

TERMS OF REFERENCE (TOR)

Consultancy Services for Design & Supervision

Host and FDMN/DRPs Enhancement of lives through Infrastructure Improvement Project (HELP)

1. Project Background

Bangladesh has been coping with the sudden and large inflow of the Rohingya population displaced from Myanmar since 2017. The nearly one million Displaced Rohingya Population (DRP) reside in 33 extremely congested camps designated by the Government of Bangladesh (GoB) in the Ukhiya and Teknaf upazilas in Cox's Bazar district – Bangladesh hosts the largest camp across the globe. The extended presence of the DRP puts additional pressure already on poor areas, affecting livelihoods, services, and social cohesion. Hosting the DRP continues to stretch service delivery of the GoB, including for host communities, amidst decreasing humanitarian resources. The host communities perceive the impact of DRP on their livelihoods as predominantly negative. Perceived increases in crime and security concerns, and pressure on the environment, including deforestation and water source depletion, have been reported as sources of tension. Although the GoB's goal is the DRP's repatriation to Myanmar, recent developments – including the February 2022, military coup make it an uncertain outcome in the short to medium term. Even as the humanitarian emergency evolves to a protracted crisis, the GoB has demonstrated its continued commitment and leadership to support the DRP. Basic assistance in the form of food, shelters, and essential services have been provided using government systems and with support from the international community. Development partners, including the World Bank, have supported the construction of quality infrastructure, including cluster homes, disaster shelters, road networks, waste management systems, and electrical power generation systems in the form of solar PV Standalone Street lighting systems, solar PV water pumping systems, and solar PV nano-grid systems. To reduce the strain on livelihoods and basic service delivery in Cox's Bazar, the GoB has facilitated the voluntary relocation of around 30,000 DRP to Bhasan Char since 2021 an island located in the Bay of Bengal in the Noakhali District. Despite the GoB's continued efforts, critical challenges exist for the DRP and the host communities in fulfilling basic needs and improving livelihoods.

In the above backdrop, Host and Rohingya Enhancement of Lives through a Multi-Sectoral Approach Project (HELP) Financing aided by World Bank with the objective to improve access to basic services, and enhance disaster and climate resilience of the host communities and Displaced Rohingya Population (DRP) has been undertaken. HELP project builds on Emergency Multi-Sector Rohingya Crisis Response Project (HELP) to further focus on disaster and climate resilience due to the protracted nature of the crisis and high needs of the population. The project covers specific interventions in Cox's Bazar and Noakhali districts, targeting areas with high population burdens and focusing on improving infrastructure, disaster preparedness, renewable energy, and poverty reduction efforts, among others. The objective of the project is to improve access to basic services and enhance disaster and climate resilience of the host communities and FDMNs. HELP is comprised of four components:

1. Resilient water, sanitation, and hygiene (WASH)
2. Climate and disaster resilient infrastructure, energy, and emergency response
 - 2.1. Rural Infrastructure Development
 - 2.2. Rural Roads Improvement
 - 2.3. Renewable Energy
3. Strengthening institutional systems to enhance service provision and support resilient development
 - 3.1. Capacity Building and Technical Assistance
 - 3.2. Host Communities and FDMN Awareness Raising and Skills Building Programs
 - 3.3. Reinforcement of Emergency Management Capacity
 - 3.4. Technology-driven Monitoring and Evaluation and Project Management
4. Contingent Emergency Response



Components 2.1 and 3.3; and parts of Components 3.1, 3.2, and 3.4 of the project will be implemented by Local Government Engineering Department (LGED) under Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C). The Project Implementation Unit (PIU) is mandated to manage the project in keeping with the Borrower's obligation to use the project fund with due regard to economy and efficiency and only for the purpose for which project financing was provided. The target of the project for LGED is to implementation of following works, supply of goods and hiring of services mainly:

- Construction of new Multipurpose Shelters & Capacity Enhancement of existing shelters
- Construction of Bridge, Landing Stage & Cold Storage
- Improvement/ Widening and Strengthening of Rural Roads
- Improvement of Hat-Bazar
- Supply and Installation of Solar Street Light.

Appendix 1 provides a detailed breakdown of the activities of the technical scope: 5 new shelters and 70 with adding one additional floor level, 213 kilometers of rural road improvement/widening/strengthening, 6 Hat-Bazars to be improved, and 2000 solar streetlights. The budget for works/goods contracts is US\$ 63 million.

Now, LGED intends to hire a consulting firm for the consultancy services for Design & Supervision following World Bank Procurement Regulations for IPF Borrowers, Fifth Edition, September 2023 ("Procurement Regulations") and the provisions stipulated in the Project Procurement Strategy for Development (PPSD). It will be financed by World Bank and duration of the assignment is for 48 (Forty-Eight) months.

2. Objective of the Consulting Services

The main objective of the consulting services is (a) preparation of architectural design, (b) preparation of detailed structural design, (c) preparation of electro-mechanical designs, (d) preparation of sanitary and plumbing designs (e) preparation of specifications, estimate and bill of quantities, preparation of environmental and social assessments and all necessary safeguards documents, (e) contract management & construction supervisor along with supply installation of goods, (f) survey and soil testing, (g) enforce compliance of environmental and social commitment plan (ESCP), Stakeholder Engagement Plan (SEP), Environmental and Social Management Framework; (h) preparation of Social (ESMF), Resettlement Policy Framework (RPF), a Labor Management Procedures (LMP), and Gender and SEA/SH Action Plan, and (inconsistent with the relevant ESSs. ; (c) preparation of Social and environmental plans as required based on the screening outcomes and plans required according to ESCP (d) Establish and operate a grievance mechanism for Project workers, as described in the LMP and SEP and (e) Project management support to ensure completion of project activities within the stipulated construction period and in conformity with the approved drawings and specifications, safeguard standards achieving objectives of the project with value for money.

3. Detail Scope of Consultancy Services

General Requirements

In accordance with the Act/ Rules & Regulation / Guidelines/ Operational Directives (ODs) / ESCP of the Government of Bangladesh and the World Bank, the Design & Supervision (D & S) Consultants shall carry out their tasks with accepted professional standards, utilizing sound international engineering and economic practices. The Consultant shall deliver timely sound and diligent services.

Any monetary loss incurred owing to their sub-standard services will be compensated from the consultant through penalizing as per conditions of the contract. In conducting this work, the D & S Consultants shall cooperate fully with Government officials related to the project who will provide the data and requirements. The D & S Consultants shall be solely responsible for the analysis and interpretation of all data received and for the conclusions and recommendations contained in their reports. The Consultant will carry out the following main tasks but not necessarily be limited to:

- I. Prepare Engineering Design and Estimate of different sub-project;
- II. Conduct social and environmental impact assessment and prepare all project specific E&S documents

as mentioned in the ESCP;

- III. Prepare tender documents of works;
- IV. Supervise all project implementation activities carried out by the contractor(s).

3.1 Site investigation

The Consultant will carry out the field investigation work including site analysis, land survey, sub-soil investigation, etc. for all infrastructure/constructions in the project scope (new/existing shelters, roads, landing sites, bridges, hat-bazars, solar light locations) as per requirements and as per the following procedures:

3.1.1 Site analysis

The consultant will carry out site analysis for the entire project scope to locate the best possible location, alignment and orientation for the construction taking into consideration the topography, soil characteristic and accessibility of the site and location of site, services like power and water supply etc. When 'site' No land acquisition is referred to allowed in the text below, this refers to all sites where infrastructure interventions (both new and improvements to existing infrastructure) will take place. Thus, this includes both new and existing shelters but also road segments, landing sites, etc.

The Consultant will visit all relevant sites of new/existing constructions and road segments under consideration and will take note of the general configurations of the site, topographical features, soil characteristics, approach to and from the site, usage of surrounding areas, river/canal velocity, catchment area, highest flood level, site services like power, water and gas supply, sewerage and drainage system. They will also collect information on vegetation of the area, climatologically data like wind direction, wind velocity, effect of flood, tide in the site, etc. For climate related data, it is envisioned that the Consultant will collect locally available data from relevant agencies and supplement these data with open-source data where necessary.

