians 			
35.	Loss of Access due to construction	 Temporary access will be provided when permanent access is blocked for construction. When construction work is in progress in one side, the other side will 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		 When construction work is in progress in one side, the other side will be opened for traffic & properly At the end of each day, debris that blocked access path will be cleared away under the supervision of the Engineer. 			
36.	Protection of Physical Cultural Resources (PCRs) close to the Site.	 If any physical cultural resources are identified along the project trace the contractor will ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
		mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any			

		imports during the civil modes
		 impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor
		shall conduct and document a crack survey of the site prior to
		construction to ensure that no damage is caused due to vibrations
		associated with the civil works and will take all requisite measures to
		ensure so.
		 The contractor shall not, park vehicles or store construction material in
		close proximity to the PCR or site labor camps in immediate vicinity of
		the PCR.
		✤ Labors will be briefed to ensure that no acts of vandalism will be
		tolerated and will be penalized. Workers should not be allowed to
		trespass in to such areas.
		Unless agreed with the community the contractor shall not block access
		to any known places of worship or PCRs along the project trace.
37.	Loss, Damage and	• All works shall be carried out in a manner that the destruction to Engineering Cost Contractor PMU/PIU/RDA/Consultant
	disruption to Flora	the flora and their habitats is minimized.
		• Trees and vegetation shall be felled / removed only if that impinges
		directly on the permanent works or necessary temporary works. In
		all such cases contractor shall take prior approval from the
		Engineer.
		• Contractor shall make every effort to avoid removal and/or
		destruction of trees of religious, cultural and aesthetic significance.
		• If such action is unavoidable the Engineer shall be informed in
		advance and carry out public consultation and report on the same
		should be submitted to the Engineer.
		• Contractor shall adhere to the guidelines and recommendations
		made by the CEA, if any with regard to felling of trees and removal
		of vegetation.
		• Removed trees of significant value must be handed over to the
		Timber Corporation. Documentation on the process should be
		shared with the engineer and maintained by the contractor.
		• The contractor shall plant at least 3 good specimens of native trees
		over 5-year-old root-balled or havingatleast 3ft heighsuitable for
		the location as identified by the EngineerThe planting should take
		place in public land suitable for the purpose
		• The contractor shall build hardy structures around the trees for
		protection.
		• The contractor shall be responsible for ensuring the well-being of
		the trees/plants until the end of the contract
38.	Loss, Damage and	All works shall be carried out in such a manner that the destruction Engineering Cost Contractor PMU/PIU/RDA/Consultant
	disruption to Fauna	or disruption to the fauna and their habitats is minimal.
		Construction workers shall be instructed to protect fauna including

 wild animals and aquatic life as well as their habitats. Hunting, poaching and unauhorized fishing by project workers is nut allowed. No solid or liquid wates should be dumped into natural habitats. Prevention of the Spread of Spread S						
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during Construction complaints regarding environmental/ social related matters. All public	-2.	8				
)	complaints will be entered into the Complaints Register. The ESSO will			

43.	Prevention of Sexual exploitation, child trafficking and child labour	 promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 24 hrs. They are received, with the action taken by the ESSO on complains thereof. Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 	tor PMU/PIU/RDA/Consultant Engineer
	POST CONSTRUCTION		
44.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well Rehabilitation of quarry / borrow pits are to be a safe and secure area quarry / borrow pits can be backfilled with construction waste On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	ctor RDA,/Consultant EngineerPRDA
45.	Environmental Enhancement/ Landscaping		ontractor RDA/Consultant Engineer, PRDA

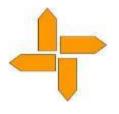
46.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
47.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
48.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Venue	Date	Details of Stakeholder		Key concerns		
		Type of	Number of	raised/Suggestions		
		Stakeholder	Participants	Provided		
			(M / F)			
SR 15: Paper Mill road from Kubugoda Ara junction to Thalawa Road	11.03.2021	GrmaNiladhari, Thorakolayaya	Male	 It is important to develop this road as the surface is damaged and the road provides a link to Embilipitiya Middeniya Road (B-486). There are Banana cultivations and home gardens. The road is used for transportation of these agricultural produce to the market. 		
	11.03.2021	GramaNiladhari, Hingura	Female	 Road surface is damaged, so road needs to be developed. Almost all the population living along the project area is Sinhalese and their religion is Buddhism. Agriculture is the main livelihood in the project area. Some people are engaging in public and private sector employments. 		

2.15. ESMP of SR 16 - Kubugoda Ara - Udagama Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 16 - Kubugoda Ara - Udagama Road (2.20km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

Background Kubugoda Ara Udagama Road

Road length: 2.20km

Coordinates: Starting Point 6° 18.641'N 80° 50.040'E End Point 6° 19.781'N 80° 50.655'E **Location:** District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Yodagama, Modarawana

1. Introduction

The Kubugoda Ara Udagama Road (2.20km) starts at Embilipitiya - Middeniya Road (B 486) and provides a connection to the same B486 road. This road is under the custody of Embilipitiya Urban Council.The existing average RoW of the road is around 7.1m and the average carriageway is 3.8m. The surface of the road is concrete and damaged macadam. The road traverses along a flat and undulating terrain, and the elevation of the trace varies between 69–90m MSL. There are no protected areas located within or adjacent to the road trace.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.2 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e. RoW). The edge between the strip and the land (RoW) is also shown in each lot plan . Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, theRight of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Kubugoda Ara Udagama Road is around 7.1m and the average carriageway is 3.8m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council will provide coordination support by attending to any public requests/views and for

drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from the Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road provides access to settlements and connects to Embilipitiya - Middeniya Road (B 486) . Therefore, it is important to develop this road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information, and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 4 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kubugoda Ara Udagama Road will have a majority of reversible, small-medium scale environmental impacts. The main social impact will be possible economic displacement to the small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

• **Settlements**: There are about 87 households and 06 small shops on both sides of the road. The estimated population is 350. They are all Sinhala Buddhists by ethnicity and religion.

Land ownership: All the lands are private and government lands. There is a small shop located within the existing RoW at the 0+784km (LHS) of the road. The road construction activities will take place very close to the shop. The project will follow five steps to avoid any income loss for the owner as follows.

Step 1: Inform the owner prior to construction activities.

Step 2: Finding an alternative location to continue the business close by and inform the customers on possible relocation.

Step 3: Building a temporary structure at the alternate location (alternate location available is her house located close by) to start the business while continuing the business at the original location.

Step 4: Relocate the business with the transport and labor assistance from RDA prior to construction activities of the road.

Step 4: Monitor the income of affected person.

Step 5: Relocate the owner to the original location or let the person to continue the business at the alternate location after road construction as it is her own place. Refer Annex 3 for details.

- Livelihoods: Paddy cultivation, and home gardens comprising coconut and banana plantations generate incomes to the households. Some people are also engaged in wage labour, public and private sector jobs.
- Local organisations: There are community-based organisations such as Farmer Societies in the area.
- **Community infrastructure and resources:** There is a Buddha shrine, a Bo Tree and a Temple along the road. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Community infrastructu	Locat	ion - GPS	Chainage	Road side	Distance from the Row
re & resources	Coo	ordinate			
Buddha Shrine	6° 18.641'N	80° 50.040'E	0.000	LHS	Edge of the ROW -2.8m from carriageway
Bo –tree	6° 19.641'N	80° 50.17 72'E	1+810	LHS	Edge of the ROW -1.4m from carriageway
Temple	6° 19.665'N	80° 50.411'E	2+180	RHS	Edge of the RoW -3.3m

Table 1: Community infrastructure and resources

On-going development projects: None
Visitors to the area: People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		✓		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		\checkmark		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Embilipitiya Urban Council.
Is land acquisition likely to be necessary?			\checkmark	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		~		Land within the RoW is owned by Embilipitiya Urban Council. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		~		There is a temporary shop made of wood located within the existing RoW. Refer Annex 3 for details.
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		~		One squatter will be affected by the project at least for one week. Refer Annex 3 for details.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	

Access to Services			
Will people lose access to facilities,		\checkmark	
services or natural resources during the			
construction period?			
Would elements of project construction	\checkmark		During the construction phase,
pose potential safety risks to local			there can be safety issues to local
communities, commuters or pedestrians			communities, commuters or
in the project area?			pedestrians. However, this can be
			mitigated by applying adequate
XX711 1 1			safety measures at the site level.
Will any social or economic activities be		v	
affected through land-use related			
changes?	√		There is a Duddha shrina Do Trea
Is the project area located near schools, clinics, hospitals, places of worship?	· ·		There is a Buddha shrine, Bo Tree and Temple in the vicinity as
chines, hospitals, places of worship?			shown in Table 1.
Are there any GBV prevention and	✓		Project area comes under the
response actors (NGOs, government			Embilipitiya Police station which is
notified shelter homes, police stations,			1.97km away from the project site.
etc.) in project area of influence?			
Is the project site in a populated area		\checkmark	
and/or with high vehicular traffic			
volume?			
		\checkmark	
Is there sufficient street-lighting, use of		ř	
video or CCTV for monitoring public spaces in the project location?			
Labour Influx			
How many workers will be needed for	√		Both skilled and unskilled workers
the sub-project, with what skill set, and			will be used by the contractors.
for what period?			Approximately 12 laborers will be
for while period.			recruited for the project.
Will the project hire workers from the	\checkmark		Priority will be given to secure
local workforce?			labor from the local community.
			There is a possibility of bringing
Will there be workers brought in from			outside labor if local labor is not
outside the project area?	√		sufficient/available.
Will the project require accommodation	\checkmark		Accommodation facilities to be
or service amenities to support the			provided if labor is brought from
workforce during construction?	√		outside.
Will the incoming workers be from a	✓		
similar socio-economic, cultural, religious or demographic background?			
Given the characteristics of the local			
community, are there any adverse			
impacts that may be anticipated?			
impacto that may be anticipated.			

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	One squatter within the existing RoW will be affected.
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:Kubugoda Ara Udagama road (No. 16)Road Length:2.2kmLocation:District: Ratnapura
DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			
following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas;		\checkmark	
disfiguration of landscape by road			
embankments, cuts, fills, and quarries?			
- Encroachment on precious ecology (e.g.		\checkmark	
sensitive or protected areas)?			
- Alteration of surface water hydrology of		\checkmark	
waterways crossed by roads, resulting in			
increased sediment in streams affected by			
increased soil erosion at construction site?			
- Deterioration of surface water quality due to		\checkmark	
silt runoff and sanitary wastes from worker-			
based camps and chemicals used in			
construction?			× 1 1 11 11 1 1.1.1
- Increased local air pollution due to rock	\checkmark		Local air pollution will be slightly
crushing, cutting and filling works, and			increased at crushing plants,
chemicals from asphalt processing?			batching plant, asphalt plant and
			construction site during the
			construction period. Regular
			sprinkling of water to suppress dust and avoiding using of
			dust and avoiding using of vehicles and machineries which
			emit gasses exceeding particular
			standards, using approved crusher
			and asphalt plants will mitigate
			these impacts.
- Noise and vibration due to blasting and	\checkmark		Blasting is not necessary.
other civil works?			······································
			Sensitive Receptors is given in the

- Dislocation or involuntary resettlement of people ✓ - Dislocation or involuntary resettlement of people ✓ - Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? ✓ - Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? ✓ - Hazardous driving conditions where construction interferes with pre-existing roads? ✓ The villagers who live in the boundary of the road sufface and will be managed within the particular standards. - Hazardous driving conditions where construction interferes with pre-existing roads? ✓ Some sections of the road surface are of damaged macadam, concreted and gravel. Road signal boards shall be applied and monitored for all construction camps and work sittes, and possible and location of worker camps if required only approved crusher and asphal plants with the elevel of call abor as much as possible diseases from workers to local populations? ✓ - Poor sanitation and solid waste disposal in construction camps and work sittes, and possible and location of worker camps if required only approved sites and continues labor supervision shall minimize these impacts. - Creation of temporary breeding habitats form mosquito vectors of disease? ✓ Mastewater and solid waste shall be proper uffice vehicular trafic, leading to accidental spills		, i	
- Dislocation or involuntary resettlement of people ✓ - Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress? generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and achiencies which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards. - Hazardous driving conditions where construction interferes with pre-existing roads? ✓ - Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? ✓ - Creation of temporary breeding habitats form mosquito vectors of disease? ✓ Securing of local labor as much as possible and continues labor supervision shall minimize these impacts. - Creation of temporary breeding habitats form mosquito vectors of disease? ✓ Wastewater and solid waste shall be avoided at every construction sites. - Accident risks associated with increased ✓ Implementation of a proper traffic			the level of Social impacts in the table on question number 06. Noise and Vibration will be increased at construction sites during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards. - Hazardous driving conditions where construction interferes with pre-existing roads? ✓ Some sections of the road surface are of damaged macadam, concreted and gravel. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? ✓ - Creation of temporary breeding habitats form mosquito vectors of disease? ✓ Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites. - Accident risks associated with increased ✓ Wastewater and solid waste shall be avoided at every construction sites.	•	\checkmark	
 construction interferes with pre-existing roads? are of damaged macadam, concreted and gravel. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? Creation of temporary breeding habitats form mosquito vectors of disease? Creation of temporary breeding habitats form mosquito vectors of disease? Accident risks associated with increased Accident risks associated with increased 	 Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress? 		boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the
construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts. - Creation of temporary breeding habitats form mosquito vectors of disease? ✓ Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites. - Accident risks associated with increased ✓ Implementation of a proper traffic	construction interferes with pre-existing	✓	are of damaged macadam, concreted and gravel. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all
form mosquito vectors of disease? be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites. - Accident risks associated with increased ✓	construction camps and work sites, and possible transmission of communicable		possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
	form mosquito vectors of disease?	✓	be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction
	- Accident risks associated with increased vehicular traffic, leading to accidental spills		Implementation of a proper traffic management plan during the

of toxic materials and loss of life?	construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the necessary standards will mitigate accidental spills of toxic materials. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Health and safety regulations under the factory ordinance with regard to provision of health and safety measures and amenities at work place shall be comply. However the accident of loss of life is very rare in the site.
- Increased noise and air pollution resulting from traffic volume?	\checkmark
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	\checkmark

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map

Appendix 3: Information on Encroachers/Squatters





Figure 1: Starting point of the road



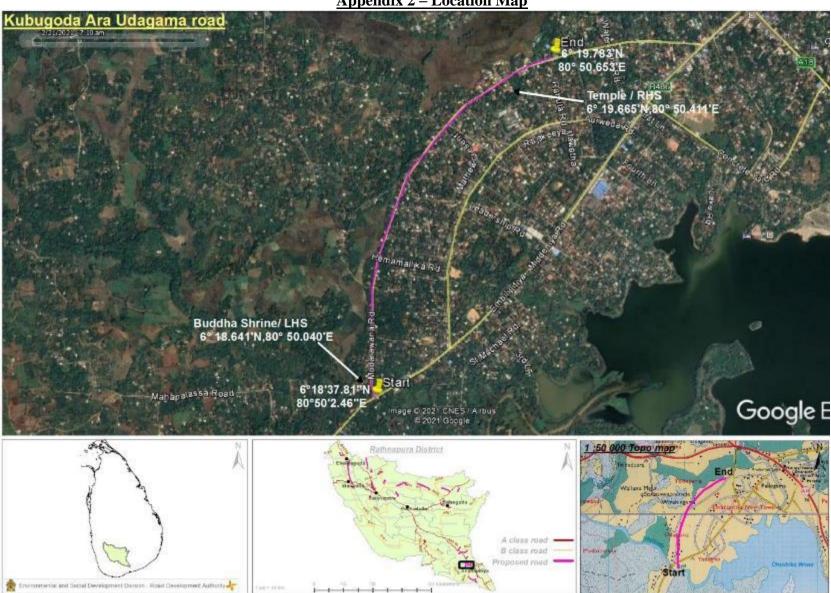
Figure 2: Along the road



Figure 3: Buddha shrine and Bo tree located at 1.810km on LHS of the road



Figure 4: End point of the road



Appendix 2 – Location Map

Appendix 3:Information on Encroachers/Squatters

Photo	Coordinate	Distance to the carriageway	Description	Impact and mitigation
	6° 19.044'N 80° 50.039'E	1.0m from the edge of the carriage way at 0.784km on LHS	Owner of the Business is Mrs. K.P Shama. Her daily income is about Rs. 1500-2000. There are 04 family members in her family. She is doing this business for 05 month.	The shop is located at the edge of the RoW which is 7.1m. The improvement to the road include 3.5m carriageway, 0.5m shoulder (both sides) and drains as required. As per the proposed improvement, the shop will not be affected, however, the construction activities will take place very close to the shop. In order to mitigate the impact and avoid any income loss for the owner, the project will inform the owner at least two weeks prior about construction activities of this location and will take necessary action to operate the business from an alternate location for one week.

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kubugoda Ara- Udagama Road					
Risk Category assigned by E and S Screening	Moderate				
Design Recommendations and guidance					
Design Justification	Guidance to be Used				
Public highlighted that runoff gets accumulated throughout	• Section 10 of ESMP				
the road even during a minor rain event due to absence of	• Bridge design manual of				
proper drainage facilities. Therefore it is recommended to	RDA				
introduce additional culverts, lead away drains and side					
drains etc. to improve the drainage at this location.					
A small shop is located within the existing ROW at Right side of	ARAP will provide				
0.784km. If the small shop needs to be relocated, consult social	guidance for relocation.				
experts of the project prior to final design.					
Details of Internal Submission of Design Recommendation	15				
Submitted by	Director - ESDD, RDA				
Date of submission	11 June 2021				
Name of RDA design team member submission was made	Project Director – IRCDP,				
to	RDA				
Mode of transmission (Email, hand delivery)	Email				

<u>Environmental and Social Management Plan (ESMP) for Rehabilitation of Kubugoda Ara - Udagama Road (SR16)</u>

	Activities and Associated Impacts	I U		Re	sponsibility
	_			Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPERATION	I	L	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Project Engineers review. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area The contractor shall adhere to the guidelines and recommendations made by the Central Environmental 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

		Authority, if any with regard to felling of trees and removal of
		vegetation.
		• Removed trees of economic value must be handed over to the
		Timber Corporation.
		• Provision shall be made for additional compensatory tree
		plantation. Any leftover of trees shall be removed and
		disposed in approved manner.
3.	Labor and Labor	The contractor should give priority to hiring labor from the Engineering Contractor, PMU/PIU/RDA/Consultant
5.		surrounding areas to avoid the need for labor camps.
	• <i>'</i>	
	Camps, temporary	
	office and other	be placed well away from settlements or sensitive receptors, water
	temporary facilities	bodies and boundaries and buffer zones of protected/forested areas
		and preferably located on land which is not productive
		(barren/waste lands presently). If these are not possible, private
		lands maybe taken on lease as standard practice. The location,
		layout and basic facility provision of the labor camp must be
		submitted to Engineer of the relevant managing department prior to
		their construction.
		◆ The construction will commence only upon the written approval of
		the Engineer and the relevant local authority.
		Separate labor camps need to be provided for female migrant
		laborers.
		The instructions for the laborers should be provided in all three
		languages.
		 Provision of proper drainage facilities to the labour camps and
		prevent breeding of mosquitoes, flies and other vector borne
		diseases.
		 The contractor shall maintain necessary living accommodation and
		ancillary facilities in a functional and hygienic manner and as
		approved by the Engineer.
		 Provision of proper sanitary facilities to the labour camps and
		offices including water, urinals, toilets, bathing facilities, mosquito
		nets with adequate capacity of septic tanks and soak pits.
		 All temporary accommodation must be constructed and maintained
		in such a fashion that uncontaminated water is available for
		drinking, cooking and washing.
		The sewage system for the camp must be planned and implemented
		with concurrence from the Local Public Health Officer (PHI)
		◆ Provision shall be made for domestic solid waste disposal in
		acceptable manner. The solid waste shall be handed over to the
		waste collecting system of the Local Authority (LA) of the area (if
		any) and wastewater should be disposed in an environmentally
		acceptable manner (meeting the desired water quality standards)
		with the approval of the Engineer. Adequate health care is to be
		provided for the work force.
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		 Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood fo cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information. 			
4.	Material Sourcing	 The contractor is required to ensure that sand, aggregates and othe quarry material is sourced from licensed sources. The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil, fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. The contractor should submit in writing all the relevant number and relevant details of all pre-requisite licenses etc. and report o their status accordingly to the Engineer. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA,GSMB
5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labo camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Board NW&DB, Department of Irrigation, CBO) will not be allowed Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
6.	Work Site for construction materials	 The contractor should identify an area to store construction materials and equipment at a site which should be approved by the engineer. Storage yards cannot be located in community areas, such a playgrounds, close to water ways, cause access issues to locals o forested areas that require clearing. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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		 Parking, repairing vehicles, machinery and equipment shall be done stationed only at the work site and/or in any other designated areas by the engineer. The contractor should provide instruction and advice should be given to drivers and operators (both companies owned and hired) to park vehicles and store equipment at the work site or designated areas by the engineer. 			
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents with other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes via a documented community consultation session This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor/ PMU/PIU	PMU/PIU/RDA/Consultant Engineer
8.	Selection of temporary use lands	 Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners. Once the use of the particular land is over, the agreement should be terminated and the documents should be handed over to the Engineer for information. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, ♦ Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations ♦ Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of utility disruption ♦ Approval shall be obtained from DOI for any proposed construction works on irrigation canals ♦ Advance notice to the public about time and the duration of utility 	Engineering Cost	Contractor/Service providers	PMU/PIU/RDA/Consultant Engineer CEB,NW&DB, SLT

		 disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU
10.	Hydrology and drainage	 Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation Department, Provincial Irrigation Department, Mahaweli Authority and Agrarian Department. Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes
11.	Land donation	 Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required. If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat. All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

12.	CommercialunitslocatedwithintheexistingROW(PreparationandImplementationofARAP)	 In case the small shop located within the ROW at 0.784km on LHS is affected, the preparation of the ARAP and obtaining the WB approval is required prior to the commencement of civil works. The civil work can commence only after the relocation of the small shop to an alternate location and (if required) payment of due compensation. The procedure to be followed in this regard will be included in the ARAP and contractor should assist the PMU in the implementation of the ARAP 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer, Embilipitiya UC
13.	Land Acquisition (if required)	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	RDA, Embilipitiya UC
14.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
	CONSTRUCTION PHAS	E			
15.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

		 downwind side should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Ebilipitiya Local Authority, 			
16.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used and stationed only in the areas of work and in any other area designated/ approved by the Engineer. Entry and exit of construction vehicles and machinery should be restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
18.	Transport and Storage of construction materials	 All material should be transported in fully covered trucks. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity. Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner. All construction materials such as sand, metal, lime, bricks etc. should 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

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	l I	be transported under cover to the site and stored under cover at the			
	l I	sight. Plastic sheeting (of about 6 mm minimum thickness) can be			
	l I	used and held in place with weights, such as old tires or cinder			
	l l	blocks, with the edges of the sheeting buried, or by the use of other			
	l l	anchoring systems.			
	l I	✤ Loading, unloading and transport of materials shall not be			
	l l	inconvenient to the road side community or road users			
	l I	Selection of sites for stock piling with the approval of Engineer			
	l I	away from environment and public sensitive locations.			
	l I	Storage of fuel, lubricant and chemicals use for the construction			
	l I	activities on paved surface without contamination to the			
	l I	environment and storm water runoff			
	l l	✤ Approval shall be taken prior to use of local roads from relevant			
	l I	authorities and need to maintenance during the use by the			
	l l	Contractor			
19.	Emission of Dust	 In order to minimize the levels of airborne dust all construction 	Engineering	Contractor	PMU/PIU/RDA/Consultant
		material/debris should be stored as per the instructions provided	Cost		Engineer
	l l	above No.18.			
	l I	 Parties vulnerable for excessive dust levels such as residential areas 			
	l l	should be identified in advance and necessary measures as agreed			
	l I	with the Engineer should be implemented to mitigate the impact.			
	l I	 Mud patches caused by material transporting vehicles in the access 			
	l l	road should be immediately cleaned			
	l I	 Continual water sprinkling should be carried out in the work and 			
	l l	fill areas, material extraction sites, processing plants and the access			
	l I	road if dust stir is observed. Water sprinkling should be done more			
	l l	frequently on days that are dry and windy (at least four time's day)			
	l I	as the levels of dust can be elevated during dry periods.			
	l I	 Dust masks should be provided to the laborers for the use at 			
	l l	required times.			
	l l	 Erection of dust barriers to the public, religious and other socially 			
	l l	important locations			
	l I	 Metal quarries, crushers and all the plants should eb located at least 			
	ļ į	500m form the public sensitive and residential areas			
	ļ į	 Establishment of tire washing facility for the plants, yards or any 			
	l l	other sites which causing to bring mud particles with the vehicles.			
20.	Management of Self	 In the event the contractor will use a self-operated borrow site 	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow Sites	• Contractor shall comply with the environmental	Cost		Engineer CEA, GSMB
	-Fernica Porton Dires	requirements/guidelines issued by the CEA, GSMB and the			, <u></u> _, <u></u> _
	l l	respective local authorities with respect of locating borrow			
	l I	areas and with regard to all operations related to excavation and			
	l l	transportation of earth from such sites.			
	l I	• Contractor can also find suitable soil materials from currently			
	ļ į	operated licensed borrow pits in the surrounding area, subject to			
	ļ į	approval of the Engineer			
	LÌ	approvar of the Englister	1	I	

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		 No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority (Refer Annex II for guidelines). Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people. Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits. 			
21.	Quarry Operations and	• In the event the contractor manages a self-owned existing quarry	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Management of Self	sites available in the project area	Cost		Engineer CEA,GSMB
	Operated Quarry Sites	* They should be approved by CEA with valid EPL (Environment			
	-	Protection Licenses) and GSMB with valid IML (Industrial Mining			
		Licenses);			
		 Prior approval should be obtained from GSMB, CEA and local authorities such as Productive Sable 			
		 authorities such as Pradeshiya Sabha. Selected quarry sites should have proper safety measures such as 			
		 Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect 			
		external parties that may be affected due to blasting.			
		♦ Quarry sites should not be established within protected sites			
		identified under the FFPO and FO and not within productive			
		land/agricultural land and environment and public sensitive			
		locations.It is recommended not to seek material from quarries that have			
		ongoing disputes with community.			
		 The maintenance and rehabilitation of the access roads in the event 			
		of damage by the Contractors operations shall be a responsibility of			
		the Contractor.			
		 Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the againser 			
22.	Control of	 Contractor for review and documentation by the engineer Debris material shall be disposed in such a manner that existing 	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation and Soil	drainage paths are not blocked.	Cost	Contractor	Engineer
	Erosion	 Drainage paths associated with irrigation structures should be 	0000		
		improved / erected to drain rainwater properly.			
		Silt traps will be constructed to avoid siltation into the water ways			
		where necessary along the road corridor.			

		 To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies Temporary soil dumps should be removed from the construction sites as soon as possible. Until removal, these soil dumps should be covered with thick polythene sheets. Temporary soil dumps should be placed at least 200m away from all water bodies. Top soil shall be prevented to use for tree planting and turfing activities. In Hilly terrain and areas with slopes Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces. These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications. During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion. All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch. Work that lead to heavy erosion shall be avoided during the raining season. If such activities: excavation and earth work around vulnerable area for soil erosion mainly restricted to the dry periods and removal of green cover vegetation shall be minimized. The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer. Toy Typical measures include the use of berms, dikes sediment 		
		The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.		
23.	Noise from vehicles, machinery and equipment	♦ Noise generating work should be limited to daytime (6:00AM to]	Engineering Cost Contractor PMU/PIU/RDA,/Consu Engineer CEA	ltant

		 All equipment and machinery should be operated at noise level that do not exceed the permissible level of 75 dB (durin construction) for the daytime. For all construction activitie undertaken during the nighttime, it is necessary to maintain th noise level at below 50 dB as per the Central Environmenta Authority (CEA) noise control regulations. Special approval shoul be obtained from CEA for night time work through PIU. All equipment should be in good serviced condition. Regula maintenance of all construction vehicles and machinery to mee noise control regulations stipulated by the CEA in 1996 (Gazett Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that will be used in construction on site, for transport and for plants (crushers, asphalt, concrete and batchin plants). Parties vulnerable for excessive noise levels such as residentia areas, temple should be identified in advance and necessar measures as agreed with the Engineer should be implemented to mitigate the impact. Ideally noise generating work should not be carried out durin public holidays and religious days. Special care should be taken a there is a temple nearby. Labor gangs should be warned to work with minimum noise. Stric labor supervision should be undertaken in this respect. Number on nighttime resident laborers should be minimized. 			
24.	Vehicular noise pollution at residential / sensitive receptors	 Idling of temporary trucks or other equipment should not b permitted during periods of loading / unloading or when they ar not in active use. The practice must be ensured especially near residential commercial / sensitive areas. Stationary construction equipment will be kept at least 500m awa from sensitive receptors, where possible. These include places or worship, schools, medical centers and households. All possible and practical measures to control noise emission during drilling shall be Employed. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the engineer for approval. Servicing of all construction vehicles and machinery must be don regularly and during routine servicing operations, the effectivenes of exhaust silencers will be checked and if found defective will b replaced. Maintenance of vehicles, equipment and machinery shall be regular 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
25.	Impacts due to	 Additional of ventices, equipment and materimery shall be regulated and up to the satisfaction of the Engineer to keep noise levels at the minimum. Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to the satisfaction. 	Engineering	Contractor	PMU/PIU/RDA/Consultant

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	Vibration	 vibration. Any parties vulnerable for excessive vibration residing along the road especially within residential areas and temple should be identified in advance and measures as agreed with the Engineer should be implemented to minimize the impact. Prior to commencement of compaction, excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer. Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used. The contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria. Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions contractor is liable for any damage caused by blasting work. 		Engineer, GSMB
26.	Pollution of Soil and Water via Fuel and Lubricants	 The contractor shall ensure that all construction vehicle parking locations, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers, at least 200m away, water way sand water bodies. Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. All vehicle and plant maintenance and servicing stations shall be located and operated as per the conditions and /or guidelines stipulated under the EPL issued by CEA. Wastewater shall not be disposed without meeting the disposal standards of the CEA. Wastewater from vehicle and plant maintenance and servicing stations shall be cleared of oil and grease and other contaminants to meet the relevant standards before discharging to the environment. Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) and approved by the Engineer. All spills and collected petroleum products will be disposed of in accordance with 	Cost	PMU/PIU/RDA,/Consultant Engineer CEA

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		standards set by the CEA.
		• Engineer will certify that all arrangements comply with the
		guidelines of CEA or any other relevant laws.
27.	Public Safety	✤ At all times, the Contractor shall provide safe and convenient Engineering Contractor PMU/PIU/RDA/Consultant
		passage for vehicles, pedestrians and livestock. Cost Engineer
		↔ Work that affects the use of existing accesses shall not be
		undertaken without providing adequate provisions to the prior
		satisfaction of the Engineer.
		 The construction corridor should be barricaded at all time in a day
		with adequate marking, safety tape, flags, reflectors etc. for safety
		of individuals using the site daily basis. (Items such as parking
		cones, lights, tubular markers, orange and white strips and
		barricades of a luminous nature for night visibility shall be
		procured where deemed necessary)
		Safety signboards should be displayed at all necessary locations.
		The contractor should obtain a Third-party insurance to compensate
		any damages, injuries caused to the public or laborers during the
		construction period.
		✤ All construction vehicles should be operated by experienced and
		trained operators under supervision.
		✤ Basic onsite safety training should be conducted for all laborers
		during the ESMP training prior to the start of the construction
		activities.
		✤ All digging and installation work should be completed in one go, if
		this task is not accomplished the area should be isolated using
		luminous safety tape and barricading structures surrounding the
		whole area.
		✤ Trenches should be progressively rehabilitated once work is
		completed.
		✤ Material loading and unloading should be done in an area, well
		away from traffic and barricaded
		 Construction wastes should be removed within 24 hours from the
		site to ensure public safety.
		 Safety awareness programs should be conducted by the Contractor
		in annual basis targeting the public residing along the road in order
		to make the public aware on road safety especially during the
		operation period of the road.
28.	Safety of Workers	♦ Contractor shall comply with the requirements for safety of the Engineering Contractor PMU/PIU/RDA/Consultant
		workers as per the ILO Convention No. 62 and Safety & Health Cost Engineer
		Regulations of the Factory Ordinance of Sri Lanka to the extent that
		those are applicable to this contract.
		 The contractor shall supply all necessary safety measures at site.
		 Protective footwear and protective goggles should be provided to
		all workers Employed on mixing of materials like cement, concrete
		etc.
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		 Welder's protective eye-shields shall be provided to workers who 			
		are engaged in welding works.			
		• Earplugs shall be provided to workers exposed to loud noise, and			
		workers working in crushing, compaction, or concrete mixing			
		operation.			
		 The contractor shall supply all necessary safety appliances such as 			
		safety goggles, helmets, safety belts, ear plugs, mask etc. to			
		workers and staffs.			
		 In addition, the contractor shall maintain in stock at the site office, 			
		gloves, earmuffs, goggles, dust masks, safety harness and any other			
		equipment considered necessary.			
		✤ A safety inspection checklist should be prepared taking into			
		consideration what the workers are supposed to be wearing and			
		monitored on a monthly basis and recorded.			
		All workers should be made aware about Workers GRM and they			
		should be facilitated to approach relevant GRCs as and when			
		required.			
		✤ National and World Bank requirements (such as providing			
		necessary personal protective equipment, taking temperature checks			
		etc.) for prevention of the spread of COVID-19 virus will be			
		adhered to.			
29.	Prevention of accidents	Prevention of accidents involving human beings, animals or which follows are excidented by the grant transfer (marked by device)		Contractor	PMU/PIU/RDA/Consultant
		vehicles falling or accidents due to open trenches/manholes during	Cost		Engineer
		construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.			
		 Adequate signboards shall be placed much ahead of diversion site 			
		to caution the road users. The road signs should comply with the			
		Road Safety Manual of RDA.			
		 A readily available first aid unit including an adequate supply of 			
		sterilized dressing materials and appliances should be available at			
		the site office at all times			
		 Availability of suitable transport at all times to take injured or sick 			
		 Availability of surface transport at all times to take injured of sick person(s) to the nearest hospital should also be insured. 			
i i		 Names and contact information for emergency services such as 			
		Ambulance services, hospitals, police and the fire brigade should be			
		prepared as a sign board and displayed at the work site.			
		 Night time illumination should be in place at every location where 			
		the road is narrow, diverted and structures are repaired and any			
		other places where the PIU recommends to do so			
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		 Monitor and record road crashes during construction and 			
30.	Operation of labor			Contractor	PMU/PIU/RDA/Consultant
30.	Operation of labor camps	 Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 	Engineering	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
30.	-	 Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions Locations selected for labour camps should be approved by 	Engineering	Contractor	
30.	-	 Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions Locations selected for labour camps should be approved by engineer and comply with guidelines/ recommendations issued by 	Engineering	Contractor	

