

# Environmental Assessment and Review Framework

May 2017

**BAN: South Asia Subregional Economic Cooperation  
Dhaka–Northwest Corridor Road Project, Phase 2**

Prepared by Roads and Highways Department, Government of Bangladesh for the Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 14 March 2017)

Currency unit	–	taka (Tk)
Tk1.00	=	\$0.012573
\$1.00	=	Tk 79.5350

## ABBREVIATIONS

ADB	–	Asian Development Bank
CSC	–	Construction Supervision Consultants
EA	–	Executing Agency
EARF	–	Environmental Assessment and Review Framework
EMP	–	Environmental Management Plan
EMoP	–	Environmental Monitoring Plan
GoB	–	Government of Bangladesh
GRC	–	Grievance Redress Committee
GRM	–	Grievance Redress Mechanism
IEE	–	Initial Environmental Examination
MFF	–	multitranches financing facility
MORTH	–	Ministry of Road Transport and Highways
OCR	–	ordinary capital resources
PIU	–	Project Implementation Unit
REA	–	Rapid Environmental Assessment
RHD	–	Roads and Highways Department
RoW	–	right of way
SASEC	–	South Asia Subregional Economic Cooperation
SPS	–	Safeguard Policy Statement

## WEIGHTS AND MEASURES

km	–	kilometer
m	–	meter

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## I. INTRODUCTION

1. The proposed South Asia Subregional Economic Cooperation (SASEC) Dhaka – Northwest Corridor Road Project, Phase 2 aims to improve the road connectivity and efficiency of Dhaka–Northwest international trade corridor.<sup>1</sup> There are three outputs under this investment: (i) upgrading of Dhaka–Northwest international trade corridor (Phase 2: Elenga–Hatikamrul–Rangpur), (ii) enhancement of institutional capacity of Roads and Highways Department (RHD) in road operation and management, and (iii) financing of cost overrun of Dhaka–Northwest international trade corridor (Phase 1: Joydepur–Chandra–Tangail–Elenga) project<sup>2</sup> or the SASEC Road Connectivity Project. An associated technical assistance is also proposed to support the Government of Bangladesh (GOB) in updating its road master plan and improving its planning capacity.

2. The Technical Assistance for Subregional Road Transport Project Preparatory Facility recommended to combine Bangladesh Road Research Laboratory (BRRL) and Roads and Highways Department Training Centre (RHDTTC) and establish a new Centre of Excellence for quality Control, research and training for human resource development. This new institution, to be named Road Research and Training Centre (RRTC) will support RHD's road sector development strategy and road operation, and aims to an enhanced holistic approach to quality management, applied sector-specific research and development of skills needed to manage and achieve improvements in road network service quality levels.

3. The Road Research and Training Centre will establish a) RHD Training Centre and ICT; and b) Road Research and Laboratory. The Training Centre and ICT will comprise training / class rooms, conference room, network and computer training room, office, and living accommodation. The Road Research and Laboratory will include research centre, laboratory, equipment hall, office, computer laboratory, auditorium, and internal mosque.

4. The proposed 10-storey RRTC building will cover gross area of about 185,000 sq. ft. and will include parking facility with 100 slots. The building will be established inside the RHD Headquarter in Mirpur, Dhaka.

5. At the northwestern end of Dhaka–Northwest international trade corridor is Burimari Land Port, being managed by the Bangladesh Land Port Authority. The land port provides a gateway to Bhutan through India, and is expected to see significant increase in trade with the improvement of subregional corridor infrastructures. However, the old and deteriorated land port facility, the limited capacity, and the weak institutional capacity of Bangladesh Land Port Authority will hamper the efficiency of cross-border transport, and ultimately hinder the growth of subregional trade.

6. A Multitranches Financing Facility (MFF) modality is being followed for financing the investment program. It is estimated that the investment program will cost \$1,600 million, including \$1,420 million for the improvement of Elenga–Hatikamrul–Rangpur section (190 km), \$30 million for institutional enhancement of RHD, and \$150 million to finance the cost overrun of SASEC Road Connectivity Project.

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<sup>1</sup> The project is included in ADB. 2016. *Country Operations Business Plan: Bangladesh, 2017–2019*. Manila. The project's title is changed to reflect its location and nature. No project preparatory technical assistance and/or project design advance is required.

<sup>2</sup> ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loan and Technical Assistance Grant to the People's Republic of Bangladesh for South Asia Subregional Economic Cooperation Road Connectivity Project*. Manila (Loan 2949-BAN).

7. Time slice financing will be used for the MFF to expedite implementation. Appraisal of project components including environmental assessment will be carried out upfront along with the preparation of tranche 1. Tranche 1 will necessitate a loan of \$250 million from regular OCR, and \$50 million from concessional OCR to cover the first slice of financing requirements.

8. Tranche 1 is expected to be categorized as B for environment since the scope includes upgrading of an existing road that does not pass through any environmentally sensitive areas. The same categorization is expected for succeeding tranches since this is a time-sliced MFF and all project components will be assessed up front under tranche 1.

9. This Environmental Assessment Review Framework (EARF) has been prepared to fulfill the requirements of ADB Safeguard Policy Statement (SPS) for MFFs. It will also serve as a guide on procedures for complying with environment safeguard requirements according to the ADB SPS and environmental policies of GOB for potential new components which may be added to the component as part of subsequent tranches.

## II. ASSESSMENT OF LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

10. The Government of Bangladesh has a robust legal framework, including laws, policies, rules and regulations, decrees and standards that will address environmental and social safeguards. The summary of policies and requirements relevant to the proposed investment are indicated in Table 1.