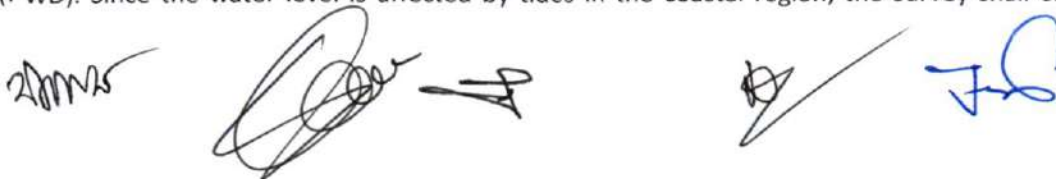
Based on the field information collected, the Consultant will make recommendation to the Client regarding the design conditions (e.g. wind speeds, rainfall, water levels etc.) and selection of the site of the new constructions/infrastructure (e.g. shelters, widening roads, landing sites, improvement to hat-bazars, etc.). The Consultant will prepare a tentative site layout plans for each site (both new sites and sites where improvements are planned) in order to consider its suitability for the proposed facilities. The Consultant will make recommendations for the improvement of the sites if required and the existing site services, if any, for consideration and approval of the Client.

The consultant will submit a set of preliminary site report commenting on the technical suitability, cost factor, construction difficulties and other factors related to any other problems to the Client for approval.

3.1.2 Land and bathymetric survey

The Consultant will do the detailed topographical survey of each site, the land area to a suitable scale showing all spot levels to indicate the slope and configuration of the land area including the record of highest flood level experienced in the locality in and around the site. Survey will also be conducted for the location of existing buildings, structures and services, overhead and underground installations, service lines, trees and plantations, etc. The level of detail of the land survey shall be such that the information gathered is sufficient for preparing detailed designs and bidding documents.

For the landing sites and bridges, the Consultant shall execute bathymetric surveys in the vicinity of the landing sites and bridges. This survey shall indicate the bed profile of the river bottom relative to a fixed reference level. All land and bathymetric surveys shall be established against one vertical reference level (PWD). Since the water level is affected by tides in the coastal region, the survey shall correct for tidal



variations. The extent of the bathymetric survey of the landing sites shall be sufficiently large to encompass safe access route to the landing site. Also, sufficient margin shall be taken to include areas upstream/downstream of the landing sites/bridges for design of bed/bank protection for protecting these assets against erosion.

Drawings will be prepared to suitable scale showing specific topographic/bathymetric and other data as follows:

- All spot levels including contour lines to indicate the slope and configuration of the land elevation of the project area with respect to adjacent areas and location and invert levels of outfall of drain (if any) within or adjacent to the site.
- Direction and length of each property line
- Total area of each site
- Location of permanent bench mark locations set within or adjacent to each site and establishment of reference points, benchmarks etc.
- Location, outside dimensions and description of all existing structures within each site, if any
- Location types and size of all roads, watercourses, walls, vegetation, utilities services etc.
- Location of all septic tanks, soak wells, underground reservoirs or other underground structures within the site and
- Location of Overhead services lines, power telephone with the location of poles.
- Cross-section of the river/channel for bridge/culvert.
- Bathymetric surveys around landing sites and bridges
- Plan and profile for roads

The Consultant will submit the report to the Client for their record.

3.1.3 Sub-soil Investigation

The Consultant will conduct sub-soil investigations of the sites for all kind of construction; Shelters, bridge, roads, landing sites etc within the scope of the project. The investigation shall be supervised by expert of consultant. Sub-soil investigation parties will conduct test boring and Standard Penetration Tests, and collect soil samples for laboratory tests to determine its bearing capacity.

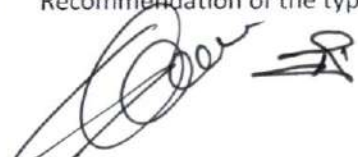
This work component of the soil investigation includes:

- Selecting number and location of bore holes at sites of structures.
- Conducting Standard Penetration Test (SPT) at 5'-0" intervals.
- Collection of disturbed and undisturbed soil sample.
- Recording of groundwater table in each bore hole.
- Carrying out standard laboratory tests

The geotechnical survey plan must be sufficient to prepare detailed designs for the technical scope under consideration. The Consultant shall provide a preliminary geotechnical survey plan in the proposal.

The soil investigation report shall contain the details on the following particulars.

- Introduction.
- Purpose of the investigation.
- Scope of work.
- Site plan showing location of bore holes.
- Field investigation.
- Bore log.
- Laboratory analysis and charts.
- Evaluation of bearing capacity.
- Recommendation of the type of foundation for the structure.



The Consult will submit the sub-soil report to the Client for their report.

3.1.3 Hydraulic and Morphological investigation

For the bridges and the landing sites, it is imperative to investigate in detail the hydraulic and morphological behavior in the near vicinity. The Consultant is expected to do a detailed site assessment, analyze the information from the surveys (e.g. bathymetry, sediment characteristics) and analyze the river bank and river bed movements for each site (e.g. using historical satellite imagery). Also, simplified models shall be set up to determine/validate the flow capacity and design water levels required for the bridge design. This analytical work shall result in detailed boundary conditions (water levels, velocities, etc.) for design and also requirements for additional bed/bank protection near these structures.

3.2 Preliminary Design and Documents

In preliminary phase of design and documentation the Consultant will carry out the following tasks for the entire project scope:

- Prepare the design criteria in consultations with the Client per intervention type (i.e. shelters, roads, bridges, landing sites, hat-bazars, solar light, etc.) based on the information gathered and design guidance of past projects of similar interventions;
- Identify the functional, (floor) space requirement, alignment for the purpose of each intervention type.
- Determine orientation of the structures and facilities to be incorporated for proper and efficient functioning of the building or the infrastructure asset (i.e. bridge, landing site) including any auxiliary structures (e.g. bed/bank protection, culverts for drainage etc.).
- Determine appropriate foundation design for construction of the Shelter buildings and other structures.
- Develop alternative plan (architectural designs), alignment, location for review and selection of the best plan and alignment for other structures like roads/bridges/culverts/landing sites.
- Review various plans and designs for the shelter building and other structures. Provide recommended design with detail cost estimates including bill of Quantities and brief on cost effectiveness.
- Develop alternative plans, alignment, locations and designs and recommend the best plan, alignment, location and design with detail justification in support of the recommended solution.
- Evaluate in detail all the alternative and assist to select the most effective and functional plan, location and alignment. Incorporate any correction or change in plan.

The deliverable of this phase shall be a preliminary design report with a set of drawings at appropriate scales with detailing all elements per site. This design report shall include the project scope (i.e. shelters, landing sites, bridges, hat-bazars, solar street lights).

3.3 Detailed Design development document

From the approved preliminary drawings, the consultant will prepare the detailed design documents consisting the following items:

- Plans and outlines specifications
- Size, alignment, location and character of the buildings and other structures
- Kind of materials for main structure, walls, pavement, bed/bank protection etc.
- Type of structure.
- Mechanical and electrical systems and connectivity to existing grid
- Site development



- Water supply and sewerage system
- Other external services
- Telecom and intercom systems
- Internal roads etc.
- Alignment, layout and profile of approach road for bridges and roads
- Alignment and layout of bridges and landing sites

The methodology to be adopted in the design development should be clearly mentioned. The sizing of all design elements shall be accompanied with appropriate and state-of-the-art design calculations and all design elements including the material types etc. shall be clearly indicated on detailed design drawings.

