

**Terms of Reference (TOR)**  
**For**  
**Environmental Consultant for**  
**Resilient Infrastructure for Adaptation and Vulnerability Reduction (RIVER) Project**

**A. Introduction**

Bangladesh is extremely vulnerable to the effects of climate change. The Global Climate Risk Index ranks Bangladesh as the world's seventh most affected country over the period 1999-2018. Rising temperatures leading to more intense and unpredictable rainfalls during the monsoon season and a higher probability of catastrophic cyclones are expected to result in increased tidal inundation. Besides, Bangladesh is also a deltaic country consisting of floodplains created by over 300 rivers and channels, including three major rivers: the Ganges, the Brahmaputra, and the Meghna. 25 percent of the country is less than 1m above sea level and 50 percent is less than 6m above sea level. Bangladesh is located at the foot of the highest mountain range in the world, the Himalayas, which is also the world's highest precipitation zone. During monsoon seasons, the winds from the sea towards the land raise the water levels in the Bay of Bengal, inhibiting drainage from these rivers to the sea. As rainfall is also high during monsoon seasons, river flows, local rain, and raised levels for the Bay of Bengal result in flooding of vast areas in Bangladesh. Floods are especially destructive when peak flows in these rivers occur at the same time.

Flooding in Bangladesh is a near-constant phenomenon, recurring with varying magnitude and intensity, affecting a greater population than any other natural hazard. Floods and riverbank erosion affect about one million people annually in Bangladesh. Once every three to five years, up to two-thirds of Bangladesh is inundated by floods. Runoff and peak 5-day rainfall intensity (a surrogate for an extreme storm event) are projected to increase. Such disasters have both direct effects (such as loss of lives and property) and indirect effects (such as loss of employment and income, reduced access to products and services, and the opportunity cost of resources that need to be diverted to relief and rehabilitation) as well as disrupting effects on rural economies, accelerating rapid urbanization and migration. Recent studies estimate that by 2050 Bangladesh could have 13.3 million internal climate migrants. Additional rural-urban migration would have significant consequences for air and water pollution and unsustainable consumption of natural resources while putting additional pressure on urban labor markets. Addressing climate risks is increasingly becoming urgent to ensure sustainable economic development of the country.

In the above backdrop, Resilient Infrastructure for Adaptation and Vulnerability Reduction (RIVER) Project aided by the World Bank with the project development objective (PDO) to reduce the vulnerability of people in targeted communities to riverine and flash floods, improve the country's capacity in disaster preparedness and response. The objective has been planned to achieve through the implementation of the following activities:

**I. Resilient Flood Shelters and Community Infrastructure:** This component will finance land raising and construction of climate-resilient flood shelters in targeted flood-prone villages in non-coastal districts, installation of lightning protection systems, construction and/or rehabilitation of associated climate resilient shelter connecting and community roads, and resilient infrastructure as identified by the community including climate resilient culverts and bridges, repair, rehabilitation of rural markets, repair and rehabilitation of landing stages (river jetties), and installation of solar powered street lights. The construction, repair and rehabilitation of infrastructure conducted under this component will implement energy efficient practices and equipment to reduce GHG emissions associated with the project activities. Additionally, where possible, the activities will use locally sourced material to reduce GHG emissions associated with transportation for procurement. This component will also cover the social and environment management in the proposed project intervention areas.

**II. Strengthening Capacity for Disaster Preparedness and Response and Technical Assistance:** This component will finance goods and services to increase the capacity of LGED and communities to plan, manage,

and recovery from floods, and strategic studies to increase long-term disaster and climate resilience. To enhance the capacity of LGED, these include setting up contingency planning for emergency preparedness and evacuations, updating the shelter database, improving the disaster loss and damage assessments and reporting system, and establishing Operation and Coordination Center (OCC) in Upazila, District and Regional level LGED offices as well as in HQ. Activities to enhance the capacity of communities include CBDRM activities with local organizations such as the Union Disaster Management Committees (UDMCs) on basic competencies to improve health and safety during floods, community risk mapping, training of School Management Committees (SMCs) on shelter management and updating and training on community operation and maintenance guidelines of shelters.

**III. Project Management, Design, and Supervision, Monitoring, and Evaluation:** This component will support the Government in implementing the project, and in coordinating all project related activities, monitoring, technical assistance, and training. It will include: (i) establishment of a Project Implementation Unit (PIU) within the Local Government Engineering Department, and consultancy and technical assistance for construction detailed design, procurement support, and construction supervision, preparation and implementation of safeguard instruments; (ii) capacity development of the PIU and communities in participatory planning and investment; (iii) monitoring and evaluation; and (iv) technical assistance and training in such areas as disaster management and preparedness, climate change adaptation and mitigation, construction, contract management, financial management, preparation of environmental and social assessments, and preparation of safeguard instruments. It will also provide resources for strengthening the flood preparedness and management program. The management, design and M&E activities under this component will integrate climate adaptation and mitigation measures and parameters.