**Table 1: Summary of Environmental Legislation Applicable to the Proposed Project**

No.	Environmental Legislation / Act	Relevance to the Project / Objective	Responsible Institution
1	National Environmental Policy, 1992	Ensure that development components do not pollute the environment or degrade resources. It sets out the basic framework for environmental action together with a set of broad sectoral action guidelines.	Ministry of Environment and Forest
2	National Environmental Management Action Plan (NEMAP), 1995	An action plan to identify key environmental issues affecting Bangladesh, identify actions for reducing the rate of environmental degradation and improve quality of life.	Ministry of Environment and Forest
3	Bangladesh Environmental Conservation Act, 1995	Includes categorization of development projects into green, amber A, amber B and red. Details procedures for securing environmental clearances for projects under red category. Also includes detailed procedures for securing site clearance for projects.	Ministry of Environment and Forest
4	The Environment Conservation Act, 1995 (Amended in 2000, and 2002)	Sets out the basic rules to control, prevent and mitigate pollution and conserve and enhance the quality of the environment. It grants authority to the Department of Environment (DOE) to formulate rules to implement the Act.	Department of Environment, Ministry of Environment and Forest

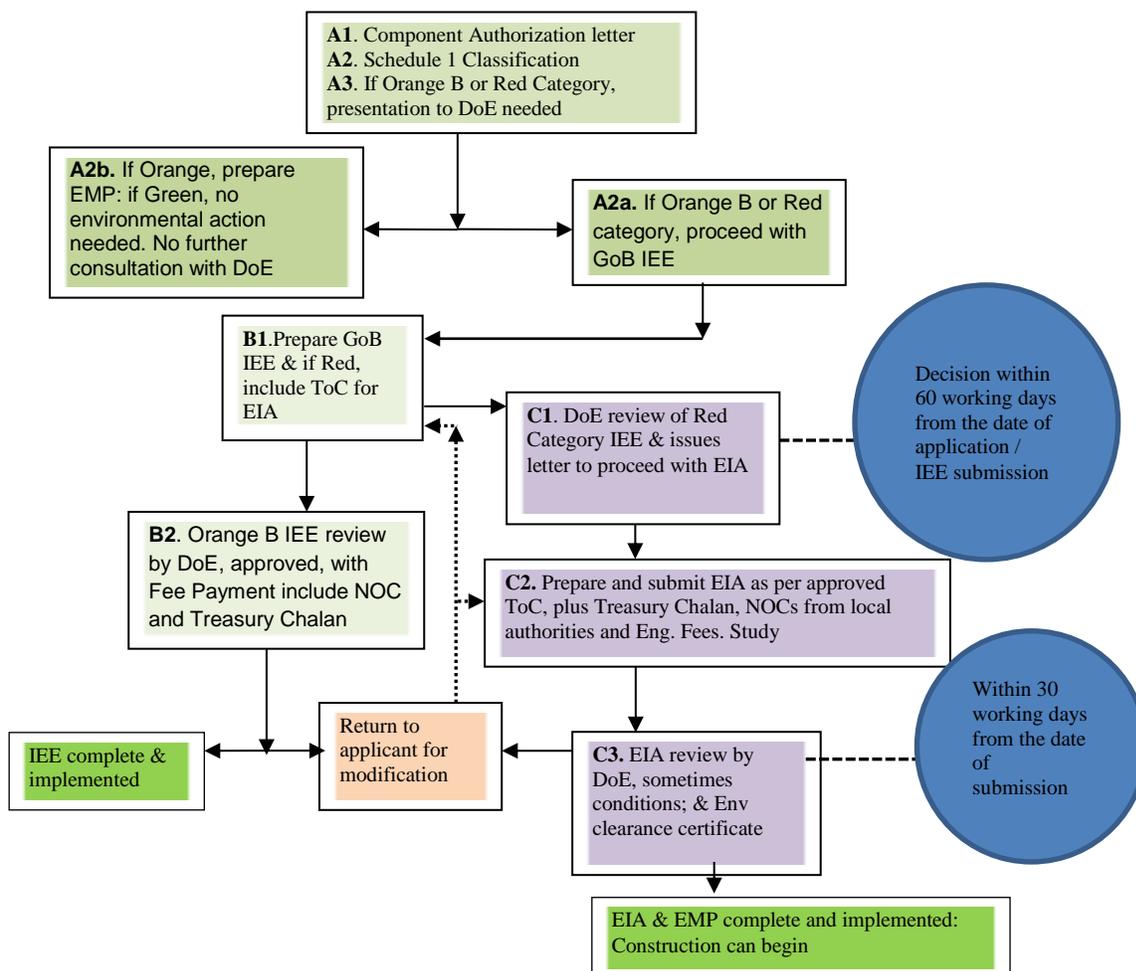
No.	Environmental Legislation / Act	Relevance to the Project / Objective	Responsible Institution
5	Environment Conservation Rules, 1997 (Amended in 2002)	Sets out rules for environmental assessment of components and issuance of environmental clearances.	Department of Environment, Ministry of Environment and Forest
6	Environment Court Act, 2000 and subsequent amendments in 2003	Establishment of Environment Court for trial of an offence or for compensation under environmental law, such as environment pollution.	Ministry of Environment and Forest
7	The EIA Guidelines for Industry (1997)	A handbook defining procedures for preparing and reviewing EIAs.	Department of Environment, Ministry of Environment and Forest
8	The Forest Act (1927) and Forest (Amendment) Act (2000)	An act to control trespassing, illegal resource extraction and provide a framework for the forestry revenue collection system	Department of Forests
9	National Forest Policy (1994)	To conserve existing forests and bring about 20% of the country's land area under the Forestation Programme and increase reserved forests by 10% per year until 2015	Department of Forests
10	The Bangladesh Wildlife (Conservation & Security) Act, 2012	To conserve and protect wildlife in Bangladesh including designation of protected areas. Protection of wildlife is provided with lists of species with four schedules: first, second, third and fourth schedule. The fourth schedule species have the highest level of protection.	Department of Forests
11	East Bengal Protection and Conservation of Fish Act 1950 (Amended in 1982)	To protect and conserve fish in the inland waters of Bangladesh.	Department of Fisheries
12	The Protection and Conservation of Fish Rules (1985)	It stipulates rules on fishing and activities that deplete fishes and fisheries including prohibiting harmful methods of fishing and harmful practices such as discharge of industrial effluents in water with fishes.	Department of Fisheries
13	Wetland Protection Act 2000	Advocates protection against degradation and resuscitation of natural water-bodies such as lakes, ponds, beels, khals, tanks, etc. affected by man-made interventions or other causes. Prevents the filling of publicly-owned water bodies and depressions in urban areas for preservation of the natural aquifers and environment. Prevents unplanned construction on riverbanks and indiscriminate clearance of vegetation on newly accreted land.	Ministry of Water Resources
14	Bangladesh Labour Law, 2006	It is a comprehensive law covering labour issues such as: conditions of service and employment, youth employment, benefits including maternal benefits, compensation for injuries, trade unions and industrial	Ministry of Labour and Employment