3.3.1 Preparation of Final Architectural Drawings

After appraisal, review and revision of the preliminary designs the consultant will undertake preparation of the final architectural design with the following considerations:

- Optimum utilization of space
- Provision for future extension
- Conformity with existing structures
- Provision for utility spaces
- Climate and environmental considerations
- Safety Environment and social aspects

The design shall be studied in larger scale, in full depth and further developed incorporating all aspects of function, construction, finishes, utility services, fixtures, furnishing and equipment for all spaces. Architectural designed drawing shall include at least the following and necessary detailing there of

- Site plan, floor plan, all dimensions, doors, windows, schedule;
- Four side, elevation;
- Blow up details, toilet and kitchen details;
- Fire alarm, detection and firefighting system details;
- Telephone lines details;
- Sectional elevation;
- Door and window details sheet.
- Aluminum frame partition wall details
- School rooms where applicable
- Cattle shelters area where applicable

All drawing should be duly signed and submitted within a presentable folder, It may be noted that the category of drawing will not however be limited to the above area but also the consultant may need to provide more details other than this if situation demands or the client's demands.

3.3.2 Preparation of Structural Design & Drawing

- On the basis of the approved architectural drawing by the client, the consultant shall prepare preliminary structural design with detailed drawings in AutoCAD of the proposed shelter building and other structures along with design calculations for necessary approval from the client.
- After getting approval of the preliminary structural design, the consultant shall prepare detailed structural design and drawing in sufficient details by incorporating necessary changes, corrections requested by the client.

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c) Structural design/drawing shall at least include but not limited to the following:

- Detailed structural drawings in AutoCAD
- General Notes & specifications of all construction materials;
- Bearing capacity of soil;
- Ultimate strength for reinforcement;
- 28 days concrete strength, f_c ;
- Clear covers, hook's, lapping, development length details;
- Mix proportions;
- Design Criteria Method (USD/WSD) and assumption;
- Sub-structure details;
- Super structure details;
- Bar bending schedules;
- Wind load assumption;
- Earth quake details;
- Trench Plan;
- All design calculations in report form; and
- Standard Bangladesh National Building Code (BNBC)/Uniform Building Code (UBC)

3.3.3 Preparation of Sanitary/Plumbing Design & Drawing

The consultant shall prepare the sanitary/Plums & design and drawing of the projects duly approved by the authority as per approved architectural drawing. They shall at least include but not limited to the following:

- Roof drainage plan;
- Water supply and drainage Plan of the floor;
- Detail of Pipelines;
- Sewerage details;
- Details of surface drains;
- Layout and details of inspection pit, soak well & septic tank;
- Details of soil pipe;
- Pipelines and
- Details of bathroom fittings and pipelines.

3.3.4 Preparation of Electrical / Mechanical Design & Drawing

The Consultant shall prepare the internal & external electro mechanical system design and drawing duly approved by the client for the project as per the approved architectural design & drawing. They shall include at least but not limited to the following:

- Layout plan fitting and fixtures (light, fan, exhaust fan, 3&2 pin socket etc.);
- Detail of telephone, intercom, e-mail etc. installation system;
- Position and size of Distribution Box, Sub-Distribution Box, circuit Breaker, Bus Bar Trucking;
- Cable line route with size;
- Laying of PVC/OI pipe (concealed/surface);
- Earthing details;
- Fire alarm, detection and firefighting system;
- Site plan/layout plan showing HT/LT distribution line/Electric poles;
- Service Connections;



3.3.5 Networking System

Plans will be drawn on the basis of architectural working drawings. Drawings will indicate route of conduits, size of conduits, location of fixtures etc. Drawing showing Networking layout, drawing will also contain location of conduits, telephone outlets, telephone cable conduit, etc.

3.4 Bill of Quantities and Cost Estimate

Schedule of items of work and bill of quantities and cost estimate will be prepared in details from the completed working drawings for each site separately. Bills of quantities will be prepared as per construction sequence. Market prices of building materials, current wages of skilled and unskilled laborers and transport costs will be obtained by the Consultant and used for computing item rates as per labor and material standards set by LGED or PWD or BDWB for similar kinds of work suitable up-dated by the Consultant as per requirement based on recent market rate. The items not covered by the LGED/PWD/BDWB schedule will be analyzed as per current market prices of labor wages and materials. The unit rates for each item of work thus analyzed and prepared shall have the approval of the Client. Cost estimates of bid package shall be prepared by assembling item wise costs for all works in the package. Contracting of Project will be done based on the most updated cost estimates. The Consultant will submit estimates to the Client for their approval.

3.5 Technical Specification

Detailed and precise technical specifications for construction works and materials are very important for effective quality control of all construction works. Detailed specifications will therefore be drawing for different items of construction works describing all works desired to be done by the Contractor under the item in sufficient detail so as to eliminate or minimize scope of misunderstanding or dispute between the Client and the Contractor and to ensure that the Client does not have to accept bad works of contractor because of any) lapse or lacuna in the specifications.

Generally, detailed specification of any work will cover the following:

- Scope of work
- Materials specification
- Method of works
- Installation methods
- Applicable tests: mostly ACI, ASTM, Universal Building Code (UBC), BSTI etc.
- Methods of measurements.

3.6 Construction Supervision

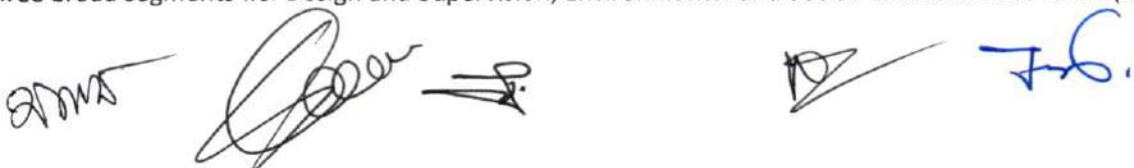
The Consultant shall perform his duties during the contract implementation period of the contracts to be executed by the Employer and the Contractor. The Consultant shall perform all duties and activities required for execution of works in accordance with the terms and conditions of the contract and perform the following activities but not limited to those only:

- (a) Act as the Engineer/Project Manager to execute construction supervision and contract administration services in accordance with the duties and authority assigned in the Contract.
- (b) Manage cost, quality and time in accordance with the terms and conditions of the Contract.
- (c) Provide assistance to the Employer concerning variations and claims. Advise the Employer on resolution of any dispute with the Contractor;
- (d) Issue instructions, approvals and notices as appropriate;
- (e) Provide recommendation to the Employer for acceptance of the Contractor's performance security, advance payment security and required insurances;
- (f) Provide commencement order to the Contractor;
- (g) Assess adequacy and compliance of all inputs such as materials, labor and equipment provided by the

- Contractor;
- (h) Check and approve the Contractor's method of work, including site organization, performance standards, quality assurance system, safety plan and environmental monitoring plan so that the requirements set forth in the applicable laws and regulations, the specifications or other parts of the contract are complied with. ;
 - (i) Regularly monitor physical and financial progress, and take appropriate actions to expedite progress if necessary, so that the time for completion set forth in the contract will be duly complied by the Contractor;
 - (j) Explain and/or adjust ambiguities and/or discrepancies in the Contract Documents and issue any necessary clarifications or instructions. Issue further drawings and give instructions to the Contractor for any works which may not be sufficiently detailed in the contract documents, if any;
 - (k) Review and approve the Contractor's working drawings, shop drawings and drawings for temporary works. Also review and approve, if any, design prepared by the Contractor for any part of the permanent works;
 - (l) Liaise with the appropriate authorities to ensure that all the affected utility services are promptly relocated;
 - (m) Carry out field inspections on the Contractor's setting out of the works in relation to original points, lines and levels of reference specified in the contract;
 - (n) Organize, as necessary, management meetings with the Contractor to review the arrangements for future work. Prepare and deliver minutes of such meetings to the Employer and the Contractor;
 - (o) Supervise the works so that all the contractual requirements are met by the Contractor, including those in relation to i) quality of the works, ii) safety and iii) protection of the environment. Confirm that an accident prevention officer proposed by the Contractor is duly assigned at the project site;
 - (p) Supervise field tests, sampling and laboratory test to be carried out by the Contractor;
 - (q) Inspect the construction method, equipment to be used, workmanship at the site, and attend shop inspection and manufacturing tests in accordance with the specifications;
 - (r) Survey and measure the work performed by the Contractor verify statements submitted by the Contractor and issue payment certificates such as interim payment certificates and final payment certificate as specified in the contract;
 - (s) Coordinate the works among different contractors employed for the Project;
 - (t) Modify the designs, technical specifications and drawings, relevant calculations and cost estimates as may be necessary in accordance with the actual site conditions, and issue variation orders (including necessary actions in relation to the works performed by other contractors working for other projects, if any);
 - (u) Carry out timely reporting to the Employer for any inconsistency in executing the works and suggesting appropriate corrective measures to be applied;
 - (v) Inspect, verify and fairly determine claims issued by the parties to the contract (i.e. the Employer and Contractor) in accordance with the civil works contract;
 - (w) Perform the inspection of the works, including Test on Completion (if any), and to issue certificates such as the Completion Certificate, Performance Certificate as specified in the contract;
 - (x) Supervise commissioning and carry out tests during the commissioning, if applicable;
 - (y) Provide periodic and/or continuous inspection services during defects notification period and if any defects are noted, instruct the Contractor to rectify;
 - (z) Prepare as-built drawings for the parts of the works constructed in accordance with the design provided by the Employer. Check and certify as-built drawings for the parts of the works designed by the Contractor, if any; and
 - (aa) Carry out further activities and reporting required for smooth execution of the project and required by the Project Director.

