Environmental Assessment and Review Framework

May 2014

SRI: Integrated Road Investment Program

Prepared by the Road Development Authority, Ministry of Highways, Ports and Shipping, Government of Sri Lanka for the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 12 May 2014)

Currency unit	–	Sri Lanka rupee (SLRe/SLRs)
SLRe 1.00	=	$ 0.007669
$1.00	=	SLR 130.400

ABBREVIATIONS

ADB	Asian Development Bank
BIQ	Basic Information questionnaire
BOQ	Bill of Quantities
CEA	Central Environmental Authority
DBH	Diameter at Breast Height
DWLC	Department of Wildlife Conservation
EA	Executing Agency
EARF	Environmental Assessment Review Framework
EIA	Environmental Impact Assessment
EMP	Environment Management Plan
ESDD	Environmental and Social Development Division
GoSL	Government of Sri Lanka
GN	Grama Niladhari (Village Officer)
GND	Grama Niladhari Division
GPS	Geological Positioning System
IEE	Initial Environmental Examination
iROAD	Inclusive Road Operation and Development Investment Program
MHPS	Ministry of Highways, Ports and Shipping
MFF	Multi Tranche Financing Facility
MoT	Ministry of Transport
ME&RE	Ministry of Environment & Renewable Energy
NEA	National Environmental Act
OPRC	Output and Performance based Road Contracts
PAA	Project Approving Agency
PMU	Project Management Unit
RDA	Road Development Authority
ROW	Right of Way
REA	Rapid Environmental Assessment
SPS	Safeguard Policy Statement

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I. INTRODUCTION

1. In Sri Lanka, about 85% of the population is living in the rural and peri urban areas and out of that 84.7% are identified as poor. Poverty is concentrated in areas where connectivity to towns and markets, access to electricity and average educational attainment are relatively low and agricultural labor is an important source of employment. Remote areas with lack of all-weather access to the socioeconomic centers have rendered a large portion of the rural population with poor agricultural productivity, limited employment opportunities and slow economic growth.

2. In order to address this problem and improve transport connectivity between rural communities and socioeconomic centers, the Road Development Authority (RDA) under Ministry of Highways, Ports and Shipping (MOHPS) has proposed an Integrated Road Investment Program (iRoad). The Government would like to select about 1000 Grama Niladari Divisions[1] (GNDs) throughout the country as rural hubs according to the population, development potential and distance to trunk road network. As a first step for developing the rural hubs the government will enhance the connectivity by (i) improving rural access roads linking the rural hubs to trunk road network to all weather standards, and (ii) operating a sustainable trunk road network of at least fair condition.

3. This program will be financed by the Asian Development Bank (ADB) under a Multi tranche Financing Facility (MFF). The first tranche will focus on improving roads in the Southern Province comprising of three districts, Galle, Matara and Hambantota and a total of 2,123 GNDs. Access roads connecting 150 GND's have been selected for financing under tranche I based on consultations with MOHPS, local authorities and parliamentarians and a screening criteria on existing road conditions and development needs. Of the 150 GNDs, 65 GNDs are in Galle, 45 in Matara and 40 in Hambantota. In all 185 rural roads totaling 585.5 km will be included in tranche I. In addition 14 national roads totaling approximately 114 km will also be included in tranche I. Table 1, shows a summary of the rural and national roads on a district wise basis.

Table 1: Summary of Roads under Tranche I

District	**Rural Roads**		**National Roads (OPRC Package)**			
			Reconstruction		**Routine and periodic maintenance**	
	No. of road sections	**Length (km)**	**Road Name**	**Length (km)**	**Road Name**	**Length (km)**
Galle	66	197.1	B248	11.7	B454	10.2
			B249	11.0	B129	2.8
			B303	4.0	B156	6.6
			B139	4.4		
			B411	9.7		
			Sub Total	**40.8**	**Sub Total**	**19.6**
Matara	67	217.5	B607	9.3	B415	7.8
			Sub Total	**9.3**	**Sub Total**	**7.8**
Hamban tota	52	170.9	Kirama - Warapitiya - Heegoda	14.4	B485	7.3
					B450	7.8
					B623	7.0
			Sub Total	**14.4**	**Sub Total**	**22.1**
Total	**185**	**585.5**		**64.5**		**49.5**
Grand Total (Rural roads + OPRC roads)						**700.0**

[1] A Grama Niladhari Division (GND) is the smallest administrative unit in Sri Lanka

4. For the rural roads there will be three contract packages per district. The contractor will be responsible for construction of the road over 2 years and performance based maintenance for another 3 years. For the national roads there will be two contract packages within the three districts. The national roads will follow Output and Performance based Road Contracts (OPRC) where the contractor will be responsible for ensuring that the road is in good riding condition for a period of 7 years including reconstruction and maintenance. The scope of works for the national roads will include reconstruction of 64.5km.

5. The investment program is planned to have four tranches that will be implemented over a period of ten years. The scope of improvement works for succeeding tranches for both rural and national roads are expected to be similar to that of tranche I. Other provinces that will be covered in the succeeding tranches are expected to be: Sabaragamuwa Province, Kaluthara District of Western Province, Central Province, North Central Province and North Western Province.

6. Roads to be included in succeeding tranches in other provinces are yet to be selected. Therefore, this Environmental Assessment and Review Framework (EARF) has been prepared to guide selection, screening, categorization, impact assessments, project implementation and monitoring of environment safeguards according to requirements of the Government of Sri Lanka (GoSL) as well as the ADB Safeguard Policy Statement (SPS) for succeeding tranches and their project roads under the investment program.

II. LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

A. GoSL Legal Framework on Environmental Safeguards

7. The National Environment Act (NEA) No. 47 is the key environmental policy framework which is administered through the Central Environment Authority (CEA) of the Ministry of Environment and Renewable Energy (ME&RE). NEA No. 47 was enacted in 1980 and NEA amendment Act No. 56 of 1988 stipulated the regulations for assessing and managing environmental impacts and obtaining the environmental clearance in a timely and systematic manner. The environmental clearance process is implemented through the designated Project Approving Agency (PAA) as prescribed by the Minister under section 23 Y of the NEA. The procedure that should be followed for obtaining environmental clearance is described under section 23CC and 32 of the NEA.

8. The environmental clearance process should be initiated by submitting the completed Basic Information Questionnaire (BIQ) to CEA with preliminary information about the project including exact locations of the project components, extent and environmental sensitivity related to project activities. Based on this CEA decides whether the project is a “Prescribed Project”2 or not and who the PAA will be for administering the IEE or EIA process to obtain environmental clearance if the proposed project is a prescribed project.

9. The scope of the investment program includes rehabilitation and upgrading of existing rural and national roads with no widening. According to the Gazette Extra-ordinary No. 772/22 of 24th June 1993 and subsequent amendments all rehabilitation works for existing highways

[2] Under the NEA, a prescribed project means that the project requires a full Initial Environmental Examination or Environmental Impact Assessment (EIA) study depending on the TOR issued by CEA for securing the environmental clearance

and roads do not fall within the category of Prescribed Projects. Hence, it is likely that the project roads under the investment program will not be required to prepare an IEE or EIA for securing an environmental clearance.

10. If a project road falls adjacent to the boundary or inside a protected area, necessary clearance will need to be sought from the Department of Wildlife Conservation (DWLC) and the Forest Department even if there will be no widening of the road ROW. Depending on the sensitivity of the protected area, the DWLC and Forest Department may require conduction of an IEE or EIA study for the respective road. No works are allowed in project roads falling inside Strict Nature Reserves.

11. While the NEA is key environmental legislation under GoSL there are a number of other environmental laws and regulations that are applicable to the investment program as given in Table 2.