**IV. Contingency Emergency Response:** The objective of this subcomponent is to cater to unforeseen emergency needs. In case of a major natural disaster, the Government may request the Bank to re-allocate project funds to this component (which presently carries a zero allocation) to support response and reconstruction. Disbursements under CERC will be contingent upon the fulfillment of the following conditions: (i) the Government of Bangladesh has determined that an eligible crisis or emergency has occurred and the Bank has agreed and notified the Government; (ii) the Ministry of Finance has prepared and adopted the Contingent Emergency Response (CER) Implementation Plan that is agreed with the Bank; and (iii) LGED has prepared, adopted, and disclosed safeguards instruments required as per Bank guidelines for all activities from the CER Implementation Plan for eligible financing under the CERC.

Major activities include 500 nos. Primary School cum Flood Shelters, 100 nos. Construction/Installation of Solar PV Nano-grid System, Raised land above Flood level 200 nos, Improvement of Flood Shelter Connecting Road- 275km, Construction of Bridges- 500 m, Construction of Culvert- 1330m, Improvement of community infrastructure Road- 110km, Solar Street Light- 6600 nos, Installation of Protection System- 1400nos.

The project is being implemented in 78 Upazilas of 14 Districts of Bangladesh. These 14 Districts are Kurigram, Lalmonirhat, Rangpur, Nilphamari, Gaibanda, Sirajganj, Pabna, Bogura, Gopalganj, Rajbari, Madaripur, Faridpur, Sunamganj, Hobiganj.

## B. Environmental Issues

The Project will include construction of flood shelters and raised lands, associated shelter connecting & community roads, community infrastructures i.e. bridges, culverts, with climate resilient features, rehabilitation of the landing stages (river jetties) and growth centers (markets), and installation of lightening protection system which will not only reduce the vulnerability of the beneficiaries to natural disasters, but also provide basic facilities and help improve the degraded environment. The project will be implemented in accordance with World Bank Environmental and Social Framework<sup>1</sup> (ESF).

The LGED PIU intends to hire an Environmental Consultant under Individual Consultant Selection (National, Open market approach) following World Bank Procurement Regulation July 2016 (Revised in November 2020) for services to address the environmental issues under the project having package no. LGED/RIVER/21-22/IC-3. It will be financed by the World Bank

### C. Objectives of the Assignment

The objectives of the Environmental Consultant (hereafter referred as 'the consultant') are to oversee and coordinate on environmental compliance with the World Bank requirements during project implementation

### D. Scope of Services

The assignment includes but not limited to the following:

#### 1. Overall coordination and supervision on environmental safeguard

While the PD has overall responsibility of the project including ES compliance, Environmental Consultant will be responsible to assist the PD for implementing the project complying with the Environmental and Social Commitment Plan (ESCP), completing all related activities/tasks, ensure quality control and overall coordination associated with environmental compliance with field based Environmental Personal, Consultants, officials and other relevant stakeholders.

#### 2. Review and endorsement of environmental screening

The Consultant shall review and endorse the Environmental and Social (ES) assessments/instruments/documents, prepared by the environmental team/personal from design and supervision firm and any of the above which was prepared by the contractor, and subsequently reviewed by the environmental team/personal from design and supervision firm. Particular attention should be given on Occupational and community health and safety, pollution prevention and resource efficiency, sensitive ecosystems, forests and physical cultural resources as well as any social sensitivity in the project area following the ESMF, ESIA and ESMP. The Consultant shall coordinate with PD as necessary on the further actions required based on the screening result.

#### 3. Support and supervision of ESMP implementation

The Consultant will assist PD ensuring implementation of site specific ESMPs and will work in close coordination with concerned counterpart of the D&S firm.

For high-risk physical intervention, during pre-construction, the Consultant shall review the detail project designs/site plan and conduct site investigation to check if the necessary environmental mitigation measures are planned and to advise any additional mitigation measures required. The Consultant will conduct field visit regularly.

For any identified high-risk operation, the Consultant will regularly visit the sub-project sites with Environmental team/personal of D&S to monitor the implementation of ECoPs/ESMPs and provide input to prepare sub-project specific monitoring report.

#### 4. Monitoring and reporting

The Consultant will review the draft environmental monitoring report for each investment prepared by Environmental team/personal of D&S. When necessary or required, the monitoring reports shall be field verified by the Consultant and LGED officials.

