



Government of the People's Republic of Bangladesh

Emergency Multi-Sector Rohingya Crisis Response Project (EMCRP)

**Environmental and Social Management Framework
(Updated for Additional Financing in Component 1 & Component 3)**

December 2019

Implementing Agencies:

Ministry of Disaster Management and Relief (MoDMR)

Local Government Engineering Department (LGED)

Department of Public Health Engineering (DPHE)

Executive Summary

Background

Since August 25, 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 727,000¹ people from the Rohingya community across the border into the Cox's Bazar District of Bangladesh. This exodus brings the total number of Displaced Rohingya Population (DRP) in the district to about 919,000² in what is one of the fastest developing forced displacement crises in the world. 85% of the DRP are living in collective sites, 13% in collective sites with host communities, and 2% in dispersed sites in host communities. In Ukhia and Teknaf, the two Upazilas where most of the DRP have settled, they outnumber the host community by over a factor of three.

Almost all the DRP are hosted in some of the world's most congested areas, including in the Kutupalong "mega-camp", which has fast become the largest refugee camp in the world. The DRP account for about one third of the total population in Cox's Bazaar, a district that was already facing severe development challenges. They are sheltered in makeshift shelters and extremely congested settlements, in areas that have minimal access to basic infrastructure and services and are prone to natural disasters, especially cyclones and floods. Setting up of camps has led to rapid deforestation, further increasing vulnerability of the DRP to disasters and monsoon rains. Relocation of households most at-risk from landslides and flooding is underway, but there is insufficient suitable land available to accommodate even the highest-risk category.

The influx is straining existing infrastructure and degrading an already resource-constrained social service delivery system and the rich natural environment in Cox's Bazar District. Stress on existing water points has increased over 20-fold with the new influx, rendering many of them dysfunctional while disposal and treatment of fecal sludge has become a challenge. Over 70 percent of water stored in households is contaminated³, and there have been outbreaks of diseases like diphtheria, measles, and diarrhea. The influx has increased strain on referral and inpatient services provided by the District hospital and the two Upazila Health Complexes.

The situation of displaced women and girls, who account for 52 percent⁴ of the DRP in Bangladesh, is particularly difficult. Women among the DRP had been subjected to gender-based violence (GBV) even before they fled to Bangladesh and remain at risk in the camps, including of trafficking. Psychological distress is highly prevalent, as girls and boys have witnessed horrific violence in Myanmar, including seeing family members killed and their homes burnt down. There is a relatively large share of female-headed households, who would be particularly vulnerable to social exclusion.

Most DRP are located in two sub-districts- Teknaf and Ukhiya having 5 and 6 Unions (the lowest level local government unit in the country), respectively, which are mostly rural. However, DRPs are also located in Cox's Bazar Sadar and Ramu sub-districts. In these two sub-districts (Teknaf and Ukhiya) the DRPs now constitute three times the local population. The largest settlement is in Ukhiya with 700,000 Rohingya. This rapid rise in population within a very short span of time has put enormous stress on infrastructure and public service delivery, which were already stretched even before the crisis began.

Building on humanitarian assistance, the World Bank adjusted ongoing operations to respond to prioritized medium-term needs of DRP. Two operations were expanded with additional financing to

¹ ISCG: Situation Report Rohingya Refugee Crisis, (September 27, 2018)

² IOM Needs and Population Monitoring round 11

³ Bangladesh Humanitarian Situation Report No.32 (Rohingya Influx) UNICEF, May 19, 2018.

⁴ Population Factsheet, UNHCR, Bangladesh, Cox's Bazar - as of 31 August 2018

cover the DRP: US\$50 million in additional financing to the ongoing US\$500 million Health Sector Support Project (P167672) (HSSP), approved by the World Bank Board on June 28, 2018; and US\$25 million in additional financing to the US\$130 million Reaching Out of School Children (P167870) (ROSC) approved by the Board on September 19, 2018.

In parallel, the World Bank is supporting host communities in the Cox's Bazar district through existing IDA operations in the Bangladesh country program. Support to the host communities through World Bank IDA investments are as follows; US\$375 million Multi-Purpose Disaster Shelter Project (MDSP) is supporting disaster preparedness, US\$410 million Municipal Governance and Services Project (MGSP) is improving municipal governance and basic urban services in participating Urban Local Bodies (ULBs), US\$300 million Local Governance Support Project (LGSP) is institutionalizing the Union Parishad (UP) fiscal transfer system, and introducing a fiscal transfer system for Pourashavas on a pilot basis, and the new IDA US\$175 million Sustainable Forests and Livelihood Project (SUFAL) is supporting host communities to improve collaborative forest management and increase benefits for forest-dependent communities in targeted sites. The proposed stand-alone Emergency Multi-Sector Rohingya Crisis Response Project will complement the above projects and will target DRPs.

The proposed additional financing for EMCRP will support the GoB in enhancing the displaced Rohingya Population's and host communities' resilience to extreme events and increasing access to energy, water, and sanitation services. Due to the urgency of the situation, the activities under Additional Financing will focus on mitigating the mid-term impact of the situation on refugees and host communities. As the situation evolves, the Bank's support will adapt to remain flexible and responsive to the situation. The proposed Additional Financing will contribute to the objectives the IDA-18 Regional Sub-Window for Refugees and Host Communities. The IDA-18 Regional Sub-Window's purpose is to help refugee-hosting countries to: (a) mitigate the shocks caused by an influx of refugees, and create social and economic development opportunities for refugees and host communities; (b) facilitate sustainable solutions to protracted refugee situations, including through the socioeconomic inclusion of refugees in the host country and/or their return to their country of origin; and (c) strengthen preparedness for increased or potential new DRP flows. The proposed additional financing will contribute to a suite of interventions across several priority sectors that will complement humanitarian efforts and support the government in developing a broader strategic response to the socioeconomic dimensions of the ongoing crisis. This will support a response that is rooted in government leadership and country systems, building on short-term humanitarian programs with a medium- to long term perspective.

Environmental and Social Management Framework (ESMF) Rationale and Objectives

The World Bank Safeguards Policies requires the preparation of an ESMF as a safeguards instrument where specific intervention sites and designs are not known. As mentioned in the Safeguards Action Plan for this project, the objectives of the ESMF is to assist Ministry of Disaster Management and Relief (MoDMR), Local Government Engineering Department (LGED), Department of Public Health Engineering (DPHE) to administer necessary environmental and social management (including risk management of environmental and social impacts) procedures and measures of proposed sub-project(s) interventions and resilience activities whose exact locations and design are unknown at this stage and may change during project implementation. The ESMF comprises the guidance document required for the environmental and social screening of each sub-project, determination of its environmental category, preparation of specific assessment and management plans (ESMP) and other planning instruments (i.e., ARAP or RAP) to be applied at project appraisal and formulation when technical design details become available. A separate Resettlement Policy Framework is being prepared for this project.