No.	Environmental Legislation / Act	Relevance to the Project / Objective	Responsible Institution
		<p>relations, disputes, participation of workers in company's profits, regulation of safety of dock workers, penalty procedures, administration and inspection.</p> <p>This Act pertains to the occupational rights and safety of factory workers and the provision of a comfortable environment for working. It also includes rules on registration of labourers, misconduct rules, income and benefits, health and fire safety, factory plan</p>	
15	Bangladesh Labour Rules, 2015	Includes rules on registration of labourers, misconduct rules, income and benefits, health and fire safety, factory plan	Department of Labour

11. Under GOB's Environment Conservation Rules, components are classified as Green, Orange – A, Orange – B, and Red. Red is the most sensitive while Green is the least sensitive. The proposed Elenga – Hatikamrul – Rangpur project, which is covered under Sections 67 and 68<sup>3</sup> of Red category under Environment Conservation Rules, consists of upgrading of 190 km of roads from two lanes to four lanes, and construction of 236.4-m major bridge over Fuljor River. Hence, an IEE<sup>4</sup> must be submitted to DoE for review. DoE will then issue letter to ask RHD to proceed with EIA. All Red Category components require a DoE-approved IEE before proceeding to EIA preparation. The key steps for securing environmental clearance is indicated in Figure 1.

<sup>3</sup> Section 67 - Construction/reconstruction/expansion of road (regional, national & international); Section 68 - Construction/reconstruction/expansion of bridge (length 100 meter and above)

<sup>4</sup> The GoB IEE is significantly different from ADB's IEE; essentially presenting the EIA's ToR and ToC.



**Figure 1: Government of Bangladesh Environmental Assessment Process**

12. Aside from the legal framework on environment, Bangladesh is also a party to a large number of international conventions, treaties and protocols related to the investment. Five of these which are applicable to BR and the current component are listed in Table 2.

**Table 2: Applicable International Conventions, Treaties and Protocols**

Conventions	Signed	Ratified/Accessed (AC)/Accepted(AT)	Relevance
International Plant Protection Convention (Rome, 1951) & Plant Protection Agreement for SE Asia and Pacific (1999 Revision)		01.09.1978 04.12.1974 (AC)	Ensuring that the Component work or construction materials do not introduce plant pests
Convention on Wetlands of International Importance, 1971		20.04.1992 (ratified)	Protection of significant wetland and prevention of draining or filling during construction
Convention Concerning the Protection of the World Cultural		03.08.1983 (AT)	Prevention of damage or destruction of culturally

Conventions	Signed	Ratified/Accessed (AC)/Accepted(AT)	Relevance
and Natural Heritage (Paris, 1972)		03.11.1983 (ratified)	and/or historically significant sites, monuments, etc.
Convention on Biological Diversity, 1992	05.06.1992	03.05.1994	Protection of biodiversity during construction and operation.
Convention on Persistent Organic Pollutants, 2001	23.05.2001	In process	Restriction of use of pesticides and herbicides
United Nations Framework Convention on Climate Change, 1997	11.12.1997	22.10.2001 13.11.2003 (amended)	Reduce greenhouse gas concentrations in the atmosphere to a level that would prevent dangerous anthropogenic interference with the climate system

### III. ANTICIPATED ENVIRONMENTAL IMPACTS

13. The scope of works under Tranche 1 of SASEC Phase 2 involves the (i) improvement of the next section of Dhaka–Northwest international trade corridor, from Elenga through Hatikamural to Rangpur, a total length of 190 km; (ii) additional funding for SASEC Phase 1 (Joydepur–Chandra–Tangail–Elenga)<sup>5</sup>; and (iii) enhancement of institutional capacity of Roads and Highways Department (RHD) in road operation and management<sup>6</sup>. There are no protected areas and no ecologically sensitive sites that will be traversed or near the proposed alignment for the physical components of the investment.