The Consultant shall consolidate the relevant information on environmental compliance such as environmental monitoring report including environmental sampling, test results and non-compliance issues, implementation status of site-specific environmental management plans, screening report for high-risk operation, GRM records and accident report and report to the World Bank through PD in a timely manner. The Consultant will be

responsible to ensure preparation and delivery of quarterly/half yearly environmental and social monitoring report to the WB after approval of the PD.

**5. Ensure the regular and timely update in the ICT monitoring systems**

The Consultant will ensure the regular and timely update of the Environmental issues, points and reports in the ICT monitoring systems. S/he will be responsible to coordinate with ICT experts and confirm the above.

**6. Preparation of Tender Document and Management of contractual obligation addressing environmental concerns**

The Consultant shall ensure that various ES issues are properly reflected into the tender documents particularly contractors qualification criteria, ES specifications and costs of implementation of ES specification in the Bill of Quantities (BOQ). The Consultant will help PD approving the contractor's ESMPs.

The Consultant with assistance from Environment team/personal of D&S and in coordination with PD, shall lead to address ES related non-compliance issues of contractors according to the project specific non-compliance rectification procedures.

**7. Training Provision and support**

The Consultant shall plan and lead various trainings related to environmental compliance to raise the capacity of contractor, field level staff and other relevant stakeholders to implement and monitor the ESMPs implementation. Key topics to be focused on include occupational and community health and safety, ecosystem and green field, and pollution management. The Consultant shall also guide Environment team/personal of D&S for preparation and provision of the trainings.

**8. Public Consultation/GRM**

The Consultant shall coordinate consultation necessary during implementation of the project as per the SEP of the project. The consultant will coordinate with Social Development Consultant and communication consultants while planning and conducting the consultations. Such consultation includes consultation during preparation on ES instruments and construction and operation of each investment.

S/he will ensure the quality of public consultation at the field level and will reflect the concern in the project implementation.

The Consultant is also responsible to review and take necessary actions on the complaints received through the project GRM in coordination with PD.

**9. Technical Advice to PD**

When necessary and required by PD, The Consultant shall provide technical advice related to environmental compliance to PD. Such advice would include coordination with other governmental organizations, donors, handling grievances and enhancement of safeguard capacity of PIU, etc. The consultant shall also assist the PD on any other tasks requested.

**E. Duration**

Duration of the consultancy services would be 48 months from the date of commencement, which can be extended based on the satisfactory performance and project period.

A series of handwritten signatures and initials in black ink, including a large circular signature, several smaller initials, and a signature that appears to read 'Gnanu'.

## F. Qualification and Experience

The Consultant should have the following qualification:

- Master's in Environmental Engineering, Environmental Science, or equivalent ;
- 10 years of experience as Civil/Environmental Engineer, Environmental Scientist, Environmental Planner or related field, and 5 years of experience as Environmental Consultant in conducting environmental assessments of road, water, wastewater or other infrastructure sector of similar nature and complexity.
- Experience must include at least one World Bank/ADB or other development partner funded project.
- Expertise in the project area is preferred.
- Prior experience in preparing Environmental and Social Management Frameworks (ESMFs), Environmental and Social Impact Assessments (ESIAs), and Environmental and Social Management Plans (ESMPs) in accordance with World Bank Environmental and Social Framework (ESF) is a plus.
- Excellent verbal and written communication skills in both Bangla and English.

## G. Reporting Requirement

The consultant will submit the Inception report within 30 days of commencement and monthly report of assignment done & planning for next month. S/he will assist the PD to ensure that all Environmental related reporting is completed on time to enable the Project to meet the deadlines of various GOB authorities and the World Bank.

The Consultant will submit the field visit report frequently along with the recommendation for further improvement so that ESMP is properly followed in the field.

## H. Institutional Arrangement:

The consultants will work closely with the LGED's Project Implementation Unit (PIU) and coordinate their work with other relevant units of LGED, Ministry of Local Government, local administration and relevant ministries and agencies.

Project Director would be designated as Head of the PIU to coordinate all interfaces with the Consultants. Head of PIU with support from the Chief Engineer would also assist the Consultants in resolving various administrative issues which may arise during implementation of the Contract. The Consultants shall be responsible for all aspects of performance of services as set forth in the preceding sections of this ToR

## I. Responsibilities of the Client

The Client will make experienced officials available and will ensure that the Consultant has access to all information required and documentation. The Client will provide liaison and communicate with other Government Authorities if and when required for performing the job of the Consultant and facilitate different meetings, focus group discussion and workshops based on initial planning.

The Client will provide appropriate office space and other associated logistic facilities to carry out his/her roles and responsibility. The Client will also provide logistic support for the field visits, if required.