Table 2: Applicable National Laws and Regulations for the Investment Program

	Legislation	Relevance and main content	Authorizing Institution
1.	Coast Conservation Act No 57 of 1981	This act regulates any un authorized construction within the coastal zone, by making it mandatory to obtain permits for any Development activity falling within the coastal zone.	Coast Conservation and coastal resources management department
2.	National environmental protection and quality regulations under Extraordinary gazette notification No. 1534/18 and No. 1533/16 of 2008 under NEA section 32 & 23A, 23B	This regulates the discharge and deposit of any kind of waste or emission into the environment and stipulates requirements for an Environmental Protection License (EPL) depending on the project activity. Examples of activities requiring and EPL are: asphalt processing plant, concrete batching plants, treatment plants, sewerage networks, mechanized mining activities etc.	CEA
3.	National Environmental (Protection and Quality) Regulation No. 1 of 1990 published in Gazette Extraordinary No. 595/16 of February, 1990	Provides standards for discharging effluents into inland surface water during proposed project activities.	CEA
4.	National Environmental (Ambient Air Quality) Regulations, 1994, published in Gazette Extraordinary, No. 850/4 of December, 1994 and amendment gazette No. 1562/22 of 2008	Provides standards for emissions to the air during proposed project activities.	CEA
5.	National Environmental (Noise Control) Regulations No.1 of 1996 and its amendments	Regulates maximum allowable noise levels for construction activities during proposed project activities	CEA
6.	National Environmental (Vehicle Horns) Regulations, No. 1 of 2011	Regulates maximum allowable noise emanating from vehicular horns on a highway or road any motor vehicle use	CEA

	Legislation	Relevance and main content	Authorizing Institution
		during project construction activities	
7.	National Environmental (Municipal Solid Waste) Regulations, No. 1 of 2009	Regulates dumping municipal solid waste along sides of any national highway or at any place other than places designated for such purpose by the relevant local authority during proposed project activities	CEA
8.	North Western Province Environmental Statute No. 12 of 1990	Includes provisions for the establishment of the North Western Province Environmental Authority and its powers, function and duties for the protection, management and enhancement of the environment. Environmental clearance maybe required from the Environmental Authority as per requirements of the statute	North Western Province Environmental Authority
9.	Fauna and Flora Protection Act (FFPO) No.2 of 1937 amended in 1993 and 2009	The act specifies that any development activity taking place within one mile from the boundary of a National Reserve declared under the Ordinance requires an EIA/IEE which provide for the protection and conservation of fauna and flora of Sri Lanka and their habitats; for the prevention of commercial and other misuse of such fauna and flora and their habitats for conservation of biodiversity of Sri Lanka; and to provide for matters connected there with.	Department of Wildlife Conservation
10.	Forest Act No. 34 of 1951	This act is to consolidate and amend the law relating to the conservation , protection and management of forest and forest resources for the control of felling and transport of timber and Forest and for matters connected therewith or incidental thereto.	Forest Department
11.	Felling of Trees Control Act No. 9 of 1951 as amended through Act No. 30 of 1953	This Act sought to prohibit and control felling of specified trees (mainly intended to stop indiscriminate felling of specified trees) in the country.	Forest Department
12.	Water Resources Board Act, No. 29 of 1964 and (Amendment) Act, No. 42 of 1999	The act controls and regulates developments (including conservation and utilization) of water resources; prevention of pollution of rivers, streams and other water resources; formulation of national policies relating to control and use of water resources.	Ministry of Irrigation and Water Resources Management
13.	Soil Conservation Act, No. 25 of 1951 and Amended No. 24 of 1996	This Act makes provisions for the enhancement of productive capacity of soil; to restore degraded land for the prevention and mitigation of soil erosion; for the conservation of soil resources and protection of land	Department of Agriculture

	Legislation	Relevance and main content	Authorizing Institution
		against damage by floods, salinity, alkalinity, water logging; and to provide for matters connected therewith or incidental thereto	
14.	Explosives Act No. 36 of 1976	To provide control of explosions and regulations of matters connected with explosive activities related with the project.	Ministry Of Defense
15.	Municipal Councils Ordinance No. 29 of 1947, the Urban Councils Ordinance No. 61 of 1939 and the Pradeshiya Sabha Act No. 15 of 1987 as amended in 2010	Regulates and control actions pertaining to socioeconomic development such as roads, culverts, bridges, ferries, waterways and other means of local transport and related site clearance for constructing worker camps, site offices etc. and methods taking place within the command area relevant to government laws and regulations	Ministry Of Local Government And Provincial Council
16.	Flood Protection Ordinance No. 04 of 1924, No 22 of 1955	An ordinance for protection of areas subjected to damage from floods. This includes declaration of flood areas, preparation of schemes for flood protection and other rules and regulations regarding flood in the country	Irrigation Department
17.	Crown Land Ordinance Act No. 1947	An ordinance to make provision for the grant and disposition of crown lands in Sri Lanka; for the management and control of such lands and the foreshore; for the regulation of the use of the water of lakes and public streams; and for other matters incidental to or connected with the matters related to proposed project	Land Commissioners Department
18.	Agrarian Development Act No. 46 of 2000 (Section 32)	This act regulates using paddy land for a purpose other than agricultural cultivation without the written permission of the Commissioner General.	Agrarian Services Department
19.	Land development statuette No. 7 of 2002 the western province provincial council, amendment No. 1287/26 of 2003	A statute for regularizing utilization of state lands situated within the western province either by state or the provincial council, for regulating the distributing of the aforesaid lands and lands in possession of the provincial council, for augmenting productivity of lands and for matters connected with or incidental to them this statute is in compliance with the crown lands ordinance no. 08 of 1947 (chapter 454) and the land development ordinance no.19 of 1935 chapter 464 as amended by land development (amendment) acts, no. 16of 1969 no.27 of 1981,no	Governor _ Western Province _ Provincial Council And Land Commissioners Department

	Legislation	Relevance and main content	Authorizing Institution
		22 of1998,no, 22 of 1995 1996. Of divesting of state lands, no. 07 of 1979	
20.	Sri Lanka Land Reclamation and Development Corporation Act 15 of 1968 as amended by Act No 52 of 1982	This act established Sri Lanka Land Reclamation and Development Corporation which grants permission for the public to fill marshy land subject to provision of storm water drainage.	Sri Lanka Land Reclamation and Development Corporation
21.	National Thoroughfares Act, No. 40 of 2008	This act is known as RDA act which provide for planning, design construction, development, maintenance and administration an integrated public road network in Sri Lanka.	Road Development Authority
22.	Urban Development Authority (UDA) Law No 41 of 1978 and Urban Development Projects (Special Provisions) Act No 2 of 1980	This law provides for the establishment of an UDA to promote integrated planning and implementation of economic, social and physical development of certain areas as may be declared by the minister to be urban development areas and for matters connected with the relevant project activities. Urban Development Projects (Special Provisions) Act No 2 of 1980 is an act to provide for the declaration of lands urgently required for carrying out urban development projects and to provide for matters connected there with relevant project activities.	Urban Development Authority (UDA) under the ministry of Urban Development and Defence
23.	Town and country planning ordinance No. 13 of 1946 and The Town & Country Planning (Amendment) Act, No. 49 of 2000	This regulates the National Physical Plan with transport as the main component	National Physical Planning Department (NPPD) under the Ministry of Urban Development and Defense
24.	Buddhist Temporalities Ordinance No. 19 of 1931	This act provides necessary assistance to administer and protect the property of Viharas, interventions to settle disputes regarding property of Viharas and makes recommendations to release money to be paid as compensation in respect of property of Viharas acquired by government for any development project	Department of Buddhist Affairs
25.	Cemeteries and burial grounds ordinance No. 9 of 1899 and amendments	The act regulates any disturbance, removal of burial, monuments and use of such areas for development project	Local Government Authority
26.	Antiquities Ordinance No. 9 of 1940 and amendments	The act regulate activities of projects located in close proximity of any archeological reserves	Department of Archaeology

12. Under the NEA (No). 47 and some of the laws and regulations listed in table 2, there are specific requirements for clearances, permits and licences required for road projects as listed in Table 3.