14. Environmental impacts of the project, which consists of expansion from two lanes to four lanes, and the construction of separate service vehicles for slow moving vehicles on each side of the highway, are mainly related to earthworks that can be easily mitigated with engineering measures. These impacts include:

- Loss of trees;
- Loss of agricultural lands;
- Land acquisition and resettlement impacts;
- Impacts on existing utility infrastructure;
- Sedimentation impacts on rivers caused by dredging;
- Surface water impacts due to waste materials from camp site and from oil leaks and hazardous materials used in construction;
- Groundwater extraction impacts;
- Drainage congestion due to runoff from construction materials and wastes;
- Soil erosion and siltation of water bodies arising from extraction of aggregates from rivers;

<sup>5</sup> An Initial Environmental Examination was already prepared, submitted and disclosed in ADB website in July 2012. Environmental monitoring reports have been submitted to ADB since November 2015.

<sup>6</sup> The institutional capacity enhancement comprised the following: (i) establishment of one road research and training center; (ii) establishment of at least 3 road operation units along the corridor; and (iii) updating of road master plan with gender features.

- Soil compaction and contamination;
- Air, noise and vibration impacts due to vehicles and machinery used for construction;
- Occupational health and safety impacts during construction;
- Impacts on community health and safety hazards posed to the public; and
- Long-term environmental impacts due to use of 4-lane highway.

15. Corresponding mitigation measures are detailed in the prepared Initial Environmental Examination (IEE) submitted and disclosed in ADB website.

#### **IV. ENVIRONMENTAL ASSESSMENT OF SUCCEEDING TRANCHES**

16. For Tranche 1 of the MFF, the environmental impacts are mostly confined during construction period and mitigation measures have been proposed in the environmental management plan. For all the subprojects<sup>7</sup>, including the upgrading of Elenga – Hatikamrul – Rangpur Road and funding of cost overrun of Joydeypur – Chandra – Tangail – Elenga Road, the investment will not pass through any environmentally sensitive areas, and hence it is expected that this tranche and the subsequent tranches, which only involves time-slice financing to expedite project implementation, will be categorized as B for environment.

17. Tranche 1 projects will follow the environmental assessment procedures to meet both the requirements of ADB SPS 2009, and the GOB environmental regulations and guidelines. Any subproject outside of the purview of this framework will not be considered for inclusion under the investment program.

18. The Elenga – Hatikamrul – Rangpur subproject was screened using the ADB Rapid Environmental Assessment (REA) checklist. RHD proposed the environmental categorization of subproject. ADB confirmed the environmental categorization of Tranche 1 as B for environment. The succeeding tranches, which will only comprise time-slice financing, and no additional subprojects other than those identified under Tranche 1, will still retain the categorization of B for environment.

##### **A. Screening and Classification**

19. All succeeding tranches including new components if any will be initially screened to understand the nature and significance of anticipated environmental impacts by using the ADB Rapid Environmental Assessment (REA) checklist (Annex 1). Following the initial screening, RHD will propose and ADB will confirm the environmental categorization of each tranche based on the most environmentally sensitive component as A, B or C in accordance with the ADB SPS. Based on the criteria under Environmental Conservation Rules, 1997 (amended in 2002) of GOB, classification of succeeding tranches or components (green, orange A, orange B or red) will be determined and shared with ADB.

##### **B. Environmental Selection Criteria**

20. The following environmental criteria shall be applied for selection of new components in subsequent tranches:

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<sup>7</sup> No environmental impacts are anticipated from one of the components under Tranche 1, the enhancement of institutional capacity of Roads and Highways Department (RHD) in road operation and management.

- (i) The subproject is part of South Asia Subregional Economic Cooperation (SASEC) Dhaka-Northwest Corridor Road Project Phase 2 under the \$1,600 million loan assistance from ADB.
- (ii) All efforts will be made to avoid funding new components passing through or near areas of critical habitats areas<sup>8</sup>, notified ecological sensitive areas or area of international significance (e.g., protected wetland designated by the Wetland Convention) and cultural heritage designated by UNESCO or declared as archeologically protected by GOB. If absolutely unavoidable, component passing through critical habitat areas can be selected only if (i) no alternatives are available, (ii) there are no measurable adverse impacts on the critical habitat that could impair its ability to function (iii) there is no reduction in the population of any recognized endangered or critically endangered species (iii) the overall benefits from the component substantially outweigh the environmental costs (v) Any conversion or degradation can be appropriately mitigated and there will be non-“net loss” of biodiversity, and (vi) the respective wildlife agency supports the component.
- (iii) All efforts will be made and clearly demonstrated to avoid having components impacting Physical Cultural Resources<sup>9</sup> or passing through or near cultural heritage designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) or declared as archeologically protected by GOB. If unavoidable, component passing through or near such sites be selected only (i) if no alternatives are available, (ii) any lesser impacts can be mitigated (iii) the overall benefits from the component substantially outweigh the environmental costs.

### **C. Environmental Assessments and Environmental Management Plans**

21. In case there is a component not appraised during tranche 1, the preparation of Initial Environmental Examination (IEE) (Annex 2) for category B components and tranches will be guided by the objective of ensuring the environmental soundness, sustainability and integration of environmental considerations into the project decision making process. Environmental impacts will be avoided, and if not possible, minimized, mitigated, and positive impacts will be enhanced through implementation of the Environmental Management Plan (EMP). Category A components and tranches will not be eligible under this MFF.