3.7 Environmental and Social

Updating and Implementation of the E&S documents of the project mentioned in the ESCP will be an integral part of Design and Supervision (D&S) Consultancy Services. In terms of working nature, this firm will have three broad segments i.e. Design and Supervision, Environmental and Social. Environmental Team (ET) and



9

Social Team (ST) within D&S firm will focus specially on the environmental and social compliances of the project. Focal person from the respective team will be responsible for preparing, approving and reporting the E&S documents as well as submitting monthly report to the Team Leader (TL) of D&S. ET and ST will both coordinate with the PIU Environmental and Social Specialists during the preparation and approval process. Details objectives, responsibilities, qualifications of the Team and Team members are mentioned below:

3.7.1 Environmental Team (ET)

3.7.1.1 Objective

The main objective of Environmental Team¹ (ET) is to conduct the environmental screening, identify the impact of project activities, collect and consolidate the filed information, prepare all the required environmental reports, provide technical oversight on the project activities especially high-risk operations, provide support in the areas that technical assistance is required by environmental specialists of PIU. Overall, the team is responsible for the environmental safeguard implementation in the field. The assignment includes the following tasks:

- 1) Preparation of Environmental Screening
- 2) Identification of impacts of the project activities and preparation of site-specific impact assessment reports
- 3) Preparation and implementation of site and activity specific Environmental and Social Management Plan (ESMP)s
- 4) Field implementation of environmental documents
- 5) Information consolidation and monthly monitoring report
- 6) Ensure management of contractual obligation on environmental safeguard in the field
- 7) Training
- 8) Assist the CIA firm in data collection and assessment of Cumulative Impacts due to the entire activities in/around FDMNs camps
- 9) Arrange and conduct public consultations

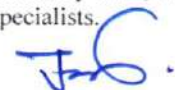

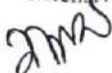
3.7.1.2 Scope of Work

i. Preparation of Environmental Screening

During pre-construction of each physical intervention, the EST 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 EST will review secondary information and carry out reconnaissance for the screening to identify and characterize, in particular:

- i. Data collection of basic geographic, physical, topographic, geologic, hydrological, morphological etc. features of the sub-project areas
- ii. Important and sensitive environmental features and sensitive receptors, including but not limited to any natural habitats / critical habitats, areas of conservation importance, known presence of protected or threatened species such as elephant
- iii. Existing land and water use, nearby settlement patterns and topography, land slide risks, etc.
- iv. Known physical cultural resources or features
- v. Likely pollution issues in the sub-project areas.

¹ Environmental Safeguard Team (EST): Integral part of the Design and Supervision Consultancy Firm, who will focus extensively on the environmental safeguard of the project and consist of Environmental Specialists.



- ii. Identification of impacts of project activities and preparation of site-specific impact assessment reports**
- i. When the screening result indicates the specific physical intervention is likely to have more detail impact assessment, the EST will conduct the detail impact assessment with the guidance of the Sr. Environmental Specialist. The EST will develop the site-specific environmental impact assessment along with the ESMPs in light of the ESMF.
 - ii. EST will work closely with design engineers, maintain close coordination and will suggest mitigation measures related to designs where applicable.
- iii. Preparation and implementation of site and activity specific ESMPs**
- i. The EST will prepare the site and activity specific EMPs in light of the Environmental and Social Code of Practices (ESCoPs) which needs to be endorsed by PIU environmental specialists. EMPs should be prepared following the GoB legislative provision and World Bank safeguard policies taking into consideration of the location, importance and criticality of the interventions.
 - ii. The EST will update the ESMPs periodically and ensure the proper implementation of the EMPs.
- iv. Information consolidation and reporting to PIU**
- i. The EST will collect and consolidate information at any stage of the project implementation as required.
 - ii. The EST will collect required data for cumulative impact assessment (CIA). PIU environment specialists will direct the EST regarding the type, methodology of the data collections.
 - iii. The EST will prepare the environmental screening and monitoring report under the guidance of Environmental Specialists of PIU.
 - iv. The EST will share consolidated monthly monitoring report with the PIU.
- v. Assist PIU in management of contractual obligation**
- i. The EST will assist Environmental Specialists of PIU to ensure the environmental obligation of the project as well as to confirm the incorporation of the clauses into the legal agreement with the contractor. Such obligation would include implementation of the ESMF and subsequent site-specific as well as activity specific E&S instruments (e.g., ESMPs). Ensure ESMP is ready before launching the bidding process for the respective subproject/Project activity and prior to the carrying out of subproject /Project activity that requires the adoption of such ESMP. Once adopted, implement the respective ESMP throughout sub-Project implementation. The EST will ensure the implementation of the contractors' obligation approved by the Sr. Environment Specialist.
 - ii. The EST will inform Environmental Specialist and Social Specialists to address E&S related non-compliance issues of contractors according to the project specific non-compliance rectification procedures and will assist for remedy action application.
- vi. Training Provision**
- i. The EST will develop the training plan which will be approved by the PIU Sr. Environment Specialist.
 - ii. The ET will organize trainings related to E&S issues to raise the capacity of contractor and other relevant stakeholders to implement and monitor the ESMPs implementation. Key

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topics to be focused on include forest conservation, human-elephant conflict, occupational and community health and safety and pollution management. The Specialists shall monitor and assist EST for preparation and provision of the trainings.

vii. Assist in assessment of Cumulative Impact

- i. The ET will assist the responsible firm to conduct Cumulative Impact Assessment (CIA) for the activities which have been undertaken by various international, governmental and non-governmental organizations in the DRPs' camps in Cox's Bazar area in data collection and help as requested. CIA shall be conducted according to the ToR prepared and finalized by PIU environmental specialists and cleared by the World Bank.

viii. Technical Advice to PIU field based Environmental Specialist

- i. When necessary and required by PIU, the EST will provide technical advice related to environmental safeguard to PIU. Such advice would include coordination with other governmental organizations, donors, UN agencies and NGOs working at Rohingya camps, strategies to address major safeguard issues and complaints, handling grievances, and enhancement of safeguard capacity of PIU.

ix. Arrange and Conduct Public Consultations

- i. The EST will arrange and conduct public consultations that ensures that Project affected people and other stakeholders are informed about the Project and its possible impacts, as well as offered the opportunity to share their opinions and feedback to input into the environmental assessment, planning and design studies and their implementation. For meaningful consultations with project-affected groups, communities, women of various age, persons with disabilities, elderly people, local NGOs and rights groups, all relevant documents must be provided in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted.