Table 3: Applicable Approvals required for the Investment Program

Project stage	Approvals	Project related activity	Relevant agency
Pre-Construction Stage Note: Although clearances and approval should be obtained during preconstruction stage it is valid throughout the project cycle. However this should be renewed before expiry date	Environment clearance	Implementation of the project	Central Environment Authority
	Clearance from Coast Conservation and coastal resources management department	Development activities in coastal areas	Coast Conservation and coastal resources management department
	Industrial Mining License (IML)	Operation of quarries, borrow areas and other material extraction sites	Geological Survey and Mines Bureau
	Environmental Protection License (EPL)	Operation of material extraction site including operation of asphalt plants, treatment plants etc.	CEA
	Local Government Authority Trade license and machinery permits	Deciding waste disposal sites, material storage and sites for worker camps and other project stations Trade license should be obtained for asphalt plants, batching plants, quarries etc.	Respective Provincial Council, Local authorities and respective Pradeshiya Sabha
	Explosive Permits	Blasting activities	Ministry of Defence
	Approval for removal of trees	Road clearance for construction	Forest department, CEA and local authorities
	Disturbance to Paddy Lands	Ground preparation for ROW and side drains	Commissioner of Agrarian Services
Construction stage	Consent from relevant government agencies	Construction of bridges, culverts and other drainage systems, land filling, dredging activities	Department of Irrigation, Department of Agrarian services, Local government authority, Land Reclamation and Development Cooperation
	Approval from relevant state /local agencies for the removal/ temporary disturbances for existing utilities	Surfacing, construction of bridges and side drains, embankment filling works	NWSDB for water lines, Ceylon electricity Board for Electric cable/poles, Sri Lanka Telecom for land line telephone cables, poles, Pradeshiya sabha, other local authorities for drainage, sewer systems etc

13. Sri Lanka is also a signatory to a number international agreements and conventions related to environmental conservation. Those that are relevant for this investment program are provided below:

- Conventions on Wetlands of International Importance Especially as Water Fowl habitats (Ramsar)
- Convention concerning the protection of the World Cultural and Natural Heritage
- Convention on International Trade in Endangered Species of Wild Fauna & Flora (CITES)
- Convention on the conservation of Migratory Species of Wild Animals (CMS 1979)
- United Nations Framework Convention on Climate Change
- Convention on Biological Diversity
- Plant Protection Agreement for Asia and the Pacific region

14. As can be seen from the above sections, the GoSL has a comprehensive coverage of policies and regulations to safeguard environmental impacts under the investment program.

15. The Project Implementation Unit (PIU) under RDA, MOHPS is responsible for overall conduction of environmental assessments, implementation and monitoring of environment safeguards for specific project roads under the investment program. Within RDA there is a separate unit, the Environment and Social Development Division (ESDD) to cover social and environment safeguards. ESDD was established in response to capacity building needs identified in earlier ADB projects such as the Southern Transport Development Project. This division comprises of approximately 7 environment safeguard officers and 9 social safeguard officers who are well experienced in implementing ADB projects3. The division is responsible for developing manuals and guidelines, providing assistance in conduction of proper safeguard assessments, and implementation and monitoring of environment and social safeguards in accordance with environmental policies of GoSL and donor agencies. However since ESDD is responsible for all projects under RDA and given the large scale of the investment program this division will not have adequate time and resources to implement and monitor safeguards for the investment program. Therefore, a separate safeguards team dedicated to the investment program will be created within the PIU for managing safeguards. ESDD will provide technical support and monitor the implementation of safeguards under the investment program on a biannual basis as necessary.

16. The safeguards team will comprise of sufficient social and environment safeguards officers as necessary to cover the quantum and geographic distribution of works in all provinces under the investment program. The safeguards team will be supported by a team of environmental consultants under the Project Implementation Consultants (PIC) for daily monitoring of EMP implementation and compilation of monitoring checklists and reports. Environmental assessments for succeeding tranche's will be carried out by a Survey and Preliminary Engineering (SAPE) team under RDA. A detailed safeguards training workshop will be conducted for the PIU, safeguards team, SAPE and PIC to clarify the roles and responsibilities of each party, method of consultation and record keeping and reporting requirements before the conduction of environmental assessment studies for each tranche. After the award of civil works contract and before the start of physical works another training

[3] ESSD is currently involved in implementation and monitoring of environment and social safeguards for: the Northern Road Connectivity Project (L2639/2640) and its Additional Financing (L2890/2891) as well as the Southern Road Connectivity Project (L3027/3028)

workshop will be conducted for the PIU, safeguards team, PIC and contractor on roles and responsibilities of each party for EMP implementation and monitoring methods, record keeping and reporting requirements. Thereafter other subject specific or on the job training may be organized by the PIU on a need basis.

B. ADB Safeguard Policy Statement

17. ADB's safeguard policy framework consists of three operational policies on the Environment, Indigenous People and Involuntary Resettlement. All three safeguard policies involve a structured process of impact assessment, planning, and mitigation to address the adverse effects of projects throughout the project cycle. The safeguard policies require that (i) impacts are identified and assessed early in the project cycle; (ii) plans to avoid, minimize, mitigate, or compensate for the potential adverse impacts are developed and implemented; and (iii) affected people are informed and consulted during project preparation and implementation. The policies apply to all ADB-financed projects, including private sector operations, and to all project components.

18. Proposed projects or tranches (for MFF's) are screened according to type, location, scale, and sensitivity and the magnitude of their potential environmental impacts, including direct, indirect, induced, and cumulative impacts. Projects are classified into the following four categories:

19. Category A. A proposed project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment (EIA), including an environmental management plan (EMP), is required. The draft EIA is required to be disclosed 120 days before consideration for approval by the ADB board.

20. Category B. The proposed project's potential adverse environmental impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A projects. An initial environmental examination (IEE), including an EMP, is required.

21. Category C. A proposed project is likely to have minimal or no adverse environmental impacts. An EIA or IEE is not required, although environmental implications need to be reviewed.

22. Category FI. A proposed project involves the investment of ADB funds to or through a financial intermediary. The financial intermediary must apply and maintain an environmental and social management system, unless all of the financial intermediary's business activities have minimal or no environmental impacts or risks.

III. ANTICIPATED ENVIRONMENTAL IMPACTS

23. The proposed work under the investment program will involve rehabilitation and upgrading of existing rural roads under Pradeshiya Sabhas and national roads under RDA (B class road) to all weather standard status. Rehabilitation works will include improving pavements/road surface, construction of side drains and embankments, widening or replacement of culverts, cause ways and bridges. For the rural roads the carriageway width will be from 2.5 m to 5.5 will be maintained or more if there is available Right of Way (ROW). For the national road the carriageway width will be from 5.5m to 6.5m.

24. During the construction phase activities such as removal and re-establishment of public utilities; removal of road side trees; mining of gravel and sand; quarrying of metal; transportation of construction materials; disposal of construction waste; establishment of construction material processing plants, storage yards, labour camps, vehicles and equipment service yards and other facilities will have to be implemented. These activities can cause several negative impacts on the local environment in the form of air pollution, water pollution, generation of noise, soil erosion, generation of solid waste, loss of vegetation and aesthetic beauty and safety issues as people and vehicles will still be using the roads during construction. Mitigation measures that will be implemented to address these issues will include but not be limited to: wet spraying to control dust; limiting working hours to minimize disturbance; regular maintenance of construction vehicles and equipment; proper disposal of construction debris; maintenance of proper hygiene and safety standards and facilities in the camps and working areas; development and implementation of erosion control and silt management measures, compensatory afforestation and enforcement of road safety measures for local people and traffic.

25. If any of the roads fall inside or near protected areas such as national parks, wildlife sanctuaries or other forms of conservation areas, proper consultation will be held with the respective national and local wildlife authorities. To the extent possible all efforts will be made to include technical measures in the road design to minimize or mitigate negative impacts on wildlife and enhance habitat conditions or migratory pathways for wildlife.