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<sup>8</sup> 6 criteria for critical habitat under ADB SPS: i) habitat required for the survival of critically endangered or endangered species; ii) areas having special significance for endemic or restricted-range species; iii) sites that are critical for the survival of migratory species; iv) areas supporting globally significant concentrations or numbers of individuals of congregatory species; v) areas with unique assemblages of species that are associated with key evolutionary processes or provide key ecosystem services; and vi) areas having biodiversity or significant social, economic or cultural importance to local communities. These may include areas that are either legally protected or officially proposed for protection, such as areas that meet the criteria of the World Conservation Union classification, the Ramsar List of Wetlands of International Importance, and the United Nations Educational, Scientific, and Cultural Organization’s world natural heritage sites.

<sup>9</sup> Movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.

22. The IEE study will be conducted in accordance with the requirements of ADB's SPS 2009. The study will clearly identify and describe the area of impact, provide an assessment of potential impacts and mitigation measures, and involve public consultations with affected people and other relevant stakeholders. It should include a comprehensive and practical EMP and Environmental Monitoring Plan (EMoP) and clear institutional arrangements for implementing them. Specifically, the study will focus on the following:

- a. Potential impacts on biodiversity including modified, natural, critical habitat and protected areas and necessary measures to minimize, mitigate and offset impacts.
- b. Soil erosion and necessary engineering and bioengineering measures to address them
- c. Potential waste issues including excavated spoil, hazardous materials and wastes and appropriate measures for their disposal, treatment and other forms of management.
- d. Climate change impacts to the project and recommendations for adaptation as well as mitigation
- e. Quantification of Greenhouse Gas (GHG) emissions or emission reductions from the project
- f. Occupational health and safety issues and measures for the construction workers as well as the local communities in and around the project site.
- g. Cumulative and induced impacts of the project in light of existing environment, ongoing development projects and planned projects in the near future
- h. Potential impacts on physical and cultural resources and measures to avoid, minimize or mitigate impacts.
- i. Grievance redress mechanism to address concerns and grievances of the affected people in the course of the project cycle.

23. The IEE report must be disclosed on the ADB website before ADB management approval of the respective tranche. The Contractor will be required to review and update the EMP as necessary to make it more site specific and incorporate additional/update information if available and submit for approval by the Project Implementation Unit (PIU) and Project Implementation Consultants (PIC).

## **V. CONSULTATION, INFORMATION DISCLOSURE AND GRIEVANCE REDRESS MECHANISM**

### **A. Consultation**

24. Meaningful public consultations must be held early and continuously throughout the project development stage to allow the incorporation of relevant views of the stakeholders in the final subproject design, mitigation measures, implementation issues, and enhance the distribution of benefits. Stakeholders should include project beneficiaries, local affected people, government bodies, and non-governmental organizations if necessary. Consultations must be carried out in an environment free of coercion or intimidation and may be done through meetings, focus group discussions, interviews, hearings which will start with the description of the subproject design and initial identification of potential impacts. The consultations must encourage women participation and engage as many stakeholders as possible. All consultations conducted must be documented clearly in the IEE report. The findings of the IEE must be shared in a form or nature that is accessible and understandable by the affected persons and relevant stakeholders or necessary recommendations and guidelines made for sharing such kind of information at a later stage.

## **B. Information Disclosure**

25. Disclosing the environmental documents including the IEE, monitoring reports and environmental due diligence reports to the public will be the responsibility of the RHD. RHD will ensure that these documents are systematically kept as part of the project records, and made available upon request. All environmental documents are subject to ADB's Communication Policy 2011 and ADB SPS 2009. The IEE report will be disclosed to the public through the ADB website before the approval of the respective tranche for ADB financing. Monitoring reports need to be disclosed to the public through the ADB and RHD websites.

## **C. Grievance Redress Mechanism (GRM)**

26. To facilitate the resolution of affected people's concerns, complaints, and grievances about the social and environmental performance of the project, a Grievance Redress Mechanism (GRM) is established which aims to provide a time bound and transparent mechanism to voice and resolve social and environmental concerns.

27. Grievances related to the implementation of the project, particularly regarding the environmental management plan will be acknowledged, evaluated, and responded to the complainant with corrective actions proposed using understandable and transparent processes that are gender responsive, culturally appropriate, and readily accessible to all segments of the affected people. The responsibility for addressing the grievances along with proper timelines will be clearly indicated. Records of grievances received, corrective actions taken and their outcomes will be properly maintained and form part of the environmental monitoring report for submission to ADB.

28. The Project Implementation Unit (PIU) of RHD shall make the public aware of the GRM with the support of PIC through methods such as public awareness campaigns. Grievances can be filed in writing or by phone with any member of the PIU or PIC. The following steps procedures will be followed under the GRM.

29. **First tier of GRM:** The Site Project Manager (PM) under the PIU shall be the designated officer for grievance redress at the first tier. Resolution of complaints will be done within 7 working days. Investigation of grievances will involve site visits and consultations with relevant parties (e.g., affected persons, contractors, traffic police, etc.) Grievances will be documented and personal details (name, address, date of complaint, etc.) will be included, unless anonymity is requested. A tracking number shall be assigned for each grievance, including the following elements:

- initial grievance sheet (including the description of the grievance), with an acknowledgement of receipt handed back to the complainant when the complaint is registered;
- grievance monitoring sheet, mentioning actions taken (investigation, corrective measures); and
- closure sheet, one copy of which will be handed to the complainant after he/she has agreed to the resolution and signed off.

30. The updated register of grievances and complaints will be available to the public at the PM office, construction site, and other key public offices along the project area. Should the grievance remain unresolved after 7 days, it will be elevated to the second tier.