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			coming under DoF, and near to any other environment and social			
			sensitive locations			
		*	The Contractor shall construct and maintain all labor			
			accommodation in such a fashion that uncontaminated water is			
			available for drinking, cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every			
			workplace/labor camp site at suitable and easily accessible places			
			and regular maintenance of such facilities.			
		*	The sewage system for the camp are designed, built and operated in			
			such a fashion that no health hazards occurs and no pollution to the			
			air, ground water or adjacent water courses take place. Ensure			
			adequate water supply is to be provided in all toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure			
			that these are regularly Emptied and disposed of in a hygienic			
31.	Management of the	*	manner The contractor shall firstly follow all measures outlined for	Engineering	Contractor	PMU/PIU/RDA,/Consultant
51.	spread of Covid-19 or	*	pandemic management by the Government of Sri Lanka, Ministry	Cost	Contractor	EngineerMoH
	handling sudden		of Health and Local Public Health Inspector and adhere to all	COSt		Engineerworr
	Pandemic outbreaks		relevant guidelines applicable			
	1 andenne outbreaks		(https://www.hpb.health.gov.lk/en/covid-19). Please refer Annex 28			
			of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as			
			per the guidance as well as in labor camps to prevent overcrowding			
			and to allow social distancing. Where necessary in labor camps			
			additional provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper hand washing and			
			sanitation facilities are available on the site.			
		*	Measures should be in place to undertake daily temperature checks			
			of workforce and enable social distancing at the work site and			
			interactions with communities should be minimized. Daily records			
			of these checks should be maintained by the Contractors site staff.			
		*	If a worker is diagnosed with symptoms related to the said			
			pandemic the contractor will immediately inform the PHI and			
			follow instructions laid out by the national health agencies.			
32.	Prevention of Vector	*	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Borne Diseases		mosquitoes at places of work, labor camps, plus office and store	Cost		Engineer, MoH
			buildings. Stagnation of water in all areas including gutters, used			
			and empty cans, containers, tires, etc. shall be prevented. Approved			
			chemicals to destroy mosquitoes and larvae should be regularly			
			applied.			
		*	All borrow sites should be rehabilitated at the end of their use by			
			the contractor in accordance with the requirements/guidelines			
			issued by the Central Environmental Authority and relevant local			
			authorities			
		*	Contractor shall keep all places of work, labor camps, plus office			

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		and store buildings clean devoid of garbage to prevent breeding of			
		rats and other vectors such as flies.			
33.	Gender issues including Gender base violence	 Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
34.	Issues due to labor influx	 Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions. Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV) Training of workforce – on unacceptable conduct Informing workers about national laws Worker Code of Conduct as part of the employment contract Introduce sanctions for non-compliance (e.g., termination) Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office. A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		meetings.			
35.	Traffic Management	 Contractor shall develop a traffic management plan with respective 	Engineering	Contractor	PMU/PIU/RDA/Consultant
35.	Traine Management	authorities to minimize inconvenience to road users as well as	Cost	Contractor	Engineer, Traffic Police
		prevent road accidents and implement it.	COSt		Engineer, frame fonce
		 Road signs and trained flagmen should be used to divert traffic as 			
		per the required traffic management measures.			
		 Clear instructions should be given if detours are used. 			
		 Also, any pits should be enclosed to prevent pedestrians or vehicles 			
		falling into them			
		✤ Improvement of the road surface and width will result in an increase			
		of both the number of vehicles and the vehicle operating speeds.			
		✤ Therefore, after the construction is completed the contractor should			
		erect relevant road signs and road markings to guide the drivers to			
		ensure the safety of the vehicles and pedestrians			
36.	Loss of Access due to	✤ Temporary access will be provided when permanent access is	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction	blocked for construction.	Cost		Engineer
		\clubsuit When construction work is in progress in one side, the other side			
		will be opened for traffic & properly			
		\diamond At the end of each day, debris that blocked access path will be			
		cleared away under the supervision of the Engineer.		~	
37.	Protection of Physical	✤ If any physical cultural resources are identified along the project	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources	trace the contractor will ensure that protective fencing as agreed with	Cost		Engineer
	(PCRs) close to the Site.	the community and or head of the physical cultural resource (ie			
		temple, mosque, place of worship, grave site, monument, statue, tree			
		or any site designated of importance by the community) is			
		 established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor 			
		shall conduct and document a crack survey of the site prior to			
		construction to ensure that no damage is caused due to vibrations			
		associated with the civil works and will take all requisite measures			
		to ensure so.			
		 The contractor shall not, park vehicles or store construction material 			
		in close proximity to the PCR or site labor camps in immediate			
		vicinity of the PCR.			
		★ Labors will be briefed to ensure that no acts of vandalism will be			
		tolerated and will be penalized. Workers should not be allowed to			
		trespass in to such areas.			
		↔ Unless agreed with the community the contractor shall not block			
		access to any known places of worship or PCRs along the project			
		trace.			
38.	Loss, Damage and	• All works shall be carried out in a manner that the destruction	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Flora	to the flora and their habitats is minimized.	Cost		Engineer
		• Trees and vegetation shall be felled / removed only if that			
		impinges directly on the permanent works or necessary			

39.	Loss, Damage and disruption to Fauna	 temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the EngineerThe planting should take place in public land suitable for the purpose The contractor shall build hardy structures around the trees for protection. The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. 	neering Contractor	PMU/PIU/RDA/Consultant Engineer
		• Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting, poaching and unauthorized fishing by project workers is not allowed.		
10		No solid or liquid waste should be dumped into natural habitats.		
40.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive species during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to 	neering Contractor	PMU/PIU/RDA/Consultant Engineer

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			prevent carrying any invasive species			
			• The construction site should be inspected periodically to ensure			
			that no invasive species are establishing themselves at the site.			
41.	41. Chance find procedures for PCRs and Archeological Property		 All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
			 any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. 			
42.	Surface Drainage and	*	Provide storm water drain system in the premises which will	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Possible Water		discharge water to existing storm water drainage networks	Cost		Engineer
	Stagnation	*	Carry out overall storm water management in the premises during			
			construction using temporary ditches, sandbag barriers etc.			
		 Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities 				
		•				
43.	Handling Social and Environmental Issues	*	The Contractor shall appoint a person responsible for community liaison and to handle public complaints regarding environmental/			
	during Construction		social related matters (Environmental and Social Safeguards Officer			
	during Construction		(ESSO)). All public complaints will be entered into the Complaints			
			Register. The ESSO will promptly investigate and review			
			environmental complaints and implement the appropriate corrective			
			actions to arrest or mitigate the cause of the complaints.			
		*	A register of all complaints is to be passed to the Engineer within 24			
		•	hrs. They are received, with the action taken by the ESSO on			
			complains thereof.			
44.	Livelihood of the	*	Implementation of recommendations of the ARAP	Engineering	Contractor	PMU/PIU/RDA/Consultant
	squatters			Cost		Engineer
	POST CONSTRUCTION					
45.	Clearing/Closure of	*	Contractor to prepare site restoration plans for approval by the	Engineering	Contractor	RDA,/Consultant Engineer,
43.	Construction	*	engineer.	Cost	Contractor	PRDA,/Consultant Engineer,
	Site/Labor Camps	*	The plan is to be implemented by the Contractor prior to	COSt		
	Site/Labor Camps		demobilization. This includes borrow sites and storage yards as well			
		*	On completion of the works, all temporary structures will be cleared			
			away, all rubbish cleared, excreta or other disposal pits or trenches			
			filled in and effectively sealed off and the site left clean and tidy, at			
		1	mee in and encentery search on and the site fert clean and they, at		l	<u> </u>

		 the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the Engineer for information. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 				
 46. Environmental Enhancement/ Landscaping ★ Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. ★ The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this ESMP. 			Contractor	RDA/Consultant Engineer, PRDA		
47.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	or will ensure that all safety signage and indicative road Engineering Contractor RDA,/Consu installed on site as per the guidance of the design prior Cost PRDA		RDA,/Consultant Engineer, PRDA	
48.	Hydrology and drainage	 Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	A PRDA, RDA/Consultant Engineer	
49.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	or PRDA, RDA/Consultant Engineer	
50.	Commercial units located within the existing ROW (Post monitoring of ARAP)MU will carry out consultations with owners of affected shops and discuss about their permanent relocation.*The shop owners will be linked with relevant local authorities to (in necessary) for further assistance.			PMU/PIU	PMU/PIU/RDA/Consultant Engineer	

Stakeholder consultation notes

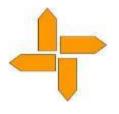
Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeho	older	Key concerns raised/Suggestions		
	Type of Stakeholder	Number of Participants (M/F)	Provided		
12.03.2021	Grama Niladari, Modarawana	Female	 This road rehabilitation is very good. When rehabilitating the road, side drains and culverts also need to be improved. Majority of the people in the village is Sinhalese and their religion is Buddhism. Agriculture is the main source of livelihood of the people. Banana is the main agricultural crop other than paddy cultivation. Some people are employed in public and private sector jobs as well. 		
11.03.2021	Businessman	Male	 This road provides access to Embilipitiya - Middeniya Road (B 486). Therefore, it is important to develop this road. Embilipitiya New Town is the nearest town. In order to access various services such as education, employment, medical treatment and other administrative matters, people in this area often go to Embilipitiya New Town via this road. Traders come to this area to buy agricultural produce such as banana and paddy. 		
11.03.2021	Businessman	Male	 This road provides access to Embilipitiya - Middeniya Road (B 486). Therefore, it is important to develop this road. Embilipitiya New Town is the nearest town. In order to access various services such as education, employment, medical treatments and other 		

			 administrative matters, people in this area often go to Embilipitiya New Town via this road. Traders come to this area to buy agricultural produce such as banana and paddy.
11.03.2021	Resident	Female	 This road development is very good. There are houses and some shops either side of the road. During the construction period these people will be affected by dust. Agriculture is the main livelihood activity of the people.
11.03.2021	Visitor	Male	 The existing road surface is damaged. People transport their agricultural produce to the market by trucks, lorries and tractors. Existing drains are insufficient, so drains need to be improved and new drains need to be constructed where necessary.

2.16. CESGP of SR 17 a & b - Hingura Ara Old Road & Road to Hingura Ara Village Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 17 a & b - Hingura Ara Old Road & Road to Hingura Ara Village Road (2.8km)

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

<u>Background</u> HinguraAraOld Road and Road to Hingura village

Road length: 2.8Km

Coordinates: HinguraAra Old Road: Starting Point: 6°21'2.97"N, 80°50'4.54"E End Point:6°20'57.95"N,80°50'24.71"E

Road to Hingura village: Starting Point: 6°21'12.74"N, 80°50'19.37"E End Point: 6°21'33.99"N 80°50'26.97"E

Location:

District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Hingurana, KetagalaAra

1. Introduction

The HinguraAra Old Road (1.10km) starts at Pelmadulla - Embilipitiya Nonagama Road (A018) and provides a connection to Hingura Ara village road. This road is under the custody of Provincial Road Development Authority (PRDA).Sabaragamuwa Province. The existing average RoW of the road is around 8.0m and the average carriageway is 4.0m. Section A and B of the HinguraAra old road & Road to HinguraAra Village road traverse along a flat terrain and elevation of the trace varies between 83–100m MSL.The existing surface of the road is damaged macadam, concreted and gravel. There are no protected areas located within or adjacent to the road trace.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.8 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 3 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But Final Village Plans (FVP's), there are strips allotted for the roads in and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the HinguraAra Old Road and Road to Hingura villageroad is around 8.0m and the average carriageway is 4.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa Province will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Sabaragamuwa PRDA will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits:

Embilipitiya Ceramic factory is located along the road. People frequently visit the factory for trading activities. The road development is important for these economic activities and for the residents.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 to collectall available information and takephotographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Hingura Ara Old road & road to Higura Ara village Road will have low-negligible environmental and social impacts such as temporary loss of access to residents, common properties and the impact of dust, noise and vibration in minor level that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1Project Impact Area

- Settlements: There are about 53 households and 05 small shops located on both sides of the road. The estimated population is 220, a majority of whom are Sinhala Buddhists
- Land ownership: There are no squatters along the road. All the lands are private and government lands.
- **Livelihoods:** Chena cultivation is the dominant agricultural practice in the area. Home gardens grown with minor cash crops also generate incomes for the residents. Some people are engaged in public and private sector jobs and self-employment.
- Local organisations: There are Farmer organisations in the area.
- **Community infrastructure and resources:** There is a cemetery and a Health centre located along the road (Table 1). During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	Location - G	PS Coordinate	Chainage	Road side	Distance from RoW
Cemetery	6° 21.196'N	80° 50.267'E	0+440 (Section 1)	LHS	2.8m.
Health Center	6° 20.986'N	80° 50.411'E	1+100 (Section 1)	RHS	2.8m.

Table 1:Community infrastructure and resources:

• **On-going development projects:** None

Visitors to the area: Embilipitiya Ceramic factory is located along the road. People frequently visit the factory for trading activities.
 7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of PRDA – Sabaragamuwa Province.
Is land acquisition likely to be necessary?			\checkmark	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		~		Land within the RoWis owned to PRDA – Sabaragamuwa Province. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			~	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		√		None of the people will be affected as the development is carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			~	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	

Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?Will any social or economic activities be affected through land-use related		 ✓ 	During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
changes? Is the project area located near schools, clinics, hospitals, places of worship? Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	 ✓ ✓		There is a cemetery and Health centre located along the road (see Table 1) Project area comes under the Embilipitiya Police station which is 4.51km away from project area.
Is the project site in a populated area and/or with high vehicular traffic volume?		~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		~	
How many workers will be needed for the sub-project, with what skill set, and for what period?	 ~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	~		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background? Given the characteristics of the local community, are there any adverse impacts	✓ 	 ✓ 	
that may be anticipated?			

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development ProjectSub-project:Hingura Ara old road & Road to Hingura Ara Village (No.17)
Section (a): Hingura Ara Old Road (1.1km)
Section (b): Road to Hingura Ara Village (1.7km)Road length:2.8km

Location: Province: Sabaragamuwa Province District: Rathnapura District DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		v	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		✓	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		V	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓ 		An irrigation tank and a canal are located from 1.1 - 1.3km (LHS) of Section b. The irrigation canal comes to edge of the road at 6° 21.715'N, 80° 50.508'E. Site specific mitigation measures such as silt traps and silt fences shall be applied in order to minimize water quality impacts resulted

		due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	~	Local air pollution will be slightly increased at crushing plant, batching plant, asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	Blasting is not necessary.
		Sensitive Receptors is given in the Screening Checklist to determine the level of Social impacts in the table on question 06. Noise and Vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people	~	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	~	The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?		Some sections of the road surface are of damaged macadam, and concreted and gravel surfaces are eroded. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in	~	Location of labor camps only at
construction camps and work sites, and		approved sites and continues labor

possible transmission of communicable diseases from workers to local populations?		supervision shall minimize these impacts
 Creation of temporary breeding habitats for mosquito vectors of disease? 	~	Stagnation of water in empty cans, containers, tyresetc shall be prevented and continues site supervision shall minimize these impacts.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	-	Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?	\checkmark	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	\checkmark	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photograghs of Hingura Ara Old Road (SR17 Section a)

Figure 5: Starting point of the road



Figure 2: Cemetery located at 0.440km on LHS of the road



Figure 3: Along the road



Figure 4: Public Health Centre located at 1.100km on LHS of the road



Figure 5: End point of the road

Photograghs of Road to Higura Ara Village (SR17 Section b)



Figure 6: Starting point of the road



Figure 7: Along the road



Figure 8: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation <u>in final design</u>

Name of Subproject: Hingura Ara old road & Road to Hingura Ara Village				
Risk Category assigned by E and S Screening	Low			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Public highlighted that runoff gets accumulated throughout	• Section 3.2.20 of CESGP			
the road even during a minor rain event due to absence of	• Bridge design manual of			
proper drainage facilities. Therefore it is recommended to	RDA			
improve drainage facility along the road.				
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director – IRCDP,			
to	RDA			
Mode of transmission (Email, hand delivery)	Email			

Codes of Environmental and Social Good Practice (CESGP)

<u>Codes of Environmental and Social Good Practice (CESGP) for Rehabilitation of Higura</u> <u>Ara Old Road and Road to Hingura Village Road (SR17)</u>

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Hingura Ara old road and road to Hingura Ara Village of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contactors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental** and Social Safeguards Officer (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in Annex 1 of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations, after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

- **3.1.1.** Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;
 - The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
 - Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
 - The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.
- **3.1.2.** Removal of Trees Prior to Construction¹⁴.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

¹⁴ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁵
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.
- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer and the relevant local authority for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided for female labor with necessary facilities
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

¹⁵ The RDA and Local Authority (LA) are required to ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.

- The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by verbally aware of the possible impact caused by the works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ✤ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

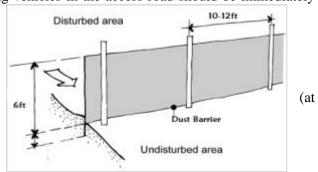
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
 Disturbed area
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy least four time's day) as the levels of dust can be elevated during dry periods.



Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places (at 1.1km of Section a), schools during operating hours, public courts or any other affected nearby community. All equipment and machinery should be operated at noise levels that do not exceed the permissible level of 75 dB (during construction) for the daytime. For all construction activities undertaken during the nighttime, it is necessary to maintain the noise level at below 50 dB as per the Central Environmental Authority (CEA) noise control regulations. Special approval should be obtained from CEA for night time work through PIU.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible



3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g: from 1.1 1.3km of Section b where irrigation canal is located on left hand side).
- To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- Notices to the public should be in all three languages
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.



- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated
- the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Contractor should organize awareness campaigns for the local public on road safety

at least twice during the construction phase



3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.



- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.
- Notices to all laborers should be displayed in all three languages
- All laborers should be made aware about labor GRM and they should have convenient access to GRCs

E SAFET

This building site is dangerous Parents are advised to warn children

Strictly no admittance

of the dangers and consequences

of entering and playing on this site

to unauthorised personnel

Safety helmets

vests must be

All visitors and drivers

must report to site office

boots and hi-vis

worn at all times

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area

Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the

Community Based Organizations (CBOs) in the area that will be affected by the project interventions.

- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex II of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- **I**t is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.

The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

• The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date			Key concerns raised/Suggestions		
	Type of Stakeholder	Number of Participants (M/F)	Provided		
11.03.2021	Grama Niladari, Hingura ara	Male	 The existing road surface is damaged, so this road development is very good. Majority of the people living along the road is Sinhalese. Buddhism is the religion of this population. Chena cultivation is the main agricultural practice in the area. Some people are employed in public and private sector jobs and self-employment. 		
11.03.2021	Road User	Male	 Embilipitiya Ceramic factory and nail factory are located along the road. Traders frequently visit these factories for trading activities. During the construction period access to houses and commercial institutes located on either side of the road will be affected. The transportation will be improved after road development. 		
11.03.2021	Resident	Female	 This road is very important road, because this road provides access to Pelmadulla - Embilipitiya Nonagama Road (A018) Road development will be more advantageous for school children and other road users. Majority of the people living along the road are Sinhalese. 		

Stakeholder consultation conducted along the road

2.17. CESGP of SR 18 Road from Hingura Ara to Ketagal Ara



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 18 - Road from Hingura Ara to Ketagal Ara (1.45km)

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

Background Road from Hingura to KetagalAra

Road length: 1.45Km

Coordinates: Starting Point 6°21'3.88"N, 80°50'23.22"E

End Point 6°21'24.56"N, 80°50'54.22"E

Location: District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: KategalAra and HinguraAra

1. Introduction

The road from Hingura to Ketagal Ara (1.5km) starts from Old HiguraAra road provides access to settlements. This road is under the custodyof the Provincial Road Development Authority (PRDA – Sabaragamuwa Province). The surface of the road is damaged macadam and gravel. The road traverses along a flat terrain and elevation of the trace varies between 78–96m MSL. The road ends at irrigation canal in KetagalAra (Bridge) at 6° 21'348"N and 80° 50'770"E. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.45 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. Proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required.Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But Final Village Plans (FVP's), there are strips allotted for the roads in and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural

road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Road from Hingura to KetagalArais around 7.5m and the average carriageway is 4.1m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The PRDA, Sabaragamuwa Province will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from PRDA – Sabaragamuwa Province will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

Banana cultivation is popular in the project area. The traders visit the area to buy these agricultural produces. The road development will facilitate convenience for the residents and transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Road from Hingura Ara to Ketagal Ara will have low-negligible environmental and social impacts such as drainage issues, noise and vibration and loss of access that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this subproject to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements: There are about 49 households and 10 small shops located on both sides of the road with an estimated population of 225 persons. They are Sinhala Buddhists.

- Land ownership: There are no squatters along the road. All the lands are private and government.
- Livelihoods: Banana is the dominant cultivation in the area. Paddy and coconut are the other agricultural crops. Some people are engaged in public and private sector jobs as well.
- Local organisations: There are Rural Development Societies functioning in the area.
- **Community infrastructure and resources:** There is a Buddha shrine and one school located along the road (Table 1). During construction period, access to these places will be disturbed. In order to mitigate this impact temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	Location - G	PS Coordinate	Road side	Distance from RoW
Buddha Shrine	6° 21.327'N	80° 50.698'E	LHS	1.6m
KetagalAraVidyalaya O n g o	6° 21'21.90"N	80° 50' 48.37"E	RHS	1.5m

Table 1: Community infrastructure and resources

ng development projects: None

• **Visitors to the area:**Visitors come to project area for trading activities of agricultural produces. Teachers from other nearby villages use this road to reach theKatagalAraschool.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains donot exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of PRDA – Sabaragamuwa Province
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		~		Land within the RoW is owned to PRDA – Sabaragamuwa Province. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			~	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		~		None of the people will be affected people as the development work will becarried out within the existing RoW.

Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		✓	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		~	
Is the project area located near schools, clinics, hospitals, places of worship?			There is a Buddha shrine and aschool located along the road (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	✓		Project area comes under the Embilipitiya Police station which is 4.65km away from project area.
Is the project site in a populated area and/or with high vehicular traffic volume?		~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		√	
Labour Influx			
How many workers will be needed for the sub-project, with what skill set, and for what period?	V		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
			There is possibility of bringing outside labor if local labor is not sufficient/available.
Will there be workers brought in from	\checkmark		

outside the project area?			
Will the project require accommodation or service amenities to support the workforce during construction?	~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		\checkmark	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required for the project is approximately 12. Priority will be given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project **Sub-project**: Road from Hingura Ara to Ketagal Ara (No.18) **Road length**: 1.45km **Location**:

Province: Sabaragamuwa District; Rathnapura DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		~	
- Protected Area		~	
- Wetland		✓	
- Mangrove		~	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
 Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site? 		~	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	~		Irrigation canal (Ketagal Ara) is crossed by the road at 6° 21.348'N and 80° 50.770'E. Site specific mitigation measures shall be applied in order minimize water quality impacts resulted due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.

- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓	Local air pollution will be slightly increased at crushing plants, Batching plant, and asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?		Blasting is not necessary. Sensitive Receptors found along the road are given in the screening checklist to determine the level of Social impacts in the table under question 06. Noise and Vibration will be increased at construction sites during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people	✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	~	The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?		Some sections of the road surface are of damaged macadam. There are two sharp bends at 0.6km and 0.9km. Road signal boards shall be applied at necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction

			1 * 1
			vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	~		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts
- Creation of temporary breeding habitats form mosquito vectors of disease?	×		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	~		Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Health and safety regulations under the factory ordinance with regard to provision of health and safety measures and amenities at work place shall be comply.
- Increased noise and air pollution resulting from traffic volume?		✓	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		~	

Attachments;

Appendix 1: Photographs Appendix 2: Location map



Appendix 1 - Photograghs of Road from Hingura Ara to Ketagal Ara

Plate 1: Starting point of the road



Plate 2: Along the road

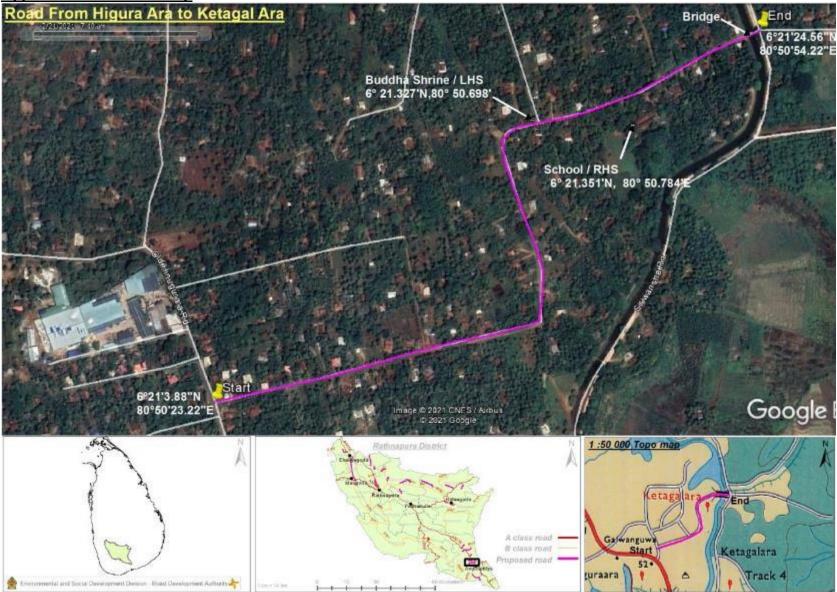


Plate 3: Along the road



Plate 4: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Road from Hingura Ara to Ketagal Ara				
Risk Category assigned by E and S Screening	Low risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Side drains directed to the irrigation canal are recommended	• Section 3.2.9 of CESGP			
to have silt traps in adequate capacity with other silt control				
measures.				
Details of Internal Submission of Design Recommendation	15			
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director – IRCDP,			
to	RDA			
Mode of transmission (Email, hand delivery)	Email			

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Road from Hingura Ara to Ketagal Ara of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contactors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with during the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.

- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

- **3.1.1.** Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;;
 - The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
 - Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
 - The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.
- **3.1.2.** Removal of Trees Prior to Construction¹⁶.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;
 - The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁷
 - Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
 - If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

¹⁶ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.

¹⁷ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least thricethe number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided for female labor with necessary facilities
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ✤ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- * The Contractor shall source all borrow materials only from licensed sources.
- ✤ Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.
- Notices to the public should be displayed in all three languages

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ✤ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ✤ All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ◆ Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

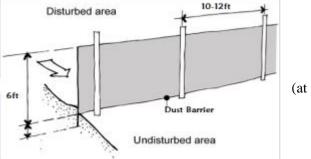
3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy least four time's day) as the levels of dust can be elevated during dry periods.
 Dust barriers should be used during all

construction activities, especially in areas



along roads with heavy traffic, commercial, residential areas and other sensitive areas such as schools (Ketagal Ara School).



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools (Ketagal Ara School) and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette

Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.

- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (E.g. Ketagal Ara School)

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the schools, pre-school, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.

- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - o Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor (E.g. Ketagal Ara irrigation canal).
- To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.



- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.

• Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- Notices to the public should be displayed in all three languages
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.



- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished

the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours



from the site to ensure public safety.

Contractor should organize awareness programs for the local public on Road Safety and at least two programs should be conducted during the construction period

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



All laborers should be made aware about labor GRM and they should have convenient access to Labor GRCs

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area



Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential

reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.

- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex II of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.

Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years

If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Details of Stakehol	der	Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
11.03.2021	Framer	Male	 Majority of the people are living along the road are Sinhalese. Buddhism is the religion of this population. Banana is the main cultivation in the area. Paddy and coconut are the other crops cultivated. Visitors come to this area for trading activities of agricultural produce. Teachers from nearby village come to Katagala Ara school.
11.03.2021	Businessman	Male	 We need a good road. This road is in a dilapidated condition, so this road development is very good. Vehicles get damaged due to road condition. During the road construction period dust, noise, and vibration issues will arise.

2.18. CESGP of SR 19 Kalagedi Ara Nuge Cross Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 19 - Kalagedi Ara Nuge Cross Road (1.0km)

Codes of Environmental and Social Good Practice

Draft Final Report

June 2021

Background KalagediAra NugeCross Road

Road length: 1.0km

Coordinates: Starting Point 6°20'16.27"N6°20'49.72"N End Point 80°52'36.43"E80°52'37.43"E

Location:

District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Moaraketiya and Kalagedi-Ara

1. Introduction:

The KalagediAra NugeCross Road (1.0km) starts from Embilipitiya Moraketiya Kiriibban Ara Mau Ara road and provides access to settlements. This road is under the custody of Embilipitiya Urban Council. The surface of the road is concrete and damaged macadam. The road traverses along a flat terrain and elevation of the trace varies between 57–72m MSL. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3m, shoulder 0.5m (both sides), drains 450mm as required. Construction period for this road is estimated as 1 month.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Kalagedi Ara Nuge Cross Road is around 10m and the average carriageway is 3.7m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council(Local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The residents in the project area welcomed the development project. The traders visit the project area to buy agricultural produce. Thus, the road development will benefit the residents and facilitate the transportation of agricultural produce.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and takephotographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kalagedi Ara Nuge Cross Road will have low-negligible environmental impacts such as drainage impacts, noise and vibration impacts to the school (temporary) and temporary loss of access that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this subproject to be implemented throughout the project in order to mitigate the likely impacts

7. Screening of Social Impacts

7.1Project Impact Area

- Settlements: There are about 49 houses and 04 small shops located on both sides of the road. The population is around 200.They are Sinhala Buddhists.
- Land ownership: There are no squatters along the road. All the lands are private and government lands.

- **Livelihoods:** Chena cultivation is the main agricultural activity in the area and the source of income for people. There are home gardens with grown with coconut, pepper and banana cultivations. Some people are engaged in public and private sector jobs as well.
- Local organisations: There is a Rural Development Society in the area.
- **Community infrastructure and resources:** There is a Cemetery (Table 1). During construction period, access to the cemetery will be disturbed. In order to mitigate this impact, the temporary access will be provided. Permanent access will be restored after construction activities.

Table 1:Community infrastructure and resources

Community infrastructure & resources	Location - GI	PS Coordinate	Road side	Distance from RoW
Cemetery	6° 20.575'N	80° 52.612'E	RHS	3.7m

• 0

n-going development projects: None

• Visitors to the area: People from outside come to the project area to buy agricultural produce.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		V		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			V	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		V		This road is currently under the custody of Embilipitiya Urban Council(Local Authority)
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		V		Land within the RoW is owned to Embilipitiya Urban Council. This

			land is used for the road.
Will there be loss of crops, trees and other fixed assets through land- use related changes?		✓	
Loss of Livelihood			
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?		~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	\checkmark		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	 ✓ 		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		~	
Is the project area located near schools, clinics, hospitals, places of worship?	~		There is a Cemetery along the road as shown in Table 1.
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	V		Project area comes under the Embilipitiya Police Station which is 4.5km away from project area.

Is the project site in a populated area and/or with high vehicular traffic volume? Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		 ✓ ✓ 	
Labour Influx			
How many workers will be needed for the sub-project, with what skill set, and for what period?	~		Both skilled and unskilled workers will be used by the contractors. Approximately 12 laborers will be recruited for the project.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	\checkmark		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor
		required for the project is
		approximately 12. Priority will be
		given to hire the local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project
Sub-project: Kalagedi Ara Nuge cross Road (No.19)
Road length: 1.0km
Location:
Province: Sabaragamuwa Province
District: Rathnapura District
DS Division: Embilipiya Divisional Secretary Division

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		✓	
- Estuarine		✓	
- Buffer zone of protected area		✓	
- Special area for protecting biodiversity		✓	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		~	
 Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction? 		~	
- Increased local air pollution due to rock crushing, cutting and filling	~		Local air pollution will be slightly increased at crushing

 works, and chemicals from asphalt processing? - Noise and vibration due to blasting 			plant, batching plant, asphalt plant and construction sites during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Blasting is not necessary.
and other civil works?			Sensitive Receptors is given in the screening checklist to determine the level of social impacts in the table on question 06. Noise and Vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	~		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?	\checkmark		Some sections of the road surface are of damaged macadam and concreted. Road signal boards shall be applied in necessary locations to

 Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations? 	~		minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats form mosquito vectors of disease?	~		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	~		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		✓	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1 - Photograghs of road from Kalagedi Ara Nuge cross Road

Figure 1: Starting point of the road



Figure 2: Settlements located on both sides of the road



Figure 3: Along the road

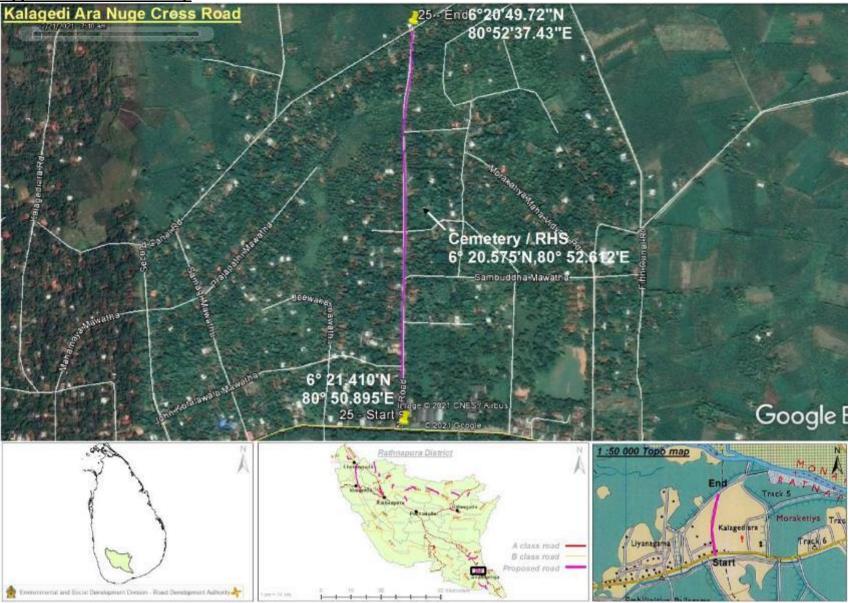


Figure 4: Cemetery located at 0.550 on RHS of the road



Figure 5: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kalagedi Ara Nuge cross Road	
Risk Category assigned by E and S Screening	Low risk
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Public highlighted that runoff gets accumulated throughout	• Section 3.2.20 of
the road even during a minor rain event due to absence of	CESGP
proper drainage facilities. Therefore it is recommended to	• Bridge design manual of
introduce side drains etc. to improve the drainage along the	RDA
road.	
Details of Internal Submission of Design Recommendation	15
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made	Project Director – IRCDP,
to	RDA
Mode of transmission (Email, hand delivery)	Email

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Kalagedi Ara Nuge Cross Road of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contactors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings convened by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his Sub-Contractor/s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.

- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

- **3.1.1.** Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;;
 - The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
 - Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
 - The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.
- **3.1.2.** Removal of Trees Prior to Construction¹⁸. As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;
 - The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.¹⁹
 - Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
 - If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to

¹⁸ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required. ¹⁹ The RDA and Level Active in (1.4)

¹⁹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least thricethe number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided for female labor with necessary facilities
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.

- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv)Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ✤ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- ✤ Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

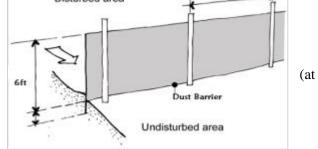
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
 Disturbed area
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy least four time's day) as the levels of dust can be elevated during dry periods.
 Dust barriers should be used during all



construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.

- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

• Debris material shall be disposed in such a manner that existing drainage paths are not blocked.

- Silt traps shall be constructed to avoid siltation into the water ways. where necessary along the road corridor.
- To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ◆ Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.



- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated

using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages



Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.

All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.



- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

of the dangers and consequences of entering and playing on this site Strictly no admittance to unauthorised personnel Safety helmets boots and hi-vis vests must be worn at all times All visitors and drivers must report to site office

This building site is dangerous

Parents are advised to warn children

3.2.14. Presence of Outside Labor in a Residential Area

Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.

- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated into the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labor influx where possible. Explore possibility of introducing a requirement to hire local labor (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct

- o Informing workers about national laws
- Worker Code of Conduct as part of the employment contract
- Introduce sanctions for non-compliance (e.g., termination)
- Cooperation with law enforcement agencies
- Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
- A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
- The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex II of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor's operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

• The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakehol	lder	Key concerns raised/Suggestions
	Type of Stakeholder	Number of Participants (M/F)	Provided
12.03.2021	GramaNiladari, Kalagedi Ara	Female	 Majority of the people living along the road are Sinhalese. Buddhism is the religion of this population. Chena cultivation is the main agricultural practice in the area. There are home gardens cultivated with coconut, pepper and banana. There is a Rural Development Society in the area.
11.03.2021	Resident	Female	 This road Development is very good. A large number of vehicles are traversing on this road dialy. Chena cultivation is practiced well. Along this road people transport their agricultutal produce to market by trucks, lorries and tractors. Roadside drains need to be provided where necessary and they should be properly maintained.
11.03.2021	Businessman	Male	 We need a good road. This road is in dilapidated condition, so this road development is very good. During the construction period dust will be the major impact. Traders come to this village to buy agricultural produce.

2.19. ESMP of SR 20 - Chandrika Wewa Outer Circular Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Rehabilitation and Improvement of SR 20 - Chandrika Wewa Outer Circular Road (1.15km)

Environmental and Social Management Plan (ESMP)

Draft Final Report

June 2021

<u>Background</u> Chandrika Wewa outer Circular Road

Road length: 1.15km

Coordinates: Starting Point 6°18'14.58"N, 80°52'13.86"E End Point 6°17'40.05"N, 80°52'21.19"E

Location:

District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Halmillaketiya

1. Introduction

The Chandrika Wewa Outer Circular Road(1.1km) starts at Pelmadulla- Embilipitiya- Nonagama Road (A18) and ends at Middeniya road. This road is under the custody of Embilipitiya Urban Council. The surface of the road is concrete and damaged macadam. The first 350 m on the right-hand-side (RHS) of the road runs parallel to the Chandrika Wewa reservoir bund while the rest of the road traverses beside the residential areas and a complex of government offices. The road also traverses along a flat terrain and the elevation of the trace varies between 64–76Im MSL. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.1 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as one (1) month.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Chandrika Wewa Outer Circular Road is around 9.4m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Urban Council (Local authority) will provide coordination support by attending to any public

requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Embilipitiya Urban Council will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the area is popular for recreational activities. The road also serves as a circular road for A018 and Middeniya Road.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021, and to collect all available information, and take photographs (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists, and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 4 for persons consulted). The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Chandrika Wewa outer Circular Road will have a majority of reversible, small-medium scale environmental and social impacts. The main social impact will be possible physical/economic displacement to the three small shop located within the existing ROW. The other impacts are temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures and preparation of ARAP, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the likely impacts.

7. Screening of Social Impacts

7.1 Project Impact Area

• Settlements: There are about 48 households and 07 small shops located on both sides of the road. The estimated population is 210. They are all Sinhala Buddhists by ethnicity and religion.

• Land ownership: All lands are under the private and government ownership. There are three small shops run by squatters which are located within the existing RoW.

(A) Fruit and Lottery stall of Mrs. K.G. Priyanthi

This shop is located at the edge of the RoW. The existing RoW at this location is 9.5m and the distance from edge of the carriage way to shop is 1.8m. The proposed road improvements include a carriage way of 3.5m, shoulder of $0.5m \times 2$ and drains of 0.45m as required. Therefore, shop will not be affected according to design details.

(B) Fish stall of Mr. H.P.D. Athula Samansiri

This shop is located at the edge of the RoW. The existing RoW at this location is 9.5m and the distance from edge of the carriage way to shop is 1.45m. The proposed improvements include a carriage way of 3.5m, shoulder of $0.5m \times 2$ and drains of 0.45m as required. Therefore, shop will not be affected according to design details.

(C) Fruit stall of Mr. W.R. Sarath

This shop is located in the RoW, about 0.5m from the carriageway. The existing RoW at this location is 9.5m. As the shop is located closer to the carriageway, shop will be affected by civil works of shoulder improvements. The owner is willing to shift back the structure for his own land which is behind his shop.

In order to mitigate the impact and avoid any income loss to the fruit stall owner, the project will follow a five step process.

Step 1: Inform the owner prior to construction activities.

Step 2: Building a temporary structure in his own land while continuing the business at the original location.

Step 3: Relocate the business with the labor assistance from RDA prior to construction activities of the road.

Step 4: Monitor the income of the affected person

Step 5: Let the person to continue the business in his own land after road construction. Refer Annex 3 for details.

Livelihoods:

The chena cultivation and inland fishery are the main livelihood sources of the people in the project area. Some other people are engaged in wage labour and public and private sector jobs.

• Local organisations: There is a Fishery society in the area.

• **Community infrastructure and resources:** There's a Bo tree with Buddha shrine along the road. Details are provided in Table 1. During construction period, access to this place will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after the construction activities.

Table 1: Community infrastructure and resources	
---	--

Community infrastructure & resources	Location - GPS Coordinate		Road side	Chain- age	Distance
Bo tree with Buddha Shrine	6° 17.999'N	80° 52.301'E	LHS	0+515km	Edge of the ROW - 1.4m from the edge of the carriageway

On-going development projects: None

• Visitors to the area: The area is popular among local tourists for recreational activities. There is also a weaving centre at 0+485km (RHS) in the project area.

7.2. Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts	KNOWN			
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		V		This road is currently under the custody of Embilipitiya Urban Council (Local Authority).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?		~		Land within the RoW is owned to Embilipitiya Urban Council. This land is used for the road. Three small shops are located within the existing RoW. Details are provided in Annex 3.
Will there be loss of crops, trees and other fixed assets through land- use related changes?			~	
Loss of Livelihood				

Are non-title holders/people	\checkmark		There are three temporary shops/huts
(squatters or encroachers) present			located within the existing RoW. Refer
on the site living/ or doing business			Annex 3 for details.
who are likely to be partially or			
fully affected because of the civil			
works? (Is the land free of			
squatter/informal settlements or			
other encumbrances?			
Will there be any permanent or		\checkmark	
temporary loss of incomes and			
livelihood? If so, for what period?			
Any estimate of the likely number	\checkmark		One squatter will have a direct impact
of those affected by the project? If			from road construction. Refer Annex 3
Yes, approximately how many?			for details.
Any of these people poor,		\checkmark	
indigenous or vulnerable to poverty			
risks? If yes, how?			
Access to Services			
Will people lose access to facilities,		\checkmark	
services or natural resources during			
the construction period?			
Would elements of project	\checkmark		During the construction phase, there can
construction pose potential safety			be safety issues to local communities,
risks to local communities,			commuters or pedestrians. However, this
commuters or pedestrians in the			can be mitigated by applying adequate
project area?			safety measures at the site level.
Will any social or economic		\checkmark	
activities be affected through land-			
use related changes?			
Is the project area located near	\checkmark		There's a Bo tree with a Buddha shrine in
schools, clinics, hospitals, places of			the vicinity as shown in Table 1
worship?			
Are there any GBV prevention and	\checkmark		Project area comes under the
response actors (NGOs,			Embilipitiya Police station which is
government notified shelter homes,			5.35km away from the project area.
police stations, etc.) in project area			
of influence?			
Is the project site in a populated		\checkmark	
area and/or with high vehicular			
traffic volume?			
Is there sufficient street-lighting,		\checkmark	
use of video or CCTV for			
monitoring public spaces in the			
project location?			
Labour Influx			
How many workers will be needed	✓		Both skilled and unskilled workers will
for the sub-project, with what skill			be used by the contractors.
set, and for what period?			Approximately 12 laborers will be
, which is a minut period i	L I	I	

			recruited for the project.
Will the project hire workers from	``	(Priority will be given to secure labor
the local workforce?			from the local community.
Will there be workers brought in			There is a possibility of bringing outside
from outside the project area?			labor if local labor is not sufficient/available.
Will the project require	``	(Accommodation facilities to be provided
accommodation or service			if labor is brought from outside.
amenities to support the workforce			
during construction?			
Will the incoming workers be from	\ \	(Workers will be from similar socio-
a similar socio-economic, cultural,			economic background.
religious or demographic			
background?			
Given the characteristics of the		\checkmark	
local community, are there any			
adverse impacts that may be anticipated?			

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	One squatter within the existing
		RoW may be affected.
3.	No. of individuals losing more than 10% of land	N/A
	area	
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the	The total number of labor required
	project area	for the project is approximately12.
		Priority will be given to hire the
		local labor.

Screening checklist to determine the level of Environmental Impacts

Project:	Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa Province
Sub-project:	Chandrika Wewa Outer Circular Road (SR20)
Location:	District: Rathnapura

ion: District: Rathnapura DS Division: Embilipitiya

Road Length: 1.15km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the			

following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
		\checkmark	
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		v	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		\checkmark	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		\checkmark	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?		~	
 Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing? 	V		Local air pollution will be slightly increased at crushing plants, batching plant, asphalt plant and construction site during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	V		Blasting is not necessary.
			Sensitive Receptors is given in the screening checklist to determine the level of Social impacts in the table on

			question 06. Noise and vibration will be increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓		The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generation of dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards
- Hazardous driving conditions where construction interferes with pre-existing roads?	✓		Some sections of the road surface are of damaged macadam and concreted. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	V		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	~		Stagnation of water in empty cans, containers, tyres etc shall be prevented and continues site supervision shall minimize these impacts.

 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	√		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps and provision of PPE for laborers will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?	~		This road facilitates easy access to Pelmadulla - Embilipitiya - Nonagama Road(A 018) road from Middeniya road. Consequently road traffic volume will be increased when the road is rehabilitated.
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	Waste water from vehicle station, Plant maintenance and servicing stations shall be treated to meet relevant standards so that they will be free from oil, grease and other contaminants.

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map

Appendix 3: Information on Encroachers/Squatters



Appendix 1- Photograghs of Chandrika Wewa Outer Circular Road

Figure 1: Starting point of the road



Figure 2: Along the road



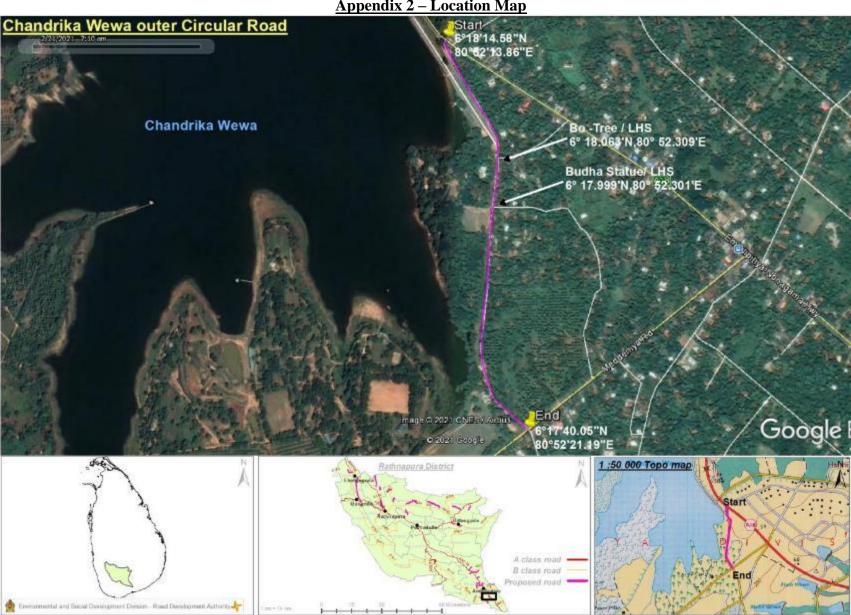
Figure 3: Along the road



Figure 4: Bo tree and Buddha statue located at 0.38km on LHS of the road



Figure 5: End point of the road



Appendix 2 – Location Map

Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
	06°18.243"N 080°52.255"E	1.85m from the edge of the carriage way at 0.000km on RHS	Owner of the small shop is Mrs. K.G. Priyanthi. She is selling fruits and lotteries. Her daily income is about Rs. 1500- 2000. This is her only income source. There are 04 family members in her family. She is doing this business for 05 months.	Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.	The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. Thus, the shop will not be affected. However, there will be temporary impacts such as dust, noise and vibration during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards.

Appendix 3: Information on Encroachers/Squatters

Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
	06°18.068"N 080°52.309"E	1.45m from the edge of the carriage way at 0.381km on LHS	Owner of the small shop is Mr. H.P.D. AthulaSamansiri. He is selling fresh water fish. His monthly income is about Rs. 25,000. There are 04 family members in his family. He is doing this business for 2 years.	Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.	The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. Thus, the shop will not be affected. However, there will be temporary impacts such as dust, noise and vibration during construction. These temporary impacts will be mitigated through regular sprinkling of water and by managing noise and vibration levels generated due to civil works within the particular standards.
	06°18.222"N 080°52.303"E	It is at the edge of the carriage way at 0.456km on LHS	Owner of the shop is Mr. W.R. Sarath. He is selling fruits. His monthly income is about Rs. 10,000. This is his only income source. There are 04 family members in his family. He is doing this business for 02 years.	Carriageway - 3.5m Shoulder - 0.5m (both sides) Drains as required.	The shop is located at the edge of the RoW which is 9.5m. The improvement for the road is 4.5m excluding drains. This shop will be affected at least for one week for the shoulder improvement. However, the owner is willing to shift back the structure for his own land which is behind the shop as

Photo	Coordinate	Distance to the carriageway	Description	Proposed improvement to the road	Impact and mitigation
					necessary for the construction. In order to mitigate the impact and avoid any income loss for the owner, the project will inform the owner at least two weeks prior about construction activities of this location and project will assist to shift back the structure as necessary.

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Chandrika Wewa Outer Circular Road	
Risk Category assigned by E and S Screening	Moderate
Design Recommendations and guidance	
Design Justification	Guidance to be Used
Small shops are located within the existing ROW at Left side of starting point, 0.381km and 0.456km. If small shops need to be relocated, consult social experts of the project prior to final design.	ARAP will provide guidance for relocation.
Details of Internal Submission of Design Recommendation	ns
Submitted by	Director - ESDD, RDA
Date of submission	11 June 2021
Name of RDA design team member submission was made	Project Director – IRCDP,
to	RDA
Mode of transmission (Email, hand delivery)	Email

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION	NAND SITE PREPERATION	L	I	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Engineer's review and approval. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users, in compatible with the designs yet to be completed. In such cases, ★ The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. ★ The technical justification for the trees that will be required to be removed will be documented accordingly. ★ The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. ○ Identify and document the number of trees that will be affected with girth size & species type ○ Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. ○ If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area ○ The contractor shall adhere to the guidelines and 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer

Environmental and Social Management Plan (ESMP) for Rehabilitation of Chandrika Wewa Outer Circular Road (SR20)

		recommendations made by the Central Environmental
		Authority, if any with regard to felling of trees and removal
		of vegetation.
		• Removed trees of economic value must be handed over to the
		Timber Corporation.
		• Provision shall be made for additional compensatory tree
		plantation. Any leftover of trees shall be removed and
		disposed in approved manner.
3.	Labor and Labor	✤ The contractor should give priority to hiring labor from the Engineering Contractor,PMU/PIU PMU/PIU/RDA/Consultant
	Camps, Construction	surrounding areas to avoid the need for labor camps. Cost Engineer
	Camps, temporary	✤ If labor camps are required to house migrant workers, they should be
	office and other	placed well away from settlements or sensitive receptors, water bodies
	temporary facilities	and boundaries and buffer zones of protected/forested areas and
		preferably located on land which is not productive (barren/waste lands
		presently). If these are not possible, private lands maybe taken on lease
		as standard practice. The location, layout and basic facility provision
		of the labor camp must be submitted to Engineer of the relevant
		managing department prior to their construction.
		The construction will commence only upon the written approval of the
		Engineer and the relevant local authority.
		 Separate labor camps need to be provided for female migrant laborers.
		◆ The instructions for the laborers should be provided in all three
		languages.
		 Provision of proper drainage facilities to the labour camps and prevent
		breeding of mosquitoes, flies and other vector borne diseases.
		The contractor shall maintain necessary living accommodation and
		ancillary facilities in a functional and hygienic manner and as
		approved by the Engineer.
		 Provision of proper sanitary facilities to the labour camps and offices
		including water, urinals, toilets, bathing facilities, mosquito nets with
		adequate capacity of septic tanks and soak pits.
		 All temporary accommodation must be constructed and maintained in
		such a fashion that uncontaminated water is available for drinking,
		cooking and washing.
		✤ The sewage system for the camp must be planned and implemented
		with concurrence from the Local Public Health Officer (PHI)
		◆ Provision shall be made for domestic solid waste disposal in
		acceptable manner. The solid waste shall be handed over to the waste
		collecting system of the Local Authority (LA) of the area (if any) and
		wastewater should be disposed in an environmentally acceptable
		manner (meeting the desired water quality standards) with the
		approval of the Engineer. Adequate health care is to be provided for
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		 the work force. Personal Protective Equipment (PPEs) such as helmet, boots, and earplugs for workers, first aid and firefighting equipment shall be available at construction sites before start of construction. An emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities particularly for kerosene/LPG so that dependence on firewood for cooking is avoided to the extent possible Labor camp sites after use should be cleared and the site should be reinstated to previous condition at the close of the construction work and the agreement with the land owner should be terminated properly and relevant documents should be handed over to the Engineer for information.
4.	Material Sourcing	 The contractor is required to ensure that sand, aggregates and other quarry material is sourced from licensed sources. The contractor is required to maintain the necessary licenses and environmental clearances from GSMB and CEA for all borrow and quarry material they are sourcing –including soil , fine aggregate and coarse aggregate. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited. If the contractor uses a non-commercial borrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly to the Engineer.
5.	Water for Construction activities	 The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. Water may not be obtained for project purposes, including for labor camps, from public or community water supply schemes without a prior approval from the relevant authority Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority (Water Resources Boar, NW&DB, Department of Irrigation, CBO) Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority.

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6.	Work Site for	*	The contractor should identify an area to store construction materials	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction materials		and equipment at a site which should be approved by the engineer.	Cost		Engineer
		*	Storage yards cannot be located in community areas, such as			
			playgrounds, close to water ways, cause access issues to locals or			
			forested areas that require clearing.			
		*	Parking, repairing vehicles, machinery and equipment shall be done			
			stationed only at the work site and/or in any other designated areas by			
			the engineer.			
		*	The contractor should provide instruction and advice should be given			
			to drivers and operators (both companies owned and hired) to park			
			vehicles and store equipment at the work site or designated areas by			
			the engineer.			
7.	Information	*	Discussions should be conducted with the residents and other	Engineering	Contractor/	PMU/PIU/RDA/Consultant
	Disclosure among		stakeholders who reside along the corridor of the road;	Cost	PMU/PIU	Engineer
	Stakeholders		• Residents have to be briefed of the project, purpose and			
			design and outcomes via a documented community			
			consultation session			
			• This should be done immediately once the contractor is			
			mobilized.			
			• The contractor should take note of all impacts, especially			
			access issues and safety hazards that will be of concern to the			
			residents and take necessary measures as stipulated in the			
			ESMP to mitigate them.			
		*	The contractor will maintain a log of any grievances/complains and			
			actions taken to resolve them.			
			A copy of the ESMP should be available at all times at the project			
			supervision office on site.			
8.	Selection of	*	Efforts shall be taken to minimize use of temporary land for the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	temporary use lands		construction activities	Cost		Engineer
	- •	*	Selection of temporary lands with considering of social and			-
			environmental background adhering to laws and regulations in the			
			country			
		*	Approval for the temporary use lands shall be obtained from Engineer			
			and need to sign agreement with the land owners			
		*	Once the use of the particular land is over, the agreement should be			
			terminated and the documents should be handed over to the Engineer			
			for information.			
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9.	Shifting	ու ու	blic	Based on the preliminary studies utilities observed along the road are not	Engineering	Contractor/Service	PMU/PIU/RDA/Consultant
9.	utilities	л рі	DIIC	necessary to be removed. However, it is worthwhile to include a provision	Cost	providers	Engineer, CEB,NW&DB,
	utilities			to relocate the utilities in case it is necessary in the design stage to perfect	COSt	providers	SLT
				the work. In such case,			SLI
				 Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations 			
				 Consent and action shall be obtained from relevant service providers (CEB, NWS&DB and SLT) to minimize time and the duration of 			
				tility disruptionApproval shall be obtained from DOI for any proposed construction			
				works on irrigation canals			
				 Advance notice to the public about time and the duration of utility 			
				disruption			
				 ♦ Use of well trained and experienced machinery operators for the 			
				shifting/reestablishment of utilities to minimize accidental damage and			
				functional purposes			
				Special attention shall be taken to provide relevant services to the			
				public without long delay			
				 Water and other utilities shall be provided to the public if long delay to 			
				re-establish services with the instruction of PIU			
10.	Hydrology		and	✤ Design of new culverts and other drainage structures in consultation	Engineering	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant
	drainage			and recommendations of the Irrigation Department, Provincial	cost		Engineer, DoI
				Irrigation Department, Mahaweli Authority and Agrarian Department.			6 , .
				Temporary diversion of water ways during construction should be			
				ensured that no obstruction to natural water flow			
				♦ Construction work affecting water bodies should be prevented and			
				work should be scheduled during the dry season			
				Excavation of beds of any streams, irrigation systems, and other water			
				resources shall be avoided by the contractor			
				Contractor shall not divert, close, block existing canals and streams in			
				a manner that adversely affect downstream intakes.			

11.	Land donation	*	Land donation will be involved only for the land required for the		PMU/PIU	PMU/PIU/RDA/Consultant
			design requirements including realignment of bends or construction of			Engineer, Embilipitiya UC
		*	cross drainages, lead aways in the locations where required. If land need from the public, negotiation with property owners will be			
		•	carried out with involvement of a third party, the respective Divisional			
			Secretariat.			
		* *	All effort will be made to minimize the land donation for the project Agreement between the donor and the recipient shall be executed as			
		•	per the format prepared for land donation.			
		*	Survey fees, notary charges for modifying the deed shall be borne by			
			the project to free any legal encumbrances caused as a result of taking the lands for road works.			
12.	Commercial units	*	In case the Small shops located within the existing ROW at Left side		PMU/PIU	PMU/PIU/RDA/Consultant
	located within the		of starting point, 0.381km and 0.456km are affected, the preparation of			Engineer
	existing ROW (Preparation and		the ARAP and obtaining the WB approval is required prior to the commencement of civil works.			
	Implementation of	*	The civil work can commence only after the relocation of the small			
	ARAP)		shop to an alternate location and (if required) payment of due compensation.			
		*	The procedure to be followed in this regard will be included in the			
			ARAP and contractor should assist the PMU in the implementation of			
13.	Land Acquisition (if	*	the ARAP Land acquisition is not envisaged in IRCDP. However, Resettlement	Land	PIU/PMU of RDA	RDA, Embilipitiya UC
	required)		Policy Framework (RPF) is prepared for the project to guide land	Acquisition		
			acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations.	cost		
			The payment of compensation will be done according to Entitlement			
			matrix of RPF.			
14.	Identifying locations	*	Contractor shall identify locations where permanent access is blocked	Engineering	Engineer, PIU/PMU	PMU/PIU/RDA/Consultant
	to provide temporary access	*	for construction. The consultation with property owners is necessary if the access of	Cost	of RDA	Engineer
		•	residents and business places expected to be damaged during		Contractor	
			construction.			
		*	In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with			
			care takers or heads of schools.			
		*	If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.			
	CONSTRUCTION PHA	SE	start interest for the second of the protect are stated and second			
15	Clearing of road	*	During site clearance activities, removal of vegetation and debris must	Engineering	Contractor	PMU/PIU/RDA/Consultant
15.	Clearing of road shoulders and	***	be carried out swiftly and in well-planned manner.	Engineering	Contractor	
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Da	emoval and Disposal	• The contractor shall identify the sites for disposal of material cleared.	Cost		Engineer
	construction debris	 Plants, shrubs and other vegetation cleared should not be burned or 			Lugineer
an ma	nd excavated haterials	 site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side should be located with the consensus of the local community, in consultation with the Engineer and shall be approved by the LA, Ebilipitiya Local Authority, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures 			
		should not be sited to the productive/agricultural lands.			
		environmentally sensitive locations such as forest lands, water bodies.			
16. Pr	rotection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to a specified depth of 150mm and stored in stockpiles of height not exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil or not for any given area, he shall obtain the direction from the Engineer in writing Removed topsoil could be used as a productive soil when replanting trees and during turfing. Stockpiled topsoil must be returned to cover the areas where the topsoil has been removed due to project activities. Residual topsoil must be distributed on adjoining/proximate barren areas as identified by the Engineer in a layer of thickness of 75mm – 150mm. Topsoil thus stockpiled for reuse shall not be surcharged or overburdened. As far as possible multiple handling of topsoil stockpiles should be kept to a minimum. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
17. Pr	rotection of Ground	Construction vehicle, machinery and equipment shall be used and	Engineering	Contractor	PMU/PIU/RDA/Consultant
Co	over and Vegetation	 stationed only in the areas of work and in any other area designated approved by the Engineer. Entry and exit of construction vehicles and machinery should be 	Cost		Engineer

 restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operators and other construction workers not to destroy ground vegetation cover unnecessarily. Transport and Storage of vehicles with materials should be controlled and done in a manner Contractor Contractor PMU/PIU/R Engineering Contractor PMU/PIU/R Engineer 	DA/Consultant
and other construction workers not to destroy ground vegetation cover unnecessarily. and other construction workers not to destroy ground vegetation cover b	DA/Consultant
unnecessarily. unnecessarily. 18. Transport and * All material should be transported in fully covered trucks. Overloading Engineering Contractor PMU/PIU/R	DA/Consultant
18.Transportand* All material should be transported in fully covered trucks. OverloadingEngineeringContractorPMU/PIU/R	DA/Consultant
	DA/Consultant
construction materials to suit the trucks capacity.	
Construction material such as cement, sand and metal should be stored	
in closed structures or in a contained manner. All construction	
materials such as sand, metal, lime, bricks etc. should be transported	
under cover to the site and stored under cover at the sight. Plastic	
sheeting (of about 6 mm minimum thickness) can be used and held in	
place with weights, such as old tires or cinder blocks, with the edges of	
the sheeting buried, or by the use of other anchoring systems.	
✤ Loading, unloading and transport of materials shall not be	
inconvenient to the road side community or road users	
 Selection of sites for stock piling with the approval of Engineer away 	
from environment and public sensitive locations.	
◆ Storage of fuel, lubricant and chemicals use for the construction	
activities on paved surface without contamination to the environment	
and storm water runoff	
✤ Approval shall be taken prior to use of local roads from relevant	
authorities and need to maintenance during the use by the Contractor	
	DA/Consultant
material/debris should be stored as per the instructions provided above Cost Engineer	
No.18.	
 Vulnerable receptors for high dust levels should be identified by the 	
Contractor in advance and necessary location specific measures as	
agreed with the Engineer should be applied to mitigate the impact.	
 Mud patches caused by material transporting vehicles in the access 	
road should be immediately cleaned	
Continual water sprinkling should be carried out in the work and fill	
areas, material extraction sites, processing plants and the access road if	
dust stir is observed. Water sprinkling should be done more frequently	
on days that are dry and windy (at least four time's day) as the levels	
of dust can be elevated during dry periods.	
 Dust masks should be provided to the laborers for the use at required 	
times.	
 Erection of dust barriers to the public, religious and other socially 	
important locations	
✤ Metal quarries, crushers and all the plants should eb located at least	
500m form the public sensitive and residential areas	

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		*	Establishment of tire washing facility for the plants, yards or any other			
			sites which causing to bring mud particles with the vehicles.			
10	Management of Self	*	In the event the contractor will use a self-operated borrow site	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Operated Borrow		o Contractor shall comply with the environmental	Cost		Engineer CEA, GSMB
	Sites		requirements/guidelines issued by the CEA, GSMB and the			
			respective local authorities with respect of locating borrow			
			areas and with regard to all operations related to excavation and			
			transportation of earth from such sites.			
			• Contractor can also find suitable soil materials from currently			
			operated licensed borrow pits in the surrounding area, subject to			
			approval of the Engineer			
			• No borrow-sites be used (current approved) or newly			
			established within areas protected under FFPO and FO and			
			within productive land/agricultural land and environment and			
			public sensitive locations			
			• Borrow areas shall not be opened without having a valid mining			
			license from the GSMB. The location, depth of excavation and			
			the extent of the pit or open cut area shall be as approved by the			
			Engineer.			
			• All borrow pits/areas should be rehabilitated at the end of their			
			use by the contractor in accordance with the			
			requirements/guidelines issued by the CEA and the respective			
			local authority (Refer Annex II for guidelines).			
			• Establishment of borrow pits/areas and its operational activities			
			shall not cause any adverse impact to the near-by properties.			
			Also, shall not be a danger of health hazard to the people.			
			• Contractor shall take all steps necessary to ensure the stability			
			of slopes including those related to temporary works and			
			borrow pits.			
11.	Quarry Operations	*	In the event the contractor manages a self-owned existing quarry sites	Engineering	Contractor	PMU/PIU/RDA,/Consultant
	and Management of	Ŧ	available in the project area	Cost		Engineer CEA,GSMB
	Self Operated Quarry	*	They should be approved by CEA with valid EPL (Environment	Cost		
	Sites	•	Protection Licenses) and GSMB with valid IML (Industrial Mining			
	Sites		Licenses);			
		*	Prior approval should be obtained from GSMB, CEA and local			
		•	authorities such as Pradeshiya Sabha.			
		*	Selected quarry sites should have proper safety measures such as			
			warnings, safety nets etc., and third-party insurance cover to protect			
			external parties that may be affected due to blasting.			
		*	Quarry sites should not be established within protected sites identified			
		***	under the FFPO and FO and not within protected sites identified under the FFPO and FO and not within productive land/agricultural			
			land and environment and public sensitive locations.			

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			✤ It is recommended not to seek material from quarries that have			
			ongoing disputes with community.			
			✤ The maintenance and rehabilitation of the access roads in the event of			
			damage by the Contractors operations shall be a responsibility of the			
			Contractor.			
			✤ Copies of all relevant licenses should be maintained by the Contractor			
			for review and documentation by the engineer			
12.	Control	of	✤ Debris material shall be disposed in such a manner that existing	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation	and	drainage paths are not blocked.	Cost		Engineer
	Soil Erosion		* Drainage paths associated with irrigation structures should be			
			improved / erected to drain rainwater properly.			
			Silt traps will be constructed to avoid siltation into the water ways			
			where necessary along the road corridor.			
			* To avoid siltation, drainage paths should not be directed to waterways			
			and irrigation canals and they should be separated from such water			
			bodies			
			 Temporary soil dumps should be removed from the construction sites 			
			as soon as possible. Until removal, these soil dumps should be covered			
			with thick polythene sheets.			
			 Temporary soil dumps should be placed at least 200m away from all 			
			water bodies.			
			Top soil shall be prevented to use for tree planting and turfing			
			activities.			
			 In Hilly terrain and areas with slopes 			
			• Embankment slopes, slopes of cuts, etc. shall not be unduly			
			exposed to erosive forces.			
			• These exposed slopes shall be graded and covered by grass or			
			other suitable materials per the specifications.			
			• During the rainy season open cuts/slopes should be covered			
			with fixed polythene sheeting to avoid excessive erosion.			
			 All fills, back fills and slopes should be compacted immediately to 			
			reach the specified degree of compaction and establishment of proper			
			mulch.			
			 Work that lead to heavy erosion shall be avoided during the raining 			
			season. If such activities need to be continued during rainy season			
			prior approval must be obtained from the Engineer by submitting a			
			proposal on actions that will be undertaken by the contractor to			
			proposal on actions that will be undertaken by the contractor to prevent erosion.			
			 Construction activities: excavation and earth work around vulnerable 			
			area for soil erosion mainly restricted to the dry periods and removal			
			of green cover vegetation shall be minimized.			
			 The work, permanent or temporary shall consist of measures as per 			
			* The work, permanent of temporary shall consist of measures as per	1		

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		sedim c c	 basins, fiber mats, mulches, grasses, slope drains and other devices. All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment will be made for their implementation. Refer Annex III 			
20.	Noise from vehicles, machinery and equipment	 6:00P. during recept 6:00A All eq not ex daytim nightti per ti regula time v All e mainta contro Ordina will b (crush Vulne Contra agreeo Ideally holida temple Labor labor 	generating work should be limited to daytime (6:00AM to M). No work that generates excessive noise should be carried out g night hours where in close proximity to public sensitive tors (temples, hospitals) and residential areas (from 6:00PM to M on the following day). quipment and machinery should be operated at noise levels that do acceed the permissible level of 75 dB (during construction) for the me. For all construction activities undertaken during the ime, it is necessary to maintain the noise level at below 50 dB as he Central Environmental Authority (CEA) noise control tions. Special approval should be obtained from CEA for night work through PIU. Equipment should be in good serviced condition. Regular enance of all construction vehicles and machinery to meet noise of regulations stipulated by the CEA in 1996 (Gazette Extra ary, No 924/12) must be conducted for vehicles/machinery that be used in construction on site, for transport and for plants beers, asphalt, concrete and batching plants). Trable receptors for high noise levels should be identified by the actor in advance and necessary location specific measures as d with the Engineer should be applied to mitigate the impact. y noise generating work should not be carried out during public tys and religious days. Special care should be taken as there is a e nearby.	Engineering Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer CEA
21.	Vehicular noise	U	ime resident laborers should be minimized. of temporary trucks or other equipment should not be permitted	Engineering	Contractor	PMU/PIU/RDA/Consultant
	pollution at		g periods of loading / unloading or when they are not in active	Cost	Conductor	Engineer
	residential / sensitive	use.				÷
	receptors		ractice must be ensured especially near residential / commercial / ive areas.			