26. During the operation and maintenance phase minor physical works will still be implemented such as clearing drains, filling of potholes, maintaining saplings that were planted and others. The improved road conditions will result in increased numbers as well as speed of vehicles. This can cause an increase in accidents and other safety issues. Minor increase in greenhouse gas (GHG) emissions and noise can also be expected from the increased traffic. The contractor will be responsible to ensure that all road safety measures such as speed breakers, safety signs and others are well maintained for a period of three years for the case of the rural roads and seven years for the case of the national roads. Compensatory afforestation is expected to offset the increased GHG emissions upto a certain extent. If noise levels exceed the prescribed standards the contractor will be responsible for implementing suitable mitigation measures such as construction of noise barriers and others.

27. The overall impact of the investment program is expected to be positive. Development of the roads to all weather standard status will improve rural access and link rural hubs to the national road network. The program will serve as a tool for poverty alleviation, allowing poor people in the area to directly access other areas of the country to engage in a number of social and economic activities. Additionally it will improve and strengthen the National Highways Network efficiency in Sri Lanka thereby establishing smooth traffic flow, reduced costs and travel time and increased lifetime of the roads through appropriate, periodic maintenance using the OPRC strategy.

IV. ENVIRONMENTAL ASSESSMENT PROCEDURES

28. All tranches and project roads under the investment program will follow environmental assessment procedures to meet the requirements of GoSL and the ADB SPS as described in this section. Any tranche or project road which is not subjected to these procedures will not be put forward for consideration or inclusion under the investment program.

A. Environmental Criteria for Selection of Project Roads

29. Project roads for inclusion in tranches under the investment program will be selected based on priorities for connecting select GND's to the main trunk roads. The project roads will be further subjected to the following screening criteria on environment safeguards:

i) No project roads that will cause significant environmental impacts that would trigger classification as an environment 'Category A' tranche in accordance with the ADB's SPS (2009) will be included. A 'Category A' tranche would be one that includes project roads with widening works inside a legally protected area or critical habitat area[4] or have direct and irreversible impacts on cultural heritage sites of national and international significance.
ii) No project roads falling in part or whole inside a protected area will be selected under the investment program
iii) Project roads falling adjacent to protected areas or eco-sensitive areas will be will be included only if there is no widening of the road "Right of Way" (ROW) or acquiring of land from the protected area or eco-sensitive area. For such project roads proper consultations will be held with the Department of Wildlife Conservation, Forest Department, local community and other relevant stakeholders and appropriate clearances or endorsements should be sought if required.
iv) The rehabilitation work of the project road must have minimal or no long term impacts on other forms of sensitive ecological habitats such as marshes, natural streams, tanks and related wetland habitats

B. Screening and Classification

30. Each project road will be initially screened to understand the nature and significance of anticipated environmental impacts by completing the Environmental checklist provided in **Appendix 1**. Based on the findings of these individual checklists per project road or road, one Rapid Environmental Assessment (REA) checklist required by the ADB SPS will be prepared for the entire tranche. The most sensitive issues identified in the environmental checklists will be recorded in the REA checklist and accordingly categorization as B or C as per the ADB SPS will be determined.

31. As this program will have no category A project roads or tranches, all project roads and tranche's under the investment program will fall under category B or C. Category B project roads or tranche's will require an Initial Environmental Examination (IEE) and category C project roads or tranches will require an environmental review report.

32. To fulfil requirements of the Central Environmental Authority (CEA) under ME&RE a Basic Information Questionnaire (BIQ) will be completed for each project road/entire tranche based on the findings of the environmental checklist for each project road or road.

4 Critical habitat according to the SPS is an area with high biodiversity value, including habitat required for the survival of critically endangered or endangered species; areas having special significance for restricted range species; sites that are critical for the survival of migratory species; areas supporting globally significant concentrations or numbers individuals of congregatory species; areas with unique assemblages of species or that area associated with key evolutionary processes or provide ecosystem services; and areas having biodiversity of significant social, economic or cultural importance to local communities.

C. Environmental Assessment and Environmental Management Plan

33. For this Investment Program, since there are a large number of short roads[5], preparation of individual IEE's for each and every road will be difficult and time consuming. Hence one IEE report will be prepared per province based on information collected in the environment checklists. The recommended outline of the IEE report in accordance with the ADB SPS is provided in **Appendix 2**.

34. The environment checklists with annexes on trees, utility structures, community structures, strip plans and photographs will be completed for each and every road. Based on the completed environment checklists for each road including bridges, one IEE report will be prepared for each province. However the report must clearly present information and issues that may be unique to a district or geographic area or project road. All sensitive issues identified in the environment checklist for each project road must be clearly documented in the IEE report. The IEE report will include one general or standard EMP that will cover all impacts and mitigation measures possible within the respective province. Contract package specific EMP's will be prepared by the contractor by referring to the standard EMP, road specific information in the environmental checklists and the detailed design (level 1 design). The sample of standard EMP is provided in **Appendix 3**. The road specific EMP's must be prepared by the contractor and all costs for implementing the mitigation measures must be included in the Bill of Quantities (BOQ).

35. The province level draft IEE report including standard EMP will be prepared in accordance with Safeguard Requirement 1 of the SPS and submitted to ADB for review and approval in a timely manner to allow disclosure of the draft final report on the ADB website before the Management Review Meeting (MRM) or approval of the respective tranche (if there is no MRM). The road specific EMP prepared by the contractor will be reviewed and approved by the PIC and/or the PIU prior to the start of any physical works by the respective contractor.

36. The IEE study should clearly identify and describe the area of impact, provide an assessment of potential impacts and mitigation measures and involve meaningful consultations with affected people and other relevant stakeholders. While following the outline provided in **Appendix 2**, the IEE report must investigate the following list of issues provided below (but not limited to these):

i) Potential impacts on biodiversity including modified, natural, critical habitat and protected areas and necessary measures to minimize, mitigate and offset impacts.
ii) Landslide, erosion, slope stability issues and necessary engineering and bioengineering measures to address them
iii) Potential impacts on air, noise, water and occupational health and whether they comply with the World Bank Environment Health and Safety standards
iv) Potential waste issues including excavated spoil, hazardous materials and wastes and appropriate measures for their disposal, treatment and other forms of management.
v) Climate change impacts and risks and recommendations for adaptation as well as mitigation

5 Tranche 1 will include some 194 roads ranging from 0.5 km to 17 km, with an average length of approximately 3.5 km.

vi) Occupational Health Safety issues and measures for the construction workers as well as the local communities in and around the project site.
vii) Cumulative and Induced Impacts of the project in light of existing environment, ongoing development projects and planned projects in the near future
viii) Potential impacts on physical and cultural resources and measures to avoid, minimize or mitigate impacts.
ix) Grievance Redressal Mechanism to address concerns and grievances of the affected people in the course of the project cycle.

V. CONSULTATION, INFORMATION DISCLOSURE AND GRIEVANCE REDRESS MECHANISM

A. Public consultation

37. The public consultation and information disclosure is an important part of the environmental safeguard requirements under ADB SPS (2009). In addition the NEA of GoSL also considers stakeholder engagement as a key element for successful management of environmental impacts.

38. Meaningful public consultations will be held early on and continuously throughout the project development stage to allow the incorporation of relevant views of the stakeholders in the final project road design, mitigation measures, implementation issues, and enhance the distribution of benefits. Stakeholders will include project beneficiaries, local affected people, government bodies, and non-governmental organizations. The consultations must encourage participation of women and vulnerable groups (handicapped people, senior citizens, school children) and engage as many stakeholders as possible.

39. Consultations will be carried out in an environment free of influences and will be done during conduction of transect walks while completing the environment checklists and/or through focus group discussions and/or household level or key person interviews which will start with the description of the project road design and initial identification of potential impacts. Feedback and recommendations received during the consultations will be addressed and where relevant incorporated in the environmental assessment and EMP. These consultations must be completed before finalization of the respective Periodic Financing Request (PFR) and all proceedings documented clearly in the IEE report.