31. **Second tier of GRM:** The respective site level PM will activate the second tier of GRM by referring the unresolved issue (with written documentation). The GRC shall be established by the PIU before commencement of site works. The GRC will consist of the following persons: (i) project director; (ii) representative of city ward; (iii) representative of the affected persons; (iv) representative of the local deputy commissioner's office (land); and (v) representative of the Department of Environment (DOE) for environmental related grievances. A hearing will be called with the GRC, if necessary, where the affected person can present his or her concerns and issues. The process will facilitate resolution through mediation. The local GRC will meet as necessary when there are grievances to be addressed. The local GRC will suggest corrective measures at the field level and assign clear responsibilities for implementing its decision within 15 working days.

32. The contractor will have observer status on the committee. If unsatisfied with the decision, the existence of the GRC shall not impede the complainant's access to the government's judicial or administrative remedies.

33. The functions of the local GRC are as follows: (i) resolve problems and provide support to affected persons arising from various environmental issues, including dust, noise, utilities, power and water supply, waste disposal, traffic interference, and public safety, as well as social issues such as land acquisition, asset acquisition, and eligibility for entitlements, compensation, and assistance; (ii) reconfirm grievances of displaced persons, categorize and prioritize them, and aim to provide solutions within a month; and (iii) report to the aggrieved parties about developments regarding their grievances and decisions of the GRC.

34. The respective APD and PM will be responsible for processing and placing all papers before the GRC, maintaining database of complaints, recording decisions, issuing minutes of the meetings, and monitoring to see that formal orders are issued and the decisions carried out.

35. **Third tier of GRM:** In the event that a grievance cannot be resolved directly by the Project Implementation Unit (PIU) (first tier) or GRC (second tier), the affected person can seek alternative redress through the city ward committees or in appropriate courts. The PIU or GRC will be kept informed by the city mayor authority.

36. The monitoring reports of the EMP and the resettlement plan implementation shall include the following aspects pertaining to progress on grievances: (i) number of cases registered with the GRC, level of jurisdiction (first, second, and third tiers), number of hearings held, decisions made, and the status of pending cases; and (ii) lists of cases in process and already decided upon, which may be prepared with details such as name, identification (I.D.) with unique serial number, date of notice, date of application, date of hearing, decisions, remarks, actions taken to resolve issues, and status of grievance (i.e., open, closed, or pending).

37. Budgets for GRM, which will cover the costs of awareness campaigns, meetings, documentation and supplies, are built into the monitoring and evaluation budgets of RHD.

## **VI. INSTITUTIONAL ARRANGEMENT FOR IMPLEMENTING EARF AND RESPONSIBILITIES**

38. The Roads and Highways Department (RHD) is the Executing Agency (EA) for the MFF and will be responsible for ensuring that all the components of the EARF are complied with. The RHD has the responsibility to ensure that the investment follows the legal requirements for

environmental assessment. The RHD has an Environmental and Social Circle (ESC) headed by the Superintending Engineer who is supported by the Executive Engineer, Subdivision Engineer, Assistant Engineer and Sub-assistant Engineer.

39. Two Project Implementation Units (PIU) will be responsible for implementing phase 1 (Joydepur–Chandra–Tangail–Elenga)<sup>10</sup> and phase 2 (Elenga–Hatikamural–Rangpur)<sup>11</sup> of the MFF. Each PIU is headed by a Project Director (PD) who is supported by Additional Project Directors (APD). The PD for phase 1 is supported by 1 APD while the PD for phase 2 is supported by 3 APDs. At the site level, there are 3 Project Managers (PMs) for the 4 contract packages under the phase 1 and 8 PMs for the 9 contract packages under the phase 2. Each PM is further supported by Deputy PM, Assistant Engineers and Sub Assistant Engineers.

40. The APDs serve as the environmental focal persons under each PIU. One of Assistant Engineers serve as the environmental focal person at the site level and support the respective APD on environment safeguard matters. Further the Project Implementation Consultant (PIC) responsible for supervising the civil works contractor will provide support to the respective PIU for day to day monitoring and reporting on environment safeguards.

41. The following elaborates the detailed responsibilities on environment safeguards:

**a. RHD**

42. As the EA for the investment program, RHD will be responsible for ensuring that all the environment safeguard requirements as provided in the Framework Financing Agreement (FFA), this EARF and the respective IEE and EMP are complied with.

**b. RHD (Environment and Social Cell)**

43. The RHD Environment and Social Cell (ESC) is responsible for managing environment and social safeguards including safeguards related capacity building for all RHD projects. They will not be involved in the day to day implementation of safeguards for specific projects such as this investment program. The respective PIU will seek their support and advise on an as needed basis. Their overall responsibilities are:

- Ensure that all RHD works and projects are executed in accordance with appropriate environmental and social standards and practices.
- Liaise with GOB organisations and other line agencies to ensure effective inter-agency cooperation on relevant projects.
- Ensure the provision or procurement of the necessary services for carrying out Environmental Assessment, Land acquisition and Resettlement studies.
- Disseminate the need for high social and environmental standards throughout RHD and to the concerned public through research, publicity, seminars and training.
- Coordination the preparation and implementation of environmental and resettlement management plans for RHD projects as needed.
- Monitor long-term, cumulative environmental impacts and ensure mitigation measures for project sustainability.