			*	Stationary construction equipment will be kept at least 500m away			1
			**	from sensitive receptors, where possible. These include places of			
				worship, schools, medical centers and households.			
			*	•			
			*	drilling shall be Employed.			
			*				
			*	machinery & equipment to the engineer for approval.			
			*				
			*	regularly and during routine servicing operations, the effectiveness of			
				exhaust silencers will be checked and if found defective will be			
				replaced.			
			*	-			
			*	and up to the satisfaction of the Engineer to keep noise levels at the			
				minimum.			
22.	Impacts	due to) *		Engineering	Contractor	PMU/PIU/RDA/Consultant
22.	Vibration	aue li	,	works do not result in damage to adjacent properties due to vibration.	Cost	Contractor	Engineer, GSMB
	v ibi ation		*		COSt		Eligineer, OSWID
			•	shrines located adjacent to the ROW should be identified by the			
				Contractor in advance and necessary location specific measures as			
				agreed with the Engineer should be applied to mitigate the impact.			
			*				
			•	the Contractor shall undertake a condition survey of existing structures			
				within the zone of influence, as agreed with the relevant government			
				agencies and the engineer.			
			*				
			•	party property/ies as a result of his activity as agreed with the affected			
				party and the Engineer			
			*				
			ľ	receptor during blasting or when other equipment causing vibrations			
				are used.			
			*				
				compliance with the criteria, if vibration levels exceed the relevant			
				vibration criteria.			
			*				
				on adjoining structures. Explosive loads shall be determined so that			
				excessive vibration can be avoided, and blasts shall be controlled			
				blasting in nature. Notwithstanding to these provisions contractor is			
				liable for any damage caused by blasting work.			
			*				
				approval from GSMB			
23.	Pollution o	f Soil and	1 *		Engineering	Contractor	PMU/PIU/RDA,/Consultant
	Water via			locations, fuel/lubricants storage sites, vehicle, machinery and			
					•	•	•

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	Lubricants	equipment maintenance and refueling sites shall be located away from	Cost		Engineer CEA
		rivers, at least 200m away, water way sand water bodies.			
		Contractor shall ensure that all vehicle/machinery and equipment			
		operation, maintenance and refueling will be carried out in such a			
		fashion that spillage of fuels and lubricants does not contaminate the			
		ground.			
		✤ All vehicle and plant maintenance and servicing stations shall be			
		located and operated as per the conditions and /or guidelines stipulated			
		under the EPL issued by CEA. Wastewater shall not be disposed			
		without meeting the disposal standards of the CEA. Wastewater from			
		vehicle and plant maintenance and servicing stations shall be cleared of			
		oil and grease and other contaminants to meet the relevant standards			
		before discharging to the environment.			
		\diamond Contractor shall arrange for collection, storing and disposal of oily			
		wastes to the pre-identified disposal sites (list to be submitted to			
		Engineer) and approved by the Engineer. All spills and collected			
		petroleum products will be disposed of in accordance with standards			
		set by the CEA.			
		✤ Engineer will certify that all arrangements comply with the guidelines			
		of CEA or any other relevant laws.			
24.	Public Safety	$\boldsymbol{\diamond}$ At all times, the Contractor shall provide safe and convenient passage	Engineering	Contractor	PMU/PIU/RDA/Consultant
		for vehicles, pedestrians and livestock.	Cost		Engineer
		\diamond Work that affects the use of existing accesses shall not be undertaken			
		without providing adequate provisions to the prior satisfaction of the			
		Engineer.			
		$\boldsymbol{\diamond}$ The construction corridor should be barricaded at all time in a day with			
		adequate marking, safety tape, flags, reflectors etc. for safety of			
		individuals using the site daily basis. (Items such as parking cones,			
		lights, tubular markers, orange and white strips and barricades of a			
		luminous nature for night visibility shall be procured where deemed			
		necessary)			
		 Safety signboards should be displayed at all necessary locations. 			
		✤ The contractor should obtain a Third-party insurance to compensate			
		any damages, injuries caused to the public or laborers during the			
		construction period.			
		\clubsuit All construction vehicles should be operated by experienced and			
		trained operators under supervision.			
		✤ Basic onsite safety training should be conducted for all laborers during			
		the ESMP training prior to the start of the construction activities.			
		✤ All digging and installation work should be completed in one go, if this			
		task is not accomplished the area should be isolated using luminous			
		safety tape and barricading structures surrounding the whole area.			

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		*	Trenches should be progressively rehabilitated once work is			
		*	completed. Material loading and unloading should be done in an area, well away			
			from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the site			
			to ensure public safety.			
		*	Safety awareness programs should be conducted by the Contractor in			
			annual basis targeting the public residing along the road in order to			
			make the public aware on road safety especially during the operation			
	~ ~ ~ ~ ~		period of the road.			
25.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the	Engineering	Contractor	PMU/PIU/RDA/Consultant
			workers as per the ILO Convention No. 62 and Safety & Health	Cost		Engineer
			Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to this contract.			
		*	The contractor shall supply all necessary safety measures at site.			
		*	Protective footwear and protective goggles should be provided to all			
			workers Employed on mixing of materials like cement, concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers who are			
			engaged in welding works.			
		*	Earplugs shall be provided to workers exposed to loud noise, and			
			workers working in crushing, compaction, or concrete mixing			
			operation.			
		*	The contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers			
			and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office,			
		•	gloves, earmuffs, goggles, dust masks, safety harness and any other			
			equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
			consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	All workers should be made aware about Workers GRM and they			
			should be facilitated to approach relevant GRCs as and when required.			
		*	National and World Bank requirements (such as providing necessary personal protective equipment, taking temperature checks etc.) for			
			prevention of the spread of COVID-19 virus will be adhered to.			
26.	Prevention of	*	Prevention of accidents involving human beings, animals or vehicles	Engineering	Contractor	PMU/PIU/RDA/Consultant
20.	accidents		falling or accidents due to open trenches/manholes during construction	Cost		Engineer
			period. This needs to be ensured with proper barricading, signage			č
			boards and lighting etc.			
		*	Adequate signboards shall be placed much ahead of diversion site to			
			caution the road users. The road signs should comply with the Road			

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		*	Safety Manual of RDA. A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the			
			site office at all times			
		*	Availability of suitable transport at all times to take injured or sick			
		**	person(s) to the nearest hospital should also be insured.			
		*	Names and contact information for emergency services such as			
			Ambulance services, hospitals, police and the fire brigade should be			
		*	prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the			
		•••	road is narrow, diverted and structures are repaired and any other			
			places where the PIU recommends to do so			
		*	Monitor and record road crashes during construction and maintenance			
		•••	stages and take appropriate remedial actions			
27.	Operation of labor	*	Locations selected for labour camps should be approved by engineer	Engineering	Contractor	PMU/PIU/RDA/Consultant
27.	camps		and comply with guidelines/ recommendations issued by the	Cost	Contractor	Engineer, CEA, LA, DoF
	camps		CEA/Local Authority (LA). Construction of labourer's camps shall not	COSt		Eligineer, CEA, EA, Dor
			be located within 200m from waterways, within an area coming under			
			DoF, and near to any other environment and social sensitive locations			
		*	The Contractor shall construct and maintain all labor accommodation			
		ľ	in such a fashion that uncontaminated water is available for drinking,			
			cooking and washing.			
		*	Supply of sufficient quantity of potable water (as per IS) in every			
		•	workplace/labor camp site at suitable and easily accessible places and			
			regular maintenance of such facilities.			
		*	The sewage system for the camp are designed, built and operated in			
			such a fashion that no health hazards occurs and no pollution to the air,			
			ground water or adjacent water courses take place. Ensure adequate			
			water supply is to be provided in all toilets and urinals.			
		*	The contractor shall provide garbage bins in the camps and ensure that			
			these are regularly Emptied and disposed of in a hygienic manner			
28.	Management of the	*		Engineering	Contractor	PMU/PIU/RDA,/Consultant
	spread of Covid-19 or		management by the Government of Sri Lanka, Ministry of Health and	Cost		EngineerMoH
	handling sudden		Local Public Health Inspector and adhere to all relevant guidelines			-
	Pandemic outbreaks		applicable (https://www.hpb.health.gov.lk/en/covid-19).			
			Please refer Annex 28 of ESMF of IRCDP for more details.			
		*	The contractor will ensure that there is set number of workers as per			
1		Ť	the guidance as well as in labor camps to prevent overcrowding and to			
			allow social distancing. Where necessary in labor camps additional			
			provisioning will be made for spacing.			
		*	The contractor will at all times, ensure proper hand washing and			
			sanitation facilities are available on the site.			
	1	I		1		

		*	Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the Contractors site staff. If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.			
29.	Prevention of Vector Borne Diseases	*	Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied. All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH
30.	Gender issues including Gender base violence	*	Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis. The sanitary facilities in sites and labour camps should be designed with consideration of suitable location, comfort ability for female users and safe access. Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
31.	Issues due to labor influx	*	Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population. Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, MoH

		•		1		I
		*	Avoid or reduce labour influx where possible. Explore possibility of			
			introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based			
			Organizations (CBOs) in the area that will be affected by the project			
		.*.	interventions.			
		*	Contractors to implement robust measures to prevent sexual			
			harassment, gender-based violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies Contractor shall maintain a logbook to record workers' grievances and			
		**				
			complaint/ suggestion boxes can be placed at the supervision			
		.*.	consultant's office.			
		*	A focal point will be designated to receive the complaints. The contact			
			details of the focal point will be displayed in notice board of respective			
		.*.	office.			
		*	The workers will be made aware of GRM procedure through toolbox			
	T		meetings.	En ele conte e	Contractor	
32.	Traffic Management	*	Contractor shall develop a traffic management plan with respective	Engineering	Contractor	PMU/PIU/RDA/Consultant
			authority to minimize inconvenience to road users as well as prevent	Cost		Engineer, Traffic Police
		.*.	road accidents and implement it.			
		*	Road signs and trained flagmen should be used to divert traffic as per the required traffic management measures.			
		*	Clear instructions should be given if detours are used.			
		*	Also, any pits should be enclosed to prevent pedestrians or vehicles			
		***	falling into them			
			Improvement of the road surface and width will result in an increase of			
			both the number of vehicles and the vehicle operating speeds.			
		*	Therefore, after the construction is completed the contractor should			
		•	erect relevant road signs and road markings to guide the drivers to			
1			ensure the safety of the vehicles and pedestrians			
33.	Loss of Access due to	*	Temporary access will be provided when permanent access is blocked	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction		for construction.	Cost		Engineer
1		*	When construction work is in progress in one side, the other side will			8
			be opened for traffic & properly			
1		*	At the end of each day, debris that blocked access path will be cleared			
			away under the supervision of the Engineer.			
34.	Protection of Physical	*	If any physical cultural resources are identified along the project trace	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources		the contractor will ensure that protective fencing as agreed with the	Cost		Engineer
	(PCRs) close to the		community and or head of the physical cultural resource (ie temple,			÷
	· · · · · · · · · · · · · · · · · · ·	•				

	Site.	 mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works. If the site is within 5 meters of the proposed road trace the contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and will take all requisite measures to ensure so. The contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block access to any known places of worship or PCRs along the project trace. 	
35	. Loss, Damage and	All works shall be carried out in a manner that the destruction to Engineering Contractor PMU/PIU/RDA/Consultant	_
35.	Loss, Damage and disruption to Flora	 All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. Trees and vegetation shall be felled / removed only if that impinges directly on the permanent works or necessary temporary works. In all such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations made by the CEA, if any with regard to felling of trees and removal of vegetation. Removed trees of significant value must be handed over to the Timber Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native trees over 5-year-old root-balled or having at least 3ft height suitable for the location as identified by the Engineer. The planting should take place in public land suitable for the purpose The contractor shall be responsible for ensuring the well-being of the trees/plants until the end of the contract 	

					1	
36.	Loss, Damage and		• All works shall be carried out in such a manner that the	Engineering	Contractor	PMU/PIU/RDA/Consultant
	disruption to Fauna		destruction or disruption to the fauna and their habitats is	Cost		Engineer
			minimal.			
			• Construction workers shall be instructed to protect fauna			
			including wild animals and aquatic life as well as their habitats.			
			Hunting, poaching and unauthorized fishing by project workers is			
			not allowed.			
			• No solid or liquid waste should be dumped into natural habitats.			
37.	Prevention of the	*	There is a possibility of introducing / spreading of invasive species	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Spread of Invasive		during material transportation and disposing cleared vegetation from	Cost		Engineer
	Plant Species		one site to another, thus the following measures are to be undertaken.			0
	~F	*	Close monitoring of transportation, storage of borrowing material for			
			the spread of any invasive species must be done.			
			• Vehicles should be covered during transportation of cleared			
			vegetation to and from the construction site.			
			• Borrow material to be brought from properly identified borrow			
			pits and quarry sites, the sites should be inspected in order to			
			ensure that no invasive plant species are being carried with the			
			borrow material.			
			 Washing the vehicles should be conducted periodically to prevent 			
			carrying any invasive species			
			 The construction site should be inspected periodically to ensure 			
			that no invasive species are establishing themselves at the site.			
38.	Chance find		 All fossils, coins, articles of value of antiquity, structures and 	Engineering	Contractor	PMU/PIU/RDA/Consultant
30.	procedures for PCRs		• An lossified of the solution	Cost	Contractor	Engineer
	and Archeological			COSt		Engineer
	Property		discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant			
	Toperty					
			legislation.			
			• The Contractor will take reasonable precautions to prevent his			
			workmen or any other persons from removing and damaging any			
			such article or thing. He will, immediately upon discovery thereof			
			and before removal acquaint the Engineer of such discovery and			
			carry out the instructions for dealing with the same, waiting which			
			all work shall be stopped.			
			• The Engineer will seek direction from the Archaeological			
			Department of Sri Lanka and inform the project EO to follow the			
			Chance Find Procedures set forth.			

39. 40.	Surface Drainage and Possible Water Stagnation Handling Social and Environmental Issues during Construction	Provide storm water drain system in the premises which will discharge water to existing storm water drainage networks Carry out overall storm water management in the premises durin construction using temporary ditches, sandbag barriers etc. Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to cutting, excavation and other activities The Contractor shall appoint a person responsible for communi- liaison and to handle public complaints regarding environmental/ socia- related matters (Environmental and Social Safeguards Officer (ESSO) All public complaints will be entered into the Complaints Register. The ESSO will promptly investigate and review public complaints ar- implement the appropriate corrective actions to arrest or mitigate the cause of the complaints. A register of all complaints is to be passed to the Engineer within 2	g f y u b. e d e 4	Contractor	PMU/PIU/RDA/Consultant Engineer
41.	Prevention of Sexual exploitation, child trafficking and child labour	hrs. They are received, with the action taken by the ESSO of complains thereof. Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor. Trafficking of children (forced/bonded labour) is prohibited under the project. Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to th workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
42.	POST CONSTRUCTIO Clearing/Closure of Construction Site/Labor Camps	Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleare away, all rubbish cleared, excreta or other disposal pits or trenche filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. Agreements made with the particular land owners should be terminated and relevant documents should be handed over to the	Cost d s e e	Contractor	RDA,/Consultant Engineer, PRDA

		 Engineer for information All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 			
43.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waster 	Cost	Contractor	RDA/Consultant Engineer, PRDA
44.	Road furnishing on safety.	 management criteria of this ESMP. The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization. 	Engineering Cost	Contractor	RDA,/Consultant EngineerPRDA
45.	Hydrology and drainage	 Rooting maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
46.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer
47.	Commercial units located within the existing ROW (Post monitoring of ARAP)	 PMU will carry out consultations with owners of affected shops and discuss about their permanent relocation. The shop owners will be linked with relevant local authorities to (if necessary) for further assistance. 		PMU/PIU	PMU/PIU/RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation	n conducted	along the	e road
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Date	Details of Stakeho	lder	Key concerns raised/Suggestions		
	Type of Stakeholder	Number of Participants (M/F)	Provided		
11.03.2021	Squatter	Female	 Has a fruit and lottery stall. Earn a daily income of Rs. 1500 – 2000 from the shop. This area is popular among local tourists for recreational activities. 		
11.03.2021	Fish seller	Male	 Doing this business for two years and have a monthly income of Rs. 25,000/=. There is a fishery society operating in the area. Many people visit Chandrika wewa (lake) daily. 		
11.03.2021	Small shop owner	Male	 Selling fruits at this place. It's my own house and land behind the shop and I can shift back during construction. Majority of people living along the road are Sinhalese and Buddhists. 		

2.20. CESGP of SR 21 - 100 Mile Post BosigirigamaThalagahawela via Galwanguwa Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Codes of Environmental and Social Good Practice (CESGP)

of

SR 21–100 Mile Post BosigirigamaThalagahawela via Galwanguwa Road (4.4km)

> Draft Final Report June 2021

<u>Background</u> 100 Mile Post BosigirigamaThalagahawela via Galwanguwa Road

Road length: 4.4km

Coordinates: Starting Point 6°21'43.94"N, 80°49'42.68"E End Point 6°21'8.73"N, 80°49'59.86"E

Location:	District:	Ratnapura
	DS Division:	Embilipitiya
	EE Division:	Embilipitiya
	GN Divisions	: Hingurara
		Nindagampelessa

1. Introduction

The 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road(4.4km) starts at Pelmadulla – Embilipitiya – NonagamaRoad (A018) and ends at the same road (A018). This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority)and the Provincial Road Development Authority (PRDA), Sabaragamuwa. The surface of the road is damaged concrete, macadam and gravel. The road traverses along a flat terrain (Min. 96m, Max. 118m MSL). There is no surface water bodies found adjacent to the road. The road does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required.Construction period for this road is estimated as 3 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road.

The existing average RoW of the 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road is around 7m and the average carriageway is 3.4m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha and the Sabaragamuwa Province PRDA will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, representatives from Embilipitiya PradeshiyaSabhaand Sabaragamuwa PRDAwill function as members of the Grievance Redress Committee.

5.Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their workplaces.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 forphotographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road will have low-negligible environmental impacts. The main impacts will be temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts will only occur during construction phase. Therefore, these can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1Project Impact Area

- Settlements: Around 80 households and 8 small shops are in the project area. The estimated population is 330. They are Sinhala Buddhists by their ethnicity and religion respectively.
- Land ownership: There are no squatters along the road. All the lands are private lands.
- **Livelihoods:** Agriculture is the main source of livelihood of the people. Banana, pepper, manioc and vegetables are the main agricultural crops grown by people. In addition, large scale teak plantations and several bricks manufacturing sites are also observed during the field visit. Some people are engaged in public and private sector jobs as well.
- Local organisations: There are organisations attached to agriculture activities such as *"GoviSamithi"* (Farmer Organizations).
- **Community infrastructure and resources:** There is a temple and a newly constructed structure to place a religious statue. Details are provided in Table 1. During construction period, the access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Arama Temple	N 6°21'.604"	E 80°44'336"	LHS	40m
Structure for Shrine	N 6°21'.241"	E 80°49'786"	LHS	2m

Table 1:Community infrastructure and resources

- **On-going development projects:** None.
- Visitors to the area: People from outside come to the project area to buy agricultural produce such as banana, pepper and manioc. In addition, people also come to these villages to buy bricks.

7.1 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.

Does the project include upgrading or rehabilitation of existing facilities?			The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new
			or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?		V	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?	V		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority) and Sabaragamuwa Province PRDA.
Is land acquisition likely to be necessary?		\checkmark	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?	✓		Land within the RoW is owned by Embilipitiya Pradeshiya Sabha and Sabaragamuwa Province PRDA. This land is used for the road.
Will there be loss of crops, trees and other		\checkmark	
fixed assets through land-use related changes?			
Loss of Livelihood			
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		V	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?		\checkmark	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	\checkmark		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	\checkmark		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be		~	
affected through land-use related changes?Is the project area located near schools, clinics, hospitals, places of worship?	✓		There is a temple and a newly constructed structure to place a religious statue (see Table 1).

		/	
Are there any GBV prevention and response	~	, ,	Project area comes under the
actors (NGOs, government notified shelter			Embilipitiya Police station which is
homes, police stations, etc.) in project area of			6.5km away from the project area.
influence?			
Is the project site in a populated area and/or		\checkmark	
with high vehicular traffic volume?			
		\checkmark	
Is there sufficient street-lighting, use of video			
or CCTV for monitoring public spaces in the			
project location?			
Labour Influx			
How many workers will be needed for the	~	/	Approximately 15 laborers will be
sub-project, with what skill set, and for what			recruited for the project. Both
period?			skilled and unskilled workers will
period.			be used by the contractors.
Will the project hire workers from the local	v	/	Priority will be given to secure
workforce?			labor from the local community.
workforce :			labor from the local community.
Will there be workers brought in from outside	~	/	There is possibility of bringing
the project area?			outside labor if local labor is not
the project area.			sufficient/available.
Will the project require accommodation or	v	/	Accommodation facilities to be
service amenities to support the workforce			provided if labor is brought from
			outside.
during construction?	~	/	outside.
Will the incoming workers be from a similar	v		
socio-economic, cultural, religious or			
demographic background?			,
Given the characteristics of the local		\checkmark	
community, are there any adverse impacts that			
may be anticipated?			

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 15.
		Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – SabaragamuwaProvinceSub-project:Sub-project:100 Mile post Bosirigama Thalagahawela Via Galwanguwa Road (No. 21)Location:District: Rathnapura
DS Division: Embilipitiya

Road Length: 4.4 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		~	
- Wetland		 ✓ 	
- Mangrove		 ✓ 	
- Estuarine		✓	
- Buffer zone of protected area		 ✓ 	
- Special area for protecting biodiversity		~	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		V	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	×		No permanent alteration required. However temporary diversion will be required at 1.5, 3.15 and 3.8km where new culverts will be established and reconstruction of existing culverts at 0.35, 2.9 and 3.4km. Continuous flow of water will be facilitated to downstream and stream will be restored soon after requirement is over. Siltation of waterbodies will be minimized by application of silt traps, silt fences etc
- Deterioration of surface water quality due to		 ✓ 	

silt runoff and sanitary wastes from worker- based camps and chemicals used in construction? - Increased local air pollution due to rock	√		Regular sprinkling of water
crushing, cutting and filling works, and chemicals from asphalt processing?			to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	V		Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	V		Dust impact will be minimized by sprinkling water adequately. Noise and vibration will be maintained within permissible levels and night time activities will be avoided.
- Hazardous driving conditions where construction interferes with pre-existing roads?	V		Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?		~	
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	 ✓ 		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of

		toxic materials.
- Increased noise and air pollution resulting from traffic volume?	\checkmark	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?	\checkmark	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Annex 1 – Photographs of the 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road



Figure 1 : Starting point of the road



Figure 2: Along the Road



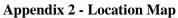
Figure 3: Bodhi Sri Dhamma School located at 0.790km on LHS of the road

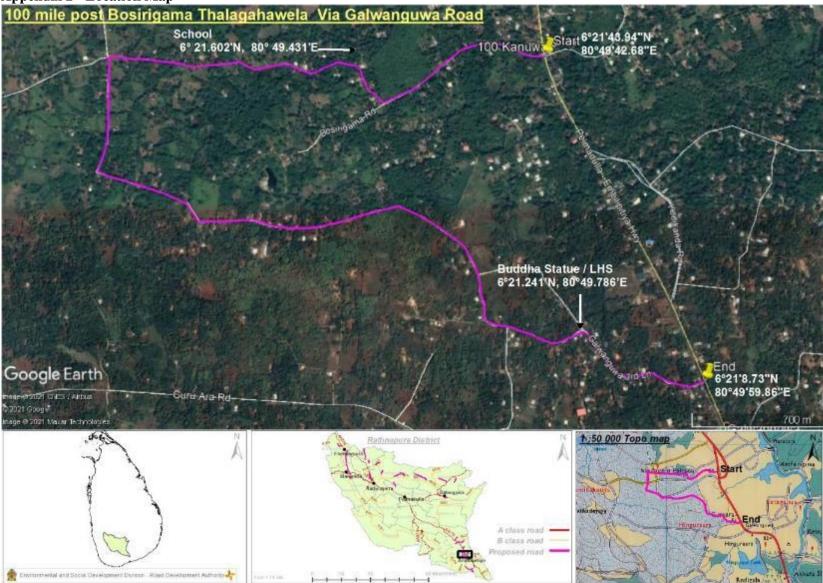


Figure 5: Buddha Shrine located near to the road



Figure 6: End point of the road





Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: 100 Mile Post Bosigirigama Thalagahawela via Galwanguwa Road				
Risk Category assigned by E and S Screening	Low Risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
It is recommended to improve the road safety by				
introducing safety sign boards at the starting and end				
points of this road as it directly serves the A018 road at				
its starting and end points.				
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was	Project Director – IRCDP,			
made to	RDA			
Mode of transmission (Email, hand delivery)	Email			

<u>Codes of Environmental and Social Good Practice (CESGPs) for Codes of</u> <u>Environmental and Social Good Practice (CESGPs) for 100 Mile Post Bosigirigama</u> <u>Thalagahawela via Galwanguwa Road</u>

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractor s including nominated sub-Contractor s if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safegaurds Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1.Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ✤ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁰.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²¹
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- ✤ If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

²⁰ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
²¹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road

²¹ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided for female labor with all necessary facilities
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer
- ✤ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- * The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ✤ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.

- If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

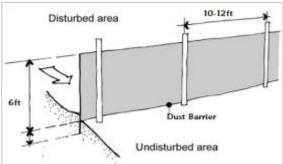
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.



- Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.

3.2.3. Management of Noise related Nuances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools (Dhamma school at 0.79km) during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- ✤ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during nonpeak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at



sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following

- The dumping does not impact natural drainage courses
- No endangered / rare flora is impacted by such dumping
- o Should be located in nonresidential areas located in the downwind side
- Located at least 100m from the designated forest land.
- Avoid disposal on productive land.
- Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.

- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) and the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.



- Basic onsite safety training should be conducted for all laborers during the CESGP training prior to the start of the construction activities.
- ✤ All digging and installation work should be completed in one go, if this task is not accomplished the area

should be isolated using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours



from the site to ensure public safety.

- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- ✤ In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ✤ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area

- SITE SAFETY STARTS HERE!
 This building site is dangerous Parents are advised to warn children of the dangers and consequences of entering and playing on this site
 Strictly no admittance to unauthorised personnel
 Safety helmets boots and hi-vis vests must be worn at all times
 All visitors and drivers must report to site office
- Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ✤ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- If any physical cultural resources are identified along the project trace the Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works.
- If the site is within 5 meters of the proposed road trace the Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Since the major portion of the project road may pass through open lands, planting of trees along the entire stretch of the road is recommended as an enhancement measure.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and PE and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ✤ In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB) and CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex 2 of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- They should be operated with a valid IML EPL and trade license
- Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha.
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person responsible for community liaison (Environmental and Social Safeguards Officer (ESSO)) and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ✤ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- ✤ A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- ✤ No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the dam site and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Venue	Date	Details of Sta	keholder	Key concerns	
		Type of Stakeholder	Number of Participants (M/F)	raised/Suggestions Provided	
SR 21: 100 Mile post Bosirigamathalagahawela via Galwanguwa Road	11.03.2021	Resident	Male	 Almost all the people living along the project area is Sinhalese and their religion is Buddhism. During the construction period dust will be a major issue. Outside people come to this area to buy agricultural produce such as banana, pepper and manioc. In addition, people come to these villages to buy bricks Street lamps need to be installed where necessary. 	
	11.03.2021	Resident	Male	 It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road There are cultivations such as banana, pepper, manioc and vegetables in the area. Farmers in the area use this road to transport their agricultural produce to market. School children and public and private sector workers also use this road to go to schools and their working places. 	

2.21. CESGP of SR 22 - 13 Bund Road from 99 Junction



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Codes of Environmental and Social Good Practice (CESGP)

of SR 22–13 Bund Road from 99 Junction (1.4km)

> Draft Final Report May 2021

Background 13 Bund Road near 99 Junction

Road length: 1.4km

Coordinates: Starting Point 6°22'51.07"N, 80°49'5.04"E End Point 6°23'15.80"N, 80°49'36.79"E

Location:

District:	Ratnapura
DS Division:	Embilipitiya
EE Division:	Embilipitiya
GN Divisions:	Udawalawa Track 02

1. Introduction

The 13 Bund road near 99 Junction (1.42km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The surface of the road is gravel and damaged concrete. The road traverses along a flat terrain (Min.70m, Max. 97m). A stream crosses the road at 0.75km. This road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.4 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required.Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Village Plans (FVP's), there Final are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the 13 Bund Road near 99 Junction road is around 6.8m and the average carriageway is 3.3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to a national road (Pelmadulla – Embilipitiya – Nonagama (A018) Road). There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural production to market.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisancevisit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists. The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. 13 Bunt road from near 99 Junction will have low-negligible environmental and social impacts such as temporary loss of access, dust issues, siltation of irrigation canals that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1 Project Impact Area

- Settlements: Around 50 households and 6 small shops are in the project area. Their population is around 210. They are Sinhala Buddhists by their ethnicity and religion.
- Land ownership: There are no squatters along the road. The land is private and government owned.
- Livelihoods:

Agriculture is the main source of livelihood of the people. Banana, pepper, manioc and vegetables are the main agricultural crops grown. In addition, teak plantations are also observed during the field visit. Some people are engaged in public and private sector jobs as well.

Local organisations:

There are organisations attached to agricultural activities such as "GoviSamithi" (Farmer Organizations).

Community infrastructure and resources:

There is a Buddha statue. Details are provided in Table 1.During construction period, access will be disturbed. In order to mitigate this impact, the temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha statue	N 6°23'.326"	E 80°49'514"	LHS	1m

• **On-going development projects:** None

• Visitors to the area: People from outside come to the project area to buy agricultural produce such as banana, pepper and manioc.

7.1Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		 ✓ 		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains were not physically exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		~		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency? Is land acquisition likely to be necessary?		~	✓	This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority). Proposed rehabilitation works
is fand acquisition fixely to be necessary:				will be within the existing RoW

Y .1 1				
Is the ownership status and current usage of land known?				Land within the RoW is owned by Embilipitiya Pradeshiya Sabha. This land is used for the road
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			✓ 	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?		~		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?			\checkmark	
Access to Services				
Will people lose access to facilities, services or natural resources during the construction period?			~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?		~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?			\checkmark	
Is the project area located near schools, clinics, hospitals, places of worship?		\checkmark		There is a Buddha statue (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?		~		Project area comes under the Embilipitiya Police station which is9km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?			~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?			~	
Labour Influx				
L	I	1		

How many workers will be needed for the sub-project, with what skill set, and for what period?	\checkmark		Approximately 12 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	√		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	\checkmark		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	\checkmark		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 12. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts.

Project:Inclusive Rural Road Connectivity and Development Project – SabaragamuwaProvinceSub-project:Sub-project:13 Bund Road from 99 Junction (SR22)Location:District: Rathnapura
DS Division: Embilipitiya

Road Length: 1.4 km

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		~	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		~	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	V		Road crosses an irrigation canal located at 0.6km. However the canal will not be permanently altered for road rehabilitation.
			Continuous water supply shall be provided to downstream and waterways shall be restored to its original condition. Soil erosion control measures such as application of silt barriers will minimize siltation of water bodies.

- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	✓		Road crosses an irrigation canal located at 0.6km.
			This impact is temporary and will be restricted to the construction phase. Storing all construction materials and chemicals in well secured and managed sites away from water bodies, installing silt traps with proper drainage near all water bodies prior to construction activities, providing proper sanitary facilities and solid waste management practices to worker camps and creating awareness on sanitation for workers will mitigate these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	V		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	✓	1	Blasting is not necessary. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		✓ 	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓ 		Dust impact will be minimized by sprinkling water adequately. Noise and vibration will be maintained within permissible levels and night time activities will be avoided.
- Hazardous driving conditions where construction interferes with pre-existing roads?	 ✓ 	6	Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and	\checkmark		Location of labor camps only at approved sites and

 possible transmission of communicable diseases from workers to local populations? Creation of temporary breeding habitats for mosquito vectors of disease? 		✓	continues labor supervision shall minimize these impacts.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 	~		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lams, retaining walls will mitigate these impacts. Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1 - Photographs of 13 Bunt road from near 99 Junction



Figure 1: Starting point of the road

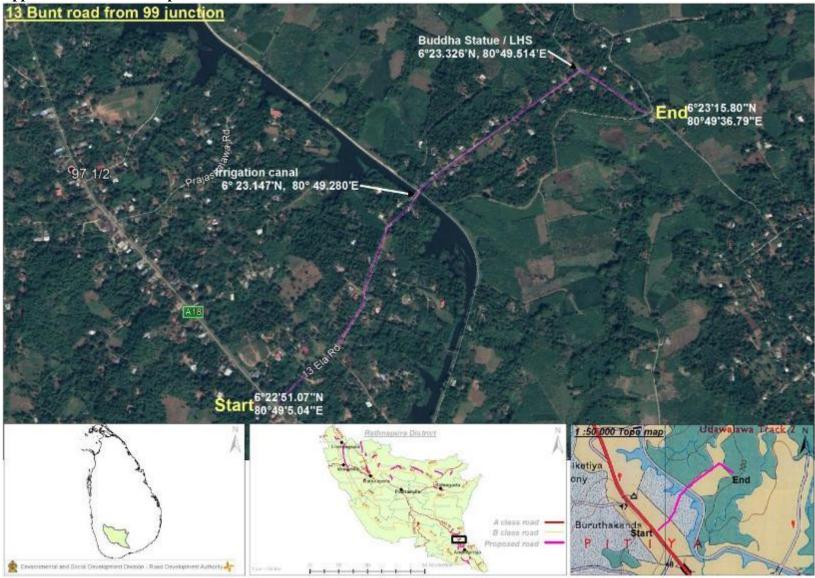


Figure 2 : Along the road



Figure 3: Buddha Statue

Appendix 2 – Location map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: 13 Bunt road from near 99 Junction Road				
Risk Category assigned by E and S Screening	Low Risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
It is recommended to introduce side drains where	Section 3.2.20 of			
necessary since runoff flows over the road during rains.	CESGP			
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was	Project Director – IRCDP,			
made to	RDA			
Mode of transmission (Email, hand delivery)	Email			

<u>Codes of Environmental and Social Good Practice (CESGPs) for Codes of</u> <u>Environmental and Social Good Practice (CESGPs) for 13 Bunt road from near 99</u> <u>Junction Road</u>

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractor s including nominated sub-Contractor s if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex 1** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²².As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²³
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.

 ²² The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
 ²³ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees

 $^{^{23}}$ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer and from the local authority for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodation should be provided with all required facilities for female laborers
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ✤ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ✤ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.

- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

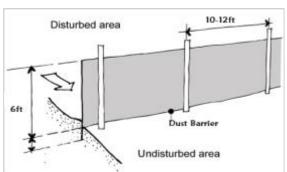
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.



Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads

3.2.3. Management of Noise related Nuisances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- ✤ Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.

✤ All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties (houses, public properties and places of worship) due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the extent possible.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

 The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

Debris material shall be disposed in such a manner that existing drainage paths are not blocked.