B. Information disclosure

40. According to the National Environment Act no. 47 and its amendment no. 56, for Prescribed Projects requiring an IEE, it will be upto the discretion of CEA to decide whether public disclosure of the IEE report is required or not. If public disclosure of the IEE is required CEA or the respective PAA will establish procedures for making the IEE available to the public through Divisional Secretary of the Divisional Secretariat Division of the area, Secretary Office at Ministry of Highways, Chairmen's office of RDA, Office of the Director at ESDD of RDA. CEA or the respective PAA will forward all comments received to the PIU for review and incorporation in the project design. CEA or the respective PAA will evaluate the responses and revisions of the PIU before making a decision to issue the environmental clearance.

41. According to the requirements of the ADB SPS, for environment category B project roads the respective draft IEE will be disclosed before the Management Review Meeting (MRM) or equivalent meeting or approval of the respective tranche, if there is no MRM. Signboards with

project information including details on nature of construction works, road length, construction period, name of contractor, contract sum and contact information for reporting complaints or grievances will be posted in three languages (Sinhala, Tamil and English) for rural roads. For the national (OPRC) roads there will be sign boards on period of works and contact information for reporting complaints or grievances in three languages.

42. During project implementation annual environmental monitoring reports will be prepared per province and submitted to ADB for disclosure on the ADB website.

C. Grievance redress mechanism

43. Grievances from the affected people on social and environmental issues during project implementation will be addressed mainly through the existing local administrative system. Depending on the nature and significance of the grievances or complaints, grievances will be addressed at three levels. The first will be at the grass roots level where complaints will be directly received and addressed by the contractor, PIC or PIU representative on site. Grievances which are simple but still cannot be addressed at the grass roots level will be addressed at the Grama Niladhari (GN) level. More complex grievances which cannot be addressed at the GN level will be addressed at the Divisional Secretariat (DS) level. There will be a Grievance Redress Committee (GRC) at the GN and DS levels.

44. At the GN level the GRC members will be:

i)	Grama Niladari of the area	Chairman
ii)	Representative of PIU	Secretary
iii)	Representative of Supervision Consultant	Member
iv)	Representative of Contractor	Member
v)	A community member/religious leader	Member
vi)	Woman representative from the local community	Member

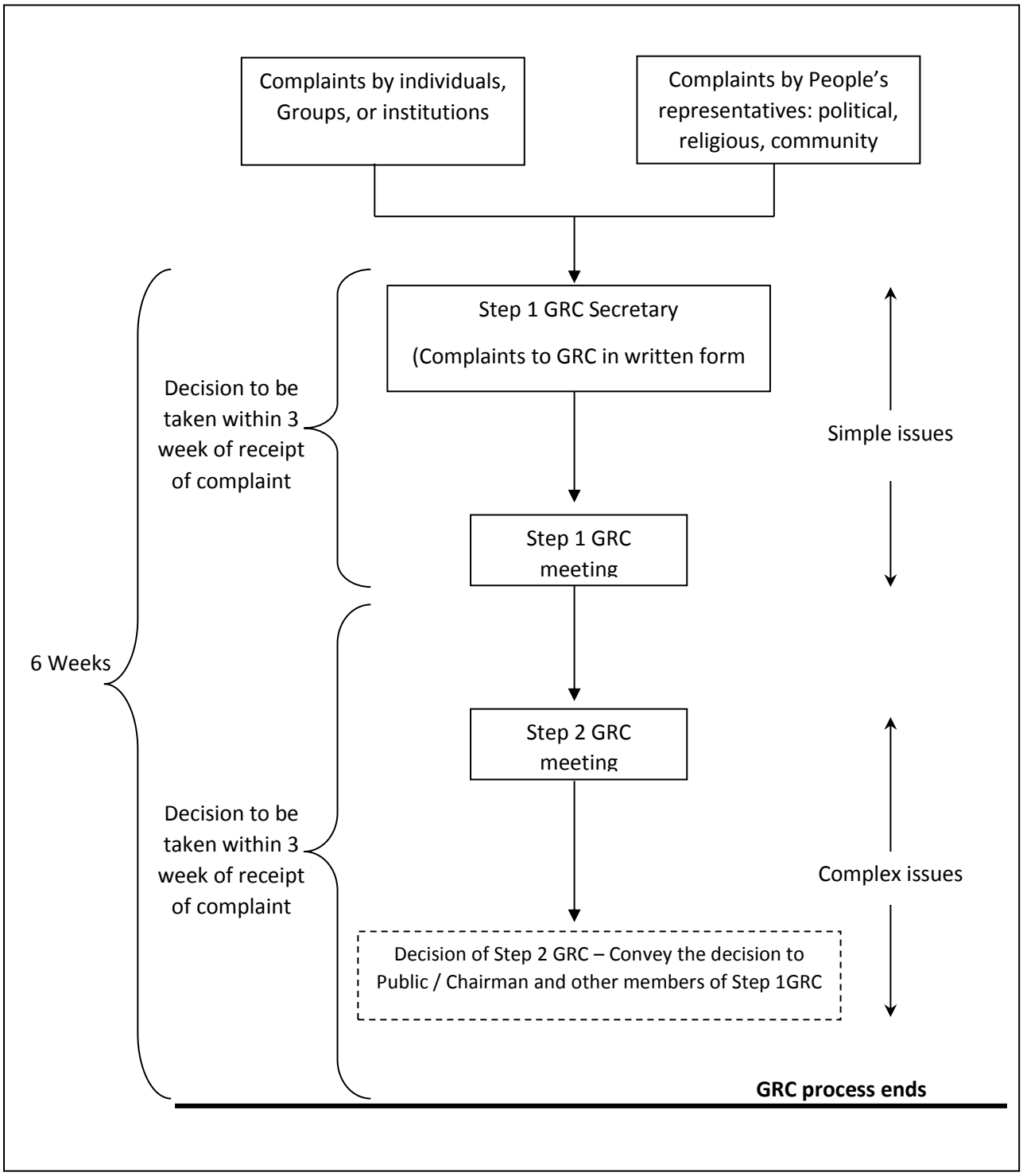
45. At the DS Level GRC members will be:

i)	Divisional Secretary of the area	Chairman
ii)	Representative of PMU	Secretary
iii)	Grama Niladari	Member
iv)	Representative of Supervision Consultant	Member
v)	Representative of Contractor	Member
vi)	Representative of a social organization (Non-Governmental Organization/Community-Based Organization) of the area	Member
vii)	A community member/religious leader	Member
viii)	Woman representative from the local community	Member

46. To make the GRM process gender responsive the GRC will include one woman member to represent the local community women. Further when grievances or complaints are submitted to the GRC, both women and men complainants will be treated equally and necessary measures will be taken to address the grievance in the best way possible.

47. Recommended steps with timeline on the operation of the GRM is provided in Figure 1. Adjustments may be made to the GRM during processing of succeeding tranches if necessary and accordingly described in the respective IEE. In addition a complaints contact person will be designated within the PIU to help address all concerns and grievances of the local communities and affected parties. Contact details of this person will be provided in the project information display board that will be placed at the project site.

Figure 1: Summary of GRM procedures



48. In addition to the above measures, for the national (OPRC) roads the contractor will be required to establish an information center for receiving and addressing complaints or grievances and forwarding them to the PIU and PIC as necessary.

VI. INSTITUTIONAL ARRANGEMENT

A. Institutional arrangement

49. The Ministry of Highways, Ports and Shipping (MOHPS) is the Executing Agency (EA) and the secretary to the ministry will be responsible for decisions on overall approvals and operational policies of the project. RDA will be the IA and within RDA there will be a PIU. The PIU will be responsible for implementing the project and managing detailed design and supervision of the construction works and ensuring that all environmental safeguard requirements in accordance with this EARF are met. The PIU will be headed by a full time Project Director and supported by a team of engineers from RDA. The PIU will have a safeguards team with sufficient social and environment safeguards officers to cover the quantum and geographic distribution of works in all provinces under the investment program. Further RDA will have a Surveys and Preparation of Engineering Design (SAPE) team that will be responsible for conducting studies including environmental assessments of all project roads before the processing and approval each tranche. The Project Implementation Consultants (PIC) will support the PIU for supervision of the design and construction works by the civil works contractor. The PIC team will include a team of environment safeguards consultants for conduction of regular monitoring of safeguards implementation on site. The

B. Responsibilities

50. Detailed list of responsibilities of the EA, IA, PIU, SAPE, PIC and contractors for implementation of environmental safeguard matters are presented in Table 4.