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<sup>10</sup> Phase 1 is already under implementation under Loan 2949-BAN: South Asia Subregional Economic Cooperation Road Connectivity Project

<sup>11</sup> A new PIU for phase 2 has just been established

- Conduct site inspections on selected RHD projects as needed
- Provide feedback on all environmental issues of existing and ongoing RHD projects and works.
- Review and preparation of Request for Proposal (RFP) and tender documents for procurement of Environmental Services (IEE, EIA and EMP) for RHD projects.
- Assist the Director of RHD Training Centre in providing training to RHD officers in Environmental and Resettlement issues.
- Review and approve the Environmental Assessment reports and Environmental Monitoring reports produced by consultants/experts under RHD projects as needed.
- Establish and maintain environmental standards, guidelines and manuals in RHD.
- Identify environmental issues and constraints at project planning stage, suggest alternatives, options.
- Establish a reference library, containing relevant environmental documents (hard and soft copies) of domestic and overseas sources.
- Monitor long term environmental impacts on relevant RHD Projects
- Liaise with Road Safety Circle, Arboriculture Head and maintain intra-departmental co-ordination.

**c. PIU (Environmental Focal Persons at Project Head Quarter and Site level)**

44. The Additional Project Directors under the respective PIU will serve as the Environmental Focal Person at the Project Head Quarter level. At the site level an Assistant Engineer supporting the Project Manager will serve as the environmental focal person. The PIU will be responsible for ensuring proper implementation of environment safeguards in their respective projects including implementation of the EMP and EMoP, timely reporting and timely resolution of complaints and grievances. Their detailed responsibilities are:

- Prepare or engage consultants to prepare environmental assessment reports (IEE, EIA, EMP) for project components as necessary
- Review and comment on the environmental assessment reports and environmental monitoring reports prepared by consultants and ensure they are prepared in accordance with requirements of RHD, DOE and ADB
- Ensure that the consultants while carrying out work at site follow the environmental standards, guidelines and manual of RHD.
- Take necessary steps to ensure timely receipt of DoE Environmental Clearance
- Ensure that the EMP and relevant environmental clauses are included in the contractors bidding documents
- Conduct spot checks on-site to monitor contractor's compliance with the EMP
- Review and endorse quarterly monitoring reports prepared by the PIC
- Review and endorse annual environmental monitoring reports prepared by the PIC for further submission to ADB for disclosure on the ADB website
- If there are any non-compliance issues or unanticipated environmental impacts ensure that necessary corrective actions are taken and IEE and/or EMP is updated as necessary
- Ensure that all grievances and complaints received are addressed in a timely manner and properly documented
- Carry out all other activities on environment safeguards on behalf of the PIU as needed

**d. Project Implementation Consultant (Environment Safeguards Team)**

45. The proposed framework for implementation of the project shall utilize consultancy services from both international and national companies for the overall management and supervision of construction work on behalf of the EA. In addition to supervising the construction work of the contractor their role will be to check on conformity with the relevant clauses in construction contracts and national legislation and regulations. The following are the detailed responsibilities of the PIC.

- Review the IEE and EMPs of respective subprojects to understand the context and environmental issues of the project
- Establish monitoring and reporting protocols within the environment safeguards team at the site level and project headquarter level
- Require the civil works contractor to prepare sub-plans on environment safeguards such as camp layout plan, borrow area management plan, construction debris management plan, traffic management plan etc. as needed
- Review and approve all sub-plans on environment safeguards submitted by the civil works contractor
- Conduct regular (minimum of weekly) onsite inspections on implementation of the EMP by the contractor
- Ensure the contractor obtains all clearances, permits etc. related to environment safeguards on a timely basis
- Ensure the contract collects required environmental monitoring data (air, water, noise) as stipulated in the respective IEE report
- Provide on-site technical advice and training to the contractor as needed
- Organize training workshops on implementation of environment safeguards for the project team including PIU, RHD site offices, members of the PIC and civil works contractor
- Facilitate proper functioning of the grievance redress mechanism and maintain records of all complaints received and actions taken for inclusion in the environmental monitoring reports
- If there are any non-compliance issues or unanticipated environmental impacts ensure that necessary corrective actions are taken and update the IEE and/or EMP as necessary
- Review and approve the monthly progress reports submitted by the contractor
- Based on monthly progress reports submitted by the contractor and site inspections prepare quarterly environmental monitoring reports for review and approval by the PIU
- Based on the quarterly monitoring reports prepare annual environmental monitoring reports for review and approval by the PIU and further submission to ADB for disclosure on the ADB website
- Provide necessary technical support to the PIU on implementation of environment safeguards

**e. Contractor (Environment Safeguards Team)**

46. The tender for the construction of the project would be national/international competitive bidding contractors. The Contractor is legally mandated to implement the EMP and EMoP and obtain all environment related permits and clearances required for construction. The detailed responsibilities of the contractor on environment safeguards are the following:

- Recruit and appoint environmental focal persons and/or environmental health and safety officers on the construction site
- The contractor shall comply with all statutes and regulations concerning the execution of works as mentioned in DoE and RHD environmental guidelines.
- The contractor shall be responsible for familiarizing himself with all legislation relating to environmental protection that is relevant to his activities. Reference to rational environmental quality guidelines should be made.
- Implement the EMP approved by the PIC
- Prepare all sub-plans related environment safeguards such as camp layout plan, borrow area management plan, construction debris management plan, traffic management plan etc. as needed and submit for approval by the PIC
- Obtain all statutory clearances and permits on environment safeguards in a timely manner
- Conduct environmental quality monitoring (air, noise, water) as stipulated in the Environmental Monitoring Plan of the respective IEE report
- Take necessary measures to immediately address any complaints or grievances raised by local community or other stakeholders
- Prepare monthly progress reports on implementation of the EMP for approval by the PIC
- The contractor shall be responsible for the costs of cleaning up any environmental pollution resulting from his activities if methods for doing so are available and effective.