E.g. – Irrigation canal at 0.6km

- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- sion such a are not avoid cessary
- To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- Further Guidance on cost effective measures to follow are presented in **Annex III.**

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA), the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)

The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.

- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the CESGP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area should be isolated

using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.





3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ✤ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area



Strict labor supervision should be undertaken. There should be labor awareness programs to
educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ✤ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- If any physical cultural resources are identified along the project trace the Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (ie temple, mosque, place of worship, grave site, monument, statue, tree or any site designated of importance by the community) is established to avoid any impacts during the civil works.
- If the site is within 5 meters of the proposed road trace the Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- Since the major portion of the project road may pass through open lands, planting of trees along the entire stretch of the road is recommended as an enhancement measure.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and PE and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ✤ In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex 2 of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be approved by GSMB with valid EPL and Industrial Mining Licenses;
- Prior approval should be obtained from GSMB, CEA and local authorities such as Pradeshiya Sabha.
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- ✤ It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person responsible for community liaison (ESSO) and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ✤ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the ESSO on complaints thereof.
- ✤ A final report shall be forwarded to the Engineer within 3 Days

3.2.28. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- ✤ Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the dam site and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Person consulted	Gender	Responses raised
11.03.2021	Farmer	Male	 This road development is very good. A number of vehicles traverse on this road dialy. There is no public transport service on this road. There are banana, pepper, manioc and vegetable cultivations in the project area. Farmers in the area use this road to transport their agricultural produce to the market. There are farmer organizations operating in the area.
11.03.2021	Resident	Female	 The existing road surface is damaged. Roadside drains need to be provided where necessary and should be properly maintained. Some people have title deeds and some people have permits for their lands. Outside people come to the project area to buy agricultural produce such as banana, pepper and manioc.

Stakeholder consultation conducted along the road

2.22. CESGP of SR 23 - Udawalawa to Kolambage Ara via Adaluwa road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Codes of Environmental and Social Good Practice (CESGP)

of

SR23 – Udawalawa to Kolambage Ara via Adaluwa road Road (1.8km)

> Draft Final Report June 2021

<u>Background</u> Udawalawa to KolambageAra Via Adaluwa Road

Road length: 1.8km

Coordinates: Starting Point 6°24'43.25"N, 80°47'40.78"E End Point 6°24'11.31"N, 80°46'59.64"E

Location:	District:	Ratnapura
	DS Division:	Embilipitiya
	EE Division:	Embilipitiya
	GN Divisions:	Adoluwaand Thibolketiya

1. Introduction

The Udawalawa to KolabageAra viaAdaluwa Road (1.8km)starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha(Local authority). The existing average RoW of the roadis around 6.1m and the average carriageway is 3.0m. The surface of the road is concrete, damaged macadam and gravel. The road runs through a flat terrain (Min.77m, Max. 88m). The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 1.8 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mmas required.Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases the drains may need to be located leaving some gap to the RoW. In such cases there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Udawalawa to KolambageAra Via Adaluwa Road is around 6.1m and the average carriageway is 3.0m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Banana, pepper and manioc are the main agricultural crops grown in the project area. In addition, fruit crops such as mango and vegetables like brinjol, bitter gourd, radish and cereals such as, *mung* bean (green gram) and cowpea are also grown well. Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and takephotographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisancevisit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted). The tachnical details were obtained from the Project Management Unit of Road Development Authority responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Udawalawa to Kolabage Ara Via Adaluwa Road will have low-negligible environmental and social impacts such as siltation of streams, temporary loss of access, dust, noise and vibration that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1Project Impact Area

• Settlements: Around 60 households and 6 small shops are in the project area. The estimated population is 250. They are Sinhala Buddhists by ethnicity and religion respectively.

- Land ownership: There are no squatters along the road. All lands are private and government lands.
- Livelihoods: Agriculture is the main source of livelihood of people in the project area. Banana, pepper and manioc are the main agricultural crops. In addition, fruit crops such as mango, vegetables like brinjal, bitter gourd, radish, cereals like, mung bean and cowpea are also grown well. Some people are engaged in public and private sector jobs as well.
- **Local organisations:** There are organisations linked to agriculture such as "*GoviSamithi*" (Farmer Organizations).
- **Community infrastructure and resources:** There are two Buddha statues and a preschool beside the road. Details are provided in Table 1. During construction period, access to these places will be disturbed. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha Statue	6°24.535'N	80°47.648'E	LHS	2m
Pre - School	6°24.344'N	80°47.362'E	LHS	8m
Bo tree and Buddha Statue	6°24.11.54'N	80°46.59.85'E	RHS	3m

Table 1:Community infrastructure and resources

- **On-going development projects:** None
- Visitors to the area: People from outside come to the project area to buy agricultural produce.

7.2Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		 ✓ 		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		\checkmark		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			√	Proposed rehabilitation works will be within the existing RoW.

Is the site chosen for this work free from	V		This road is currently under
encumbrances and in possession of the			the custody of Embilipitiya
Ministry/ or relevant government agency?			PradeshiyaSabha. (Local
			Authority).
Is land acquisition likely to be necessary?		\checkmark	Proposed rehabilitation works
			will be within the existing
			RoW.
Is the ownership status and current usage of	\checkmark	·	Land within the RoW is owned
land known?			to Embilipitiya Pradeshiya
			Sabha. This land is used for
			the road
Will there be loss of crops, trees and other		✓	
fixed assets through land-use related			
changes?			
Loss of Livelihood			
Loss of Livenhood			
Are non-title holders/people (squatters or		\checkmark	
encroachers) present on the site living/ or			
doing business who are likely to be partially			
or fully affected because of the civil works?			
(Is the land free of squatter/informal			
settlements or other encumbrances?			
Will there be any permanent or temporary		✓	
loss of incomes and livelihood? If so, for		•	
what period?	√	,	
Any estimate of the likely number of those	v		None of the people will be
affected by the project? If Yes, approximately			affected as the development
how many?			work will be carried out within
			the existing RoW.
Any of these people poor, indigenous or		\checkmark	
vulnerable to poverty risks? If yes, how?			
Access to Services			
Will people lose access to facilities, services		✓	
or natural resources during the construction			
period?			
Would elements of project construction pose	√	,	During the construction phase,
	, i i i i i i i i i i i i i i i i i i i		C
potential safety risks to local communities,			there can be safety issues to
commuters or pedestrians in the project area?			local communities, commuters
			or pedestrians. However, this
			can be mitigated by applying
			adequate safety measures at
			the site level.
Will any social or economic activities be		\checkmark	
affected through land-use related changes?			
Is the project area located near schools,	\checkmark		There are two Buddha statues
clinics, hospitals, places of worship?			and one pre-school (see Table
			1).
Are there any GBV prevention and response	\checkmark		Project area comes under the
actors (NGOs, government notified shelter			Embilipitiya Police station
homes, police stations, etc.) in project area of			which is 1.7km away from the
influence?			project area.
Is the project site in a populated area and/or		\checkmark	
with high vehicular traffic volume?			

Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		~	
Labour Influx			
How many workers will be needed for the sub-project, with what skill set, and for what period?	~		Approximately 12 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	\checkmark		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	\checkmark		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	\checkmark		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 12. Priority will be given to hire the
		local labors.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – SabaragamuwaProvinceUdawalawa to Kolabege Ara via Adaluwa Road (No.23)Sub-project:Udawalawa to Kolabege Ara via Adaluwa Road (No.23)Road Length:1.8kmLocation:District: Rathnapura
DS Division: Embilipitiya
GN Divisions: Adaluwa

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		~	
- Protected Area		~	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		V	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		 ✓ 	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		V	
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	V		Storing construction materials containing small/ fine particles in places which are not subjected to wash away by runoff and keeping temporary soil dumps avoiding water bodies (at streams 0.5 and 1.55km) will minimize this impact.Storing and protecting construction materials such as cement,

			bitumen and other chemicals including any harmful substances in protected compartments/ enclosures and handling carefully to avoid spills, disposing waste containers and material only in approved locations will mitigate this impact. Providing adequate and appropriate facilities for Labour camps (if any) for disposal of sewerage, solid waste and wastewater and keeping labour camps away from water bodies will mitigate this impact.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	V		Noise and vibration levels generated due to civil works will be managed within permissible levels as specified in the national standards. Blasting is not necessary along the road.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	✓ 		Special attention will be required to settlements located close to the road (Along the entire road) and regular sprinkling of water to suppress dust and avoiding construction activities during night time will be practiced in order to mitigate these impacts.
- Hazardous driving conditions where construction interferes with pre-existing roads?		~	
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable	√		Location of labor camps only at approved sites and continues labor supervision

diseases from workers to local populations?			shall minimize these impacts. Utilizing local labour as much as possible will reduce the need of labour camps.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Avoiding water collection areas within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
 Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life? 			Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period.Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts.Regular maintenance and keeping construction vehicles up to the relevant standards will mitigate accidental spills of toxic materials.
- Increased noise and air pollution resulting from traffic volume?		V	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Annex 1- Photographs of Udawalawa to Kolambage Ara via Adaluwa Road



Figure 6 : Starting point of the Road



Figure 2: Along the Road

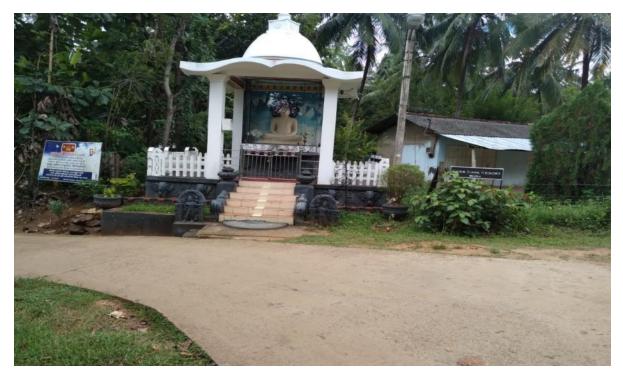


Figure 3: Buddha Shrine located at 0.373km at LHS of the road



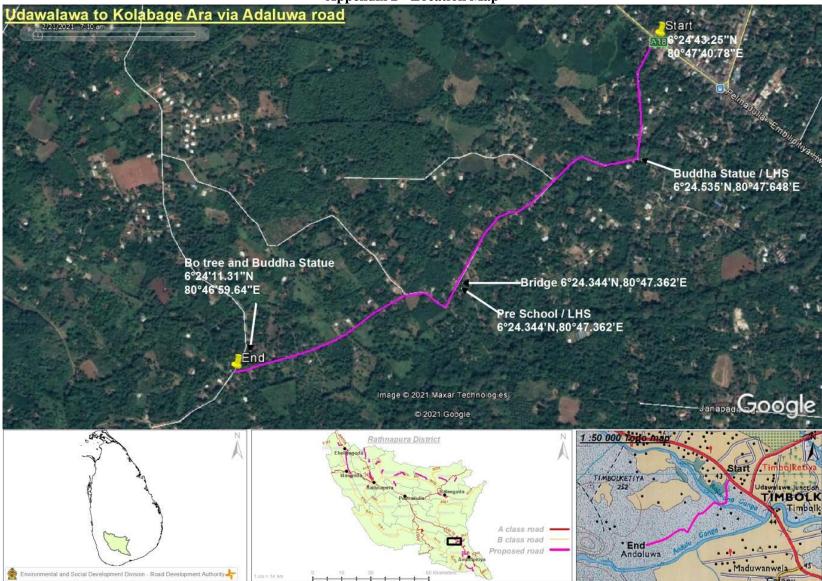
Figure 4: Pre School located at 1.080 km on LHS of the road



Figure 5 : Buddha Shrine and Bo Tree located at 1.870 km on RHS of the road



Figure 6: End point of the road



Appendix 2 - Location Map

Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Udawalawa to Kolabage Ara via Adaluwa Road				
Risk Category assigned by E and S Screening	Low Risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
As per the public street lamps are neccery for this road to ensure the road safety.				
Details of Internal Submission of Design Recommendat	tions			
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was	Project Director – IRCDP,			
made to	RDA			
Mode of transmission (Email, hand delivery)	Email			

<u>Codes of Environmental and Social Good Practice (CESGPs) for Codes of</u> <u>Environmental and Social Good Practice (CESGPs) for Udawalawa to Kolabage Ara</u> <u>via Adaluwa Road Road</u>

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractor s including nominated sub-Contractor s if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- ✤ Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁴.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁵
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such trees shall be removed without prior written consent from the Engineer and endorsed by the community.
- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.

²⁴ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
²⁵ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees

²⁵ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided with all required facilities for female laborers
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- ✤ Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.
- Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project

corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA

- A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

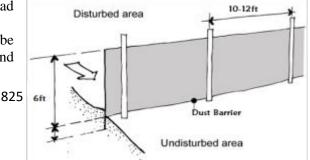
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- Continual water sprinkling should be carried out in the work and fill areas and



the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.

Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.

- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.

- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- ✤ Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.





- Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities.
- ✤ All digging and installation work should be completed in one go, if this task is not accomplished the area
- accomplished the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages



- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- ✤ A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.

3.2.13. Prevention of accidents

 Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction



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period. This needs to be ensured with proper barricading, signage boards and lighting etc.

- ✤ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential Area

Strict labor supervision should be undertaken. There should be labor awareness programs to
educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ✤ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.20. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.21. Protection of Physical Cultural Resources (PCRs) close to the Site.

- The Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (i.e.Buddha Statue at 6°24.535'N, 80°47.648'E and Bo tree and Buddha statue at 6°24.11.54'N, 80°46.59.85'E) is established to avoid any impacts during the civil works.
- The Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ✤ In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka

- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex II of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- ✤ It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ✤ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- ✤ A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Venue	Date	Details of Stal	keholder	Key concerns
		Type of	Number of	raised/Suggestions
		Stakeholder	Participants (M/F)	Provided
SR 21: 100 Mile post Bosirigamathalagahawela via Galwanguwa Road	11.03.2021	Resident	Male	 Almost all the people living along the project area is Sinhalese and their religion is Buddhism. During the construction period dust emissions will be the major issue. Outside people come to this area to buy agricultural produce such as banana, pepper and manioc. In addition, people come to these villages to buy bricks Street lamps need to be installed where necessary.
	11.03.2021	Resident	Male	 It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road There are cultivations such as banana, pepper, manioc and vegetables in the area. Farmers in the area use this road to transport their agricultural produce to market. School children and public and private sector workers also use this road to go to schools and their working places.

2.23. CESGP of SR 24 - Kolambageara to Bibilegama Yaya Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Codes of Environmental and Social Good Practice (CESGP)

of

SR24 – Kolabageara to Bibilegama Yaya Road

(2.6km)

Draft Final Report June 2021

<u>Background</u> KolambageAra to BibilegamaYaya Road

Road length: 2.6 km

Coordinates: Starting Point 6°25'3.03"N, 80°46'56.81"E End Point 6°26'4.08"N, 80°47'37.96"E

Location:	District:	Ratnapura
	DS Division:	Embilipitiya
	EE Division:	Embilipitiya
	GN Divisions:	KolambageAra and Thibolketiya

1. Introduction

The KolambageAra to BibilegamaYaya Road (2.6km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road and provides a connection to C. P. De Silva Mawatha. The C.P.De Silva Mawathais under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The existing average RoW of the roadis around 6m and the average carriageway is 3m. The existing surface comprises concrete, macadam and gravel, and runs through a flat terrain (Min.92m, Max. 116m). The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.6 km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mmas required.Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the KolambageAra to BibilegamaYaya Road is around 6m and the average carriageway is 3m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-

Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged, and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Agriculture is the main source of livelihood of the people in the project area. Banana and manioc are the main agricultural crops grown. Farmers in the area use this road to transport their agricultural produce to the market. School children and the public and private sector workers also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and takephotographs of the road(see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists. The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, this subproject i.e. Kolabage Ara to Bibilegama Yaya Road will have low-negligible environmental and social including temporary loss of access, noise, dust and vibration impacts that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as Low Risk.

Therefore a Codes of Environmental and Social Good Practices (CESGP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to occur.

7. Screening of Social Impacts

7.1Project Impact Area

Settlements:

There are around 80households and 13 small shops in the project area. The estimated population is 350.Almost all of them are Sinhala Buddhists. Most of the households fall into middle and low income categories.

- Land ownership: There are no squatters along the road. There are private and government lands.
- Livelihoods: Agriculture is the main source of livelihood of the people in the project area. Banana, and manioc are the main agricultural crops grown. In addition, there are several bricks manufacturing sites. Some people are engaged in public and private sector jobs.
- Local organisations: There are organisations linked with agriculture such as "GoviSamithi" (Farmer Organizations).
- **Community infrastructure and resources:** There is a Buddha statue and a pre school. Details are provided in Table . During construction period, the access to these places will be temporarily disrupted.. In order to mitigate this impact, the temporary access will be provided. Permanent access will be provided after construction activities.

Community infrastructure & resources	GPS Location		Road Side	Distance from RoW
Buddha statue	6°25.409'N	80°47.075'E	RHS	2m
Pre - School	6°25.843'N	80°47.407'E	LHS	2m

Table 1: Community infrastructure and resources

- On-going development projects: None.
- Visitors to the area: People from outside people come to the project area to buy agricultural produce.

7.2Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		✓		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. (Local Authority).
Is land acquisition likely to be necessary?			\checkmark	Proposed rehabilitation works will

				be within the existing RoW
Is the ownership status and current usage of	\vdash	\checkmark		Land within the RoW is owned to
land known?				Embilipitiya Pradeshiya Sabha.
				This land is used for the road
Will there he loss of groups trees and other			/	This fand is used for the foad
Will there be loss of crops, trees and other		v	,	
fixed assets through land-use related changes?				
Loss of Livelihood				
Are non-title holders/people (squatters or		v	/	
encroachers) present on the site living/ or				
doing business who are likely to be partially or				
fully affected because of the civil works? (Is				
the land free of squatter/informal settlements				
or other encumbrances?				
Will there be any permanent or temporary loss		v	/	
of incomes and livelihood? If so, for what				
period?				
Any estimate of the likely number of those		\checkmark		None of the people will be
affected by the project? If Yes, approximately				affected as the development work
how many?				is carried out within the existing
now many:				RoW.
Any of these people peop indigenous or	-		/	ROW.
Any of these people poor, indigenous or		ľ	•	
vulnerable to poverty risks? If yes, how?	-			
Access to Services				
Will people lose access to facilities, services		v	/	
or natural resources during the construction				
period?				
Would elements of project construction pose		\checkmark		During the construction phase,
potential safety risks to local communities,				there can be safety issues to local
commuters or pedestrians in the project area?				communities, commuters or
				pedestrians. However, this can be
				mitigated by applying adequate
				safety measures at the site level.
Will any social or economic activities be		v	/	
affected through land-use related changes?				
Is the project area located near schools,		\checkmark		There is a Buddha statue and
clinics, hospitals, places of worship?				apre-school (see table 1).
Are there any GBV prevention and response		\checkmark		Embilipitiya Police station is
actors (NGOs, government notified shelter				responsible for the project area. It
homes, police stations, etc.) in project area of				is located about 2.7km away from
influence?				the project area.
			/	the project area.
Is the project site in a populated area and/or with high variables traffic values?		Ň	,	
with high vehicular traffic volume?				
Is there sufficient street-lighting, use of video			/	
or CCTV for monitoring public spaces in the		v	/	
project location?				
Labour Influx				
How many workers will be needed for the sub-		\checkmark		Approximately 13 laborers will be
project, with what skill set, and for what				recruited for the project. Both
period?				skilled and unskilled workers will
				be used by the contractors.
Will the project hire workers from the local				Priority will be given to secure
workforce?				labor from the local community.
				Loor nom die loou community.

Will there be workers brought in from outside the project area?	✓		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	~		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		\checkmark	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 13. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – SabaragamuwaProvinceSub-project:Sub-project:Kolabageara to Bibilegama Yaya Road (No. 24)Road Length:2.6 kmLocation:District: Ratnapura
DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of			
thefollowingenvironmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		\checkmark	
- Wetland		\checkmark	
- Mangrove		\checkmark	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas;		\checkmark	
disfiguration of landscape by			
roadembankments, cuts, fills, and quarries?			
- Encroachment on precious ecology		\checkmark	
(e.g.sensitive orprotected areas)?			
- Alteration of surface water hydrology of		\checkmark	
waterway crossed by roads, resulting in			
increased sedimentin streams affected by			
increased soil erosion atconstruction site?			
- Deterioration of surface water quality due to		\checkmark	
siltrunoff and sanitary wastes from worker-			
basedcamps and chemicals used in construction?			
- Increased local air pollution due to rock	\checkmark		Regular sprinkling of water to
crushing, cutting and filling works, and	•		suppress dust and avoiding
chemicals from sphalt processing?			using of vehicles and
enemicals fromasphart processing:			machineries which emit
			gasses exceeding particular
			standards, using approved
			crusher and asphalt plants will
			mitigate these impacts.
- Noise and vibration due to blasting and other	\checkmark		Blasting will not be
civilworks?			necessary. Noise and
			vibration may be generated
			due to most of field
			construction activities.
			However Noise and vibration
			levels of construction
			activities should be
			maintained below maximum

- Dislocation or involuntary resettlement of people		 ✓ 	permissible levels of the national standards.
- Other social concerns relating to inconveniences inliving conditions in the project areas that may trigger cases of upper respiratory problems andstress?	~		Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards and avoiding night time construction activities (Applicable along the entire trace).
- Hazardous driving conditionswhere construction interferes with pre-existing roads?		\checkmark	
- Poor sanitation and solid waste disposal inconstruction camps and work sites, and possibletransmission of communicable diseases fromworkers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts. Utilizing local labour as much as possible will mitigate these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	~		Avoiding possibilities of water stagnation within the constriction sites, keeping hygienic conditions in labour camps will minimize creation of mosquito breeding sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materialsand loss of life?		\checkmark	
- Increased noise and air pollution resulting fromtraffic volume?		\checkmark	
 Increased risk of water pollution from oil, greaseand fuel spills, and other materials from vehiclesusing the road? 		\checkmark	

Attachements

Appendix 1: Photos taken along the road Appendix 2: Location map

Appendix 1- Photographs of Kolabage Ara to Bibilegama Yaya Road



Figure 1: Starting point of the road



Figure 2: Buddha Shrine located at 0.750km on RHS of the road

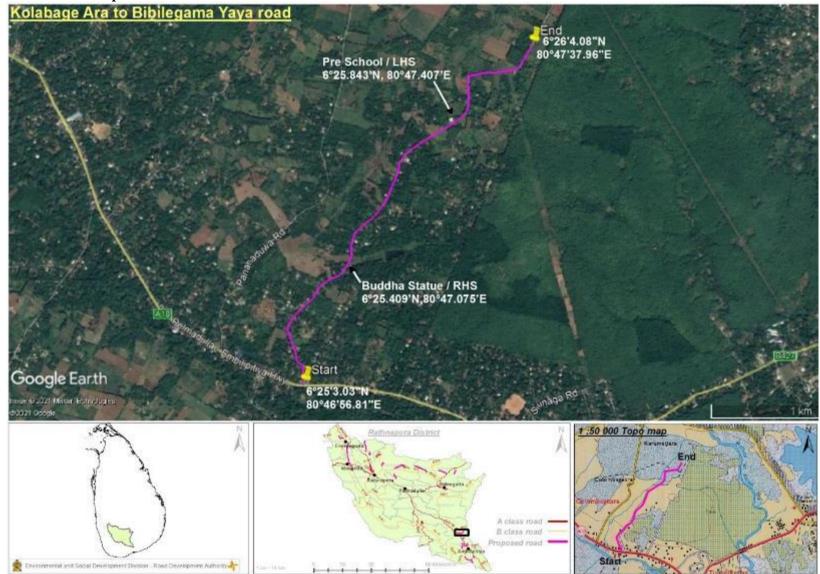


Figure 3: Pre School located at 1.900kmon RHS of the road



Figure 4: End point of the road

Appendix 2 - Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Kolabage Ara to Bibilegama Yaya Road				
Risk Category assigned by E and S Screening	Low Risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
As per the public road side drains are essential for this road	3.2.20 of CESGP			
to drain the runoff.				
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director – IRCDP,			
Name of RDA design team member submission was made to	Project Director – IRCDP, RDA			

<u>Codes of Environmental and Social Good Practice (CESGPs) for Codes of Environmental</u> and Social Good Practice (CESGPs) for Kolambage Ara to Bibilegama Yaya Road

1. Preamble

The following CESGP should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to sub-Contractor s including nominated sub-Contractor s if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the contactors on behalf of the Employer the Project Engineer (Referred to as Engineer) shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor /s fails to implement the CESGP recommendations. After informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.
- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented.

- It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
- The EMSS shall be updated every 3 months and submit for the Project Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to $Construction^{26}$. As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed.

In such case;

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁷
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

 ²⁶ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
 ²⁷ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected

²⁷ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least three times the number of trees cut (1:3) should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.23.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodations should be provided with all required facilities for female laborers
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the PE if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- ✤ A separate BoQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractor's site staff.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- The Contractor shall take measures to make the residents and the other stakeholders who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.
- The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ✤ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

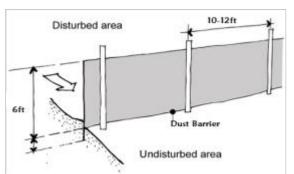
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires or cinder blocks (with measures to avoid water collection in them), with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- Mud patches caused by material transporting vehicles in the access road should be immediately cleaned
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods.
 Dust barriers should be used during all



construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- The minimum height of barriers should be 6ft. Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- Use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities.
- ✤ All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette

Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.

- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (e.g pre school)

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include hospitals, schools, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during nonpeak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA)



have been obtained. Taking into account the following

- The dumping does not impact natural drainage courses
- No endangered / rare flora is impacted by such dumping
- Should be located in nonresidential areas located in the downwind side
- Located at least 100m from the designated forest land.
- Avoid disposal on productive land.
- Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8. Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor.
- To avoid siltation, drainage paths should not be directed to waterways and irrigation canals and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.
- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.

- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed-off in accordance with standards set under the National Environmental Act (NEA) or by the Central Environmental Authority of Sri Lanka/Ministry of Environment (CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.



- Basic onsite safety training should be conducted for all laborers during the ESMP training prior to the start of the construction activities.
- ✤ All digging and installation work should be completed in one go, if this task is not accomplished
- the area should be isolated using luminous safety tape and barricading structures surrounding the whole area.
- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in



an area, well away from traffic and barricaded.

- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.

All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Safety Gear for Labors

- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.

3.2.13. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- ✤ A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as sign board and displayed at the work site.

3.2.14. Presence of Outside Labor in a Residential





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Area

Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.15. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.16. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.17. Prevention of Vector Borne Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.18. Handling Gender issues including Gender base violence.

- Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.
- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfortability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential

reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.19. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- ✤ Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal

- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.22. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.23. Tree Re-Planting

- Re-plantation of at least three times (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to Project Engineer in charge.

3.2.24. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.

3.2.25. Management of Contractor Operated Quarry and Borrow Sites

3.2.25.1. Burrowing of Earth and Management of Self Operated borrow Sites

- ✤ In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka
- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.

- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex II of the CESGP.

3.2.25.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- ✤ It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.26. Procedures for Dealing with Chance Finds

3.2.26.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.26.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.27. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review public complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- ✤ A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- ✤ A final report shall be forwarded to the Engineer within 3 Days

3.2.28. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expenses, to the entire satisfaction of the engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Stakeholder consultation conducted along the road

Date	Details of Stakeholder		Key concerns raised/Suggestions Provided
	Type of Stakeholder	Gender	
11.03.2021	Resident	Male	 It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road . Agriculture is the main livelihood in the area. Banana and manioc are the main crops cultivated. Farmers in the area use this road to transport their agricultural produce to the market. School children and public and private sector workers also use this road to go to schools and their working places.
11.03.2021	Farmer	Male	 The existing road surface is damaged. Roadside drains need to be provided where necessary and they should be properly maintained. When developing this road access need to be provided for houses and commercial institutes located on either side of the road. Traders come to the project area to buy agricultural produce.

2.24. ESMP of SR 25 - 2nd Mile post to Guruara Galawanguwa Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Ratnapura District of Sabaragamuwa Province

Environmental and Social Management Plan (ESMP) of SR 25 - 2nd Mile post to Guruara Galawanguwa Road (4.4km)

Draft Final Report

June 2021

<u>Background</u> 2nd Mile post to Guruara Galawanguwa Road

Road length: 4.4km

Coordinates: Starting Point 6°20'9.77"N, 80°49'2.43"E End Point 6°21'3.04"N, 80°50'4.23"E

Location:

District: Ratnapura DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Embilipitiya, Udagama, NindagamPelessa, HinguraAra

1. Introduction

The 2nd Mile Post to Guruara Galawanguwa Road (4.4km) starts at Pelmadulla – Embilipitiya – Nonagama (A018) Road. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority)and Provincial Road Development Authority (PRDA – Sabaragamuwa Province). The surface of the road is concrete, macadam and gravel. The road runs through flat terrain (Min. 90m, Max. 120m MSL). There are two small streams that the road crosses at 1.9km and 2.7km respectively. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 4.4km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.0m, shoulder 0.5m (both sides), and drains 450mm as required.Construction period for this road is estimated as 4 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, the Right of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the 2nd Mile post to Guruara Galawanguwa Road is around 6m and the average carriageway is 3.1m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabhaand PRDA (Sabaragamuwa Province) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, representatives from Embilipitiya Pradeshiya Sabhaand PRDA (Sabaragamuwa Province) will function as members of the Grievance Redress Committee..

5. Community Response and Perceived Benefits

It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Banana and pepper are the main agricultural crops grown in the area, and improved road conditions will help the farmers to market their produce. School children, public and private sector workers in this area also use this road to go to schools and their work places.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and takephotographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic mapsand secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists (see Annex 3 for persons consulted_. The tachnical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. 2^{nd} Mile post to Guruara Galawanguwa Road will have a majority of reversible, small-medium scale environmental and social impacts. The main impacts will be temporary diervaion of streams due to culvert reconstruction, temporary loss of access to residents, common properties and the impact of dust, noise and vibration. These impacts are specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures, this sub-project therefore can be classified as **Moderate Risk**.

Therefore an Environmental and Social Mangement Plan (ESMP) is prepared for this sub-project to be implemented throughout the project in order to mitigate the impacts likely to be occured.

7. Screening of Social Impacts

Impact Area

- Settlements: Around 110 households and 12 small shops are in the project area. The estimated population is 460. They are all Sinhala Buddhists.
- Land ownership: There are no squatters along the road. The land is private and government owned.
- Livelihoods: Agriculture is the main source of livelihood of the people in the project area. Banana and pepper are the main agricultural crops. In addition, there are several brick manufacturing sites. Some people are engaged in public and private sector jobs as well.
- Local organisations: There are organisations linked to agricultural activities such as *"GoviSamithi"* (Farmer Organizations).
- **Community infrastructure and resources:** There is a Temple, three Buddha statues and the office of the Grama Niladhari. Details are provided in Table 1. During construction period, e access to these places will be temporarily disrupted. In order to mitigate this impact, temporary access will be provided. Permanent access will be restored after construction activities.

Community infrastructure&	GPS Location		Road Side	Distance from RoW
resources				
Buddha Statue & Bo Tree	6°21.109'N	80°49.310'E	RHS	Bo tree: 1m Buddha statue: 5m
Buddha Statue	6°20.997'N	80°49.614'E	RHS	1m
Temple	6°20.966'N	80°49.895'E	LHS	60m
Gramaniladhari Office	6°21.013'N	80°49.905'E	LHS	1m
Buddha Statue	6°21.034'N	80°50.066'E	RHS	1m

Table 1:Community infrastructure and resources

- **On-going development projects:** None.
- Visitors to the area: People from outside come to the project area to buy agricultural produce. In addition people come to these villages to buy bricks.

7.2 Potential Impacts

Screening Questions	Not known	Yes	No	Remarks
Land related Impacts				
Will the project include any new physical construction work?		~		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		V		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		~		This road is currently under the custody of Embilipitiya Pradeshiya Sabha. And PRDA (Sabaragamuwa Province).
Is land acquisition likely to be necessary?			~	Proposed rehabilitation works will be within the existing RoW
Is the ownership status and current usage of land known?		~		Land within the RoW is owned by Embilipitiya Pradeshiya Sabha and PRDA (Sabaragamuwa Province). This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?			~	
Loss of Livelihood				
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?			V	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?			~	

Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	✓		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	V		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		~	
Is the project area located near schools, clinics, hospitals, places of worship?	✓		There is a Temple, three Buddha statues and the office of the Grama Niladhari (see Table 1)
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	~		Project area is under the Embilipitiya Police station which is 6.2km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?		 ✓ 	
Is there sufficient street-lighting, use of video or CCTV for monitoring public spaces in the project location?		~	
Labour Influx			
How many workers will be needed for the sub-project, with what skill set, and for what period?	✓		Approximately 20 laborers will be recruited for the project. Both skilled and unskilled workers will be used by the contractors.
Will the project hire workers from the local workforce?	~		Priority will be given to secure labor from the local community.
			There is possibility of bringing outside labor if local labor is not

Will there be workers brought in from outside the project area?	✓		sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	\checkmark		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	~		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		~	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	Total number of labor required for the project is approximately 20. Priority will be given to hire the local labors.