This ESMF is developed to guide the implementation of the EMCRP activities related to physical works and infrastructure interventions so that the Project Development Object (PDO) can be achieved⁵. The project is Category A under the World Bank's OP/BP 4.01 and given the specific sites and locations of project interventions have not yet been identified, the project is required to prepare an Environmental and Social Management Framework (ESMF). Through this ESMF, the PIU seeks to mainstream all environmental and social concerns into the selection, preparation, design and implementation of the project. The ESMF must be prepared, approved and disclosed publicly in Bangladesh and at the World Bank before the Bank will appraise the project.

The ESMF is a guidance and decision-support tool for stakeholders. As an overarching guideline document, the ESMF provides assurances that:

- Sub-projects are screened for and consider potential environmental and social issues, especially for DRP and different host communities who would be directly impacted (positively or adversely) by the sub-project;
- Sub-projects consider socio-cultural and gender sensitivities and environmental values prevailing in areas where the proposed sub-project(s) would be implemented;
- During project formulation and design, adverse environmental and social impacts may arise during construction and operational phases and appropriate mitigation/enhancement measures need to be designed with a monitoring plan developed to track implementation of site-specific safeguards instruments;
- Environmental and social management safeguard instruments such as ESMP, TPP, and ARAP/RAP are suitably prepared and followed; and
- Safeguard instruments are compliant with WB environmental assessment (EA) operational policies and procedures as well as GoB national laws and regulations.

The ESMF has been consulted with DRP, host communities and relevant stakeholders, and disclosed in country and on the World Bank's external website before the project Effectiveness.

Project Description

The project development objective (PDO) is to strengthen the Government of Bangladesh systems to improve access to basic services and build disaster and social resilience of the displaced Rohingya population.

The project has the following components and sub-components. Among the components, Component 1 and Component 3 is scaled up with Additional Financing to the Emergency Multi-sector Rohingya Crisis Response Project and Component 2 is scaled up with "Additional Financing to the Social Safety Nets for the Poorest Project". The AF will support the whole Cox's Bazar area.

The project activities under additional financing will scale up activities under Component 1 and Component 3 to support host communities and DRP. The activities will be piped water supply schemes, rainwater harvesting systems, construction of toilets, integrated fecal sludge and solid waste management system, construction of drainage, rubber dams for irrigation, jetty rehabilitation, climate-resilient primary schools/disaster shelters, and climate-resilient community service centers/disaster shelters, climate-resilient access and evacuation roads and footpaths, awareness program for sanitation etc. Additionally, project will support construction of lightning protection systems, solar street lights, nano-grids, firefighting/search and rescue warehouses which will benefit both Host and DRP communities to reduce the vulnerability. As part of the capacity building, different

⁵ The PDO is to strengthen the Government of Bangladesh systems to improve access to basic services and build disaster and social resilience of the displaced Rohingya population.

training programs will be arranged including for the unskilled labors. Training will involve social safeguard compliances, working condition of the labors and labor influx management, occupational health and safety, etc.

Electricity has been identified as one of the top three priorities requested by refugees¹. Along with refugee households, electricity connection is badly needed for other facilities like health centers, learning centers, food distribution centers, children and women friendly centers etc. Though a main distribution grid is being developed under an ADB funded project, it will be able to connect only a part of those common facilities closer to the grid. There are around 240,000 refugee households, 3,000 learning centers, 27 Primary health centers, 50 health posts and the electricity needed to support basic lighting for evening hours and ceiling fans at common facilities is estimated at 6,870 kWh per day. The Energy and Environment Technical Working Group (EETWG) identifies solar PV nano-grids and mini-grids as the most viable solution in areas having no potential access to the grid and where the cumulative load is too high to be met by solar home systems (SHS). To ensure access to sustainable electrical energy, around 1050 mini-grids/nano-grids would need to be established by 2021 as estimated by EETWG. At present only 50 nano-grids (6kWp each) are under implementation with the support from ADB and two mini-grids (40kWp each) by UNHCR which will provide electricity to around 15000 households.

To help address this need, through the additional financing under subcomponent 1.B aims to construct around one hundred solar PV nano-grids. The capacity of the nano-grids would vary in a range of 4.0kWp to 8.0kWp depending on the load pattern and availability of space. Each nano-grid would connect common facilities and/or upto 200 households within 1 km radius via overhead distribution lines. Where relevant and viable, small battery storage system would also be included. The solar PV panels would be installed on the roofs of the control unit (around 150 sq-ft for a 4 kWp system) and also could be mounted on roof of the suitable common facilities including planned multipurpose centers financed by the Project. Sites for installing control unit and rooftop space for solar panels will be identified in coordination with Site Management & Site Development (SMSD) and EETWG. The systems would provide electricity for lighting at households, for lighting, cooling and running medical equipment at health facilities, for ceiling fans and lighting at learning centers, as well as for other priority needs of identified beneficiaries. The nano-grid intervention would thus support safety, living conditions and wellbeing of refugees and offset expensive and emission intensive electricity generation from diesel generators in essential common facilities.

- Component 1: Strengthening Delivery of Basic Services, Resilient Infrastructure, Emergency Response and Gender-Based Violence (GBV) Prevention
 - Subcomponent 1.A: Resilient Water, Sanitation, and Hygiene
 - Subcomponent 1.B: Basic Services, Resilient Infrastructure, Emergency Response and GBV Prevention
- Component 2: Strengthening Community Resilience
 - Subcomponent 2.A: Community Services
 - Subcomponent 2.B: Community Workfare
- Component 3: Strengthening Institutional Systems to Enhance Service Provision to the Displaced Rohingya Population
 - Subcomponent 3.A: Strengthening MoDMR, NTF, RRRRC, CiC, and Line Ministry Systems
 - Subcomponent 3.B: Strengthening LGED, DPHE, and GBV Services
- Component 4: Contingent Emergency Response Component (CERC)

The multi-sectoral nature of this project is such that the profile of the project beneficiaries is quite complex. The Project beneficiaries are the approximately 900,000 Rohingya people settled in informal

camps that are adjacent to previously existing Registered Camps (RCs). Approximately 720,000 are settled around the Kutupalong RC in Ukhia, approximately 130,000 around the Nayapara RC in Teknaf, and approximately 50,000 in three smaller camps in Teknaf.

The project influence area (PIA) will vary depending on the sub-project activity. Although some activities (such as tube wells and latrines) are in fixed locations, others are not (such as the proposed mobile desalination plants). In addition, some of the sub-project activities can have indirect impacts that lead to a larger project influence area compared to that if only direct impacts are considered. Therefore, a guideline for the project influence area has been incorporated for different potential impacts during pre-construction, construction, operation & maintenance as well as decommissioning phases of each sub-project activity in the ESMF. In some cases, sourcing locations of raw materials also need to be considered within the project influence area.