Table 1: Responsibilities for Environmental Safeguards Implementation

	Agency	Responsibility
1.	Ministry of Highways, Ports and Shipping (EA)	– Make final decision on roads to be included under the investment program – Overall responsibility for project design, feasibility, construction and operation and guide RDA to play its role as the IA – Ensure that sufficient funds are available to properly implement all agreed environmental safeguards measures – Ensure that all project roads and tranches, regardless of financing source, complies with the provisions of ADB's SPS 2009 and GoSL's environmental laws and regulations – Ensure that tender and contract documents for civil works include all relevant parts of the environmental assessment and project agreements – Submit annual safeguards monitoring reports to ADB
2.	Road Development Authority (IA)	– Ensure that Project complies with ADB's SPS and GoSL laws and regulations – Ensure that the project complies with all environment safeguard requirements as given in this EARF – Ensure that tender and contract documents for civil works include all relevant parts of the environmental assessment and project

	Agency	Responsibility
		agreements
3.	Project Implementation Unit (PIU) with support of safeguards team	– Ensure that Project complies with ADB's SPS and GoSL laws and regulations – Ensure that the project complies with all environment safeguard requirements as given in this EARF – Ensure that the environment checklist is completed each and every project road – Review and approve the environment checklists – Based on the findings of the completed environment checklist for all project roads complete one Rapid Environment Assessment (REA) checklist as required by the ADB SPS for the respective tranche – Ensure the preparation of one province level IEE report based on the information from the project road environment checklists and other consultations and literature review as necessary – Ensure the preparation of due diligence reports on the environment safeguards performance of the earlier tranche before the approval of the next tranche – Obtain feedback on draft IEE report findings from major stakeholders where necessary and facilitate necessary revisions – Facilitate public disclosure of safeguard documents where necessary in accordance to the requirements of ADB and CEA – Ensure that environmental protection and mitigation measures in the Environmental Assessment report and EMP are incorporated into the design (level 2 design) – Ensure that requisite measures from the Environmental Assessment report and EMP are incorporated into the bid and contract documents – Ensure that necessary provisions are made in the contract documents for the EMP to be updated in accordance with revisions in the final detailed design (level 1 design) – Organize environmental management capacity building activities for PIU and orientation and awareness training for PIC and contractors as described in para 21 of this EARF. – Ensure that RDA has obtained necessary environmental clearances, permits, license(s) etc. from CEA and other agencies as specified in this EARF (Table 3) – Review and approve the contract package specific EMP's and EMOP's prepared by the contractor – Ensure that contractors obtain necessary environmental permits, license(s) etc. from respective agencies as specified in this EARF (Table 3) prior to commencement of civil works contracts – Facilitate the establishment of a grievance redress mechanism, as described in this EARF and respective IEE report, to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances related to environment safeguards – Ensure that all mitigation measures as given in the EMP are implemented properly – Ensure proper conduction of environmental monitoring during pre-construction, construction and operation phases – Review and approve the monitoring checklists and reports prepared by the PIC and conduct field spot checks to verify the accuracy of the monitoring checklists – Ensure annual environmental monitoring reports are prepared and submitted to ADB for disclosure on their website on an annual basis

	Agency	Responsibility
		– Identify environmental corrective actions and prepare a corrective action plan, as necessary, for submission to ADB and during project implementation – Facilitate additional environmental assessment (if required) for specific sub-projects and submit to ADB and CEA for review and clearance – Review and approved EMP's if they get updated and revised by the contractor
4.	ESDD, RDA	– Facilitate and act as resource persons during training workshops under the investment program – Provide technical advice and support as necessary to the PIU – Monitor implementation of safeguards under the investment program on a bi-annual basis as necessary
5.	SAPE team under RDA	– Conduct field surveys and complete the environment checklist for each and every project road – Based on the findings of the completed environment checklist for all project roads complete one Rapid Environment Assessment (REA) checklist as required by the ADB SPS for the respective tranche – Prepare one province level IEE report and standard EMP based on the information from the project road environment checklists and other consultations and literature review as necessary – Make necessary revisions to the IEE based on feedback from the PIU, PIC, ADB or other agencies such as CEA as necessary
6.	Project Implementation Consultants (PIC)	– Review and approve the contract package specific EMP's and EMOP's prepared by the contractor – Daily on site supervision for implementation of environmental safeguards – Completion of monitoring checklists during pre-construction, construction and operation and maintenance stages for each road – Close coordination and communication with the contractor to facilitate implementation of all mitigation measures identified in EMP – Preparation of monitoring reports and submission to PIU, RDA – Provide technical support and advise for addressing complaints and grievances and participate in resolving issues as a member of the GRC – Provide technical advice and on the job training to the contractors as necessary – Preparation of annual monitoring reports based on the monitoring checklists and submission to RDA for further submission to ADB – Preparation of due diligence reports on the environment safeguards performance of the earlier tranche before the approval of the next tranche – Review the environmental assessment report prepared by the SAPE team – Review and approve updated/revised contract specific EMP's as necessary
7.	Contractor	– Based on the standard EMP, environment checklists for each road and the detailed design (level 1 design) prepare a contract package specific EMP for approval by the PIC and/or PIU before start of physical works – Based on the standard Environmental Monitoring Program (EMOP) on collection of environmental quality data prepare contract package specific (EMOP) for approval by the PIC and/or PIU before the start of

	Agency	Responsibility
		physical works – Ensure that adequate budget provisions are made for implementing all mitigation measures specified in the EMP – Participate in induction training on EMP provisions and requirements delivered by the PIU – Obtain necessary environmental license(s), permits etc. from relevant agencies as specified by EARF (Table 3) for associated facilities for project road works, quarries, hot-mix plant etc. prior to commencement of civil works contracts – Implement all mitigation measures in the EMP – Ensure that all workers, site agents, including site supervisors and management participate in training sessions delivered by PIU. – Ensure compliance with environmental statutory requirements and contractual obligations – Collect the baseline data on environmental quality before the start of physical works and continue collection of environmental quality data as given in the Environmental Monitoring Plan during construction and operation – Participate in resolving issues as a member of the GRC – Respond promptly to grievances raised by the local community or any stakeholder and implement environmental corrective actions or additional environmental mitigation measures as necessary. – Based on the results of EMP monitoring, cooperate with the PIU to implement environmental corrective actions and corrective action plans, as necessary. – Annually review the road specific EMP and update it if required
8.	ADB	– Review REA checklist and endorse or modify the project classification and recommend the ToR for the Environmental Assessment report – Review IEE reports and disclose the draft and final reports on the ADB's website as required – Issue tranche approval based on IEE reports; – Monitor implementation and monitoring of EMP through due diligence missions – Provide assistance to the EA and IA of project roads, if required, in carrying out its responsibilities and for building capacity for safeguard compliance – Monitor overall compliance of the project roads to this EARF – If necessary provide further guidance to the IA on the format, content, and scope of the IEE reports and annual or semi-annual monitoring reports for submission to ADB
9.	CEA	– Review and approve Environmental Assessment reports required by the project as per GoSL environmental laws – Issue, and renew environmental licenses as required by the contractor and PMU during the project cycle – Undertake monitoring of the project's environmental performance

C. Environmental management costs

51. Budget requirements for implementing this EARF includes costs for i) conduction of transect walks and completion of environment checklists for all roads and preparation of province level IEE reports including standard and road specific EMP, ii) institutional and capacity building activities and iii) monitoring and reporting on implementation of EMP. Implementation of the EMP will be part of the construction costs, and will be included in the Bill

of Quantities (BOQ) as a relevant line items by the respective bidding contractors. Table 5 serves as a guide on the sourcing and planning of budget requirements for implementing this EARF.