Screening checklist to determine the level of Environmental Impacts

Project:Inclusive Rural Road Connectivity and Development Project – Sabaragamuwa ProvinceSub-project:From 2nd Mile post to Guruara Galawanguwa Road (SR25)Road Length:4.4kmLocation:District: Ratnapura
DS Division: Embilipitiya

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		\checkmark	
- Protected Area		 ✓ 	
- Wetland		~	
- Mangrove		~	
- Estuarine		\checkmark	
- Buffer zone of protected area		\checkmark	
- Special area for protecting biodiversity		\checkmark	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		v	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		V	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	×		Road crosses two streams at 1.9km and 2.7km. No permanent diversion required. However temporary diversion will be needed at new culvert constructions at 0.08, 1.75, 2.7 and 3.0km and culvert reconstruction locations at 0.3, 0.65, 0.78, 1.1, 1.9, 2.5 and 3.3km. Continuous water flow to the downstream will be facilitated and temporary diversions will be restored to original condition. Soil conservation measures such

- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker- based camps and chemicals used in construction?	✓		as silt traps and silt fences will be applied to minimize siltation. Road crosses two streams at 1.9km and 2.7km. However, this impact will be temporary during the construction phase. Application of soil erosion control measures such as silt traps and silt fences and using worker based camps which are approved by local authorities will minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓		Regular sprinkling of water (based on the weather condition) to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	 ✓ 		Blasting along the road is not necessary. All civil works shall be managed in compliance with the permissible levels of noise and vibration as specified in the national standards. Night time works shall not be practiced.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?	V		Regular sprinkling of water to suppress dust during the construction phase and avoiding project activities during the night time will mitigate these impacts.(Applicable along the entire road.)
- Hazardous driving conditions where construction interferes with pre-existing		\checkmark	

roads?			
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	V		Securing of local labor as much as possible and location of worker camps if required only at approved sites and continues labor supervision shall minimize these impacts.
- Creation of temporary breeding habitats for mosquito vectors of disease?	V		Wastewater and solid waste shall be properly disposed complying with the relevant standards. Pockets of water stagnation shall be avoided at every construction sites.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?		V	
- Increased noise and air pollution resulting from traffic volume?		\checkmark	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		V	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road



Appendix 1- Photographs of 2nd Mile post to Guruara Galwanguwa Road

Figure 1 : Starting point of the road



Figure 2: Along the Road



Figure 3: Buddha Shrine and Bo tree located at 1.520km on LHS of the road



Figure 4: Samurdhi Development Office, Grama Niladhari office and Welfare office located at 1.380 km on LHS of the road

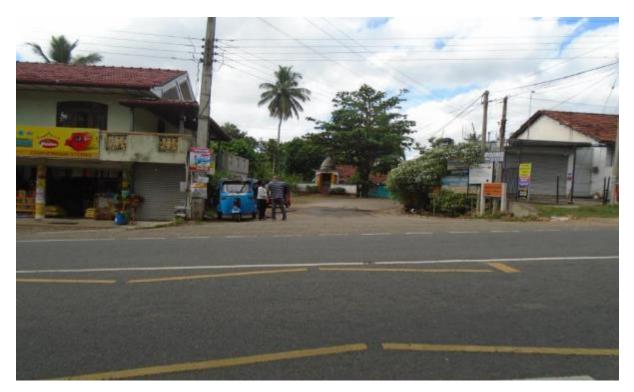
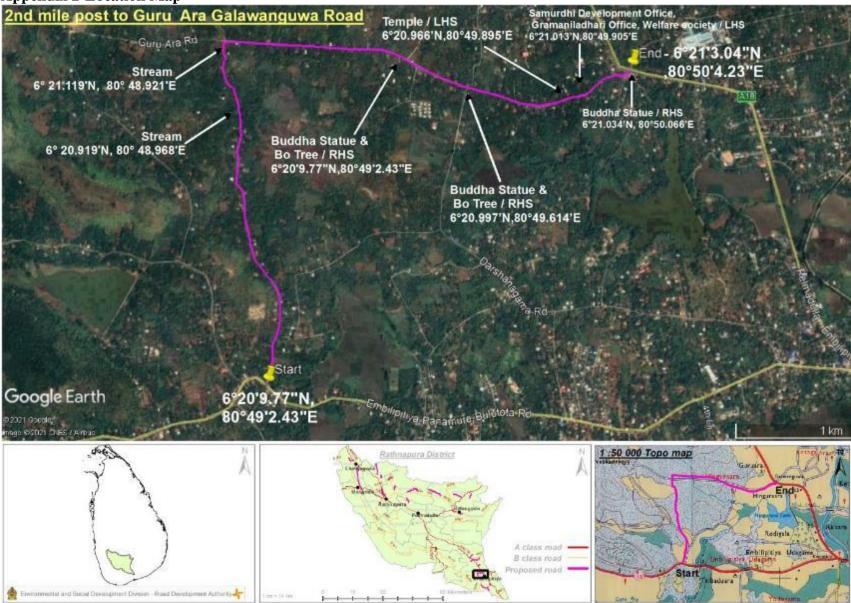


Figure 5: End point of the road

Appendix 2-Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: 2 nd Mile post to Guruara Galwanguwa Road					
Risk Category assigned by E and S Screening	Moderate				
Design Recommendations and guidance					
Design Justification	Guidance to be Used				
It is recommended to modify the design ensuring no					
damage is done to the root system of the Bo Tree located at					
1.52km on left hand side due to excavation and compaction.					
Details of Internal Submission of Design Recommendation	ns				
Submitted by	Director - ESDD, RDA				
Date of submission	11 June 2021				
Name of RDA design team member submission was made	Project Director – IRCDP,				
to	RDA				
Mode of transmission (Email, hand delivery)	Email				

Environmental and Social Management Plan (ESMP) for Rehabilitation of 2nd Mile post to Guruara Galwanguwa Road (SR25)

	Activities and Associated Impacts	Protection and preventive measures	Mitigation cost	Re	sponsibility
				Implementation	Monitoring
	PRE-CONSTRUCTION	AND SITE PREPERATION	L	L	
1.	Finalization of the Environmental Method Statement on ESMP implementation	 Contractor shall prepare detailed Environmental Method Statement (EMS) clearly stating the approach, actions and manner in which the ESMP is to be implemented. It is required from the contractor to prepare the EMS for each work site, if work will be carried out at more than one site at once and time plan for implementation. The EMS shall be updated regularly and submit for the Engineers review and approval. 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer
2.	Tree Removal	 As per the preliminary studies removal of road side trees along this road was not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during the construction stage to enhance the safety of the road users in compatible with the designs yet to be completed. In such cases, The Engineer shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance via change of design and alignment. The technical justification for the trees that will be required to be removed will be documented accordingly. The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. Identify and document the number of trees that will be affected with girth size & species type Trees shall be removed from the construction sites before commencement of construction with prior permission from the Divisional Secretariat (Embilipitiya). Compensatory plantation by way of Re-plantation of at least three times of the number of trees cut using grown up saplings (having at least 3ft height) should be carried out in the project area. If road side space for replanting is not available, other possible locations such as schools, temples, public areas will be explored with the help of DoF, DS and CBOs of the area 	Engineering Cost	Contractor	RDA/PMU/PIU/ Engineer

						1
			if any with regard to felling of trees and removal of vegetation.			
			• Removed trees of economic value must be handed over to the			
			Timber Corporation.			
			o Provision shall be made for additional compensatory tree			
			plantation. Any leftover of trees shall be removed and disposed in			
			approved manner.			
3.	Labor and Labor	*	The contractor should give priority to hire labor from the surrounding	Engineering	Contractor	RDA/PMU/PIU/ Engineer
	Camps, Construction		areas to avoid the need for labor camps.	Cost		
	Camps, temporary	*	If labor camps are required to house migrant workers, they should be			
	office and other		placed well away from settlements or sensitive receptors, water bodies			
	temporary facilities		and boundaries and buffer zones of protected/forested areas and			
	1 0		preferably located on land which is not productive (barren/waste lands			
			presently). If these are not possible, private lands maybe taken on lease			
			as standard practice. The location, layout and basic facility provision of			
			the labor camp must be submitted to Engineer prior to their			
			construction.			
		*	The construction of the labor camp will commence only upon the			
ľ		-	written approval of the Engineer and then from the relevant local			
			authority.			
		*	Separate labor camps need to be provided for female migrant laborers.			
		*	The instructions for the laborers should be provided in all three			
		•	languages.			
		*	Adequate measures should be provided for proper drainage facilities to			
		•	the labour camps and to prevent breeding of mosquitoes, flies and other			
			vector borne diseases.			
		**	The contractor shall maintain necessary living accommodation and			
		•	ancillary facilities in a functional and hygienic manner and as approved			
			by the Engineer.			
		*	Provision of proper sanitary facilities to the labour camps and offices			
		•	including water, urinals, toilets, bathing facilities, mosquito nets with			
			adequate capacity of septic tanks and soak pits.			
			All temporary accommodation must be constructed and maintained in			
		·•·	such a fashion that uncontaminated water is available for drinking,			
			cooking and washing.			
		*	The sewage system for the camp must be planned and implemented			

		*	with concurrence from the Local Public Health Inspector (PHI) Provision shall be made for domestic solid waste disposal in acceptable			

			manner. The solid waste shall be handed over to the waste collecting system of the Local Authority (I, A) of the area (if any) and waste system.			
			system of the Local Authority (LA) of the area (if any) and wastewater			
			should be disposed in an environmentally acceptable manner (meeting			
			the desired water quality standards) with the approval of the Engineer.			
			Adequate health care is to be provided for the work force.			
		**	Personal Protective Equipment (PPEs) such as helmet, boots, and			
			earplugs for workers, first aid and firefighting equipment shall be			
		I	available at construction sites before start of construction. An			

emergency plan shall be prepared to fight with any emergency like fire. All construction camps shall have provision of rationing facilities	
All constanting common shall been superiored of activity facilities [
Contraction of the second seco	
particularly for kerosene/LPG so that dependence on firewood for	
cooking is avoided to the extent possible	
✤ Labor camp sites after use should be cleared and the site should be	
reinstated to previous condition at the close of the construction work.	
	/RDA/Consultant
quarry material is sourced from sources which are operated with a valid Cost Engineer,	CEA,GSMB
license.	
 The contractor is required to maintain the necessary licenses and 	
environmental clearances from GSMB and CEA for all borrow and	
quarry material they are sourcing -including soil, fine aggregate and	
coarse aggregate.	
Sourcing of any material from protected areas and/or designated	
natural areas, including tank beds, are strictly prohibited.	
 If the contractor uses a non-commercial borrow/quarry sites, the sites 	
should be remediated accordingly once material sourcing has been	
completed.	
 The contractor should submit in writing all the relevant numbers and 	
relevant details of all pre-requisite licenses etc. and report of their	
status accordingly to the Engineer.	
	/RDA/Consultant
Constructionpurpose throughout the construction period from a source agreed uponCostEngineer	
activities with the engineer.	
✤ Water may not be obtained for project purposes, including for labor	
camps, from public or community water supply schemes without a	
prior approval from the relevant authority. Extraction of water from	
ground water or surface water bodies without the permission from	
Engineer and the relevant authority (Water Resources Board,	
NW&DB, Department of Irrigation, CBO) is not allowed.	
 Permission for the extraction of water should be obtained prior to the 	
commencement of the project, from the relevant authority.	
	/RDA/Consultant
construction materialsand equipment at a site which should be approved by the engineer.CostEngineer	
Storage yards cannot be located in community areas, such as	
playgrounds, close to water ways, cause access issues to locals or	
forested areas that require clearing.	
 Parking, repairing vehicles, machinery and equipment shall be done 	
stationed only at the work site and/or in any other designated areas by	
the engineer.	
The contractor should provide instruction and advice should be given	
to drivers and operators (both companies owned and hired) to park	
vehicles and store equipment at the work site or designated areas by the	
engineer.	

7	Information	A Discussions should be conducted with the residents and other Discussions Contractory DMU/DDA/Convertent
7.	Information Disclosure among Stakeholders	 Discussions should be conducted with the residents and other stakeholders who reside along the corridor of the road; Residents have to be briefed of the project, purpose and design and outcomes and project's grievance redress mechanism via a documented community consultation session These sessions need to be conducted in both Sinhalese and Tamil languages, given the ethnic composition of the project area. This should be done immediately once the contractor is mobilized. The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the ESMP to mittigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the ESMP should be available at all times at the project
8.	Selection of temporary use lands	 supervision office on site. Efforts shall be taken to minimize use of temporary land for the construction activities Selection of temporary lands with considering of social and environmental background adhering to laws and regulations in the country Approval for the temporary use lands shall be obtained from Engineer and need to sign agreement with the land owners The land should be handed over to the owner with a written concurrence once the use is over.
9.	Shifting of public utilities	 Based on the preliminary studies utilities observed along the road are not necessary to be removed. However, it is worthwhile to include a provision to relocate the utilities in case it is necessary in the design stage to perfect the work. In such case, Proper utility survey shall be carried out in order to identify the effected utilities and the exact locations Consent and action shall be obtained from relevant service providers (CEB, NW&&DB and SLT) to minimize time and the duration of utility disruption Approval shall be obtained from DOI for any proposed construction works on irrigation canals Advance notice to the public in all local languages about time and the duration of utility disruption Use of well trained and experienced machinery operators for the shifting/reestablishment of utilities to minimize accidental damage and functional purposes

		*	Special attention shall be taken to provide relevant services to the public without long delay Water and other utilities shall be provided to the public if long delay to re-establish services with the instruction of PIU			
10.	Hydrology and drainage	* * * *	Design of new culverts and other drainage structures in consultation and recommendations of the Irrigation and Provincial Irrigation Department and Department of Agrarian Development Temporary diversion of water ways during construction should be ensured that no obstruction to natural water flow Construction work affecting water bodies should be prevented and work should be scheduled during the dry season Excavation of beds of any streams, irrigation systems, and other water resources shall be avoided by the contractor Contractor shall not divert, close, block existing canals and streams in a manner that adversely affect downstream intakes	Engineering cost	Contractor/PMU/PIU	PMU/PIU/RDA/Consultant Engineer, DoI
11.	Land donation	* ** * *	Land donation will be involved only for the land required for the design requirements, to improve safety including realignment of bends, to avoid bottle necks or construction of cross drainages, lead-away in the locations where required. All effort will be made to minimize the land donation for the project If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Grama Niladari and/or Divisional Secretariat. Agreement between the donor and the recipient shall be executed as per the format prepared for land donation. Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.		PMU/PIU	PMU/PIU/RDA/Consultant Engineer
12.	Land Acquisition (if required)	*	Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.	Land Acquisition cost	PIU/PMU of RDA	

13.	Identifying locations to provide temporary access	 Contractor shall identify locations where permanent access is blocked for construction. The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction. In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools. If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures. 	Engineering Cost	Engineer, PIU/PMU of RDA Contractor	PMU/PIU/RDA/Consultant Engineer
14.	Clearing of road shoulders and Removal and Disposal of construction debris and excavated materials	 During site clearance activities, removal of vegetation and debris must be carried out swiftly and in well-planned manner. In places where the road RoW is not clearly demarcated, extra care need to be taken, not to damage crops and trees in private lands. During the site clearance and disposal of debris, contractor will take full care to ensure that public or private properties are not damaged / affected and that the traffic is not interrupted The contractor shall identify the sites for disposal of material cleared. Plants, shrubs and other vegetation cleared should not be burned on site. Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the LA have been obtained. Taking into account the following The dumping does not impact natural drainage courses No endangered / rare flora is impacted by such dumping Should be located in nonresidential areas located in the downwind side Located at least 100m from the boundaries and buffer zones of protected/forested areas and water bodies Avoid disposal on productive/agricultural land. should be located with the consensus of the local community , in consultation with the Engineer and shall be approved by the LA, Pradeshiya Sabha, Minimize the construction debris/excavated materials as much as possible by balancing the cut and fill requirements. The contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites. Debris, residual spoil and dismantled and demolished structures should not be sited to the productive/agricultural lands, environmentally sensitive locations such as forest lands, water bodies. 	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
15.	Protection of topsoil	 Topsoil of the agricultural areas and any other productive areas where it has to be removed for the purpose of this project shall be stripped to 	Engineering	Contractor	PMU/PIU/RDA/Consultant

		 a specified depth of 150mm and stored in stockpiles of height no exceeding 2m, as directed by the Engineer. If the contractor is in any doubt on whether to conserve the topsoil of not for any given area, he shall obtain the direction from the Engineer 	r		Engineer
		 in writing Removed topsoil could be used as a productive soil when replantin 			
		trees and during turfing.			
		has been removed due to project activities. Residual topsoil must b distributed on adjoining/proximate barren areas as identified by th	e		
		Engineer in a layer of thickness of 75mm – 150mm. ★ Topsoil thus stockpiled for reuse shall not be surcharged of			
		overburdened.	L		
		As far as possible multiple handling of topsoil stockpiles should b kept to a minimum.			
16.	Protection of Ground Cover and Vegetation	 Construction vehicle, machinery and equipment shall be used an stationed only in the areas of work and in any other area designated 		Contractor	PMU/PIU/RDA/Consultant Engineer
	Cover and vegetation	approved by the Engineer.			Lingineer
		 Entry and exit of construction vehicles and machinery should be articled to particular paints on directed by the ancience. 	2		
		 restricted to particular points as directed by the engineer Contractor should provide necessary instructions to drivers, operator 	5		
		and other construction workers not to destroy ground vegetation cover			
17		unnecessarily.			
17.	Transport and Storage of	 All material should be transported in fully covered trucks. Overloadin of vehicles with materials should be controlled and done in a manner t 		Contractor	PMU/PIU/RDA/Consultant Engineer
	construction materials	suit the trucks capacity.			8
		 Construction material such as cement, sand and metal should be store in alread structure on in a contained memory All construction 			
		in closed structures or in a contained manner. All constructio materials such as sand, metal, lime, bricks etc. should be transporte			
		under cover to the site and stored under cover at the sight. Plasti	2		
		sheeting (of about 6 mm minimum thickness) can be used and held i			
		place with weights, such as old tires or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems.	I		
		✤ Loading, unloading and transport of materials shall not be inconvenier	t		
		to the road side community or road users			
		 Selection of sites for stock piling with the approval of Engineer awa from environment and public sensitive locations. 	7		
		Storage of fuel, lubricant and chemicals use for the constructio			
		activities on paved surface without contamination to the environmer and storm water runoff	t		
		Approval shall be taken prior to use of local roads from relevar	t		
		authorities and need to maintenance during the use by the Contractor			
10 T	Emission of Dust	✤ In order to minimize the levels of airborne dust all constructio	n Engineering	Contractor	PMU/PIU/RDA/Consultant
18.	Emission of Dust	material/debris should be stored as per the instructions provided abov	0 0	Contractor	Engineer

19.	Management of Self Operated Borrow Sites	 No.17. Mud patches caused by material transporting vehicles in the access road should be immediately cleaned Continual water sprinkling should be carried out in the work and fill areas, material extraction sites, processing plants and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy (at least four time's day) as the levels of dust can be elevated during dry periods. Dust masks should be provided to the laborers for the use at required times. Erection of dust barriers to the public, religious and other socially important locations Metal quarries, crushers and all the plants should be located at least 500m form the public sensitive and residential areas Establishment of tire washing facility for the plants, yards or any other sites which causing to bring mud particles with the vehicles. In the event the contractor will use a self-operated borrow site o Contractor shall comply with the environmental requirements/guidelines issued by the CEA, GSMB and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites. Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the Engineer No borrow-sites be used (current approved) or newly established within areas protected under FFPO and FO and within productive land/agricultural land and environment and public sensitive locations Borrow areas shall not be opened without having a valid mining license (Industrial Mining License (IML)) from the GSMB. The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the Engineer. All borrow pits/areas should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by	ontractor PMU/PIU/RDA, /Consultant Engineer CEA, GSMB
		slopes including those related to temporary works and borrow pits.	
20.	Quarry Operations		ontractor PMU/PIU/RDA, /Consultant
	and Management of	available in the project area Cost	Engineer CEA,GSMB
	Self Operated Quarry	✤ They should be approved by CEA with valid EPL (Environment)	

	Sites		Protection Licenses) and GSMB with valid IML;			
		*	"FF			
			authorities such as Pradeshiya Sabha.			
		*	Selected quarry sites should have proper safety measures such as			
			warnings, safety nets etc., and third-party insurance cover to protect			
			external parties that may be affected due to blasting.			
		*	Quarry sites should not be established within protected sites identified			
			under the FFPO and FO and not within productive land/agricultural			
			land and environment and public sensitive locations.			
		*	-			
			disputes with community.			
		*				
		•	damage by the Contractors operations shall be a responsibility of the			
			Contractor.			
		*				
		*				
- 21	Cantual	e .*.	for review and documentation by the engineer	En ain sonir -	Contractor	DMU/DUU/DDA/Consultant
21.	Control o		······································	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Sedimentation and		drainage paths are not blocked.	Cost		Engineer
	Soil Erosion	*				
			/ erected to drain rainwater properly.			
		*				
			where necessary along the road corridor.			
		*				
			and irrigation canals and they should be separated from such water			
			bodies			
		*				
			as soon as possible. Until removal, these soil dumps should be covered			
			with thick polythene sheets.			
		*				
			water bodies.			
		*	Top soil shall be prevented to use for tree planting and turfing			
			activities.			
		*				
			• Embankment slopes, slopes of cuts, etc. shall not be unduly exposed			
			to erosive forces.			
			• These exposed slopes shall be graded and covered by grass or other			
			suitable materials per the specifications.			
			• During the rainy season open cuts/slopes should be covered with			
			fixed polythene sheeting to avoid excessive erosion.			
		*				
			reach the specified degree of compaction and establishment of proper			
			mulch.			
		*	Work that lead to heavy erosion shall be avoided during the raining			
			season. If such activities need to be continued during rainy season prior			
			approval must be obtained from the Engineer by submitting a proposal			
	1		"FF	1		1

		r –				
			on actions that will be undertaken by the contractor to prevent erosion.			
		*	Construction activities: excavation and earth work around vulnerable			
			area for soil erosion mainly restricted to the dry periods and removal of			
			green cover vegetation shall be minimized.			
		*	The work, permanent or temporary shall consist of measures as per			
			design or as directed by the engineer to control soil erosion,			
			sedimentation and water pollution to the satisfaction of the engineer.			
			• Typical measures include the use of berms, dikes sediment			
			basins, fiber mats, mulches, grasses, slope drains and other			
			devices.			
			• All sedimentation and pollution control work and maintenance			
			thereof are deemed, as incidental to the earthwork or other items			
			of work and no separate payment will be made for their			
			implementation.			
		*	Refer Annex III.	.	G	
22.	Noise from vehicles,	*	Noise generating work should be limited to daytime (6:00AM to	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	machinery and		6:00PM). No work that generates excessive noise should be carried out	Cost		Engineer CEA
	equipment		during night hours where in close proximity to public sensitive			
			receptors (temples, hospitals) and residential areas (from 6:00PM to			
			6:00AM on the following day).			
		*	Any vulnerable parties for high noise impact residing along the road			
			should be identified in advance and measures as agreed with the			
			Engineer should be implanted to minimize the impact.			
		*	All equipment and machinery should be operated at noise levels that do			
			not exceed the permissible level of 75 dB (during construction) for the			
			daytime. For all construction activities undertaken during the			
			nighttime, it is necessary to maintain the noise level at below 50 dB as			
			per the Central Environmental Authority (CEA) noise control			
			regulations. Special approval should be obtained from CEA for night			
			time work through PIU.			
		*	All equipment should be in good serviced condition. Regular			
			maintenance of all construction vehicles and machinery to meet noise			
			control regulations stipulated by the CEA in 1996 (Gazette Extra			
			Ordinary, No 924/12) must be conducted for vehicles/machinery that			
			will be used in construction on site, for transport and for plants			
			(crushers, asphalt, concrete and batching plants).			
		*	Ideally noise generating work should not be carried out during public			
			holidays and religious days. Special care should be taken as there is a			
			temple nearby.			
		*	Labor gangs should be warned to work with minimum noise. Strict			
			labor supervision should be undertaken in this respect. Number of			
			nighttime resident laborers should be minimized.			
23.	Vehicular noise	*	Idling of temporary trucks or other equipment should not be permitted	Engineering	Contractor	PMU/PIU/RDA/Consultant
43.	pollution at	•	during periods of loading / unloading or when they are not in active	Cost	Contractor	Engineer
	residential / sensitive		use.	0.000		Lingmoor
	residential / sensitive	L	uov.			

				1		
	receptors	*	The practice must be ensured especially near residential / commercial / sensitive areas.			
		$\dot{\mathbf{v}}$	Stationary construction equipment will be kept at least 500m away			
			from sensitive receptors, where possible. These include places of			
			worship, schools, medical centers and households.			
		*	All possible and practical measures to control noise emissions during			
			drilling shall be employed.			
		*	Contractor shall submit the list of high noise/vibration generating			
			machinery & equipment to the engineer for approval.			
		$\dot{\mathbf{v}}$	Servicing of all construction vehicles and machinery must be done			
			regularly and during routine servicing operations, the effectiveness of			
			exhaust silencers will be checked and if found defective will be			
			replaced.			
		*	Maintenance of vehicles, equipment and machinery shall be regular			
			and up to the satisfaction of the Engineer to keep noise levels at the			
			minimum.			
24.	Impacts due to	*	Contractor shall take special care at the starting point of the road to	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Vibration		protect the Buddha shrine located on Right Side as agreed with the	Cost		Engineer, GSMB
	VIDIATION		Engineer and the caretakers of the shrine			
		$\dot{\mathbf{v}}$	Contractor shall take appropriate action to ensure that construction			
			works do not result in damage to adjacent properties due to vibration			
		*	Any vulnerable parties for vibration impact residing along the road			
			should be identified in advance and measures as agreed with the			
			Engineer should be implanted to minimize the impact.			
		*	Prior to commencement of excavation, compaction, blasting activity,			
			the Contractor shall undertake a condition survey of existing structures			
			within the zone of influence, as agreed with the relevant government			
			agencies and the engineer.			
		*	Contractor shall compensate or repair any damage occurred to third			
			party property/ies as a result of his activity as agreed with the affected			
			party and the Engineer			
		$\dot{\mathbf{v}}$	Contractor shall carry out monitoring at the nearest vibration sensitive			
			receptor during blasting or when other equipment causing vibrations			
			are used.			
		*	The contractor shall modify the method of construction until			
			compliance with the criteria, if vibration levels exceed the relevant			
		•	vibration criteria.			
		*	Contractor shall pay due consideration on vibration impacts of blasting			
			on adjoining structures. Explosive loads shall be determined so that			
			excessive vibration can be avoided, and blasts shall be controlled			
			blasting in nature. Notwithstanding to these provisions contractor is			
			liable for any damage caused by blasting work.			
		*	Blasting shall be carried out only with permission of the Engineer and			
			approval from GSMB			

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25.	Pollution of Soil and	*	The contractor shall ensure that all construction vehicle parking	Engineering	Contractor	PMU/PIU/RDA, /Consultant
	Water via Fuel and		locations, fuel/lubricants storage sites, vehicle, machinery and	Cost		Engineer CEA
	Lubricants		equipment maintenance and refueling sites shall be located away from			
		.•.	rivers, at least 200m away, water ways and water bodies.			
		***	Contractor shall ensure that all vehicle/machinery and equipment			
			operation, maintenance and refueling will be carried out in such a			
			fashion that spillage of fuels and lubricants does not contaminate the			
			ground.			
		*	All vehicle and plant maintenance and servicing stations shall be			
			located and operated as per the conditions and /or guidelines stipulated			
			under the EPL issued by CEA. Wastewater shall not be disposed			
			without meeting the disposal standards specified under the NEA.			
			Wastewater from vehicle and plant maintenance and servicing stations			
			shall be cleared of oil and grease and other contaminants to meet the			
			relevant standards before discharging to the environment.			
		*	Contractor shall arrange for collection, storing and disposal of oily			
			wastes to the pre-identified disposal sites (list to be submitted to			
			Engineer) and approved by the Engineer. All spills and collected			
			petroleum products will be disposed of in accordance with standards			
		•	set under the NEA.			
		*	Engineer will certify that all arrangements comply with the standards			
		•	specified under NEA and guidelines of CEA or any other relevant laws.		0	
26.	Public Safety	*	At all times, the Contractor shall provide safe and convenient passage	Engineering Cost	Contractor	PMU/PIU/RDA/Consultant
		*	for vehicles, pedestrians and livestock. Work that affects the use of existing accesses shall not be undertaken	Cost		Engineer
		***	without providing adequate provisions to the prior satisfaction of the			
			Engineer.			
		*	The construction corridor should be barricaded at all time in a day with			
			adequate marking, safety tape, flags, reflectors etc. for safety of			
			individuals using the site daily basis. (Items such as parking cones,			
			lights, tubular markers, orange and white strips and barricades of a			
			luminous nature for night visibility shall be procured where deemed			
			necessary)			
		*	Safety signboards should be displayed at all necessary locations.			
		*	The contractor should obtain a Third-party insurance to compensate			
		•	any damages, injuries caused to the public or laborers during the			
			construction period.			
		*	All construction vehicles should be operated by experienced and			
			trained operators under supervision.			
		*	Basic onsite safety training should be conducted for all laborers during			
			the ESMP training prior to the start of the construction activities.			
		*	All digging and installation work should be completed in one go, if this			
			task is not accomplished the area should be isolated using luminous			
			safety tape and barricading structures surrounding the whole area.			
		*	Trenches should be progressively rehabilitated once work is completed.			

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		*	Material loading and unloading should be done in an area, well away			
			from traffic and barricaded			
		*	Construction wastes should be removed within 24 hours from the site			
			to ensure public safety.			
		*	Safety awareness programs should be conducted by the Contractor in			
			annual basis targeting the public residing along the road in order to			
			make the public aware on road safety especially during the operation			
			period of the road.			
27.	Safety of Workers	*	Contractor shall comply with the requirements for safety of the workers	Engineering	Contractor	PMU/PIU/RDA/Consultant
			as per the ILO Convention No. 62 and Safety & Health Regulations of	Cost		Engineer
			the Factory Ordinance of Sri Lanka to the extent that those are			
			applicable to this contract.			
			The contractor shall supply all necessary safety measures at site.			
			Protective footwear and protective goggles should be provided to all			
			workers Employed on mixing of materials like cement, concrete etc.			
		*	Welder's protective eye-shields shall be provided to workers who are engaged in welding works.			
			Earplugs shall be provided to workers exposed to loud noise, and			
		*				
			workers working in crushing, compaction, or concrete mixing			
			operation.			
		**	The contractor shall supply all necessary safety appliances such as			
			safety goggles, helmets, safety belts, ear plugs, mask etc. to workers			
			and staffs.			
		*	In addition, the contractor shall maintain in stock at the site office,			
			gloves, earmuffs, goggles, dust masks, safety harness and any other			
			equipment considered necessary.			
		*	A safety inspection checklist should be prepared taking into			
			consideration what the workers are supposed to be wearing and			
			monitored on a monthly basis and recorded.			
		*	All workers should be made aware about Workers GRM and they			
			should be facilitated to approach relevant GRCs as and when required.			
		*	First aid facilities and nursing staff to be provided at work places			
		*	Provision of adequate transport facilities for moving injured persons to			
			the nearest hospital			
		*	National and World Bank requirements (such as providing necessary			
			personal protective equipment, taking temperature checks, not allowing			
			large gatheringsetc.) for prevention of the spread of COVID-19 virus			
1			will be adhered to.			
28.	Prevention of	*	Prevention of accidents involving human beings, animals or vehicles	Engineering	Contractor	PMU/PIU/RDA/Consultant
20,	accidents	•	falling or accidents due to open trenches/manholes during construction	Cost	Contractor	Engineer
1	acciucints		period. This needs to be ensured with proper barricading, signage	COSt		Engineer
			boards and lighting etc.			
1		*	Adequate signboards shall be placed much ahead of diversion site to			
		**				
1			caution the road users. The road signs should comply with the Road			
			Safety Manual of RDA.		L	

		 A readily available first aid unit including an adequate supply or sterilized dressing materials and appliances should be available at the site office at all times Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured. Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site. Night time illumination should be in place at every location where the road is narrow, diverted and structures are repaired and any other places where the PIU recommends to do so Monitor and record road crashes during construction and maintenance stages and take appropriate remedial actions 			
29.	Operation of labor camps	 Locations selected for labour camps should be approved by enginee and comply with guidelines/ recommendations issued by the CEA/Local Authority (LA). Construction of labourer's camps shall no be located within 200m from waterways, within an area coming unde DoF, and near to any other environment and social sensitive locations The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking cooking and washing. Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities. The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals. The contractor shall provide garbage bins in the camps and ensure tha these are regularly Emptied and disposed of in a hygienic manner 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer, CEA, LA, DoF
30.	Management of the spread of Covid-19 or handling sudden Pandemic outbreaks	 The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guideline: applicable (https://www.hpb.health.gov.lk/en/covid-19) Please refer Annex 28 of ESMF of IRCDP for more details. The contractor will ensure that there is set number of workers as pet the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additiona provisioning will be made for spacing. The contractor will at all times, ensure proper handwashing and sanitation facilities are available on the site. Measures should be in place to undertake daily temperature checks or workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks 	Cost	Contractor	PMU/PIU/RDA,/Consultant Engineer MoH

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			should be maintained by the contractors site staff.			
		*	If a worker is diagnosed with symptoms related to the said pandemic			
			the contractor will immediately inform the PHI and follow instructions			
			laid out by the national health agencies.			
31.	Prevention of Vector	*	Contractor shall take necessary actions to prevent breeding of	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Borne Diseases		mosquitoes at places of work, labor camps, plus office and store	Cost		Engineer, MoH
	Dorne Discuses		buildings. Stagnation of water in all areas including gutters, used and	0050		Engineer, worr
			empty cans, containers, tires, etc. shall be prevented. Approved			
			chemicals to destroy mosquitoes and larvae should be regularly			
			applied.			
		*	All borrow sites should be rehabilitated at the end of their use by the			
			contractor in accordance with the requirements/guidelines issued by the			
			Central Environmental authority and relevant local authorities			
		*	Contractor shall keep all places of work, labor camps, plus office and			
			store buildings clean devoid of garbage to prevent breeding of rats and			
			other vectors such as flies.			
32.	Gender issues	*	Equal opportunity shall be ensured while requirement of project staff	Engineering	Contractor	PMU/PIU/RDA/Consultant
34.			including contractors working force. The salary/ wages and other	Cost	Contractor	
	0			COSI		Engineer
	base violence		payments due on service provided to the project should not be			
			classified on the Gender basis.			
		*	The sanitary facilities in sites and labour camps should be designed			
			with consideration of suitable location, comfortability for female users			
			and safe access.			
		*	Institutional arrangement should be adopted to monitor and taking			
			action against the Sexual harassment can be happened at the site to the			
			workers and general public. The confidential reporting mechanism for			
			sexual harassment shall be incorporated in to the Grievance readdress			
			Mechanism of the Project.			
33.	Issues due to labor	*	Overcrowded or camp-based living conditions can significantly alter	Engineering	Contractor	PMU/PIU/RDA/Consultant
33.	influx		existing levels of communicable diseases including respiratory	Cost	Contractor	
	mnux			COSI		Engineer, MoH
			problems, diarrheal and vector-borne diseases and tuberculosis, which			
			also increases the risks of disease being introduced and spreading			
			through host communities. Priority should be given for workers who			
			are inhabited in area to reduce the influx of exotic population.			
		*	Adequate and comfortable accommodation and hygienic service			
			facility should be provided to Minimize the health risk of spreading			
			disease			
		*	Awareness program on HIV and other venereal diseases should be			
			conducted for all the workers engaged in construction activities			
		*	Avoid or reduce labour influx where possible. Explore possibility of			
		•	introducing a requirement to hire local labour (at least a percentage) by			
			the contractor. This should be done through the Community Based			
			Organizations (CBOs) in the area that will be affected by the project			
			interventions.			