Policy, Legal and Regulatory Framework

Relevant GOB Policies, Acts, Rules, Strategies and Guidelines include:

1. The Constitution of the Peoples' Republic of Bangladesh (1972)
2. Forest Act (1927, amended 1990 and 2000)
3. National Environmental Policy (1992)
4. Bangladesh Wildlife (Preservation) Order, 1973 (enacted in 1974 and Amended in 1994)
5. National Environmental Management Plan (NEMAP, 1995)
6. Environmental Conservation Act (ECA, 1995)
7. Environment Conservation Rules (ECR, 1997)
8. National Water Policy (1999)
9. Environment Court Act (2000, updated in 2010)
10. National Water Management Plan (2001, Approved in 2004)
11. Coastal Zone Policy (CZPo) (2005) and Coastal Development Strategy (2006)
12. Wildlife Conservation and Security Act (2012)
13. Disaster Management Act (2012)
14. Bangladesh Water Act (2013)
15. Ecological Critical Area Rules (2016)
16. Bangladesh Biodiversity Act (2017)
17. Acquisition and Requisition of Immovable Property Act, 2017
18. Bangladesh labor Law 2006
19. Bangladesh Labor Rules 2015
20. Bangladesh Electricity Act 2018
21. Bangladesh Renewable Energy Act 2008

The project triggers the following World Bank safeguard policies:

- Environmental Assessment (OP/BP 4.01),
- Natural Habitat (OP/BP 4.04),
- Forest (OP/BP 4.36),
- Physical Cultural Resources (OP/BP 4.11) and
- Involuntary Resettlement (OP/BP 4.12).

The following WBG EHS guidelines also apply based on the typology of subprojects:

1. General EHS Guidelines

2. EHS Guidelines for Construction Material Extraction
3. EHS Guidelines for Water & Sanitation

Bangladesh is signatory to the following relevant international treaties:

- Ramsar Convention 1971
- World Heritage Convention 1972
- Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) 1973
- Convention on the Conservation of Migratory Species of Wild Animals 1979
- Bio Diversity Convention 1992

Expected Environmental and Social Impacts

Based on the sub-project activities described above, the following impacts on the physical and biological environment can be expected:

- **Noise pollution** and disturbance. This can be caused by operation of vehicles, machineries and equipment. For example, piling or drilling can generate excessive noise that can cause disturbance to people and the fauna near the project interventions.
- **Air Pollution.** This impact can be caused by dust or gaseous emissions. Dust caused by vehicle movement and land clearing can impact on fauna and flora. Gaseous emissions from construction vehicles and motorized equipment can also temporarily impact local air quality. Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna. Unintended gaseous emissions from the biogas plant affecting surrounding fauna.
- **Soils impact.** Soil can be damaged by erosion or pollution from chemical spills or improper disposal of waste materials. The waste materials can be from latrines (fecal sludge); construction materials; market wastes; etc. The impact can be severe if the waste materials are hazardous in nature (e.g. damaged solar panels or batteries). Residue from biogas plant improperly managed and disposed can cause soil pollution.
- **Vibration impacts** can occur during piling, drilling and heavy vehicle movement. Vibration near steep slopes can also increase risk of landslides (during monsoon season, even several months after construction has finished). Excessive vibration can disturb the local sensitive fauna living near the construction sites or nearby forest areas.
- **Surface water impacts** can occur due to alteration of quantity or quality. For example, unintentional runoff from site can cause pollution to water bodies and harm aquatic flora and fauna due to lack of bunding or drainage facilities. In addition, abstractions of surface water for water supply purposes (e.g. for mobile desalination plant) can alter the flow pattern in the source water body. Also, project interventions can alter the natural drainage pattern (e.g. construction of bridges and culverts). Discharges from mobile desalination plant as well as improperly constructed/maintained latrines can cause surface water pollution. Runoff from sites where waste materials have been disposed improperly can cause water pollution. Construction of rubber dams will alter hydrologic regime and morphology of the river.
- **Groundwater impacts** can occur due to various project activities. For example, there can be draw down of the groundwater table due to excessive water withdrawals for drinking purposes. Also, percolation from waste disposal sites can cause pollution of aquifers.
- **Flora (vegetation) impacts** can occur through clearing of vegetation, cutting of trees, etc.

- **Fauna (animals) impacts** can occur through habitat loss – temporary or permanent loss of habitat due to land clearing/conversion and/or tree felling. Disturbance of riparian and aquatic ecosystem can occur during bridge/culvert/rubber dam construction and/or operation.

Table 1: Sub-Project Wise Expected Environmental Impacts

Environmental Component (Physical and Biological)	Sub-Project								
	WASH			Multipurpose Disaster Shelter			Access and evacuation roads, bridges, rubber dams, nano-grids, local markets, street lights and lightning protection system		
	PC	OM	DE	PC	OM	DE	PC	OM	DE
Noise	✓	✓	✓	✓		✓	✓	✓	✓
Air Pollution	✓	✓	✓	✓		✓	✓	✓	✓
Soils	✓	✓	✓	✓		✓	✓	✓	✓
Vibrations	✓			✓		✓	✓	✓	✓
Surface Water	✓	✓	✓	✓	✓	✓	✓	✓	✓
Groundwater	✓	✓	✓	✓	✓	✓	✓	✓	
Flora	✓	✓	✓	✓		✓	✓	✓	✓
Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage

Based on the above sub-projects interventions, the following social impacts are expected.

Project may require to shift or re-align some structures (expected to be few in terms of scale, involving quick rebuilding in nearby spaces within the camps) to make way for the infrastructure and service provision envisioned by the project. All such activities will be done on a purely voluntary basis, and after the shifting and rebuilding activities are completed (the tents and bamboo structures with plastic sheeting for roofs are makeshift in nature and can be quickly rebuilt) by the responsible agencies. No land acquisition will be taken place within camps. However, Construction/extend the existing roads or bridges within the host communities, construction of cyclone shelters may affect some squatters. During construction works, project may affect some agricultural land and assets as well. If fresh land is required, project will try to take those lands on voluntary basis. If land acquisition is unavailable within the host communities, acquisition may take place following the guidelines of OP 4.12 and ARIPA 2017. OP 4.12 will be triggered as a precaution and especially for the private lands in case it is necessary to compensate local owners (for crop-losses, or losses accruing from dumping/moving construction materials etc.).

Expected social impacts, including those on workers' health and safety during the construction stage of sub-project activities include:

- Within the camps, tents/shelters may be required to be shifted to allow for construction of toilets, water pipelines and other essential facilities. This may be permanent or temporary (but will be strictly within the camp and on a pre-consulted and voluntary basis).
- During construction of mini water supply system within the camp and adjacent community, some household might be affected temporary.
- The construction of roads, bridges and culverts, in order to improve access to the camp sites may require the use of private lands outside the camp areas.
- Project may require the use of private land temporary during construction works
- The DRPs are a vulnerable population given their circumstances, but even within them women, children, orphans, those with injuries resulting in disabilities etc. are more vulnerable. The

project activities may affect them disproportionately if the impacts are not properly assessed and appropriate mitigation measure not undertaken.