3.7.2 Social Team (ST)

3.7.2.1 Objective

The main objective of the Social Team² (ST) is to assist the client to prepare and implement the social instruments, as and when warranted based on social screenings, social assessments and impact assessments which they will also design and carry out. They will coordinate closely with the PIU based social specialist and especially with the field based social specialist deployed by the PIU, reporting to them and supporting them as required. They will assist Cumulative Impact Assessment (CIA) firm to undertake the CIA which would require a high level of coordination with the CIA firm through PIU social specialist. The assignment includes the following tasks:

- 1) Conduct the screening for all project locations, sub-projects, and components, and submit the screening report using the prescribed form as approved by the PIU and the World Bank. Based on the outcomes of the screening report, prepare RAP (if required)
- 2) Adopt and implement a Gender and SEA/SH Action Plan, to assess and manage the risks of SEA and SH.
- 3) Adopt and implement a Stakeholder Engagement Plan (SEP) for the Project, consistent with ESS10, which shall include measures to, inter alia, provide stakeholders with timely, relevant,

² Social Safeguard Team (SST): Integral part of the Design and Supervision Consultancy Firm, who will focus extensively on the social safeguard of the project

understandable, and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination, and intimidation.

- 4) Establish, publicize, maintain, and operate an accessible grievance mechanism, to receive and facilitate resolution of concerns and grievances in relation to the Project, promptly and effectively, in a transparent manner that is culturally appropriate and readily accessible to all Project-affected parties, at no cost and without retribution, including concerns and grievances filed anonymously, in a manner consistent with SEP and LMP
- 5) Preparation and Implementation of the screening and generating monitoring reports
- 6) Preparation and Implementation of RAPs, influx management plans etc. as and when required
- 7) Provide training to the contractors and all relevant stakeholders as mentioned in the ESCP.
- 8) Form the local-level grievance committees, and record and address all the grievances as mentioned in the SEP.
- 9) Conduct regular consultations with all the relevant stakeholders. Data collection and assist in undertaking Assessment of Cumulative Impacts due to the entire activities in/around DRP camps and preparing requisite reports, presentations, communication tools
- 10) Technical Advice to file-based PIU social specialist, participation in PIU level (or above) meetings, presentations, workshops etc. as required.

3.7.2.2 Scope of Work

1) Preparation and implementation of social screening report

- i. The ST will follow the guidance provided in the ESCP, RPF and ESMF to design screening formats (or use/update them as required, if they are already provided in the ESMF)
- ii. Prepare a preliminary assessment based on the screenings should discuss direct as well as indirect, induced and cumulative social, health and safety impacts and risks during all phases and activities of project.
- iii. When the screening result indicates the specific physical intervention is likely to require the detailed social management plans or any further investigation on the potential impacts and likely mitigation measures would be required, the ST will prepare a detailed plan, including time schedule, for the type of plans required.

2) RAP/Influx Management Plan preparation and implementation

- i. Based on the screening outcomes, prepare RAP (if required). However, no land acquisition is allowed in this project.
- ii. Conduct a land use survey and assessment of title-ship within the areas of intervention to understand the patterns of land use and ownership. Determine the ownership status of the lands where the project will operate and analyze the implications in terms of safeguards instruments to be used and consultations/agreements required to strictly adhere to the voluntary resettlement/shifting aspect if shifting is at all required. The assessment would propose alternative space/locations for interventions where involuntary resettlement dimensions have a chance of being triggered within the camps.



- iii. Conduct other assessments (gender, host-DRP dynamics, social inclusion, child-protection, labor influx management) to understand the impacts of the interventions within the immediate and the surrounding area of influence.
 - iv. Develop a consultation and communication strategy that will be endorsed by the PIU and local government agencies and maintain the ethical protocols for engagement in such crises situations. Prepare specific formats (MOUs) for documenting permission for using land where private owners are concerned, and where shifting of structures may be required within camps. Engage closely with the PIU in following coordination guidelines with other agencies working in the field.
 - v. Prepare and implement the RAPs as and when required, under the guidance of the PIU specialists and following the ESMF and RPF. Carry out all necessary surveys and consultations in coordination with the PIU, and implement the above-mentioned site-specific plans.
 - vi. Conduct a labor analysis relating to the labor used for construction activities and service delivery within the camp sites, where labor from outside the camps will be utilized. Prepare and implement Influx Management Plans as and when required after reviewing contractor's obligations under the project.
- 3) Monitoring and reporting**
- i. Prepare the monitoring plans, protocols and schedules including the implementation arrangements, in coordination with the PIU Sr. Social Specialist.
 - ii. Implementing the monitoring and evaluation tasks, and in preparing reports and documentation as required.
 - iii. Assist the PIU in setting up the linkage with the centralized GRM and monitor the operation.
 - iv. Assist Sr. Social Specialist of PIU to consolidate the relevant information on social safeguard including social monitoring report, site-specific social management plans, screening report for high-risk operation, GRM records and accident report and report to the World Bank in a timely manner.
- 4) Assist PIU Social Specialists in management of contractual obligation on social safeguard**
- i. ST will identify the non-compliance issues of contractors in the field and assist Sr. Social Specialist to address as well as management of contractual obligation of social safeguard.
- 5) Training Provision**
- Plan and organize trainings related to social safeguard to raise the capacity of PIU, contractor and other relevant stakeholders to implement and monitor the SMPs/RAPs/Influx Management Plans implementation. The Social Specialists shall guide and assist SST for preparation and provision of the trainings.
- 6) Assist in Cumulative Impact Assessment (CIA)**
- The SST will collect the required data as well as assist Cumulative Impact Assessment (CIA) firm to conduct CIA for the activities which have been undertaken by various international, governmental and non-governmental organizations in the DRPs' camps in Cox's Bazar area. CIA shall be conducted according to the ToR prepared for CIA by Sr. Social Specialist and approved by WB.






7) Technical Advice to PIU field based social specialist

When necessary and required by PIU, the SST will provide technical advice related to social safeguard to PIU field based social specialist. Such advice would include coordination with other governmental organizations, donors, UN agencies and NGOs working at Rohingya camps, strategies to address major safeguard issues and complaints, handling grievances, and enhancement of safeguard capacity of PIU.

3.7.2.3 Information and Communications Technology (ICT) Monitoring

3.7.2.3.1 Objective

ICT monitoring will be used to enhance the efficiency of the project by providing a single-stop instrument to monitor the progress of construction, implementation of ESMP, tracking the GRM/GRS, compliance with ESF, sharing images to assess quality of construction, and keep track of field visits from related professionals. It will follow the examples of the already developed ICT monitoring systems of MDSP and HELP. The existing ICT Monitoring System of MDSP/EMCRP is built from scratch using open-source set of tools and platforms that has provided the opportunity to develop a custom software system from scratch catered to the needs of the project. The system users can collect data using mobile phones utilizing the dedicated android application, and upload in the system which can be accessed by the web-interface. The data is collected, sorted and consolidated in the system based on the preset forms for different stage of construction. The data is then processed to determine project progress and generate useful results. The platform automatically adds date and time, and GPS coordinates to form data and photos, which are transmitted upon submission to an online database. In geographic areas without mobile internet, the submission is stored on the phone memory and transmitted at a later time. In continuation of success of MDSP and EMCRP, such a system with enhanced tools will be developed in HELP Project as well. The system will need to be accessible to permitted users, where reports will be pinned to the physical interventions locations which are visible on an interactive map interface. It is expected that the ICT monitoring will provide in-depth and real-time snapshots of project performance in a resource-constrained environment, automatically place pressure points on identified problem packages, inject transparency into the construction process, and motivate supervision teams and contractors similar to the existing projects.