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		*	Contractors to implement robust measures to prevent sexual			
			harassment, gender-based violence (GBV)			
		*	Training of workforce – on unacceptable conduct			
		*	Informing workers about national laws			
		*	Worker Code of Conduct as part of the employment contract			
		*	Introduce sanctions for non-compliance (e.g., termination)			
		*	Cooperation with law enforcement agencies			
		*	Contractor shall maintain a logbook to record workers' grievances and			
			complaint/ suggestion boxes can be placed at the supervision			
			consultant's office.			
		*	A focal point will be designated to receive the complaints. The contact			
			details of the focal point will be displayed in notice board of respective			
			office.			
		*	The workers will be made aware of GRM procedure through toolbox			
		Ē	meetings.			
34.	Traffic Management	*	Contractor shall develop a traffic management plan with relevant	Engineering	Contractor	PMU/PIU/RDA/Consultant
54.	France Franagement	•	authorities to minimize inconvenience to road users as well as prevent	Cost	Contractor	Engineer, Traffic Police
			road accidents and implement it.	0050		Eligineer, frame i onee
		*	Road signs and trained flagmen should be used to divert traffic as per			
			the required traffic management measures.			
		*	Clear instructions should be given if detours are used.			
		*	Also, any pits should be enclosed to prevent pedestrians or vehicles			
		*				
			falling into them			
		**	Improvement of the road surface and width will result in an increase of			
			both the number of vehicles and the vehicle operating speeds.			
		*	Therefore, after the construction is completed the contractor should			
			erect relevant road signs and road markings to guide the drivers to			
			ensure the safety of the vehicles and pedestrians			
35.	Loss of Access due to	*	Temporary access will be provided when permanent access is blocked	Engineering	Contractor	PMU/PIU/RDA/Consultant
	construction		for construction.	Cost		Engineer
		*	When construction work is in progress in one side, the other side will			
			be opened for traffic & properly			
		*	At the end of each day, debris that blocked access path will be cleared			
L		ļ	away under the supervision of the Engineer.			
36.	Protection of Physical	*	If any physical cultural resources are identified along the project trace	Engineering	Contractor	PMU/PIU/RDA/Consultant
	Cultural Resources		the contractor will ensure that protective fencing as agreed with the	Cost		Engineer
	(PCRs) close to the		community and or head of the physical cultural resource (ie temple,			
	Site.		mosque, place of worship, grave site, monument, statue, tree or any site			
			designated of importance by the community) is established to avoid			
			any impacts during the civil works.			
		*	If the site is within 5 meters of the proposed road trace the contractor			
			shall conduct and document a crack survey of the site prior to			
			construction to ensure that no damage is caused due to vibrations			
			associated with the civil works and will take all requisite measures to			
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37.	Loss, Damage and disruption to Flora	 ensure so. The contractor shall not, park vehicles or store construction material is close proximity to the PCR or site labor camps in immediate vicinity of the PCR. Labors will be briefed to ensure that no acts of vandalism will be tolerated and will be penalized. Workers should not be allowed to trespass in to such areas. Unless agreed with the community the contractor shall not block acces to any known places of worship or PCRs along the project trace. All works shall be carried out in a manner that the destruction to the flora and their habitats is minimized. 		Contractor	PMU/PIU/RDA/Consultant Engineer
		 Trees and vegetation shall be felled / removed only if that impinge directly on the permanent works or necessary temporary works. In al such cases contractor shall take prior approval from the Engineer. Contractor shall make every effort to avoid removal and/or destruction of trees of religious, cultural and aesthetic significance. If such action is unavoidable the Engineer shall be informed in advance and carry out public consultation and report on the same should be submitted to the Engineer. Contractor shall adhere to the guidelines and recommendations mad by the CEA/DS, if any with regard to felling of trees and removal o vegetation. Removed trees of significant value must be handed over to the Timbee Corporation. Documentation on the process should be shared with the engineer and maintained by the contractor. The contractor shall plant at least 3 good specimens of native tree over 5-year-old root-balled or having at least 3ft height suitable for th location as identified by the Engineer. The planting should take place in public land suitable for the purpose The contractor shall build hardy structures around the trees for protection. 			
38.	Loss, Damage and disruption to Fauna	 All works shall be carried out in such a manner that the destruction or disruption to the fauna and their habitats is minimal. Construction workers shall be instructed to protect fauna including wild animals and aquatic life as well as their habitats. Hunting poaching and unauthorized fishing by project workers is not allowed. No solid or liquid waste should be dumped into natural habitats. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer
39.	Prevention of the Spread of Invasive Plant Species	 There is a possibility of introducing / spreading of invasive specie during material transportation and disposing cleared vegetation from one site to another, thus the following measures are to be undertaken. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done. 	Cost	Contractor	PMU/PIU/RDA/Consultant Engineer

 to and from the construction site. Borrow material to be brought from property identified borrow pits and quary sites, the sites should be inspected in order to ensure that no invasive species are being carried with the borrow material. Washing the vehicles should be inspected periodically to prevent carrying any invasive species or value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. All fossils, coins, articles vehicles or yalue of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Constructor will take reasonable precautions to prevent his workmen or any other persons from temoving and damaging any such atriele or thing. He will, immediately upon discovery not the Site Mark and inform the project Do follow the Chance Find Procedures set forth. Surface Drainage and Possible Water Site and the provide storm water drainage networks. Carry our voral storm water drainage networks. Sugnation Site Mortarot will take and inform the project Do follow the Chance Find Procedures set forth. Handling Social and Fortrator shill ampoint a person exponsible for community laisen and to bundle public complaints regarding environmental isocial relations to be made, to avoid the overflowing of existing drains due to cutting, exeavation and other activities and relations is to be passed to the Complaints Register. The Environmental Social Sufgrando fifter will prompty investigate and releves public complaints regarding environmental social dargened for discover (SSO). All public complaints will be enterel into the complaints. Prevention of Secual ex	40. Chance find procedures for PCR and guarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Engineering 40. Chance find procedures for PCR and the procedures at the site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. Engineering Control on the construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. Engineering Control on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be to stopped. Engineering Control Contal appoint a person respon			-		r	1	
40. Chance find procedures for PCRs and Archeological periodically to ensure that no invasive species are establishing themselves at the stat. Engineering Contractor PMU/PIU/RDA/Consultant Engineer 40. Chance find procedures for PCRs and Archeological periodically to ensure that no invasive species are establishing themselves at the stat. Engineering Contractor PMU/PIU/RDA/Consultant Engineer 40. Chance find procedures for PCRs and Archeological periodically to ensure that no invasive species are establishing themselves at the stat. Engineering Contractor PMU/PIU/RDA/Consultant Engineer 410. Surface Drainage and Possible Water • The Contractor will take reasonable proceations to prevent his workmen or any other persons from temoving and damaging any such article or thing. He will, immediately upon discovery not the instructions of dealing with the same, waiting which all work shall be tempered. Engineering Contractor PMU/PIU/RDA/Consultant 41. Surface Drainage and Possible Water • Provide to stor water drainage networks. Engineering Contractor PMU/PIU/RDA/Consultant 42. Handling Social and Environmental book calls period proprint of the Graphina person is to be made, to avoid the overflowing of existing drains due to cutting, exavation and other activities during construction using temporary ditches, sandbag barries etc. Engineering Contractor PMU/PIU/RDA/Consultant Engineer Cost	and quary sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. Washing the vehicles should be conducted periodically to prevent carrying any invasive species 40. Chance find procedures for PCRs and Archeological find and Archeological property • All fossils, coins, articles of value of antiquity, structures and other invasive species are establishing themselves at the site. Engineering Control to the construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. Engineering Control to the construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. Cost 40. Chance find proceedures for PCRs and Archeological periodical or archaeological interest discovered on the site shall be the property of the Government and shall be deatt with as per provisions of the relevant legislation. The Contractor will take reasonable precautions to prevent his workmen or any other persons from memoring and damaging any such article or thing. He will, immediately upon discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped. • The Engineer will seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth. Engineering Control Science Stagnation 41. Surface Drainage and Possible Water * Provide storm water draina system in the premises which will discharge wate to existing drains due to cutting, excavation and other activities Engineering Cost 42.			•	Vehicles should be covered during transportation of cleared vegetation to and from the construction site.			
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			6	**				
project.	project.		100001					
	Institutional arrangement should be adopted to monitor and taking			*				

	POST CONSTRUCTIO	 action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project. Contractor shall not employ workers below the age of 14 years If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education 			
44.	Clearing/Closure of Construction Site/Labor Camps	 Contractor to prepare site restoration plans for approval by the engineer. The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the Engineer. All solid waste will be disposed in preapproved sites or via the local authority once the construction is complete. No waste material or structured will be left behind on site once the contractor demobilizes. 	Cost	Contractor	RDA, /Consultant Engineer PRDA
45.	Environmental Enhancement/ Landscaping	 Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. The Contactor also shall remove all debris, piles of unwanted earth spoil material, away from the workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waster management criteria of this ESMP. 	Cost	Contractor	RDA/Consultant Engineer, PRDA
46.	Road furnishing on safety.	The Contractor will ensure that all safety signage and indicative road markings are installed on site as per the guidance of the design prior to demobilization.	0 0	Contractor	RDA, /Consultant Engineer PRDA
47.	Hydrology and drainage	 Routine maintenance, repairing, removal of sediments and rubbish to avoid drainage congestions and obstructions to storm water flow 	Engineering Cost	Contractor, PRDA	PRDA, RDA/Consultant Engineer
48.	Replanting of trees	 Growth and survival of trees planted shall be ensured and monitoring done at least for a period of three years 	Engineering Cost	Contractor	PRDA, RDA/Consultant Engineer

Stakeholder consultation notes

Please refer Annex IV for national level stakeholder consultation conducted for IRCDP.

Date	Person consulted	Gender	Views raised
11.03.2021	Road User	Male	 It is important to develop this road as the surface is damaged and the road provides a link to Pelmadulla – Embilipitiya – Nonagama (A018) Road. School children and other road users will be benefited by this project. Agriculture is the main livelihood in the project area. Banana and pepper are the main agricultural crops.
11.03.2021	Farmer	Male	 Agriculture is main economic activity in the area. Traders come to the project area to buy agricultural produce. In addition, people come to these villages to buy bricks. There are farmer organizations operating in the area.
11.03.2021	Resident	Male	 This road is very important road, because this road provides accesses to Pelmadulla – Embilipitiya – Nonagama (A018) Road. Due to the existing dilapidated road condition road users face transport difficulties. There are several bricks manufacturing sites in this area. Some people are employed in public and private sector jobs

2.25. CESGP of SR 26 - Balagara Junction to Kachchigala Ara Lake Road



Ministry of Highways Road Development Authority



World Bank Funded Inclusive Rural Connectivity Development Project (IRCDP)

Codes of Environmental and Social Good Practice (CESGP)

of

SR 26 - Balagara Junction to Kachchigala Ara Lake Road (2.1km)

Draft Final Report June 2021

<u>Background</u> Balagara Junction to Kachchigala Ara Road

Road length: 2.1km

Coordinates: Starting Point 6° 17.211'N 80° 51.760'E End Point 6° 16.287'N80° 51.982'E

Location:

District: Ratnapura

DS Division: Embilipitiya EE Division: Embilipitiya GN Divisions: Thunkama, Higura

1. Introduction

The Balagara Junction to Kachchigala Ara Road provides access to Talawa Dambarella Hingura road and agricultural and residential areas. This road is under the custody of Embilipitiya Pradeshiya Sabha (Local authority). The existing average RoW of the road is around 8m and the average carriageway is 3.5m. The surface of the road is gravel, concrete and damaged macadam. The road traverses along a flat and undulating terrain and elevation of the trace varies between 58–81m MSL. The road section does not fall within or adjacent to any protected area.

2. Road Rehabilitation

This road was selected for improvements under the Inclusive Rural Road Connectivity and Development Project. The road rehabilitation will take place within the existing Right of Way (RoW) for 2.1km. The road will be asphalted, culverts will be reconstructed, and drainage will be improved. The proposed improvements to the road section include carriageway 3.5m, shoulder 0.5m (both sides), and drains 450mm as required. Construction period for this road is estimated as 2 months.

3. Right of Way

There is no demarcation established at site, laying boundary stones for RoW in rural roads. But in Final Village Plans (FVP's), there are strips allotted for the roads and private/government lands exist either side in line with these strips (i.e.RoW). The edge between the strip and the land (RoW) is also shown in each lot plan. Fences and building / parapet walls are normally erected along the RoW line either side. But drains may or may not be erected along the RoW. In some cases, the drains may need to be located leaving some gap to the RoW. In such cases, there's also a tendency to erect the fence/parapet walls along the outer edge of the drains encroaching the gap.

Therefore, theRight of Way (RoW) in this project is defined as the distance between existing drain to drain, fence to fence or building / parapet wall to building / parapet wall for a rural road. In locations where drains, fences or walls do not exist in the road, the RoW is considered as the boundary of the private/government land on either side of the rural road. The existing average RoW of the Balagara Junction to Kachchigala Ara Road is around 8m and the average carriageway is 3.5m.

4. Project Implementing Agency

The Road Development Authority is responsible for design and construction activities. The Embilipitiya Pradeshiya Sabha (Local authority) will provide coordination support by attending to any public requests/views and for drainage improvements. Ex: deciding culvert opening sizes, improving Lead-Aways...etc. Further, a representative from Embilipitiya Pradeshiya Sabha will function as a member of the Grievance Redress Committee.

5. Community Response and Perceived Benefits

The road development is important as the road surface is damaged macodom. It will facilitate more frequent public transport services.

6. Screening Methodology

A provincial field team was mobilised to visit all selected roads on 23rd and 24th of February 2021 and to collect all available information and take photographs of the road (see Annex 1 for photographs). Based on this information, google maps, topographic maps and secondary data from the Department of Census and Statistics were reviewed (see Annex 2 for a google map of the road location). The staff of the Environment and Social Development Division (ESDD) prepared the Draft Environment and Social Screening Checklists and submitted to the World Bank on 2nd March 2021.

Following the comments provided by the World Bank on 9th of March 2021, ESDD staff carried out one day field reconnaisance visit to all 25 selected roads and collected road information and consulted 2-3 people living along the road. Further, Key Informant Interviews were conducted over the phone with Grama Niladaris and Women Development Officers in relevant Divisional Secretariat areas to obtrain other relevant information required for the preparation of social checklists. The technical details were obtained from the Project Management Unit of Road Development Authority which is responsible for this particular project.

Category of the Sub-project

Based on the environmental and social screening checklists attached hereto, This subproject i.e. Balagara Junction to Kacchigala Ara Road will have low-negligible environmental and social impacts including temporary water quality impacts of irrigation canals, dust, noise and vibration that can be managed via mitigatory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors and therefore this sub-project can be classified as **Low Risk**.

Therefore a codes of Environmental and Social Good Practices (CESGP) is prepared for this subproject to be implemented throughout the project in order to mitigate the likely impacts

7. Screening of Social Impacts

7.1 Project Impact Area

Settlements:

There are about 28 households and 06 small shops on both sides of the road. The estimated population is around 130. They are Sinhala Buddhists by ethnicity and religion.

- Land ownership: There are no squatters along the road. All the lands are private and government.
- Livelihoods: Chena cultivation is the dominant agricultural practice in the area and it is the main source of income. Some people are engaged in public and private sector jobs as well.
- Local organisations: There are Farmer organizations in the area
- **Community infrastructure and resources:** There is a Buddha shrine together with a Bo Tree and one school along the road, details of which are provided inTable 1. During construction period, access to these places will be temporarily disrupted. In order to mitigate this impact temporary access will be provided. Permanent access will be restored after construction activities.

Table 1: Community infrastructure and resources

Community infrastructure & resources	Location - GPS Coordinate		Chainage	Road side	Distance from RoW
Kachchigala Primary School	6° 16.210'N	80° 51.380'E	1+930	RHS	4.2m
Buddha Shrine with Bo	6° 16.287'N	80° 51.982'E	2+240	RHS	4.8m.
Tree	0 10.20710	00 51.902 L	21240	KIIS	ч.от.

- **On-going development projects:** None.
- Visitors to the area: Kachchigala Primary School is located in the project area. Teachers come to this school from outside areas.

7.2 Potential Impacts

Screening Questions	Not	Yes	No	Remarks
	known			
Land related Impacts				
Will the project include any new physical construction work?		 ✓ 		Culverts will be reconstructed, and drains will be newly constructed in identified locations where such drains do not exist at present.
Does the project include upgrading or rehabilitation of existing facilities?		V		The road surface will be upgraded with asphalt overlay surfacing, existing culverts and existing drainage will be upgraded with new or reconstruction of such structures.
Is the proposed sub-project likely to lead to loss of housing, other assets, resource use or incomes?			~	Proposed rehabilitation works will be within the existing RoW.
Is the site chosen for this work free from encumbrances and in possession of the Ministry/ or relevant government agency?		✓		This road is currently under the custody of Embilipitiya Pradeshiya Sabha.

Is land acquisition likely to be necessary?		√	Proposed rehabilitation works will be within the existing RoW.
Is the ownership status and current usage of land known?	\checkmark		Land within the RoW is owned to Embilipitiya Pradeshiya Sabha. This land is used for the road.
Will there be loss of crops, trees and other fixed assets through land-use related changes?		✓ 	
Loss of Livelihood			
Are non-title holders/people (squatters or encroachers) present on the site living/ or doing business who are likely to be partially or fully affected because of the civil works? (Is the land free of squatter/informal settlements or other encumbrances?		✓	
Will there be any permanent or temporary loss of incomes and livelihood? If so, for what period?		~	
Any estimate of the likely number of those affected by the project? If Yes, approximately how many?	\checkmark		None of the people will be affected as the development work will be carried out within the existing RoW.
Any of these people poor, indigenous or vulnerable to poverty risks? If yes, how?		~	
Access to Services			
Will people lose access to facilities, services or natural resources during the construction period?		~	
Would elements of project construction pose potential safety risks to local communities, commuters or pedestrians in the project area?	~		During the construction phase, there can be safety issues to local communities, commuters or pedestrians. However, this can be mitigated by applying adequate safety measures at the site level.
Will any social or economic activities be affected through land-use related changes?		~	
Is the project area located near schools, clinics, hospitals, places of worship?	\checkmark		There is one Buddha shrine with Bo Tree and one school along the road (see Table 1).
Are there any GBV prevention and response actors (NGOs, government notified shelter homes, police stations, etc.) in project area of influence?	\checkmark		Project area comes under the Embilipitiya Police station which is 2.2km away from the project area.
Is the project site in a populated area and/or with high vehicular traffic volume?		~	
Is there sufficient street-lighting, use of video or CCTV for monitoring public		~	

spaces in the project location?			
Labour Influx			
How many workers will be needed for the sub-project, with what skill set, and for what period?	~		Both skilled and unskilled workers will be used by the contractors. Approximately 15 laborers will be recruited for the project.
Will the project hire workers from the local workforce?	\checkmark		Priority will be given to secure labor from the local community.
Will there be workers brought in from outside the project area?	\checkmark		There is possibility of bringing outside labor if local labor is not sufficient/available.
Will the project require accommodation or service amenities to support the workforce during construction?	\checkmark		Accommodation facilities to be provided if labor is brought from outside.
Will the incoming workers be from a similar socio-economic, cultural, religious or demographic background?	\checkmark		
Given the characteristics of the local community, are there any adverse impacts that may be anticipated?		√	

Estimates of Specific Impacts

		Details Required
1.	Private land required (sq. m)	N/A
2.	Total of households affected	N/A
3.	No. of individuals losing more than 10% of land area	N/A
4.	Government land required	N/A
5.	No. of houses affected	N/A
6.	No. of shops affected	N/A
7.	No. of utilities affected	No
8.	No. of workers to be brought from outside the project area	The total number of labor required
		for the project is approximately 15.
		Priority will be given to hire the
		local labor.

Screening checklist to determine the level of Environmental Impacts

Project: Inclusive Rural Road Connectivity and Development Project
Sub-project: Road from Balagara Junction to Kachchigala Ara Lake (SR26)
Road length: 2.1km
Location:
Province: Sabaragamuwa Province
District: Rathnapura District
DS Division: Embilipitiya Divisional Secretary Division

SCREENING QUESTIONS	YES	NO	REMARKS
A. Project Location			
Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
- Cultural heritage site		✓	
- Protected Area		✓	
- Wetland		✓	
- Mangrove		 ✓ 	
- Estuarine		✓	
- Buffer zone of protected area		 ✓ 	
- Special area for protecting biodiversity		 ✓ 	
B. Potential Environmental Impacts			
Will the Project cause			
- Encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		√	
- Encroachment on precious ecology (e.g. sensitive or protected areas)?		~	
- Alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?	~		No permanent alteration of streams. However waterway at 1.8km where culvert will be reconstructed will be temporary altered. Continuous water flow to downstream will be facilitated during

		construction phase and waterway will be restored to original condition.
- Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	•	The road ends just passed the causeway of Kachchigala Ara. An irrigation canal flows parallel to the road from 0.3km to 1.6km. Site specific mitigation measures such as silt traps shall be applied in order minimize water quality impacts resulted due to civil works. Location of labor camps only at approved sites and continues labor supervision shall minimize these impacts.
- Increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	✓	Local air pollution will be slightly increased at crushing plants, batching plant, asphalt plant and construction sites during the construction period. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts.
- Noise and vibration due to blasting and other civil works?	~	Blasting is not necessary. Sensitive Receptors is given in the screening checklist to determine the level of social impacts in the table on question 06. Noise and vibration will be

			increased construction site during the construction period. Noise and vibration levels generated due to civil works will be managed within the particular standards.
- Dislocation or involuntary resettlement of people		\checkmark	
- Other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?			The villagers who live in the boundary of the road will be affected with upper respiratory problems and stress causing generationof dust, noise and vibration due to civil works. Regular sprinkling of water to suppress dust and avoiding using of vehicles and machineries which emit gasses exceeding particular standards, using approved crusher and asphalt plants will mitigate these impacts. Noise and vibration levels generated due to civils works will be managed within the particular standards.
- Hazardous driving conditions where construction interferes with pre-existing roads?			Some sections of the road surface are intermittently damaged and gravel surfaces are eroded. Road signal boards shall be applied in necessary locations to minimize road accidents. Speed limits shall be applied and monitored for all construction vehicles.
- Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	✓		Location of labor camps only at approved sites and continues labor supervision shall minimize

			these impacts
- Creation of temporary breeding habitats form mosquito vectors of disease?	~		Stagnation of water in empty cans, containers, tyres etc. shall be prevented and continues site supervision shall minimize these impacts.
- Accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials and loss of life?	•		Implementation of a proper traffic management plan during the construction period will minimize the road accidents during construction period. Providing safety measures, such as warning signs, barricades, night time visibility lamps will mitigate these impacts.
- Increased noise and air pollution resulting from traffic volume?		~	
- Increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?		~	

Attachments:

Appendix 1: Photographs of the road

Appendix 2: Location map of the road

Appendix 1- Photograghs of Road from Balagara Junction to Kachchigala Ara Lake



Figure 1: Starting point of the Road



Figure 2: Along the road



Figure3: Kachchigala Vidyalaya located at 1.930 on LHS of the road



Figure 4: Along the road



Figure 5: An irrigation canal crossing at 2.070 km

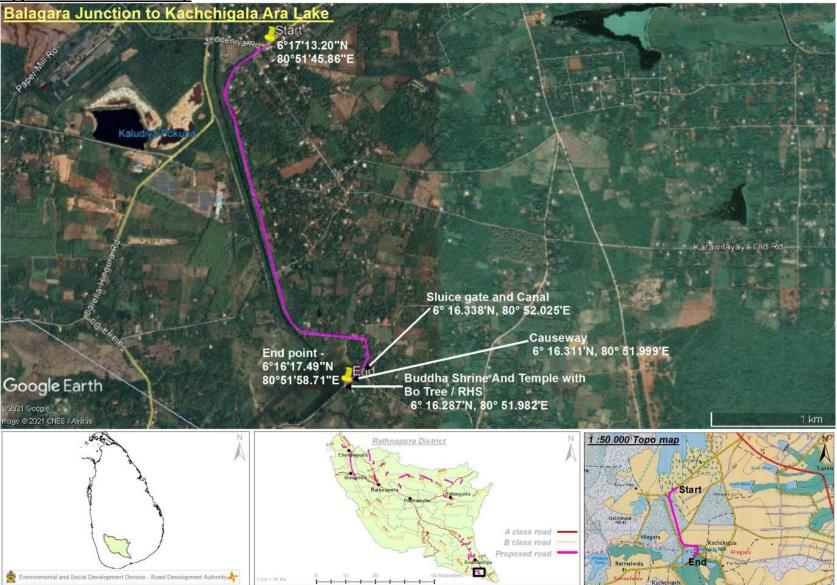


Figure 6:Temple located at 2.240 km on LHS of the road



Figure 7: End point of the road

Appendix 2 – Location Map



Design Recommendations Based on Environmental and Social Screening for incorporation in final design

Name of Subproject: Balagara Juction to Kacchigala Ara Road				
Risk Category assigned by E and S Screening	Low Risk			
Design Recommendations and guidance				
Design Justification	Guidance to be Used			
Irrigation Department should be consulted in advance for				
road design in relation to irrigation structures and their				
recommendations if any should be incorporated to the				
design.				
Safety measures such as speed barriers, pedestrian crossings				
and other safety sign boards to be introduced to the design				
at the Kachchigala Primary School at 1.93km.				
Details of Internal Submission of Design Recommendations				
Submitted by	Director - ESDD, RDA			
Date of submission	11 June 2021			
Name of RDA design team member submission was made	Project Director - IRCDP,			
to	RDA			
Mode of transmission (Email, hand delivery)	Email			

Codes of Environmental and Social Good Practice (CESGP)

1. Preamble

The following Codes of Environmental and Social Good Practice (CESGP) prepared for Balagara Junction to Kachchigala Ara Road of Ratnapura District should be considered as part and parcel of the Contractual Documents and shall be considered alongside the Technical Specifications, Drawings and Bill of Quantities. Thereby the prescriptions detailed in the CESGP are mandatory in nature and also contractually binding. The CESGP will also be equally applicable to Sub-Contractors including nominated Sub-Contractors if any. The Contractor shall be responsible for the compliance with the requirements of the CESGP. With the assistance of the Contactors on behalf of the Employer the Project Implementation Consultant (PIC) also referred to as Engineer shall monitor the compliance of the CESGP by the Contractor.

The **Contractor carrying out the works** through a designated focal person as an **Environmental and Social Safeguards Officer** (ESSO) shall assist the **Engineer** to conduct his duties as required in the CESGP implementation by (a) maintaining up to date records on actions taken by the Contractor with regard to the implementation of CESGP recommendations (b) through timely submission of reports, information and data to the employer through the Engineer, (c) via participating in the meetings conveyed by the Engineer or any relevant line agency and (d) any other assistance requested by the Engineer. A basic Terms of Reference for the ESSO to be appointed is included in **Annex I** of this document.

2. Suggested Criteria for Costing for Implementation of Measures in CESGP

The Contractor shall include in the Bill of Quantities (BOQ) prepared all costs to be incurred for the implementation of measures outlined in the CESGP as specific line items.

The bidders are advised to carefully consider the CESGP requirements to be done during the construction stage when preparing the bid and pricing the items of work. The cost of CESGP requirements to be done during the construction stage shall be included in the Contract Price. Thus, separate payments shall not be made in respect of compliance with the CESGP. In case the Contractor or his sub-Contractor/s fails to implement the CESGP recommendations, after informing in writing to the Contractor, the Engineer shall take due actions as it is deemed necessary to ensure that the CESGP is properly implemented.

3. Environmental and Social Codes of Practice to be Complied with During the Implementation of the Contract

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- I. Have full regard for the safety of all persons employed by the Contractor and the Sub-Contractor(s) and keep the Site (so far as the same is under his control) in an orderly state appropriate to the avoidance of danger to such persons.
- II. Take all reasonable steps to protect the work force, communities, and environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
- III. Implement at minimum the following measures for E and S management during all phases of the Contract.
- IV. Be responsible for ensuring full compliance to the processes outlined below.

- V. Prepare detailed Environmental and Social Method Statement (ESMS) clearly stating the approach, actions and manner in which the CESGP is to be implemented.
 - It is required from the Contractor to prepare the ESMS for each work site, if work shall be carried out at more than one site at once and time plan for implementation.
 - The ESMS shall be updated every 3 months and submit for the Engineers review and confirmation that any amendments to the construction methodology used on sites have been reviewed and incorporate specific measures as per this code.

3.1. Pre-Construction Impact Mitigation Prior to and During Mobilization

3.1.1. Utility Relocation- Based on the preliminary studies, utilities observed along the road are not necessary to be removed. However it is worthwhile to include a provision to relocate the utilities in case it is found necessary in the design stage and construction stage to perfect the work. In such case;

- The Contractor shall confirm the identification of the common utilities to be affected such as: telephone cables, electric cables, telephone and electric poles, water pipelines, public water taps, Community Based Water Pipe Lines etc as recommended by the Engineer.
- Affected utilities shall be relocated as instructed by the Engineer with the prior approval of the relevant utility providers at least 3 months from the start of contract starts and the Contractor should maintain written documentation of all concurrence. Original documents of such clearance should be made available to the Engineer.
- The Engineer shall ensure community consensus and minimum impact to common utilities like telephones, electricity supplies and water supplies and instruct the contractor accordingly of the required steps of management.

3.1.2. Removal of Trees Prior to Construction²⁸.As per the preliminary studies removal of roadside trees is not found to be necessary. However, it is worthwhile to include a provision to fell trees in case it is found necessary during construction stage to enhance the safety of the road users in compatible with the design yet to be completed. In such case;

- The Employer, Engineer and the Contractor shall confirm the number of trees that shall be affected with girth size & species type and inform the community prior to removal of any large trees.²⁹
- Here it shall ensure that every effort shall be taken to protect the existing trees and to provide adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required.
- If any trees that are of importance to the community, such a Bo Trees, trees specially protected by the community or on private property, the Contractor shall work with the project Engineer to understand the due process to be followed and agreement made with the community. No such

²⁸ The RDA will be responsible for ensuring adequate protection to the trees to be retained with tree guards (e.g. Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars) as required. ²⁹ The RDA and Level Act and Level A

 $^{^{29}}$ The RDA and Local Authority (LA) are required ensure that it is done in a proper manner by identifying all the trees affected due to road improvements, implement changes in design and alignment and the trees to be removed (species, girth and the height) and trees to be protected prior to issuing the Bidding Document to the Bidders. Contractor shall have no authority to remove a tree without written clearance from the Engineer to the Contract. The community shall be made aware of this prior to inviting bids. All logs of commercial value shall be sold to the timber corporation and documentation maintained. If any compensatory plantation is required, that too either may be included in the contract or hand it over to Forest Department, LA and Community. The RDA will be responsible for making the arrangement and then instruct the contractor of any responsibilities there on forth.

trees shall be removed without prior written consent from the Engineer and endorsed by the community.

- Trees shall be removed from the construction sites before commencement of construction with prior permission from the Engineer.
- All trees of commercial value shall be handed over to the Timber Corporation on removal and documented.
- Compensatory plantation by way of Re-plantation of at least thrice the number of trees cut should be carried out in the project area. (Please Refer Tree Protection/ Tree Re-Planting Procedures outlined in 3.2.22.

3.1.3. Construction of labor camps where applicable

- The Contractor shall obtain prior written approval from the Engineer for the location, layout and facilities provided for labor camp prior to erection.
- The Contractor shall maintain necessary living accommodation and ancillary facilities in functional and hygienic manner and as approved by the Engineer.
- Separate accommodation should be provided with all required facilities for female laborers
- All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. The sewage system for the camp must be planned and implemented with approval from the Local Public Health Inspector (PHI) and such approvals should be made available for inspection by the Engineer'
- Adequate health care shall be provided for the work force including basic screening in line with national public health requirements and observation based assessment of the quality of living conditions and these documents shall be made available for the inspection by the Engineer.
- Upon completion of Works the labor camp site shall be cleared and site should be reinstated to previous condition.
- If facilities are rented from local communities of facilities provided by the contractor as labor accommodation, the Contractor shall ensure that no nuisances or disturbances are caused to the local communities due to labor misconduct.
- Local labor should be secured as much as possible so that providing accommodation facilities for laborers will be reduced

3.1.4. Planning of temporary Traffic arrangements

- Traffic control plan shall be provided by the Contractor to the Engineer for approval. Engineer shall submit the approved plan to the Employer one week prior to the closure of the road, if required.
- The traffic control plans shall contain details of temporary diversion, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, signage, safety measures for transport of hazardous materials and arrangement of flagmen.

3.1.5. Material Sourcing

- The Contractor shall ensure that sand, aggregates and other quarry materials are sourced only from licensed sources and the Contractor shall provide details of the quarries including the location, owner, the quantity, copy of the license before the first progress meeting. Updates shall be provided at all the subsequent progress meetings.
- The Contractor shall source all borrow materials only from licensed sources.
- Where the Contractor shall use self-owned borrow/quarry sites the Contractor shall be a licensed holder and the original documents shall be made available for the inspection of the Engineer. The Contractor shall further follow the guidance provided in section 3.2.25.

Sourcing of any material from any protected areas and/or designated natural areas are strictly prohibited.

3.1.6. The Use of Alternate Construction Material

- The Contractor in discussion with the Engineer if willing shall identify and propose in the bid sources and suitability of alternate materials should be identified. In case of availability of alternate materials, the Engineer via the agreed design shall specify the following: (i) Characteristics and availability of the material (ii) Possibility of use in the project (iii) Methods of testing, specifications, recommended usage and (iv) Mechanism for procuring and transporting to the site. The feasibility of its use shall be based on the lead from the project corridor, suitability of the material and the extent of use as endorsed by the Engineer and RDA
- A separate BOQ should be included for alternate materials in case they are available in the proximity of the project area and the Engineer and RDA to include their use for a particular subproject.
- Testing shall be done as per IS specifications, in order to evaluate suitability of the alternate materials. In case test results do not match the specifications; option of blending the material with standard materials to meet the required specifications should be explored. The PIU must ensure that the use of alternate material is as per specifications. The Contractor shall approach the supplier identified based on lead and material suitability and shall sign an agreement specifying the quantity of the material to be procured.

3.1.7. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health Inspectorss and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The contractor will ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning will be made for spacing.
- The contractor will at all times, ensure proper hand washing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized. Daily records of these checks should be maintained by the contractors site staff.
- ✤ If a worker is diagnosed with symptoms related to the said pandemic the contractor will immediately inform the PHI and follow instructions laid out by the national health agencies.

3.1.8. Information Disclosure among Stakeholders

- Contractor shall consult the Irrigation Department in advance and necessary modifications shall be made to ensure the design will meet their requirements.
- The Contractor shall take measures to make the residents who are affected physically or by noise aware of the possible impact caused by the Works carried out by providing them with information on the construction activities; muster their views for possible impact mitigation as this shall also ensure a good rapport and less complaints. This should be carried-out immediately after the mobilization at Site and in reasonable intervals if needed.
- ✤ A copy of the CESGP should be made available at both Contractor's and the Engineer's site office for reference.

✤ The Contractor with the guidance from the Engineer shall make all labor including that of sub-Contractors where applicable aware of all the agreed provisions outlined in this CESGP.

3.1.9. Land donation

- Land donation will be involved only for the land required for the design requirements including realignment of bends or construction of cross drainages, lead aways in the locations where required.
- ✤ If land need from the public, negotiation with property owners will be carried out with involvement of a third party, the respective Divisional Secretariat.
- ✤ All efforts must be made to minimize the land donation for the project
- Agreement between the donor and the recipient shall be executed as per the format prepared for land donation.
- Survey fees, notary charges for modifying the deed shall be borne by the project to free any legal encumbrances caused as a result of taking the lands for road works.