- Noise: Excessive sounds can disturb community within project influence area.
- Social tensions may arise between local community/DRPs and construction workers. Gender impacts need to be carefully assessed.
- Injury or death can occur due to accidents around the construction site caused by various construction activities and heavy vehicular movement.
- Heavy vehicle movements can cause traffic to the project influenced areas
- High sound levels can cause hearing injury to site workers.
- Unsafe working conditions: can cause health risks to site workers.
- Contaminated drinking water and unhygienic sanitation can cause diseases and other health risks to site workers.
- Accidents: Injury or death can occur due to heavy vehicular movements to/from the site. Also, without proper signage and fencing, the public/DRPs may enter construction site risking injury or death.

Potential impacts on workers' health and safety during operation stage include:

- Biogas plants process large quantities of combustible and toxic gases which pose an increased fire, explosion or suffocation hazards in case of faults in design, materials or control. In the event of an incident at the plant, people may be injured, property damaged and the environment (air and water) polluted.
- Health and safety risks due to unsafe working conditions when maintaining latrines and desalination plants.
- Combustible or toxic gases may escape from the biogas plant causing a fire, explosion, injury/death to surrounding community and/or property damage.
- Pollution of air/land/water from latrines, biogas plant residue and desalination plant waste materials can harm local community.

It will be important to ensure that the proposed sub-projects do not have an effect on a place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical or social

Screening and Impact Mitigation Approach

Each sub-project shall be appraised through primary environmental and social screening, which assesses the expected impacts requiring appropriate mitigation measures from those which are not significant. This is done by analyzing the proposed sub-project activities in relation to their environmental & social context (surrounding area) using a checklist approach. The areas of elephant migration routes and the remaining forest areas in/around camp sites will be avoided from the sub-project areas through screening, to avoid Human Elephant Conflict (HEC) and adverse impacts on the remaining forests. Environmental and Social Screening Form is provided in Appendix 2.

This Section of the ESMF also describes the mitigation approach that should be considered to reduce significant impacts of sub-project activities to acceptable levels and also to enhance benefits where possible. The last sub-section describes the different roles and responsibilities of Contractors in relation to environmental and social safeguard issues. The steps in the screening process are provided in the table below.

Table 2: Screening Steps, Responsibilities and Timing

Screening Step	Responsibility	Timing
Identification of Sub-Project (form provided in Appendix 1)	Implementing Agency PIU and Safeguard Support firm to complete the form.	After identification of potential location(s) for implementing sub-project
E & S screening of sub-projects (form provided in Appendix 2,)	Environmental and social Safeguard Support firm and PIU (and consultants: Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist and Senior Social Specialist) to conduct environmental and social screening based on site visits and initial consultations with local community/DRPs as well as other agencies working in/near the proposed location(s). Safeguard Support firm to prepare screening report. World Bank safeguard team will review the samples of screening result, especially for the sub-projects which requires further assessment/plans.	Within 2 weeks of identifying potential locations(s) for implementing sub-project
Preparation of mitigation measures (Appendix 2)- for the sub-project where further detailed environmental and social assessment or ESMP is not required	Environmental and Social Safeguard Support firm and PIU (and consultants: Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist and Senior Social Specialist) to evaluate feasible mitigation measures for the sub-project where further detailed environmental and social assessment or ESMP is not required. World Bank safeguard team will review the samples of the proposed mitigation measures.	Within 1 weeks of impact screening
Preparation of specific plans and instruments (ESIA, ESMP, RAP, ARAP) for the sub-project where further detailed environmental and social studies is required (Appendix 3, 4, 5 and RPF)	Environmental and Social Safeguard Support firm, M&E firm and PIU (Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist ,Senior Social Specialist and consultant) to decide whether further assessment such as full-fledged ESIA and ESMP and related studies (Vulnerability Assessment for gender and GBV, elderly, children and orphans, persons with disabilities, other identified vulnerabilities); impact assessment or studies on ecological impacts and human-elephant conflict would be required. Specific safeguard plans/instruments will be prepared according to the ToRs attached to the ESMF and RPF. World Bank safeguards team will review and clear safeguards instruments.	Within 1 week of determining mitigation measures and before any bidding documents are issued, contracts signed, or construction activities started
Inclusion of relevant environmental specifications and ESMPs in the bidding documents	PIU (Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist ,Senior Social Specialist and consultant)	Before finalization of tender/bidding documents
Implementation of mitigation measures and plans	The contractors will carry out the E&S mitigation measures/management plans/instruments according to the screening form/other safeguard instruments which will become part of the legal agreement between	During construction and operation

Screening Step	Responsibility	Timing
	PIU and the contractor. World Bank safeguards team will review the status of mitigation/ESMPs implementation through supervision.	
Monitoring, Supervision and Reporting	The PIU with assistance from environmental and social support firm will supervise and monitor the implementation of mitigation measures/management plans/instruments. PIU will prepare a monthly monitoring report. World Bank safeguards team will review monitoring reports.	Regularly during construction and operations

The sub-projects with physical works/interventions require screening. The environmental and social safeguard screening will occur during the project preparation stage as a soon as fairly accurate site location(s) is (are) known for the sub-project.

The environmental and social screening form provides a preliminary assessment of the potential impacts of the sub-project. The forms (provided in Appendix 1 and 2) will help to identify issues which can be verified during field investigations and also provide a preliminary idea regarding the nature, extent, and timing of environmental and social issues that would need to be handled during the subsequent stages. It will also help to identify opportunities for avoidance or minimization early in the project cycle so that the design process can be informed appropriately.

The screening forms will also help to identify the scope of further assessments and timeframe required for obtaining the regulatory clearances (if any). If further assessments and plans (such as ESIA, ESMP, RAP, ARAP, etc.) are deemed necessary (for higher risk sub-projects), these plans will be prepared according to ToRs included in ESMF (Appendix 4 and 5) and RPF. If the screening output indicates that a particular sub-project activity is expected to have low negative impacts, then appropriate mitigation measures need to be considered as part of Appendix 2, i.e. Environmental and Social Screening Summary. The specific safeguard instruments and/or Environmental Screening Form will become part of legal agreement between PIU and a contractor.