3.7.2.3.2 Scope of Work

Specific tasks of the consultancy firm will include but not limited to:

- Identify software requirements based on the scope of works of the project and existing practices of PIU in implementing the existing projects,
- Identify appropriate developments platforms/tools and finalize the design for the system in coordination of stakeholders,
- Identify possible system requirements and assess the availability of resources. If the available resources are not adequate, then the team should suggest alternative solutions,
- Develop a custom, user-friendly MIS for project management, following the already developed ICT Monitoring System under MDSP, and EMCRP. The system needs to have a web-interface that can be accessed with a login credentials by end-users where all the data related to project progress and monitoring information will be available. A mobile application needs to be developed for data collection from the field, preferably for Android operating system. The app should be developed under the consideration that the monitoring reports would be generated by field level supervision engineers for the purposes of monitoring construction progress of infrastructure construction, maintenance as well as ES compliance (implementation of ESMP) under RIVER Project,
- Create customized forms for monitoring reports that closely replicate and supplement the paper-based system that LGED currently uses,
- Solicit feedback on the proposed user interface and forms from LGED staff, including headquarters staffs and field level engineers and finalize based on feedback,

2/10/15

- Setup monitoring terminals in LGED HQ (*in coordination with MDSP and EMCRP ICT Monitoring system*) with one system in the Chief Engineer's office and another system in the PIU office,
- Develop a dashboard - database monitoring systems accessible to assigned users in LGED and PIU office showing the progress of construction by packages including implementation of ESMP, tracking the GRM/GRS, compliance with ESF, sortable by district, Upazila, Union and villages,
- Develop database management system and put in place system analyst trained in the management of the system; the system should put in place edit trackers to fully capture edits made to submitted reports, draw attributes and analyze site-based and user-based statistics, as well as generate monthly reports for LGED PIU staff as well as the Chief Engineer,
- Install system on equipment purchased by LGED, and conduct training sessions (both in headquarters and at the field level for field level engineers) by the system analyst,
- Monitoring and oversight over rolling out the system during the project's implementation period,
- After completion of the work, the technology will be transferred to LGED,
- Develop a website to publish the public information of the project including featuring of project works, sharing of promotional content, disclosure of appropriate documents. The ICT monitoring system shall be a part of the website, accessible using login button redirecting to login panel.

3.7.2.4 Technical supports of Energy Specialist to PIU

3.7.2.4.1 Objective

The objective is to provide technical support on implementation of solar PV solar street lights, early steamer emission lighting protection system.

3.7.2.4.2 Scope of Work

The scope of work is as follows:

- Prepare the appropriate technical specifications, codes, standards and other Documents of solar street lights, early steamer emission lighting protection system.
- Supervise and guide all the activities related to engineering design of solar street lights, early steamer emission lighting protection system.
- Provide technical support in supervision of the supplying and installation of solar street lights, early steamer emission lighting protection system.
- Assist PIU to ensure that the Project and the sub-projects are implemented in accordance with the Project Implementation Manual, the Project Appraisal Document, the Loan Agreement, as well as concerned operational policies of the World Bank.
- Assist PIU in working out the critical O&M needs of the project after handover.
- Develop road map for sustainability of the systems after hand over and take necessary initiative to utilize available resource and network to engage beneficiaries in future for simple operation and maintenance activities.
- Supervise the installation works and check & ensure quality of the solar street lights.

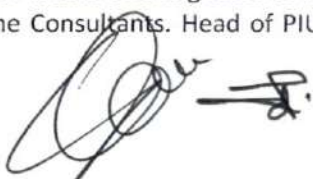
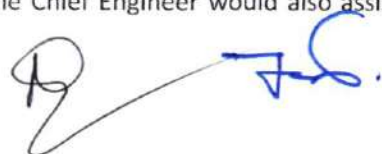
4. Implementation Arrangements

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

4.2 Through the inception stage the Consultants shall prepare a detailed schedule and task-flow diagram, which depicts the interrelationship of various tasks in each assignment which lead to the completion works and mechanism of coordination with the client and other related entities. This would be kept and update throughout the Project duration.

4.3 Project Director would be designated as Head of the Project Implementation Unit (PIU) to coordinate all interfaces with the Consultants. Head of PIU with support from the Chief Engineer would also assist the

20/12/25

Consultants in resolving various administrative issues which may arise during the study duration. The Consultants' will be expected to be readily available during project implementation.

4.4 The Consultants shall be responsible for all aspects of performance of services as set forth in the preceding sections of this TOR. LGED would be responsible for providing the existing data and information including all reports prepared so far for the project.

It is a World Bank financed project and it has Project Administration Manual, Procurement Regulations. The Consultant is to comply with those, attend & cooperate with review missions and provide reports, information as required by the Bank.

5.0 Selection Procedure and Form of Contract

The consulting firm would be selected following World Bank Procurement Regulations for IPF Borrowers, Fifth Edition, September 2023 ("Procurement Regulations") and the provisions stipulated in the Project Procurement Strategy for Development (PPSD). Form of contract will be the combination of time-based and Lum-sum based.

6. Consultant & Staffing Requirements

The consultants should propose a comprehensive team composition with task assignments for each key staff along with sufficient support staffs to meet the objectives and scope of the services. The estimated staff month for key professional staff is 280 and those of non-key staffs is 1572. These staff-months are indicative and the consultants are free to propose their estimate supported by methodology proposed for the implementation of the service.

Key professional experts to be evaluated during technical evaluation process for the assignment is given below. The consultant must propose suitable individuals as experts in these key positions; and submit their own estimate of the required number of person-months against each of these key positions to carry out the assignment in conformity with the scope of services.

Key Experts:

Sl. No.	Designation	Type of experience required	No. of Expert	Person-month
1.	Team Leader	International	1	36 (intermittent)
2.	Deputy Team Leader cum Senior Structural Engineer	National	1	48
3.	Senior Hydraulic Engineer (International)	International	1	12 (intermittent)
4.	Senior Hydraulic Engineer (National)	National	1	20 (intermittent)
5.	Senior Road Engineer	National	1	20 (intermittent)
6.	Senior Quantity Survey Engineer	National	1	48
7.	Senior Environmental Expert	National	1	48
8.	Senior Social Expert	National	1	48

20/05

Qualification and Experiences of Key Experts:

Sl. No.	Position	Academic qualification	Desirable years of professional experience	Specific Experience
1.	Team Leader	Master's Degree in Civil Engineering, Construction Management or a related field	20 years	<p>(a) 10 years of experience of construction management, supervision & monitoring.</p> <p>(b) 5 years of experience as an international Team Leader/Deputy Team Leader in construction projects addressing safeguard issues, with contracts amounting to at least US\$ 50 million within international project environments.</p> <p>(c) 15 years of experience with design and supervision of civil structures of similar nature like roads, shelters, landing sites, bridges.</p> <p>(d) Experience in World Bank or similar institution funding project.</p>
2.	Deputy Team Leader cum Senior Structural Engineer	B.Sc. Engineering (Civil)	15 years	<p>(a) 3 years' experience as a Deputy Team Leader in construction contract management, supervision & monitoring or 5 years' experience as Senior Structural Engineer in at least one major building construction project.</p> <p>(b) 10 Years' experience in design of multistoried building following BNBC design code, standard, methods etc. for analyzing and designing of building structures.</p> <p>(c) Experience in World Bank or any Development Partner funding project would be an additional qualification.</p>
3.	Senior Hydraulic Engineer (International)	Master's Degree in Hydraulic Engineering (Civil)	15 years	<p>(a) Proven educational background in hydraulic engineering;</p> <p>(b) 10 years of experience in the design and supervision of structures in tidal/riverine settings such as bridges, landing sites, river bed/bank protection, and other similar water-borne infrastructures within international project environments as an international key expert.</p> <p>(c) Experience in the World Bank or any Development Partner funding project as a key expert would be an additional qualification.</p>

4.	Senior Hydraulic Engineer (National)	B.Sc. Hydraulic Engineering (Civil)	15 years	(d) Proven educational background in hydraulic engineering; (e) 10 years' experience in design and supervision of structures in tidal/riverine settings such as bridges, landing sites, river bed/bank protection and similar water-borne infrastructure. (f) Experience in World Bank or any Development Partner funding project would be an additional qualification.
5.	Senior Road Engineer	B.Sc. Road Engineering (Civil)	15 years	a) Proven educational background in road engineering; b) 10 years' experience in design of rural roads of similar nature as the road network in this scope. c) Experience in World Bank or any Development Partner funding project would be an additional qualification.
6.	Senior Quantity Survey Engineer	B.Sc. Engineering (Civil)	10 years	(a) 5 years of similar experience in estimating of quantity of BOQ items, schedule of rates, drawing of building and road contracts and preparation/checking of civil works' measurement/ bills. (b) Experience in World Bank or any Development Partner funding project.
7.	Senior Environmental Expert	B.Sc. Engineering (Civil)/ Environmental Science or Graduation in relevant field	12 years	(a) 10 years of similar experience in environmental screening, site specific impact assessments, mitigation measures and oversee the compliance of Environmental Management Plan. (b) Experience in World Bank or similar institution funding project.
8.	Senior Social Expert	Graduation in Social Science or in any relevant field	12 years	(a) 10 years of similar experience in social screening, preparation and implementation of Resettlement Action Plan. (b) Experience in World Bank or similar institution funding project.