Table 5: Summary of budget requirements per tranche

No.	Activity	Budget Source	Budget Purpose	Remarks
1	Conduction of transect walks and completion of the environment checklists for all roads, preparation of IEE and standard and road specific EMP	ADB loan	Cost for preparing IEE's and EMPs conducting surveys and field investigations	Covered under budget allocation for SAPE team under RDA. In kind contribution from the PIU through provision of monitoring and supervision support from the ESU
2	Institutional and Capacity Building:			
	Designation of environment safeguards officer per province within the PIU	RDA, MOHPS	Salary and allowances for environment safeguards officer	Costs will be covered by RDA, MOHPS
	Training workshops (local)	ADB loan	Logistical costs and payment of resource persons	Logistical costs will be borne by the PIU. Payment for resource persons will be sourced from the budget allocation for the SAPE team under RDA
3	Monitoring implementation of EMP and preparation of monitoring reports	ADB loan	Consultancy fees for PIC	Covered under budget allocation for consultancy fees for PIC. In kind support for supervision and monitoring will be provided by ESU of PIU

VII. MONITORING AND REPORTING

52. Monitoring of EMP implementation will be carried out during the preconstruction, construction, and operation and maintenance stages of the project. Based on the EMP, monitoring checklists will be prepared for each of these stages. Every road must have atleast one monitoring checklist completed during pre-construction, one to three[6] during construction depending on the length of the road and one per year during operation and maintenance. Suggested format for the monitoring checklist is provided in **Appendix 4**. Records of these completed monitoring checklists must be systematically maintained within the PIC and/or PIU office. Based on these records and site visits monitoring reports will be prepared during the construction and operation stage on an annual basis[7] per province and submitted to ADB for disclosure on the ADB website. The recommended outline of the annual monitoring report is provided in **Appendix 5**.

[6] The monitoring checklist during construction stage will be completed three times when the progress of physical works is 25%, 50% and 75% respectively. This may not be practically feasible for shorter roads that are only 1 to 3 km long. Hence for these shorter roads only one completed monitoring checklist during construction stage will be adequate.

[7] The first annual monitoring report will cover the period starting from the date of first contract award.

53. Satisfactory environmental due diligence reports will be prepared and submitted to ADB before approval of the next tranche.

APPENDIXES

Appendix 1: Environmental Checklist

Road Name:
GNDs:
District Name:
Total Length of the Road:

A. Climatic Conditions

Temperature	High: Low:
Humidity	High: Low:
Rainfall Rainy Season	mm/year From ..... to

B. Location of the Road and Generic description of Environment

No.	Type of Ecosystem	Yes	No	Explanation
1.	Type of Terrain (Plain/ Undulating/ Hilly/ Mountainous etc.) (Explain the topography of the area and how many km of the road are located in the hilly area)			Altitude:
2.	Forest Area / Mangrove / Other natural habitats (Explain whether the road passes through forest areas or located along the forest areas and distance from shoulder to the forest area)?			Type of Vegetation:
				Legal Status of the Forest Area: (Reserved, National Park, Sanctuaries, Unclassified, etc.)
3.	Inhabited Area			
4.	Agricultural Land			
5.	Barren Land			

C. Specific description of the Road Environment

(Note: Questions number 1, 4, 5, 7 and 8 must be answered after discussions with the local community people)

No.	Parameter/ Component	Yes	No	Explanation
1.	Are there any areas with landslide or erosion problems along the road?			

No.	Parameter/ Component	Yes	No	Explanation
	(If yes, indicate the location whether Right or Left side and the chainage)			( ) No Secondary Information is available and Local Community is not aware of this matter
2.	Are there any Tanks/streams /rivers etc. along/crossing the road or any lakes/swamps beside the road? (If yes, list them indicating the location Right/ Left or crossing and the chainage)			
3.	Is the area along the project road prone to flooding or any problems of water stagnation and other drainage issues? (If yes, mention chainage, flood level and frequency)			
				( ) No Secondary Information is available and Local Community is not aware of this matter
4.	Are there any trees with a dbh of 30 cm or more within 10 m on either side from the centre line of the road alignment? (If yes attach list of trees indicating the location (Right or Left side)and the chainage)			
5.	Along the road and within 100 m of the road shoulder, are there any Faunal habitat areas, Faunal breeding ground, bird migration area, or other similar areas? (If yes, specify details of habitat with chainage)			
				( ) No Secondary Information is available and Local Community is not aware of this matter
6.	Along the road and within 100m of the road shoulder is there any evidence of Flora and Fauna species that are classified as endangered species?			
				( ) No Secondary Information Available and Local Community is not aware of this matter
7.	Are there any utility structures[8] within 10 m on either side from the centre line of the road alignment? (If yes, attach list with			

[8] Water tap, hand pump, electric pole, telephone pole, pipe lines and other similar structures

No.	Parameter/ Component	Yes	No	Explanation
	chainage)			
8.	Are there any religious, cultural or community structures/buildings[9] within 50 m on either side from the centre line of the road alignment? (If yes attach list with chainage)			

D. Public Consultation

No.	Consultation Activities	Yes	No	Remarks
1.	Consultation with local community was conducted before finalizing the alignment. (Attach list of people met and dates)			
2.	Any suggestion received in finalizing the alignment			
3.	If suggestions received, were they incorporated into the design?			

E. Please attach the following:

I. List of utility structures indicating location (left or right side of the road) and chainage (as required under C. 7)
II. List of community structures indicating location (left or right side of the road) and chainage (as required under C.8)
III. Project Map
IV. Photographs of the project area showing at least 10 m on either side from centre line of road alignment.

[9] Religious/cultural/historical monuments, school, health center, public toilet and other similar structures

Appendix 2 Outline of an Initial Environmental Examination (IEE) Report

1. An initial environmental examination (IEE) report is required for all environment category B projects. Its level of detail and comprehensiveness is commensurate with the significance of potential environmental impacts and risks.

2. A typical IEE report contains many of the same major elements as an EIA, but may have a narrower scope and depth of analysis. The substantive aspects of this outline will guide the preparation of IEE reports, although not necessarily in the order shown.

A. Executive Summary

3. This section describes concisely the critical facts, significant findings, and recommended actions.

B. Introduction

This section provides a brief background and context of the project.

C. Policy, Legal, and Administrative Framework

4. This section summarizes the national and local legal and institutional framework within which the environmental assessment is carried out. It also identifies project-relevant international environmental agreements to which the country is a party.

D. Description of the Project

5. This section describes the proposed project; its major components; and its geographic, ecological, social, and temporal context, including any associated facility required by and for the project (for example, access roads, power plants, water supply, quarries and borrow pits, and spoil disposal). It normally includes drawings and maps showing the project’s layout and components, the project site, and the project's area of influence.

E. Description of the Environment (Baseline Data)

6. This section describes relevant physical, biological, and socioeconomic conditions within the study area, and may be based largely on secondary data if relevant and accurate secondary data is available. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

F. Anticipated Environmental Impacts and Mitigation Measures

7. This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socioeconomic (including occupational health and safety, community health and safety, vulnerable groups and gender issues, and impacts on livelihoods through environmental media [Appendix 2, para. 6]), and physical cultural resources in the project's area of influence, in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for

enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, transboundary, and cumulative impacts as appropriate. It is expected that an IEE will based on less rigorous impact assessment methodologies than an EIA. For example, an EIA might be based on predictive modeling, while an IEE might utilize expert opinion.