In this project, a Mitigation Hierarchy needs to be followed. The first step in the Mitigation Hierarchy is locate the sub-project or design it in such a way so that the impacts can be avoided. However, in some situations, especially in this project which is dealing with activities in/near environmentally sensitive sites and also with vulnerable communities, it is not possible to completely avoid risks and impacts. Therefore, the second step in the hierarchy is to reduce the potential risks and impacts of the proposed sub-project activity to acceptable levels through design considerations. When there are no further design solutions and the potential risks or impacts remain significant, then the third stem in the hierarchy is to develop feasible mitigation measures. Suggested mitigation measures have been provided in the guideline ESMPs in Section 8 of this ESMF. The final step in the Mitigation Hierarchy, is to offset any remaining significant residual impacts by technically⁶ and financially⁷ feasible means. This can be in the form of compensation or enhancement of similar environmental/social component in another location. As with mitigation measures, the expected costs of the enhancement measures need to be included in the project costs. Furthermore, monitoring is required to not only ensure that the enhancement measures are being properly implemented but also to determine whether the benefits of these measures are being realized over time. Again, **the costs of monitoring needs to be included in the project budget.**

⁶ Proposed measure needs to be practical given availability of appropriate skills, materials, equipment given the local conditions (geographical, natural, socio-political, infrastructure, security and disaster vulnerability).

⁷ Cost of proposed measure should not make the sub-project nonviable for the implementing agency.

Contractors will play a vital role in this project to ensure that environmental and social risks and impacts are minimized effectively. They also play an important role in ensuring adequate health and safety measures are put in place not only for their workers but also for the surrounding community and DRPs. Contractor's role and responsibilities commence at the tender preparation stage and continue until all monitoring responsibilities end, which may extend beyond the construction phase.

Contractors have a duty to ensure that their activities do not cause significant and irreversible damage to the environment they are working in. They will make sure that no social conflict arises due to engagement of labors. They will try to engage DRP as labors within camps and local labors as much as possible during construction at host communities. All necessary measures, as specified in the Screening Form and/or ESMP, should be followed and monitoring measures put in place. Special care needs to be taken during pre-construction and construction phases when heavy machinery and equipment are used. Also, felling of trees or removal of vegetation need to be carefully managed through consultation with the DRP and host communities. Specific management plans, e.g. drainage management, traffic management, emergency preparedness and response, etc. need to be prepared by the Contractor prior to commencing any physical works. In addition, the Contractor needs to ensure that proper induction and training is given to all of their workers. A full-time, on-site ESHS Specialist by the contractor will be required for sub-projects working in/near particularly sensitive environmental sites. PIU environment and social specialist will monitor the safeguard related activities including working conditions of the labors on a regular basis.

Contractors employed during operation & maintenance as well as decommissioning phases have similar roles and responsibilities of environmental aspects as described above.

Contractors also have particularly important roles and responsibilities to ensure that social risks and impacts are managed. These include taking adequate measures for minimizing disturbance to the community living and working near the project site(s). Also, Contractors need to ensure that there are no conflicts between the local community/DRPs with their works/labour. Where appropriate, Contractors should try to employ local people during the pre-construction and construction phases. Contractors are also responsible for the health and safety of their workers and the community living and working near their site(s). Proper signage and fencing need to be used at all times.

Contractors employed during operation & maintenance as well as decommissioning phases have similar roles and responsibilities of social aspects as described above.

Contractors, with active support of the PIU, need to ensure that the Grievance Redress Mechanism is effective so that potential conflicts are avoided and claims by affected people are addressed in a genuine manner. Further details are provided in Section 7.2.

Given the sensitivities in the camps areas (social, cultural, religious, gender, disabilities, orphaned and vulnerable children, relationship with host community), a vulnerability assessment will be undertaken. It may be mentioned that gender and gender-based violence issues (rape, trafficking, physical and mental violence, etc.) are being addressed through mainstreaming activities as well as concrete deliverables through the project. Also, there are similar assessments being carried out under the two other Bank funded projects aimed at the DRPs; these will be referenced and/or used where required.

PIU need to prepare bid documents so that necessary environmental and social safeguard measures are included in the specifications and bill of quantities (BOQs). For example, the ESMP and relevant budget should be provided in the bid documents. This will assist Contractors to prepare realistic

tenders and also help reduce delays and negotiations during project implementation. Example ESMF items that need to be included in bid documents include:

- Preparation of specific management plans: waste management plan; health safety plan; traffic management plan; etc.
- Costs associated with safe and proper disposal of construction waste materials
- Costs associated with mitigation measures (bundling for managing site runoff; dust control measures; etc.)
- Costs associated with regular noise, air quality, water quality and soil quality monitoring
- Health and safety equipment e.g. (PPE, safety barriers, etc.)
- Training of contractors and their staff
- Hiring of Environmental Supervisor (including OHS) and Social Safeguard Officer

Stakeholder Engagement and Suggestions Handling Mechanism

Considering the potentials impacts and nature of the project, consultation and communication with different stakeholders is essential. As there are different 4 components in this project and implementation agencies are different, developing communication among the different PIU's is important for the successful implementation of this project. As project activities will include small-scale infrastructural development like construction of access roads, disaster shelters, WASH intervention, reduction of pressure on fuel wood etc. to reduce the vulnerability of the DRP from natural disaster and fire hazard, provide the basic urban facilities to both DRP and host communities and restore the badly degraded environment both in the short and medium term, stakeholder engagement will be vital for smooth implementation.

Community/stakeholder consultations will be conducted throughout the project cycle, with varying focus on issues relating to the subproject activities and the people who may have stakes therein. More formal consultations, focus group discussions and interviews of knowledgeable local persons will start with feasibility study, social (and environmental) screening, AP's census for voluntary land donation and impact assessment, and preparation and implementation of the impact mitigation plans. Focus of consultations will generally shift from wider audience to specific groups who have direct stakes in the project.

The key stakeholders from safeguards point of view include:

- People/communities directly affected by project activities
- People/communities/organizations within the project influence area indirectly affected by project activities
- Local elected representatives (Union and Upazila levels)
- Government departments/agencies: Dept. of Environment and Forest Department.
- Development Partners
- Local and international NGOs working with local communities/DRP

DPHE, LGED, and MoDMR have conducted several consultation meetings with different stakeholders including DP's, NGO's, GoB, ISCG, etc. Based on the consultations conducted with different stakeholders, a consultation and communication strategy (CCS) has been prepared.