In addition to above listed positions of professionals; the consultant should make arrangements for other experts and support professionals with adequate experience in relevant fields. Indicative list of other staffs /experts / support professionals who may be required for the assignment is given below but shall not be limited to those. During technical evaluation process, these staffs will not be evaluated individually.

Qualification and Experiences of Indicative Non-Key Experts:

Sl. No.	Positions	Qualification	Experience	Indicative Number	Indicative Person-month
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1.	Field Resident Engineer	B.Sc. Engineering (Civil) or Equivalent	10 years of which 05 years in similar	4	192
2.	Electrical Engineer	B.Sc. Engineering (Electrical) or Equivalent	08 years of which 05 years in similar	1	24
3.	Energy Specialist	B.Sc. in Mechanical Engineering / M.Sc in Renewable Energy or relevant field	10 years of which 05 years in similar	1	24
4.	Road Engineer	B.Sc. Engineering (Civil)	05 years of which 03 years in similar	1	48
5.	Hydrology expert	B.Sc. Engineering (Civil) or Equivalent	08 years of which 05 years in similar	1	24
6.	Architect	Bachelor in Architecture or Equivalent	08 years of which 05 years in similar	1	12
7.	System analyst/Database Developer	B.Sc. Engineering (Computer Science)/ Equivalent	05 years of which 03 years in similar	1	24
8.	Monitoring Expert	B.Sc. in Engineering or Master's economics/ statistics/ commerce/ equivalent;	10 years of which 05 years in similar	1	24
9.	Junior Transportation Engineer	B.Sc. Engineering (Civil)	05 years of which 03 years in similar	2	48
10.	Junior Structural Engineer	B.Sc. Engineering (Civil)	05 years of which 03 years in similar	2	48
11.	Junior Quantity Survey Engineer	B.Sc. Engineering (Civil)	05 years of which 03 years in similar	2	48
12.	Junior Procurement Expert	Bachelor's degree in Engineering or Master's in procurement or other relevant subjects.	08 years of which 05 years in similar	1	24
13.	Junior Environmental Expert	B.Sc. Engineering (Civil)/ Environment or equivalent	05 years of which 03 years in similar	2	96
14.	Junior Social Expert	Graduation in Social Science or in any relevant field	05 years of which 03 years in similar	2	96
15.	Communication Expert	Bachelor Degree in journalism/ marketing/communications or a related field	05 years of which 03 years in similar	1	24
16.	Field Supervisor (diploma-in-Civil Engineering)	Diploma in Civil Engineering	05 years of which 03 years in similar	10	480
17.	Auto CAD Expert	Diploma in Civil Engineering	05 years of which 03 years in similar	2	48
18.	Data Entry Operator	Bachelor Degree	03 years of which 02 years in similar	2	96
19.	Office Management cum Accountant	Bachelor Degree	03 years	1	48
20.	Computer Operator	Bachelor Degree	03 years		48
21.	Driver	SSC	03 years		48
22.	MLSS	SSC	03 years		48

i. Reporting Requirements

The reporting requirements of the D&S Consultant will be designed to meet the nature of the project. These will compose of but not limited to:

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- 1) **Inception Report:** An Inception Report within one months of start of the assignment, outlining overall work program of the Consultant which shall include but not limited to (1) Design and Supervision Methodology; (2) Detailed work Plan; (3) Consultant Organogram and staffing with job description (4) Quality Assurance and Quality Control Procedure Plan; (5) Safety Procedure; (6) Sample output for monthly and quarterly report and (7) Risk Management Plan.
- 2) **Daily Reports/Diaries:** The Resident Engineer and his team shall maintain a daily diary indicating all major activities, men and machinery deployed by the Contractors and actual inspections, checks and approvals accorded. A daily one-page report shall be sent by e-mail or fax to the Project Director, Team Leader and upload to the ICT monitoring system. Any consultant while visiting the site upload inspection reports in prescribed format through mobile phone application to ICT monitoring system of the project.
- 3) **Monthly Progress Report:** By the seventh (7) day of each month, the Consultant shall submit Monthly Progress Report in the accepted form briefly and concisely, describing all activities and progress for the previous month using bar charts, S-curve etc. Problems encountered, or problems anticipated shall be clearly stated, together with steps taken or recommendations for their correction. The Consultant will also record the payment status of the contract, payment forecast of the next three months, status of all claims for costs or time extensions submitted by the contractor. The report shall include the minutes of the monthly site coordination meetings and copies of relevant correspondences & notices. It will also indicate the work to be performed during the coming month, progress on EMP, SAP and RAP and the dates of induction and de-induction of various key personnel.
- 4) **Quarterly Progress Report:** The Engineer shall prepare a comprehensive report summarizing all activities at the end of each quarter, to be submitted to the Project Director by 15th of the following month. Such reports shall essentially be monthly progress reports with summary of the Quarter in respect of (i) the activities of the Engineer and the Resident Engineers, (ii) the progress of the contract, (iii) all contract variations, (iv) the status of Contractor's claims, if any, (v) details and brief descriptions of any technical and contractual problems being encountered, and the Engineer's suggestions on how to overcome those, (vi) details of physical and financial progress in approved formats, including financial details of the contracts as a whole consisting of the costs incurred, the forecast cost and the financial plan (vii) conditions which would significantly affect construction schedules or the cost of the project (viii) progress on EMP, SAP and RAP; (ix) any other relevant information for the ongoing contract. The quarterly report due after one year shall also be prepared on similar lines with summary of the whole year. The reports shall also be submitted in electronic format in addition to the required nos. of hard copies.
- 5) **Quarterly Safeguard Monitoring Report (Full Project)**
Report should contain compliance status of Environmental and Social Management Framework (ESMF). It should reflect the result of environmental and social screening, environmental & social impact of project activities, mitigation measures taken, its results grievances redress issues, contractor's compliance with the ESMF etc. in a consolidated form.
- 6) **Annual Summary Report:** The Annual Summary Reports, which are required for the PIU to report to LGED & the Government of Bangladesh (GoB) and to financing organization shall present the kind of information required for such reports and which will be more financial than technical.
- 7) **Contract Completion Reports:** The Engineer shall prepare a comprehensive completion report for the works contract and supply contracts. These reports shall be submitted immediately after completion of the Works by the Contractors. The reports shall summarize inter-alia the method of construction, the construction supervision performed, problems encountered, solutions undertaken, lessons learned and recommendations for future projects of a similar nature. A draft of each Completion Report will be prepared first, which will be finalized after obtaining comments from

the Employer. Each of these Completion Reports will be updated by the Consultant by incorporating the relevant information and comments of the Employer.