G. Information Disclosure, Consultation, and Participation

8. This section:
   (i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders;
   (ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and
   (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

H. Grievance Redress Mechanism

9. This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental performance.

I. Environmental Management Plan

10. This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental impacts (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

   (i) Mitigation:
      (a) identifies and summarizes anticipated significant adverse environmental impacts and risks;
      (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and
      (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.
   (ii) Monitoring:
      (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations,

frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and

(b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

(iii) Implementation arrangements:

(a) specifies the implementation schedule showing phasing and coordination with overall project implementation;

(b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring measures, which may include one or more of the following additional topics to strengthen environmental management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and

(c) estimates capital and recurrent costs and describes sources of funds for implementing the environmental management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

J. Conclusion and Recommendations

11. This section provides the conclusions drawn from the assessment and provides recommendations.

Appendix 3: Sample Environmental Management Plan

District:

Road Name:

Road ID:

Total length:

SL. NO.	Project Action/ Environmental Attributes	Mitigation Measures	Location/ numbers	Costs	Implemented by	Monitored by
I.	**Design and Preconstruction Stage**					
1.						
2.						
II.	**Construction Stage**					
1.						
2.						
III	**Post Construction and Operational Stage**					
1.						
2.						

Notes:

- For the national or OPRC roads where there will only be routine maintenance works EMP should only be for the Operation stage.
- The contract package specific EMP must be based on the issues identified in the standard EMP in the respective IEE report, the road specific environmental checklists that were prepared during project preparation and the level one detailed design
- The contract package specific EMP must accurately record details on the location of specific environmental issues for specific roads and numbers of utility structures, trees etc. that need to be removed

Prepared and submitted by: Reviewed and approved by:

Date of submission to PIU: Date of approval:

Appendix 4: Sample Environmental Monitoring Checklists

4.1. Environmental Monitoring Checklist during Design and Pre-Construction Stage

District:

Road Name:

Road ID:

Total length:

Date of site visit:

SL. No.	Environmental Attributes	Mitigation Measures	Location/ Numbers	Compliance status (Complied, partly complied, not complied)	Corrective action proposed if any
1.					
2.					
3.					

Guidance notes:

- For consistency and easier monitoring the information in the columns of Environmental Attributes, Mitigation Measures and Location/Numbers must be taken from the information in the "During design and pre-construction stage" of the contract package specific EMP prepared by the contractor
- This checklist must be prepared based on site visits to the respective road
- This checklist must be completed once for every rural road and national/OPRC road which requires reconstruction
- Each report must enclose photographs to demonstrate the mitigation measures implemented

Prepared and submitted by: Reviewed and approved by:

Date of submission to PIU: Date of approval:

4.2: Environmental Monitoring Checklist during Construction Stage

District:

Road Name:

Road ID:

Total length:

Date of site visit:

SL. No.	Environmental Attributes	Mitigation Measures	Location	Compliance status (Complied, partly complied, not complied)	Corrective action proposed if any
1.					
2.					
3.					

Guidance notes:

- For consistency and easier monitoring the information in the columns of Environmental Attributes, Mitigation Measures and Location/Numbers must be taken from the information in the “During construction stage” of the contract package specific EMP prepared by the contractor
- This checklist must be completed based on site visits to the respective road
- This checklist must be completed one to three times for every rural road and national/OPRC road which requires reconstruction depending on the length of the road. Shorter roads that are less than 2 km, will have one checklist completed while the longer roads that are longer than 2 km will have atleast two or three checklists completed.
- Each report must enclose photographs to demonstrate the mitigation measures implemented

Prepared and submitted by: Reviewed and approved by:

Date of submission to PIU: Date of approval:

4.3. Environmental Monitoring Checklist during Post-Construction or Operation Stage

District:

Road Name:

Road ID:

Total length:

Date of site visit:

SL. No.	Environmental Attributes	Mitigation Measures	Location	Compliance status (Complied, partly complied, not complied)	Corrective action proposed if any
1.		○			
2.		○			
3.		○			
		○			

Guidance notes:

- For consistency and easier monitoring the information in the columns of Environmental Attributes, Mitigation Measures and Location/Numbers must be taken from the information in the “During post-construction and operation stage” of the contract package specific EMP prepared by the contractor
- This checklist must be completed based on site visits to the respective road
- This checklist must be completed once a year for all rural and national/OPRC roads
- Each report must enclose photographs to demonstrate the mitigation measures implemented

Prepared and submitted by: Reviewed and approved by:

Date of submission to PIU: Date of approval:

Appendix 5: Outline of an Environmental Monitoring Report

The borrower/client is required to prepare periodic monitoring reports that describe progress with implementation of the project EMP and compliance issues and corrective actions. A sample outline which can be adapted as necessary is provided below. Not all sections will be relevant in all cases. Ranking systems for compliance, mitigation effectiveness, etc., are indicative examples only, and can be modified as appropriate.

A. Introduction

1. Report Purpose
2. Project Implementation Progress

B. Incorporation of Environmental Requirements into Project Contractual Arrangements

Manner by which EMP requirements are incorporated into contractual arrangements, such as with contractors or other parties.

C. Summary of Environmental Mitigations and Compensation Measures Implemented

Based on EMP; may include measures related to air quality, water quality, noise quality, pollution prevention, biodiversity and natural resources, health and safety, physical cultural resources, capacity building, and others.

D. Summary of Environmental Monitoring

1. Compliance Inspections (if relevant)
   a. Summary of Inspection Activities
   b. Mitigation Compliance[10]
   c. Mitigation Effectiveness[11]
2. Emission Discharge (Source) Monitoring Program (if relevant)
   a. Summary of Monitoring
   b. Results
   c. Assessment[12]

[10] Overall compliance with mitigation implementation requirements could be described in qualitative terms or be evaluated based on a ranking system, such as the following:
1. Very Good (all required mitigations implemented)
2. Good (the majority of required mitigations implemented)
3. Fair (some mitigations implemented)
4. Poor (few mitigations implemented)
5. Very Poor (very few or no mitigations implemented)

Additional explanatory comments should be provided as necessary.

[11] Effectiveness of mitigation implementation could be described in qualitative terms or be evaluated based on a ranking system, such as the following:
1. Very Good (mitigations are fully effective)
2. Good (mitigations are generally effective)
3. Fair (mitigations are partially effective)
4. Poor (mitigations are generally ineffective)
5. Very Poor (mitigations are completely ineffective)

Additional explanatory comments should be provided as necessary.

3. Ambient Monitoring Program (if relevant)
    a. Summary of Monitoring
    b. Results
    c. Assessment[13]
4. Key Environmental Issues
    a. Key Issues Identified
    b. Action Taken
    c. Additional Action Required
5. Conclusion
    a. Overall Progress of Implementation of Environmental Management Measures14
    b. Problems Identified and Actions Recommended

Appendices

I. Site Inspection / Monitoring Reports
II. Ambient Monitoring Results
III. Photographs
IV. Others

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[12] Discharge levels should be compared to the relevant discharge standards and/or performance indicators noted in the EMP. Any exceedences should be highlighted for attention and follow-up. In addition, discharge levels could be compared to baseline conditions (if baseline data is available) and described in qualitative terms or be evaluated based on a ranking system, such as the following:

1. Very Good (overall conditions are generally improved)
2. Good (conditions are maintained or slightly improved)
3. Fair (conditions are unchanged)
4. Poor (conditions are moderately degraded)
5. Very Poor (conditions are significantly degraded)

Additional explanatory comments should be provided as necessary.

[13] Ambient environmental conditions should be compared to the relevant ambient standards and/or performance indicators noted in the EMP. Any exceedences should be highlighted for attention and follow-up. In addition, ambient environmental conditions could be compared to the baseline conditions (if baseline data is available) and described in qualitative terms or be evaluated based on a ranking system, such as the following:

1. Very Good (overall conditions are generally improved)
2. Good (conditions are maintained or slightly improved)
3. Fair (conditions are unchanged)
4. Poor (conditions are moderately degraded)
5. Very Poor (conditions are significantly degraded)

Additional explanatory comments should be provided as necessary.

[14] Overall sector environmental management progress could be described in qualitative terms or be evaluated based on a ranking system, such as the following:

1. Very Good
2. Good
3. Fair
4. Poor
5. Very Poor

Additional explanatory comments should be provided as necessary.