Consultations with DRP and community people will always include the following as they relate to project preparation and implementation:

- The objectives, scope and implications with respect to the project, socioeconomic impacts, as well as the adverse impacts that are likely to be caused on users of khas and other public lands and private landowners;
- Private land may require to use during construction period. No land acquisition will take place within camps. If private land is required to use from host communities, project will try to use those on voluntary basis through MoU between land owners and project. If land acquisition is unavoidable within host communities, project may acquire the land following the guideline of OP 4.12 and ARIPA 2017. If voluntary land taking is required, PIU must disclose the voluntary land uses.
- Separate consultation with Ministry of Environment, Forest and Climate Change, Bangladesh Forest Department and Water Development Board, if their land is requiring to use.
- Gather host community and DRP's inputs/feedbacks as to how adverse impacts could be minimized; and the rights and responsibilities on the parts of the communities themselves and the agencies involved in preparation and implementation, such as GOB, World Bank, the consultant, etc.
- Potential impacts and their sources relating to the location and scope of the civil works required to build infrastructures in order to support the DRP and communities
- Inform the community about Grievance Redress Mechanism and the Grievance Redress Committee that would be constituted at the local level and project level, its membership composition, and explain its functions and limitations and how an aggrieved person could lodge complaints and grievances
- Project will hold separate consultations with community women, female DRP and other vulnerable groups if identified during preparatory stage. The main objective is to explore the possibilities of introducing activity that would benefit the local women and Rohingya women.

A well-defined grievance redress and resolution mechanism will be established to resolve grievances and complaints in a timely and satisfactory manner for all three components and that GRM will be set-up under component 3 through independent third party. The GRM will be implemented under the following operating principles: i) all cases received should be recorded; ii) resolutions must be communicated to the complainant; and iii) all cases will be monitored through its completion or countermeasure implementation. This is undertaken in view of the particular vulnerability and precarious conditions of displaced Rohingya people in the camps, and in particular the women and adolescent girls who have suffered and, in many cases, still continue to suffer silently from gender-based abuse and violence. The objective the grievance redress mechanism (GRM) is to resolve complaints as quickly as possible and at the local level through a process of conciliation, counseling and advice. All affected persons will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign. The grievance redress process will include four levels but safeguard related grievances may be redressed within first two levels.

First level (Host community and camp level grievance reporting): The first level and most accessible and immediate contact for the fast resolution of grievances will be on-site at camp level and community level. Complaints for components 1 and 2 will be received here. Due to the nature of the project, there will be two grievance reporting procedures.

1. **Grievance reporting by DRP:** The Rohingya volunteer network will serve as the field-level interface for the DRPs to file grievances both in-writing and verbally. Field level DRP volunteers will be trained on GRM and procedures together with project interventions. All the volunteers must be fluent in both Rohingya language and Bangla language. They must be expert to write and document the grievances. Specialist agency will form different groups of volunteers where there will be at least 2 male and 2 female volunteers. Each group will support 300 to 500 DRP families in receiving, solving and recording the grievances. If the grievances are not solved at this level, will be forwarded to camp level.
2. **Grievance reporting by Host communities:** Grievances may also emerge from host communities primarily due to project activities some of which are expected to take place outside of the camps and implemented by LGED and its contractors. These grievances may be reported to the grievance focal point of specialized agency, representative from INGO/NGO (if any), safeguard focal point from LGED/DPHE, representative from LGED. If the grievances are not resolved at this stage, they will be referred to the camp level. The focal person will fully document the following information: (i) name of the person; (ii) date complaint was received; (iii) nature of complaint; (iv) location, and (v) how the complaint was resolved.

Second level GRM (Camp Level): Should the grievances from DRP remain unresolved at local level (for both DRP); the focal point of specialist agency with assistance from either DPHE, LGED or MoDMR representatives will raise the matter to camp level grievance redress committee (CL-GRC). This committee will be chaired by CiC. Members of the committee will be Majhi's, respective Rohingya volunteers, camp level grievance focal point of specialized agency, members from PIU/agency specific participants will be coopted as needed with relevance to grievance cases. For example, if any grievances received from labors, contractor's representative will be invited during the hearing. Grievances will be resolved through continuous interactions with affected persons, and the focal person will answer queries and resolve grievances regarding various issues including environmental or social impacts. A software application and a hotline will also be established to allow grievances to be channeled through electronic means. The CiC office will periodically consolidate and register the grievance cases. A Camp-level Grievance Redress Committee (CL-GRC) will be set-up in each camp and will be responsible for reviewing each case and providing a resolution. In accordance to the resolution, the grievance cases will be referred to the service provider or relevant agency for the implementation of corrective measures.

For Host Community (if complaints remain unresolved at local level), Environmental/Social safeguard specialist (LGED PIU) will raise the matter to Executive Engineer Level Grievance Redress Committee (Xen-GRC) at the LGED Cox's Bazar Executive Engineer's office. Unsolved cases at local level for the DPHE intervention will be transferred to the DPHE Cox's Bazar Executive Engineers office. Executive Engineer will be the designated official as the convener of the GRC at this respective level. Members will be selected to represent the communities and other stakeholders including local administration, Environmental and Social Team (EST) (Consultants) and civil society. The safeguard specialist will fully document the following information: (i) name of the person; (ii) date complaint was received; (iii) nature of complaint; (iv) location, and (v) how the complaint was resolved. The structure of GRC and membership will be as follows:

Convener	Executive Engineer
Member-Secretary	Environmental/ Social Safeguard Specialist (PIU)
Member	Representative from Local Administration
	Environmental and Social Team (EST) Consultant's representative
	Civil society representative

Third level (District level-RRR GRC): Should the grievance remain unresolved at camp level/LGED Executive Engineer's Office level, the MoDMR/LGED PIU will activate the third level of the GRM by referring the issue (with written documentation) to a Grievance Redress Committee (GRC) at the RRRC's office, which will, based on review of the grievances, address them in consultation with the DPD, safeguard consultants, program consultant and grievance redress consultant. This will make use of any existing committee at the RRRC's office and engage the RRRC, DC, and district level responsible representatives of relevant agencies: MoDMR, LGED and DPHE, as and when needed. This will be set up at the district level, for its respective review and resolution. A software-based system will be developed to register and follow-up grievance cases. Parallely, manual system will be followed to assure functionality in the initial stages of the project, as well as to serve as a fallback system in case of contingencies. As a part of the GRM design, a set of grievance categories will be produced to prioritize cases as well as facilitate their redressal which include several categories related to project grievances, GVB related grievances, safeguard related grievances etc. A software-based hotline will also collect and respond to environmental and social safeguard related grievances.

Fourth Level (National Level): If a grievance remains unsolved at district level, it will be referred to the respected agencies at the national level i.e. MoDMR, if the grievance is regarding MoDMR's activities; LGED, if the grievance is regarding LGED's activities; and DPHE, if the grievance is regarding DPHE's activities. Each agency then will address the referred grievances using their existing grievances resolution protocols. Safeguards focal points of relevant agencies will be responsible for facilitating the resolution process. All the meeting minutes of a particular case (level 1-level 3) must be presented before the hearing. Based on the hearing and supporting document, committee will solve the issues. Moreover, in case of any labor elated issues, labors can directly complain to the contractors and contractors are bound to solve the issues immediately by Bangladesh Labor law 2006. Labors, DRP and host communities are also allowed to complain to any level directly.