Sl. No.	Description of Report to be submitted	Nos. of Copies
	Inception Report	5
	Monthly Progress Reports	24
	Monthly Safeguard Reports	24
	Quarterly Progress Reports	10
	Quarterly Safeguard Reports	10
	Annual Reports	5
	Project Completion Report	6
	Survey Reports	6
	Sub-soil Investigation Reports	6
	Preliminary Design Report	4
	Detailed Design and Drawings	15 for each structure
	Estimate	4 for each structure
	Bill of Quantities	15 for each structure

7. Responsibilities of LGED

The consultant shall work under the direct supervision of the Project Director, HELP (LGED), Dhaka. In case of any unforeseen events, be it in terms of physical or social obstacles at field levels; the LGED concerned field offices will take initiatives to solve them and ensure good working environment.

Technical and project management issues shall be discussed in tri-partite meeting between LGED, PD-HELP and the consultants. Any unresolved issue, technical or otherwise, would be taken up with LGED through the Project Director and LGED, Dhaka.

The Project Director, HELP (LGED) shall assist the consultant, as far as possible, in collection of the following data, services and facilities:

- Available hydrological, sub-soil investigation, current rate schedules, related information etc.
- Available maps such as planning map, project index maps, contour maps, mouza maps etc.
- Available studies carried out by different study partners in relation to this study for generation of secondary information and future plans.
- Physical monitoring data done by LGED.

LGED shall provide at the start of the project more details regarding the interventions such as search areas for new shelters, the road segments to be rehabilitated, locations for landing sites, a list of shelters that will be enlarged, and a list of hat-bazars to be improved, etc.

Implementation Arrangement

1. Project management Office

The project will be implemented by existing Project Implementation Unit (PIU) of LGED set up for Host and FDMN/DRPs Enhancement of lives through Infrastructure Improvement Project (HELP) at the Head Quarter. An experienced and senior Civil Engineer of LGED is appointed on deputation as the Project Director (PD). Required officers/staff are deputed/appointed from LGED on temporary basis to assist the PD for implementation of the Project. One Executive Engineer of HELP will act full time. The Project Director and the senior PIU officials will:

- Liaise with the Local Government Division, Planning Commission, IMED and the donor as necessary regarding implementation of the project;
- Allocate tasks to project officials and staff and supervise their works;

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- Review bidding documents to ensure conformity with the PPR-2008 and IDA regulations; link interim payments to contractors to milestone achievements in consultation with the project consultants. Review submitted bids (if necessary) and arranges for approval of the competent authority for awarding contracts.
- Provide necessary technical guidance to the field level Executive Engineers regarding implementation of the project activities;
- Supervise construction works and advice the Executive Engineer regarding adherence to Technical Specification and quality control;
- Supervise works of the Project Consultants, review man months used against output produced;
- Take necessary measures for ADP allocation against the project;
- Make payments to consultants and contractors as certified by the consultants;
- maintain financial records of the project; prepare statement of expenditures as necessary and arrange reimbursement of fund from the donors;
- Preserve all expenditure records for audit by the FAPAD and the World Bank (if fielded).

2.0 The District Level Executive Engineer

- He shall be responsible for implementation of the project works at field;
- Call tenders for the project works (for works decided by PD), evaluate the bids and prepare evaluation reports generally for national level tenders and approval of those by the competent authority;
- Assign works to the officials and staff under his jurisdiction to supervise construction works and assure quality;
- Supervise construction works, provide technical guidance to junior technical staff in connection with the implementation of the project works;
- Prepare physical and financial progress reports and send them to the Project Director for reporting to the government;
- Certify achievement of milestones progress of different schemes in conformity with the technical specification and assist the project Director to prepare reimbursement claims for claiming reimbursement from WB;
- Maintain all payment records and face audit.
- Will be responsible for cost, quality, scope and progress of work

3. Overall Implementation Arrangement

- 3.7 The Government will have overall responsibility for project management and coordination through its Ministry of Local Government, Rural Development, and Cooperatives and the Ministry of Disaster Management and Relief. Project Steering Committees (PSC) will provide overall project oversight and policy direction.
- 3.8 There will be two PSCs established, one chaired by the Sr Secretary/Secretary, LGD, MoLGRD&C and the other by Sr. Secretary/Secretary MoDMR. The PSC is expected to include representatives from ministries, division, departments/agencies that are part of overall coordination and strategy. The Committee will provide an oversight function to ensure project activities follow appropriate parameters and are well coordinated. Specifically, the PSC will be responsible for: (a) providing policy advice and operational guidance; (b) reviewing financial and physical progress; (c) resolving any implementation problems and addressing grievances, and (d) providing any other necessary direction for effective implementation.

Coordination

1. The Project will use existing implementation arrangements of the GoB and all implementation on ground will be coordinated through the existing Government mechanism. The existing Development Partner/Multi-Lateral/Bi-Lateral/UN Agencies coordination mechanism in the field will be through the Inter Sector Coordination Group (ISCG) and coordinated in Dhaka by the Strategic Executive Group (SEG). I
2. There will be inter-agency field level coordination on project activities with the Refugee, Relief, and Repatriation Commissioner (RRRC), the Deputy Commissioner, the ISCG, and the implementing agencies. This is in-line with the overall coordination and communication arrangements in the country regarding the Rohingya influx. Furthermore, the activities for all the investments will be complementing that of the GoB, Asian Development Bank, and other Agency interventions, to avoid any duplication or overlap.
3. The overall coordination will be overseen at the national level by the National Task Force (NTF), which is an inter-ministerial body with secretarial services provided by the Ministry of Foreign Affairs. Project updates and briefings, including Aide Memoires will be regularly shared with the NTF for information purposes.

Appendix 1: Breakdown of interventions within this assignment

Type of Interventions (unit)	Quantity	Unit Cost	Detailed scope	Location (District)
Construction of Multipurpose Shelter (number)	5	US\$ 650,000	Four-story buildings with varied functional floors for storm surges, livestock safety, and shelter/classroom use, incorporating rainwater harvesting and renewable energy systems.	Noakhali
Capacity Enhancement of existing shelters (number)	70	US\$ 115,610	Addition of one floor to existing three-story shelters, with plumbing and electrical upgrades.	Cox's Bazar and Noakhali
Construction of Bridge (meter)	600 (typical bridge length on average approximately 20 to 30 m)	US\$ 13,000	Rehabilitation and re-construction of existing bridges minor capacity expansion aligned with the roadside drainage network to drain the increased surface run-off from extreme precipitation and flooding.	Cox's Bazar and Noakhali
Landing stages (number)	6	US\$ 2,000,000	Construction of landing stages to climate-resilient standards to provide anchorage to fishing and other boats during cyclones, storm surges, and high winds. All these landing stages are sea facing and located with both high erosion and accretion sites.	Noakhali (all in Hatia Upazilla including Bhasanchar)
Improvement of Rural Roads (km)	113	US\$ 200,000	Improvement of existing HBB roads or muddy roads to paved roads with minor enhancement of capacity including associated roadside drainage network and slope protective works to reduce the risk of flooding and landslides.	Cox's Bazar and Noakhali
Widening and Strengthening of Rural Roads (km)	25	US\$ 212,000	Widening the width of existing roads with enhancement of capacity for increased traffic.	Cox's Bazar and Noakhali
Rehabilitation of rural roads (km)	75	US\$ 80,000	Rehabilitation of rural paved roads with minor enhancement of capacity.	Cox's Bazar and Noakhali
Improvement of Hat-Bazar (number)	5	US\$ 220,000	Improvement of existing rural markets (hat bazar), incorporating resilient superstructure to withstand the impact of high wind, extreme precipitation and flooding, and roadside drainage network to drain the increase surface run-off from extreme precipitation and flooding.	Cox's Bazar and Noakhali

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 25

Construction of Cold Storage (number)	1	US\$ 212,500	Cold chain infrastructure (e.g., cold storages and ice mills) in the markets mentioned above will be improved to support livelihood activities.	Noakhali
Supply and Installation of Solar Street Light (number)	2000	US\$ 1000	Installation of solar-powered streetlights to improve energy efficiency	Cox's Bazar and Noakhali

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