3.1.10. Land Acquisition (If required)

Land acquisition is not envisaged in IRCDP. However, Resettlement Policy Framework (RPF) is prepared for the project to guide land acquisition if there's any need arises. The Land acquisition process will be initiated as per the Land Acquisition Act and its regulations. The payment of compensation will be done according to Entitlement matrix of RPF.

3.1.11. Identifying locations to provide temporary access

- Contractor shall identify locations where permanent access is blocked for construction.
- The consultation with property owners is necessary if the access of residents and business places expected to be damaged during construction.
- In cases of access of common properties including small shrines, temples and schools, the temporary access needs to be discussed with care takers or heads of schools.
- If the structures of common properties are located close to roads, safety measures need to be identified to protect the structures.

3.2. Site Management and Mitigation of Impacts during Construction Phase

3.2.1. Transportation and Storage of construction materials

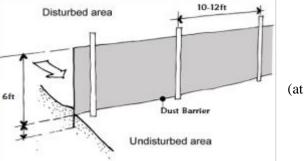
- Sites for storage of construction materials should be identified, without affecting the traffic and other common utilities that shall lead to access issues as the compound is operational.
- All material should be transported in fully covered trucks in accordance with the applicable laws and the regulations of the country. Overloading of vehicles with materials should be controlled and done in a manner to suit the trucks capacity.
- Construction material such as cement, sand and metal should be stored in closed structures or in a contained manner.

3.2.2. Management of Dust and Fugitive Emissions

All construction materials such as sand, metal, lime, bricks etc. should be transported under cover to the site and stored under cover at the sight. Plastic sheeting (of about 6 mm minimum thickness) can be used and held in place with weights, such as old tires (with measures to avoid water collection in them) or cinder blocks, with the edges of the sheeting buried, or by the use of other anchoring systems. This shall minimize the levels of airborne dust.



- ◆ Mud patches caused by material transporting vehicles in the access road should be immediately cleaned 10-12ft
- Continual water sprinkling should be carried out in the work and fill areas and the access road if dust stir is observed. Water sprinkling should be done more frequently on days that are dry and windy 61 least four time's day) as the levels of dust can be elevated during dry periods. Especial attention should be paid to the Kachchigala School at 1.93km.



◆ Dust barriers should be used during all construction activities, especially in areas along roads with heavy traffic, commercial and residential areas.



- ◆ The minimum height of barriers should be 6ft . Material such as Amano roofing sheets, fine mesh geo textiles are recommended materials to be used for setting up dust barriers
- Dust masks should be provided to the laborers for the use at required times.
- ◆ Tire washing facility/ies should be established for all vehicles leaving from material storage sites, yards, plants etc... to minimise mud transferred to the public roads.

3.2.3. Management of Noise related Nuisances

- ◆ Construction activities along the road and use of access roads should be minimized during 7:00AM to 8:30AM; 1:00PM to 2:00PM and 4:30PM to 6:00PM if there are schools and government/private office premises are located. This shall not only to reduce noise levels but also help mitigate congestion issues in the area due to the construction activities. E.g. – Around Kachchigala Primary School at 1.93km

- All Equipment should be in good serviced condition. Regular maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12) must be conducted for vehicles/machinery that shall be used in construction on site and for transport.
- Noise generating work shall not be carried out during public holidays without prior clearance from the Engineer. If at all, special attention should be made if a religious places, schools during operating hours, public courts or any other affected nearby community.
- Labor gangs should be warned to work with minimum noise. Strict labor supervision should be undertaken in this respect. Number of night time resident laborers should be minimized.
- Temporary sound barriers also should be erected around buildings or premises as appropriate to shield residents if there are complaints from them.

3.2.4. Vehicular noise pollution at residential / sensitive receptors (E.g. – Kachchigala Primary School at 1.93km)

- Idling of temporary trucks or other equipment should not be permitted during periods of loading / unloading or when they are not in active use. The practice must be ensured especially near residential / commercial / sensitive areas.
- Immobile construction equipment shall be kept at least 500m away from sensitive receptors, where possible. These include, the pre-school, places of worship and households.
- All possible and practical measures to control noise emissions during drilling shall be employed.

3.2.5. Noise from vehicles, machinery and equipment

- The Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Engineer for approval.
- Servicing of all construction vehicles and machinery must be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Maintenance of vehicles, equipment and machinery shall be regular and up to the satisfaction of the Engineer to keep noise levels at the minimum.

3.2.6. Management of Impacts due to Vibration

- The Contractor shall take appropriate action to ensure that construction works do not result in damage to adjacent properties due to vibration or any other means.
- Prior to commencement of excavation, blasting activity, the Contractor shall undertake a condition survey of existing structures within the zone of influence, as agreed with the relevant government agencies and the engineer.
- Contractor shall carry out monitoring at the nearest vibration sensitive receptor during blasting or when other equipment causing vibrations are used.
- The Contractor shall modify the method of construction until compliance with the criteria, if vibration levels exceed the relevant vibration criteria.
- Contractor shall pay due consideration on vibration impacts of blasting on adjoining structures. Explosive loads shall be determined so that excessive vibration can be avoided, and blasts shall be controlled blasting in nature. Notwithstanding to these provisions Contractor is liable for any damage caused by blasting work.
- Contractor shall compensate or repair any damage occurred to third party property/ies as a result of his activity as agreed with the affected party and the Engineer.

3.2.7. Removal and Disposal of construction debris and excavated materials

- During site clearance activities, demolition and debris removal must be carried out swiftly and in well-planned manner. Possibly debris removal can be carried out during non-peak hours to avoid traffic at the site.
- The Contractor shall identify the sites for debris disposal and should be finalized prior to start of the earthworks; Spoil and other disposal materials should only be dumped at sites for which prior approval from relevant authorities such as the Local Authority (LA) have been obtained. Taking into account the following
 - The dumping does not impact natural drainage courses
 - No endangered / rare flora is impacted by such dumping
 - Should be located in nonresidential areas located in the downwind side
 - Located at least 100m from the designated forest land.
 - Avoid disposal on productive land.
 - Minimize the construction debris by balancing the cut and fill requirements to the possible extent.
- The Contractor should avoid any spillage of spoil when transporting such materials to the approved material dumping sites agreed with the Engineer.

3.2.8 Protection of topsoil

The Contractor should attempt to reuse the cut material from earthworks for project activities where possible

3.2.9. Control of Sedimentation and Soil Erosion

- Debris material shall be disposed in such a manner that existing drainage paths are not blocked.
- ✤ Silt traps shall be constructed to avoid siltation into the water ways where necessary along the road corridor. Appropriate silt control measure as given in Annex 3 should be applied at the edge of the road along the irrigation canal from 0.3 1.6 on right hand side to minimize contamination of the irrigation canal with soil washed off from the road.
- To avoid siltation, drainage paths should not be directed to waterways and they should be separated from such water bodies
- Embankment slopes, slopes of cuts, etc. shall not be unduly exposed to erosive forces.
- These exposed slopes shall be graded and covered by grass or other suitable materials per the specifications.
- During the rainy season open cuts/slopes should be covered with fixed polythene sheeting to avoid excessive erosion.
- All fills, back fills and slopes should be compacted immediately to reach the specified degree of compaction and establishment of proper mulch.
- Work that lead to heavy erosion shall be avoided during the raining season. If such activities need to be continued during rainy season prior approval must be obtained from the Engineer by submitting a proposal on actions that will be undertaken by the Contractor to prevent erosion.



- The work, permanent or temporary shall consist of measures as per design or as directed by the engineer to control soil erosion, sedimentation and water pollution to the satisfaction of the engineer.
- Typical measures include the use of berms, dikes sediment basins, fiber mats, mulches, grasses, slope drains and other devices.
- All sedimentation and pollution control work and maintenance thereof are deemed, as incidental to the earthwork or other items of work and no separate payment shall be made for their implementation.
- Further Guidance on cost effective measures to follow are presented in Annex III.

3.2.10. Pollution from Fuel and Lubricants

- The Contractor shall ensure that all construction vehicle parking location, fuel/lubricants storage sites, vehicle, machinery and equipment maintenance and refueling sites shall be located away from rivers and irrigation canal/ponds.
- Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refueling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground.
- Contractor shall arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites (list to be submitted to Engineer) as approved by the Engineer. All spills and collected petroleum products shall be disposed off in accordance with standards set under the National Environmental Act or by the Central Environmental Authority of Sri Lanka/Ministry of Environment(CEA/MoE),
- Engineer shall certify that all arrangements comply with the guidelines of (CEA/MoE) or any other relevant laws.

3.2.11. Public and Worker Safety

- The Site should be barricaded at all time in a day with adequate marking, safety tape, flags, reflectors etc. for safety of individuals using the compound on a daily basis. (Items such as parking cones, lights, tubular markers, orange and white strips and barricades of a luminous nature for night visibility)
- The Site should be clearly demarcated by the above means and restriction of access to public to the site will help the safety of public.
- Safety signboards should be displayed at all necessary locations.
- The Contractor should obtain a Third party insurance to compensate any damages, injuries caused to the public or laborers during the construction period.
- All vehicles used in the construction process should be operated by experienced and trained operators under supervision.
- Basic onsite safety training should be conducted for all laborers during the EMP training prior to the start of the construction activities.
- All digging and installation work should be completed in one go, if this task is not accomplished the area



CAUTION CONSTRUCTION AREA

should be isolated using luminous safety tape and barricading structures surrounding the whole area.

- Trenches should be progressively rehabilitated once work is completed. Material loading and unloading should be done in an area, well away from traffic and barricaded.
- Construction wastes should be removed within 24 hours from the site to ensure public safety.
- Special attention should be paid at the Kachchigala Primary School where all construction activities should be done under continuous supervision during the schooling hours and a safe, clearly barricaded access should be facilitated to children to the school.Safety Gear for Labors
- Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc.
- Welder's protective eye-shields shall be provided to workers who are engaged in welding works.
- Earplugs shall be provided to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.
- The Contractor shall supply all necessary safety appliances such as safety goggles, helmets, safety belts, ear plugs, mask etc. to workers and staffs.
- In addition, the Contractor shall maintained in stock at the site office, gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary.
- A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored on a monthly basis and recorded.



- Notices to the public and workers should be displayed in all three languages
- Contractor should organize awareness programs for local public on Road Safety and two of such programs should be conducted during the construction phase.
- All laborers should be made aware about the Labor GRM and they should have a convenient access to GRCs.

3.2.12. Prevention of accidents

- Prevention of accidents involving human beings, animals or vehicles falling or accidents due to open trenches/manholes during construction period. This needs to be ensured with proper barricading, signage boards and lighting etc.
- A readily available first aid unit including an adequate supply of sterilized dressing materials and appliances should be available at the site office at all times
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital should also be insured.
- Names and contact information for emergency services such as Ambulance services, hospitals, police and the fire brigade should be prepared as a sign board and displayed at the work site.



3.2.13. Presence of Outside Labor in a Residential Area

Strict labor supervision should be undertaken. There should be labor awareness programs to educate the laborers about their general behavior while at work as well as their own safety.

3.2.14. Operation of labor camps

- The Contractor shall construct and maintain all labor accommodation in such a fashion that uncontaminated water is available for drinking, cooking and washing.
- Supply of sufficient quantity of potable water (as per IS) in every workplace/labor camp site at suitable and easily accessible places and regular maintenance of such facilities.
- The sewage system for the camp are designed, built and operated in such a fashion that no health hazards occurs and no pollution to the air, ground water or adjacent water courses take place. Ensure adequate water supply is to be provided in all toilets and urinals.
- The Contractor shall provide garbage bins in the camps and ensure that these are regularly emptied and disposed of in a hygienic manner

3.2.15. Management of the spread of Covid-19 or handling sudden Pandemic outbreaks

- The Contractor shall firstly follow all measures outlined for pandemic management by the Government of Sri Lanka, Ministry of Health and Local Public Health officers and adhere to all relevant guidelines applicable (<u>https://www.hpb.health.gov.lk/en/covid-19</u>). Please refer Annex 28 of ESMF of IRCDP for more details.
- The Contractor shall ensure that there is set number of workers as per the guidance as well as in labor camps to prevent overcrowding and to allow social distancing. Where necessary in labor camps additional provisioning shall be made for spacing.
- The Contractor shall at all times, ensure proper handwashing and sanitation facilities are available on the site.
- Measures should be in place to undertake daily temperature checks of workforce and enable social distancing at the work site and interactions with communities should be minimized.
- If a worker is diagnosed with symptoms related to the said pandemic the Contractor shall immediately inform the PHI and follow instructions laid out by the national health agencies.

3.2.16. Prevention of Vector based Diseases

- Contractor shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, plus office and store buildings. Stagnation of water in all areas including gutters, used and empty cans, containers, tires, etc. shall be prevented. Approved chemicals to destroy mosquitoes and larvae should be regularly applied.
- All borrow sites should be rehabilitated at the end of their use by the contractor in accordance with the requirements/guidelines issued by the Central Environmental Authority and relevant local authorities
- The Contractor shall keep all places of work, labor camps, plus office and store buildings clean devoid of garbage to prevent breeding of rats and other vectors such as flies.

3.2.17. Handling Gender issues including Gender base violence.

Equal opportunity shall be ensured while requirement of project staff including contractors working force. The salary/ wages and other payments due on service provided to the project should not be classified on the Gender basis.

- The sanitary facilities in sites and labor camps should be designed with consideration of suitable location, comfort ability for female users and safe access.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual harassment can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual harassment shall be incorporated in to the Grievance readdress Mechanism of the Project.

3.2.18. Issues due to labor influx

- Overcrowded or camp-based living conditions can significantly alter existing levels of communicable diseases including respiratory problems, diarrheal and vector-borne diseases and tuberculosis, which also increases the risks of disease being introduced and spreading through host communities. Priority should be given for workers who are inhabited in area to reduce the influx of exotic population.
- Adequate and comfortable accommodation and hygienic service facility should be provided to Minimize the health risk of spreading disease
- Awareness program on HIV and other venereal diseases should be conducted for all the workers engaged in construction activities
- Avoid or reduce labour influx where possible. Explore possibility of introducing a requirement to hire local labour (at least a percentage) by the contractor. This should be done through the Community Based Organizations (CBOs) in the area that will be affected by the project interventions.
- Contractors to implement robust measures to prevent sexual harassment, gender-based violence (GBV)
 - Training of workforce on unacceptable conduct
 - Informing workers about national laws
 - Worker Code of Conduct as part of the employment contract
 - Introduce sanctions for non-compliance (e.g., termination)
 - Cooperation with law enforcement agencies
 - Contractor shall maintain a logbook to record workers' grievances and complaint/ suggestion boxes can be placed at the supervision consultant's office.
 - A focal point will be designated to receive the complaints. The contact details of the focal point will be displayed in notice board of respective office.
 - The workers will be made aware of GRM procedure through toolbox meetings.

3.2.19. Surface Drainage and Possible Water Stagnation

- Provide storm water drain system in the premises which shall discharge water to the improved roadside storm water drain.
- Carry out overall storm water management in the premises during construction using temporary ditches, sand bag barriers etc.
- Temporary flooding due to excavation.
- Proper drainage arrangements to be made, to avoid the overflowing of existing drains due to excavation during the laying of pipes, cutting activities.

3.2.20. Protection of Physical Cultural Resources (PCRs) close to the Site.

The Contractor shall ensure that protective fencing as agreed with the community and or head of the physical cultural resource (i.e.Buddha Statue and Bo tree at 6° 16.287'N, 80° 51.982'E) is established to avoid any impacts during the civil works.

- Contractor shall conduct and document a crack survey of the site prior to construction to ensure that no damage is caused due to vibrations associated with the civil works and shall take all requisite measures to ensure so.
- The Contractor shall not, park vehicles or store construction material in close proximity to the PCR or site labor camps in immediate vicinity of the PCR.
- Labors shall be briefed to ensure that no acts of vandalism shall be tolerated and shall be penalized. Workers should not be allowed to trespass in to such areas.
- Unless agreed with the community the Contractor shall not block access to any known places of worship or PCRs along the project trace.

3.2.21. Tree Protection during Construction Phase

- Giving due protection to the trees that fall in the shoulders /corridor of impact shall be the prime focus during Construction/post construction
- Masonry tree guards, Low level RCC tree guards, Circular Iron Tree Guard with Bars, use of plate compactors near trees may also be considered where necessary

3.2.22. Tree Re-Planting

- Re-plantation of at least thrice (1:3) the number of trees cut should be carried out along the project road.
- Where the design recommends tree planting should be undertaken in other areas as compensation the Contractor shall propose a suitable location in discussion with the local communities and Engineer and undertake the replanting activities here.
- Growth and survival of trees planted shall be ensured and monitoring done at least for a period of 3 years.
- Survival status shall be reported on monthly basis to the Engineer.

3.2.23. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the Contractor prior to demobilization.
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.

3.2.24. Management of Contractor Operated Quarry and Borrow Sites

3.2.24.1. Borrowing of Earth and Management of Self Operated Borrow Sites

- In the event the Contractor shall use a self-operated borrow site
- The Contractor shall comply with the environmental requirements/guidelines issued by the Geological Survey and Mines Bureau (GSMB), CEA and the respective local authorities with respect of locating borrow areas and with regard to all operations related to excavation and transportation of earth from such sites.
- The Contractor can also find suitable soil materials from currently operated licensed borrow pits in the surrounding area, subject to approval of the engineer
- No borrow-sites be used (current approved) or newly established within areas protected under Fauna and Flora Protection Ordinance (FFPO) and Forest Ordinance (FO) of Sri Lanka

- Borrow areas shall not be opened without having a valid mining license from the Geological Survey and Mines Bureau (GSMB) The location, depth of excavation and the extent of the pit or open cut area shall be as approved by the engineer.
- All borrow pits/areas should be rehabilitated at the end of their use by the Contractor in accordance with the requirements/guidelines issued by the GSMB, CEA and the respective local authority.
- Establishment of borrow pits/areas and its operational activities shall not cause any adverse impact to the near-by properties. Also, shall not be a danger of health hazard to the people.
- Contractor shall take all steps necessary to ensure the stability of slopes including those related to temporary works and borrow pits and closure of the sites as per the Guidance provided in Annex 2 of the CESGP.

3.2.24.2. Quarry Operations and Management of Self Operated Quarry Sites- Applicable if the contractor will use own quarry.

- In the event the Contractor manages a self-owned existing quarry sites available in the project area
- They should be operated with a valid IML EPL and trade license
- Selected quarry sites should have proper safety measures such as warnings, safety nets etc., and third-party insurance cover to protect external parties that may be affected due to blasting.
- Quarry sites should not be established within protected sites identified under the FFPO and FO
- It is recommended not to seek material from quarries that have ongoing disputes with community.
- The maintenance and rehabilitation of the access roads in the event of damage by the Contractor s operations shall be a responsibility of the Contractor.
- Copies of all relevant licenses should be maintained by the Contractor for review and documentation by the engineer

3.2.25. Procedures for Dealing with Chance Finds

3.2.25.1. Flora and Chance found Fauna

- The Contractor shall take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.
- If any wild animal is found near the construction site at any point of time, the Contractor shall immediately upon discovery thereof acquaint the Engineer and carry out the Engineer's instructions for dealing with the same.
- The Engineer shall report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and shall take appropriate steps/ measures, if required in consultation with the forest officials.

3.2.25.2. Chance Found Archaeological Property

- All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation.
- The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He shall, immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the instructions for dealing with the same, waiting which all work shall be stopped.
- The Engineer shall seek direction from the Archaeological Department of Sri Lanka and inform the project EO to follow the Chance Find Procedures set forth.

3.2.26. Handling Social and Environmental Issues during Construction

- The Contractor shall appoint a person (Environmental and Social Safeguards Officer (ESSO)) responsible for community liaison and to handle public complaints regarding environmental/ social related matters. All public complaints shall be entered into the Complaints Register.
- The Engineer shall promptly investigate and review environmental complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints.
- A register of complaints shall be maintained. Any complaint received shall be passed to the Engineer within 24 hrs upon receipt of the complaint citing the action taken/to be taken by the Environmental Officer on complaints thereof.
- A final report shall be forwarded to the Engineer within 3 Days

3.2.27. Prevention of Sexual exploitation, child trafficking and child labour

- Contractor shall maintain records of recruitment and employment of contract workers (including subcontractors) with age verification to avoid child labor.
- Trafficking of children (forced/bonded labour) is prohibited under the project.
- Institutional arrangement should be adopted to monitor and taking action against the Sexual exploitation can be happened at the site to the workers and general public. The confidential reporting mechanism for sexual exploitation shall be incorporated in to the Grievance readdress Mechanism of the Project.
- Contractor shall not employ workers below the age of 14 years
- If there are workers below the age of 18 years and 15 years, they should only be engaged in nonhazardous work that would not interfere child's education

3.3. Completion of Works and Demobilization Stage

3.3.1. Clearing/Closure of Construction Site/Labor Camps

- Contractor to prepare site restoration plans for approval by the engineer.
- The plan is to be implemented by the Contractor prior to demobilization. This includes borrow sites and storage yards as well
- On completion of the works, all temporary structures shall be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor 's expenses, to the entire satisfaction of the Engineer.
- All solid waste shall be disposed in preapproved sites or via the local authority once the construction is complete.
- No waste material or structured shall be left behind on site once the Contractor demobilizes.

3.3.2. Environmental Enhancement/ Landscaping of Shoulders

- Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents.
- The contactor also shall remove all debris, piles of unwanted earth, spoil material, away from the road corridor and from other workplaces and disposed at locations designated or acceptable to the Engineer or as per the stipulated waste management criteria of this CESGP.

3.3.3. Road furnishing on safety.

The Contractor shall ensure that all safety signage and indicative markings are installed on site as per the guidance of the design prior to demobilization.

Stakeholder consultation notes

Please refer Annex IV for the stakeholder consultation carried out at the national level for the IRCDP.

Date	Details of Stakeholder		Key concerns raised/Suggestions	
	Type of Stakeholder	Number of Participants (M/F)	Provided	
12.03.2021	GramaNiladari, Thunkama	Male	 Majority of people living along the road are Sinhalese. Buddhism is the religion of this population. One public transport, a bus is operating on this road. Kachchigala Primary School is located in the project area. Teachers come to this school from the outside areas. 	
11.03.2021	Shop Owner	Female	 Agriculture is the main livelihood activity in the area. At the moment, only one bus is operating on the road. After developing this road, public bus services will increase. School going children, farmers, office workers, and business community in the area are the main road users of this road. 	
11.03.2021	Businessman	Male	 The existing road surface is damaged, so this road development is very good. Agriculture is the main economic activity in the area. After the road development land values will increase, travel time will decrease, and vehicle maintenance cost will reduce. 	

Stakeholder consultation conducted along the road

Chapter 3: Design Drawings

Design drawings prepared for each subproject from SR01 to SR26 are attached in Annex V of this document. Design drawings are comprised of;

- Package details
- Proposed road improvement types
- Proposed cross sections according to existing ROW and site condition

Annexes

Annex I: Terms of Reference for Recruitment of Contractor Environmental and Social Safeguards Officer (ESSO)

The Contractor through an appointment of dedicated / qualified Environmental and Social Safeguards officer (ESSO) shall be responsible in implementation of ESMP/CESGP requirements by;

- a) Maintaining up-to-date records on actions taken by the Contractor with regards to implementation of ESMP/CESGP recommendations and public complians.
- b) Timely (weekly) submission of reports, information and data on compliance to the Engineer /Implementation Agency and or where applicable to the Senior Environmental Safeguards Specialist/Senior Safeguards Social Specialist of the Implementing Agency through Engineer/Supervision consultant (SC).
- c) Participating in the meetings conveyed by the Engineer and
- d) Any other assistance requested by the Engineer in terms of handling compliance issues on site with regard to E and S issues identified.

The ESSO shall be the primary focal point of contact for the assistance with all environmental and social issues during the pre-construction and construction phases and shall ensure all site management activities are completed in accordance with the ESMP/CESGP at the point of demobilization. He/ She shall be responsible for ensuring the implementation of the ESMP/CESGP and as the appointed officer should be available on the site fulltime basis during the project period and ensure the Environmental and Social Method Statement.

The ESSO shall promptly investigate and review environmental related complaints and implement the appropriate corrective actions to arrest or mitigate the cause of the complaints or impacts identified as specified in the ESMP/CESGP and where applicable seek guidance from the Engineer. A register of all complaints is to be passed to the Engineer within 24 hrs they are received, with the action taken by the ESSO on complains thereof. In addition, ESSO is required to perform following tasks as well;

- 1. Prepare a monthly ESMP/CESGP implementation checklist report, including photo documentation of implementation and submit it to the Project Engineer.
- 2. Participation for the periodic Grievance Redressing Committee Meetings at Village Level, Implementation Agency Level and PMU/PIU Level as applicable and requested by the Engineer.
- 3. Ensure the implementation of the ESMP/CESGP by all Contractor/Sub Contrator workers on site and report any issues to the Engineer.

Qualifications required

Environmental Social Safeguards Officer preferably possessing a bachelor's degree with minimum of 2 years experiences in the relevant field or minimum of four (4) years of experiences in the similar capacity. Preferably, experience in specific project related works is required.

It is essential to have both Sinhala & English language ability (speaking) and Computer Knowledge of MS Office.

Annex II: Guidelines for the Rehabilitation of Borrow Pits

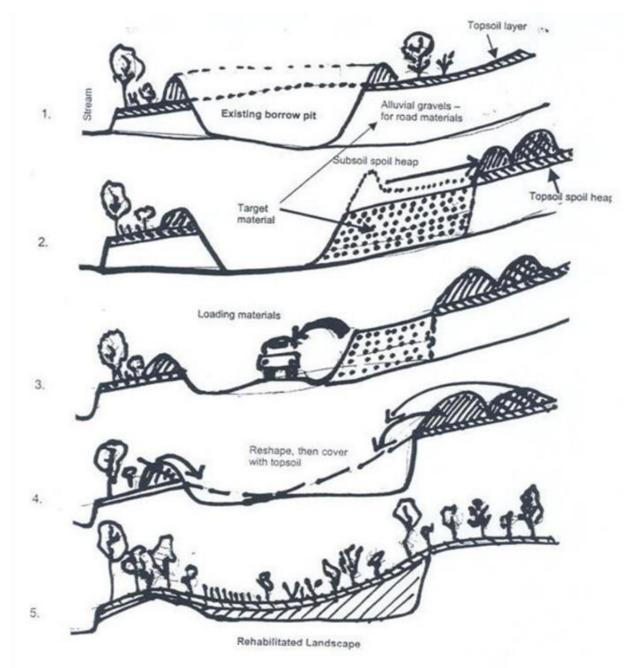


Illustration on the Borrow Pit Rehabilitation

Mitigation Measures to be implemented

The following conditions must follow by the Contractor during the construction period in borrowing earth:

- The sides of the pits should be sloped with a minimum angle of 1:3, to enable the escape of animals that may accidentally fall into the pits.
- The borrow pits should be restored by filling them or when it is not practical to rehabilitate them as small tanks/water holes enabling wild animals to use as a water source
- The earth borrowing activity at the identified site should be carried out only during the given time period of from 6.00 am to 6.00 pm
- Borrowing earth, transportation and unloading should be carried out under the inspection of Assistant Director (Mahaweli/Irrigation) or an officer appointed by him
- A 15-cm topsoil will be stripped off from the borrow pit and this shall be stored in stockpiles in a designated area for height not exceeding 2m and side slopes not steeper than 1:2 (Vertical: Horizontal).
- Suitable drainage ditches or conduits shall be constructed or installed to avoid conditions where small pools of water that are, or are likely to become noxious, or foul, collect or remain on the borrow area. Surface drainage must be designed to minimize erosion during runoff and major rainfall events.
- Borrow Pit shall be backfilled with clean or inert fill. There shall be no material of deleterious nature (i.e. any material that would be classed as hazardous or waste). Please refer to the diagram above for the Illustration on borrow pit rehabilitation.
- Non-usable material including overburden, screenings and rocks, should be placed in the pit bottom and covered with Topsoil stripped from the surface so as to facilitate water seepage, planting grass and tree planting to be carried out using the Native trees.
- Once the site is reclaimed, any fences where they exist shall be removed to permit re-vegetation.
- Access and haul roads to the pit must be restored in a mutually agreeable manner where these are considered unnecessary after extraction has been completed.
- Above conditions should be included in the contract document and must monitor whether they are followed.
- Precautions must be taken to minimize spreading of the listed invasive species.
 - Destroy the listed invasive plants as much as possible prior to borrowing material.
 - Surface soil of the borrow site should be separated and stored to prevent transporting seeds of the invasive plants to the tank. This surface soil can use when restoring the borrow pit.
 - When restoring the invasive plants if any germinated in soil should be removed and burn.
 - Wash down of all vehicles that use to transport borrow materials before leaving the site

Annex III: Detailed Method for Control of Erosion Contract During Construction Phase

i. Prescribed Method of Erosion Control Matting

Description

The design specifications as well as locations should be finalized during the Project Preparation Phase. During the execution period in post-construction stage, PIU must ensure that all the guidelines are to be followed as per specifications during the site preparation and installation of erosion control matting. Following are the steps need to be followed for the placing erosion control matting:

Site Preparation

- The areas should be fertilized and seeded.
- A smooth surface free of depressions that allows water to collect or flow under matting is required.
- The soil should be left with loose surface after seeding.
- The material should be steel wire formed into "U" shape and should be 15 cm to 25 cm long.

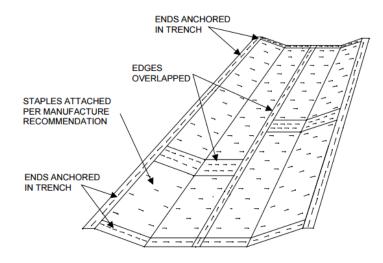
Installation

Filter fabric made of biodegradable material (eg. Choir Matting/ Jute) should be placed horizontally on the slope less than 2:1

Prior to netting, a 10 cm anchor trench should be dug at the top and toe of the slope with the top trench placed

- **3**0 cm back from the crown, or a berm over which the fabric can be carried.
- For horizontal application, work must proceed from the bottom towards the top of the slope with a 10 cm overlap.
- Cutting material should be folded less than 7.5 cm to 10 cm at the end, stapled and covered.
- Staples should be placed at a spacing of 22.5 cm to 30 cm apart in the trenches along the horizontal lap joints.





List of Common Placement/Installation Mistakes to Avoid

- Ensure the ends are properly secured.
- Install a sufficient number of staples to hold the blanket in place.
- Overlap the blanket to ensure water that flows on top of the blanket and is unable to flow under the blanket.

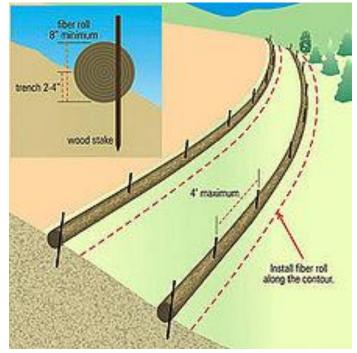
ii. Detailed Specification for Brush Barriers

Description

A brush barrier is a temporary barrier used to control sediment transport by using the residue materials available from clearing and grubbing.

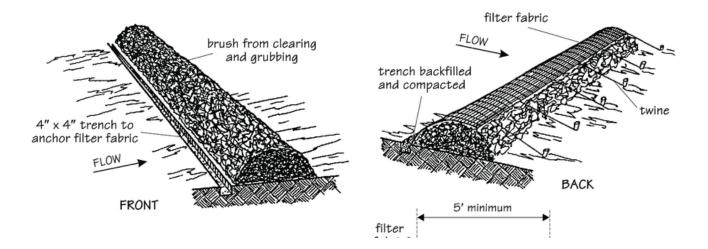
Design and Construction Criteria

- Brush should be cut and windrowed approximately 3 m from the toe of the slope. The brush barrier should be packed densely and should be a minimum of 1.2 m high before compressing.
- This may be accomplished during clearing and grubbing by having equipment push the brush, tree trimmings, shrubs, stones ,root mats, and other materials into a mounded row on the contour. Logs placed within the barrier, parallel to the toe, can help reduce failures.
- A brush barrier may be compressed by running a bulldozer along the top of the windrow. The compressed barrier should be 0.9 m to 1.5 m high and 1.5 m to 3.0 m wide. The top of the barrier should be at least 1.5 m below the finished roadway
- A brush barrier may be left in place after construction unless it is in an aesthetically sensitive area or it is indicated otherwise on plans.



Maintenance

Inspect a brush barrier after each rainfall and make necessary repairs. Sediment deposits should be removed when they reach approximately half the barrier's height.



Annex IV: National level stakeholder consultation

Date	Issues Raised by Participants	By Whom	Responses by the Project Team
27.04.2021	Have received information about the IRCDP. There are roads owned by Provincial Road Development Authority in frontrunner list and these roads needs to be developed. Development of rural roads was ignored in the past. People like to donate lands for the road development as road is important to them. Therefore, its good if the road can be widened. The development of drain system along the roads is also important when developing the roads. If not, the storm water flows on the roads and road get damaged. And, passing bays needs to be incorporated, otherwise, as two vehicles cannot pass from each other. Ratnapura district is a land slide prone area and this needs to be considered. Doing the development without creating environmental issues is important.	Deputy Director, Local Governments, Provincial Council, Sabaragamuwa.	The concerns on landslides, drain system along the road and incorporation of passing bays will be considered by the project.
27.04.2021	It is good to develop these provincial roads. And, its good if the total length of roads can be developed. The bends of these roads needs to be improved and its good, if the road widening is possible. When Road Development Authority develops provincial roads, it is easy for the council and then, council can consider the development of roads under local authorities.	Director, Roads, Provincial Council, Sabaragamuwa.	Improvements of bends will be considered by the project for future improvements.
27.04.2021	Passaramulla – Denagama – Nelliwala (SR1) road is located in this PS. This road is essential to be developed as it connects with Balangoda – Hatton road and Colombo – Badulla road. There are tea and vegetable cultivations and road development will facilitate the transport of these agricultural produce. The Udugama school will be upgraded to a national	Chairman, ImbulpePradeshiya Sabah	People and political authority will be informed about proposed development prior to starting of civil works.

Date	Issues Raised by Participants	By Whom	Responses by the Project Team
27.04.2021	school soon, and this is the only road to reach the school. Further, this is the main road for people living in around 20 GN divisions. There are no environmental issues in this road. It is good if the road can be widened. The people and the political authority in the area should be made aware of the proposed development prior to starting of civil works. It is good to develop rural roads. Within this PS, a PRDA road is selected for the development under frontrunner list. There is an estate population living in this area. These roads are footpaths earlier and now the roads have been widened. The land donation is acceptable, and people will donate lands if required, for the development. There will be no environmental issues. Inform all people living in this PS area, about the development prior to starting of civil works.	Chairman, Imbulpe Pradeshiya Sabah	People will be informed about proposed development prior to starting of civil works.

Annex V: Design Drawings