In addition, communities and individuals who believe that they are adversely affected by this World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

Moreover, communities and individuals who believe that they are adversely affected by this World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and

procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

Environmental and Social Management Plan Guidelines

This ESMF provides guidelines on Environmental and Social Management Plans (ESMPs) for the different sub-projects. These guidelines can be used to prepare E&S mitigation measures for low to medium risk sub-projects, or for the sub-projects with higher risk requiring further assessment or management plans. An ESMP focuses on implementation phase activities of sub-projects (pre-construction, construction, operation & maintenance and decommissioning) and ensures that the project impacts are reduced to acceptable levels. Thus, ESMP becomes the document for ensuring that all the preceding analysis is used to preserve or improve overall environmental quality within the influence area of the proposed project.

The ESMP should be specific, clearly and concisely describing adverse social and environmental impacts, working conditions of the labors and labor influx, GBV, selected mitigation measures to bring it to an acceptable level and timelines for implementing these measures. The ESMP aims to ensure that the compliance of all activities undertaken during implementation of the proposed project with the environmental and social safeguards requirements of the World Bank and GoB. The structure of an ESMP which a sub-project is required to prepare is based on:

1. Potential adverse impacts identified and mitigation measures to be adopted, together with conditions within which one or other measure would apply and their integration with phases – Pre-construction, Construction, Operation & Maintenance and Decommissioning
2. Enhancement plans for positive impacts
3. Consultation with DRP, Host Communities, Local government and UN agencies
4. Monitoring Plan with indicators, mechanisms, frequency, locations
5. Budgetary allocations for all the above activities.
6. Institutional arrangements for each activity and mitigation measures.
7. Implementation schedules for each activity and its integration with the sub-project implementation timelines.
8. Reporting procedures, including for redressing grievances related to environmental and social issues.

Further guidance to prepare ESMP is provided Appendix 5.

Institutional and Monitoring Arrangement

The Government will have overall responsibility for project implementation and management through its Ministry of Local Government, Rural Development, and Cooperatives (MoLGRD&C) and Ministry of Disaster Management and Relief (MoDMR).

The project will be implemented by LGED, DPHE, and MoDMR through three Project Implementation Units (PIUs). LGED and DPHE are implementing agencies within the MoLGRD&C. All activities will be coordinated by the Refugee, Relief and Repatriation Commissioner (RRRC) at the field level. Host communities' activities will be coordinated by LGED, DPHE, MODRM and local government.

The rationale for adopting the proposed implementation structure is to be in accordance with the mandate of government agencies, in-line with the rules of business for DRP assistance and coordination, and to enable most efficient decision making taking into account internal government fiduciary clearance procedures.

Following the GoB's Rules of Business, Project Directors of the PIUs will be responsible via head of agencies (CE/ Head of Refugee cell) for directly reporting to their respective Ministerial Project Steering Committee (PSC). There will be a PSC chaired by the Sr. Secretary/Secretary, LGD, MoLGRD&C and a PSC chaired by Sr. Secretary/Secretary MoDMR, representatives of each PIU will be present at both PSC meetings.

DPHE will be the implementing agency of Component 1a and a part of Component 3b. DPHE PIU will have a dedicated Project Director and two DPDs.

LGED will be the implementing agency of Component 1b and a part of Component 3b. Currently, as LGED is already implementing the IDA financed US\$375 million Multi-Purpose Disaster Shelter Project (MDSP), with an existing Project Director, PIU and interventions in the Cox's Bazar District, it was agreed the existing MDSP PD will be the PD of the proposed project's LGED related component and the existing MDSP PIU and MDSP Procurement Panel would provide necessary support to the project. This setup is not expected to have any implications for the continued successful implementation of MDSP. This existing MDSP PIU would be strengthened to implement additional activities proposed under the proposed Project. MDSP and this proposed Project would maintain separate Deputy Project Directors (DPDs).

MoDMR will be the implementing agency for Component 2 and Component 3a. A dedicated PD, not below the rank of Joint Secretary, and two DPDs will be appointed to ensure smooth project implementation and supervision. A PIU will be set up within the Refugee Cell to assist the PD in project management.

The Refugee Cell and its field level team represented by Camp-in-Charges/Refugee, Relief and Repatriation Commission (RRRC) will also be supported by qualified service provider(s), including specialized agencies, to coordinate and administer day-to-day activities under this component.

A monitoring framework is suggested in this ESMF. The objective of the monitoring framework is to ensure that the mitigation measures designed to prevent, reduce and where possible offset any significant adverse on environmental and social impacts throughout the Project lifecycle.

A database would be developed by PIU with the assistance of PSC for storing the results of the quantitative monitoring. The facility would be capable of producing tabulated weekly and monthly reports that provide the following information:

- Sampling points;
- Dates and times of sample collection;
- Test results;
- Control limits;
- "Action limits" at which steps must be taken to prevent the impending breach of the control limit; and
- Any breaches of the control limits, including explanations if available.

The monitoring data would be continually processed by the PIU as it is received, so as to avoid a build-up of unprocessed data. The PIU will prepare monthly reports to be submitted to the PSC.

Environmental and social safeguards training will help ensure that the requirements of the ESMF and subsequent ESIA and ESMP are clearly understood and followed by all project personnel throughout the project period. The PIU will ensure, in collaboration with the PSC, that these training are provided to all Project personnel. The environmental and social training program will be finalized before the commencement of the project. The training will be provided to the LGED staff, the DPHE staff, the MoDMR staff, construction contractors, and other staff engaged in the Project. Training will cover all staff levels, ranging from the management and supervisory to the skilled and unskilled categories. The scope of the training will cover general environmental and social awareness and the requirements of the ESMF, ESIA (where relevant) and the ESMP, with special emphasis on sensitizing the project staff to the environmental, social and genders aspects of the area. The table below provides a summary of various aspects of the environmental and social safeguards training to be conducted under this construction. PSC/PIU may revise the plan during the Project implementation as required.

Table 3: Environmental and Social Safeguards Training

Contents	Participants	Responsibility	Schedule
General environmental and socioeconomic awareness; The environmental and social sensitivity of the project area; Key findings of ESIA (where relevant); Mitigation measures; ESMP; Social and cultural values of the area.	Selected LGED and DPHE and MoDMR staff; PSC; PIU, Contractors	PSC	Prior to the start of the Project activities. (To be repeated as needed)
General environmental and socioeconomic awareness; The environmental and social sensitivity of the project area; Mitigation measures; Community issues; GBV, vulnerability, Awareness of transmittable diseases Social and cultural values.	PSC; PIU; Selected contractors' crew	PSC	Prior to the start of the field activities. (To be repeated as needed)
ESMP; Waste disposal; HSE, working condition of the labors and labor influx	Contractors, Construction crew	PIU	Prior to the start of the construction activities. (To be repeated as needed)
Road safety; Defensive driving; Waste disposal; Cultural values and social sensitivity.	Drivers	Contractors	Before and during the construction activities. (To be repeated as needed)
Restoration requirements; Waste disposal.	Restoration teams	Contractors	Before the start of the restoration activities.
HSE during Operation Phase	Selected LGED and DPHE and MoDMR staff	PSC	Prior to the Start of the Project Operation and when required during the operation phase

ESMF monitoring will be carried out to ensure that the mitigation plans are regularly and effectively implemented (see table below). The PIU environment and social specialists will carry out ESMF monitoring to ensure that the mitigation plans are being effectively implemented, and will conduct field visits on a regular basis.