**f. ADB**

47. As a funding agency ADB is responsible for monitoring implementation of environment safeguards, providing technical guidance to the EA as necessary. Specific responsibilities entail the following:

- Review IEE reports including EMP provide feedback and disclose the reports on the ADB website as required by the ADB SPS;
- Provide assistance to RHD, if required, in carrying out its responsibilities and for building capacity for safeguard compliance;
- Monitor overall compliance of the MFF tranches and components to respective IEE and EMP through review missions;
- Review all environmental monitoring reports submitted by RHD, provide feedback and disclose the reports on the ADB website as required by the ADB SPS
- Provide guidance to the RHD and the PIU on issues related to inclusion of new component components, changes in component design, occurrence of unanticipated environmental impacts during component implementation, emergency situations and others as necessary.

## **VII. MONITORING AND REPORTING**

48. The RHD will be responsible for undertaking environmental due diligence and monitoring the implementation of environmental mitigation measures for all subprojects under respective tranches. RHD will be responsible for ensuring compliance with government's environment safeguards rules and regulations, as well as implementing of the provisions of documents such as the EMP. Due diligence report as well as monitoring implementation of the environmental

management plan needs to be documented systematically. ADB must be given access to undertake environmental due diligence for all sub-projects, if needed.

49. Monitoring during construction is primarily the responsibility of the Contractor through monthly self-reporting and relates to the status of EMP and Environmental Monitoring Plan (EMoP) implementation including complaints received. The PIC will be responsible for monitoring the compliance with construction contracts, effectiveness of mitigation measures, complaints, and overall environmental quality from the results of the third-party ambient environmental monitoring hired by the Contractor.

50. Monitoring during operation will be conducted by RHD to cover EMP implementation and its effectiveness. The monitoring reports will document progress made in EMP implementation, with emphasis to compliance with each component of EMP. Quarterly monitoring reports will be prepared by the PIC based on site inspections and monthly progress reports submitted by the contractor. The quarterly monitoring reports will further be compiled into annual monitoring reports for submission to ADB for disclosure on the ADB website. ADB missions will review the compliance of the project through the submitted monitoring reports.

**ANNEX 1: RAPID ENVIRONMENTAL ASSESSMENT (REA) CHECKLIST****ROADS AND HIGHWAYS****Instructions:**

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES), for endorsement by Director, SDES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Sector Division: 

Screening Questions	Ye s	No	Remarks
<b>A. PROJECT SITING</b> 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>B. POTENTIAL ENVIRONMENTAL IMPACTS</b> WILL THE PROJECT CAUSE...			
▪ encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?			

Screening Questions	Ye s	No	Remarks
<ul style="list-style-type: none"> <li>▪ encroachment on precious ecology (e.g. sensitive or protected areas)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ noise and vibration due to blasting and other civil works?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ dislocation or involuntary resettlement of people?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ dislocation and compulsory resettlement of people living in right-of-way?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ hazardous driving conditions where construction interferes with pre-existing roads?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?</li> </ul>			

Screening Questions	Ye s	No	Remarks
<ul style="list-style-type: none"> <li>▪ accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ increased noise and air pollution resulting from traffic volume?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ social conflicts if workers from other regions or countries are hired?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?</li> </ul>			
<ul style="list-style-type: none"> <li>▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.</li> </ul>			

### A Checklist for Preliminary Climate Risk Screening

**Country/Project Title:** \_\_\_\_\_

**Sector :** \_\_\_\_\_

**Subsector:** \_\_\_\_\_

**Division/Department:** \_\_\_\_\_

Screening Questions		Score	Remarks <sup>12</sup>
<b>Location and Design of project</b>	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?		
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?		
<b>Materials and Maintenance</b>	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?		
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?		
<b>Performance of project outputs</b>	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

**Result of Initial Screening (Low, Medium, High):** \_\_\_\_\_

**Other Comments:** \_\_\_\_\_

**Prepared by:** \_\_\_\_\_

<sup>12</sup> If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

**ANNEX 2: INITIAL ENVIRONMENTAL EXAMINATION**

- A. Executive Summary
- B. Introduction
  - 1. Project Background and Rationale
  - 2. Purpose of the Report
  - 3. Approach and Methodology
- C. Policy, Legal and Administrative Framework
  - 1. Regulatory Requirements
  - 2. Environmental Policies and Guidelines
  - 3. Transportation Policies and Guidelines
  - 4. International Treaties
  - 5. Environmental Clearance and Public Consultation Procedures
  - 6. ADB Safeguard Policies
- D. Description of the Project
  - 1. Background
  - 2. Project Location
  - 3. Project Components
- E. Description of the Environment
  - 1. Physical Environment
  - 2. Biological Environment
  - 3. Socio-economic Environment
  - 4. Physical Cultural Resources
- F. Anticipated Environmental Impacts and Mitigation Measures
  - 1. Pre-construction Phase
  - 2. Construction Phase
  - 3. Operation Phase
  - 4. Evaluation of Significant Impacts
  - 5. Climate Change
- G. Analysis of Alternatives
  - 1. No Action Option
  - 2. Proposal Alternatives
  - 3. Alternative Design and Construction Approach
  - 4. Alternative Schedule and Process
  - 5. Alternative Resources
- H. Information Disclosure, Consultation and Participation
  - 1. Profile of Stakeholders
  - 2. Information Disclosure
  - 3. Consultation
- I. Grievance Redress Mechanism
- J. Environmental Management Plan
  - 1. Environmental Management Plan
  - 2. Environmental Monitoring Plan
  - 3. Budget
  - 4. Institutional Mechanism to Implement EMP and EMoP
- K. Conclusion and Recommendation