Table 4: ESMF Monitoring Plan

Project Phase	What	When	Who	How
Preparation	Training and Capacity Building Activities	Before preparation of tender documents	PD with Environmental and Social Support Firms	Review Training Records
Preparation	Ensure Screening of Environmental and Social Issues	After locations and alignments are confirmed by PD	PIU with Environment and Social Firms	Review completed Screening Sheets
Construction	Training and Capacity Building Activities	Monthly	PD with Environment and Social Firms	Review Training Records
Construction	Grievances Records	Monthly	PD with Environment and Social Firms	Review GRM register
Construction	Environmental and social mitigation/ enhancement measures (including health and safety measures) outlined in the ESMP and incorporated in the tender bidding documents and the approved contracts.	Monthly	PD with Environment and Social Firms	Review ESMP monitoring documents
Operation and Maintenance	Grievances Records	Monthly	PIU	Review GRM register
Operation and Maintenance	Environmental and social mitigation/ enhancement measures (including health and safety measures) outlined in the ESMP	Monthly	PIU	Review ESMP monitoring documents

The PIU will prepare a monthly report to be submitted to the PSC. These reports will summarize the following:

- Progress in implementing this ESMF and subsequent ESIA, ESMP, RAP/ARAP etc.;
- Findings of the monitoring programs, with emphasis on any breaches of the control standards, action levels or standards of general site management;
- Any emerging issues where information or data collected is substantially different from the baseline data reported in the Environmental and/or Social Assessment;
- Summary of any complaints by external bodies and actions taken / to be taken; and

- Relevant changes or possible changes in legislation, regulations and international practices.

Additional reporting requirements are summarized in the table below.

Table 5: ESMF Reporting Requirements

Report/Document	Description	Prepared By	Submitted To	When
Training Records	Register of all Trainings and Capacity Building activities conducted under the project	Environment and Social Cell of PIU or Consultants	PD	Within 3 weeks of any training/capacity building activity
Completed Safeguards Screening Forms and stakeholders consultation meetings	Identifies Potential Environmental and Social Issues	Environment and Social Cell of PIU or Consultants	PD	After completing forms
GRM Records	Register of grievances received and actions taken	GRC or Consultants during construction phase and then relevant Implementing Agency officer thereafter	PD	Monthly
ESMP Monitoring records	Monitoring data as defined in the ESMP	Contractor, Environment and Social Cell of PIU and/or Consultants	PD	Monthly or as per ESMP requirements
Specific Management Plans/Instruments	If the higher risk sub-projects are required to prepare specific assessment/management plans/instruments, those should be provided	Environment and Social Cell of PIU and E&S Support Firm	PD	As necessary

Progress and Lessons Learned from the original Project

As the main project is under implementation, local government and consultants are well aware about the Bank policy and implementation procedures. World Bank team has visited field several times with LGED and DPHE and conducted workshop at Dhaka and Cox's Bazar on safeguard implementation. DPHE and LGED have conducted several consultations with the host communities and DRP during screening and site selections. Based on the experience, screening form is also updated.

With the proposed additional financing activities, project may require to use land of Bangladesh Water Development Board (BWDB) and Forest Department. Team has conducted several meetings with

BWDB and Forest Department. Through the consultation, it is clear to DPHE and LGED that to use the land of Forest Department and BWDB, adequate permission must have to be taken.

More training is required for consultant who are directly engaged with screening and consultations. Training is also required for report preparation, reporting system, handling of grievances, etc.

Abbreviations and Acronyms

ADB	Asian Development Bank
ADC	Additional Deputy Commissioner
ACF (French)	Action Against Hunger
AF	Additional Financing
ARAP	Abbreviated Resettlement Action Plan
ARIPO	Acquisition and Requisition of Immovable Property Ordinance
BBS	Bangladesh Bureau of Statistics
BCC	Behavior Change Communication
BP	Bank Policy
C&AG	Comptroller and Auditor General
CERC	Contingent Emergency Response Component
CESIA	Cumulative Environmental and Social Impacts Assessment
CIC	Camp in Charge
CONTASA	Convertible Taka Special Account
CPF	Country Partnership Framework
CPP	Cyclone Preparedness Program
CPTU	Central Procurement Technical Unit
CZPo	Coastal Zone Policy
DA	Designated Account
DC	District Commissioner
D&S	Design and Supervision
DDM	Department of Disaster Management
DLI	Disbursement-linked Indicators
DoE	Department of Environment
DPD	Deputy Project Director
DPHE	Department of Public Health Engineering
DRC	Danish Refugee Council
DRM	Disaster Risk Management
DRP	Displaced Rohingya Population
ECA	Environmental Conservation Act

ECC	Environmental Clearance Certificate
ECHO	European Civil Protection and Humanitarian Aid Operations
ECR	Environmental Conservation Rules
E&S	Environmental and Social
ESMF	Environmental & Social Management Framework
ERD	Economic Relations Division
ES	Environmental Supervisor
EWARS	Early Warning Alert and Response System
FAO	Food and Agriculture Organization
FAPAD	Foreign Aided Project Audit Directorate
FSCD	Fire Service and Civil Defense
FSM	Fecal Sludge Management
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GoB	Government of Bangladesh
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HEC	Human Elephant Conflict
HIES	Household Income and Expenditure Survey
Hr	Hour
HSSP	Health Sector Support Project
HWC	Human Wildlife Conflict
IA	Implementing Agency
ICT	Information and Communications Technology
IDA	International Development Association
IDP	Internally Displaced People
IEC	Information, Education and Communication
INGO	International Non-Governmental Organization
IOM	International Organization for Migration
IPF	Investment Project Financing
IRR	Internal Rate of Return

ISCG	Inter Sector Coordination Group
IUFR	Interim Unaudited Financial Report
IYCF	Infant and Young Child Feeding
JRP	Joint Response Plan
kL	Kilolitre (1,000 Litres)
Km	Kilometre
LGD	Local Government Division
LGED	Local Government Engineering Department
LGI	Local Government Institution
LIPW	Labor Intensive Public Workfare
LPG	Liquefied Petroleum Gas
M&E	Monitoring and Evaluation
MDSP	Multipurpose Disaster Shelter Project
MEB	Minimum Expenditure Basket
MIS	Management Information System
MoDMR	Ministry of Disaster Management and Relief
MoEFC	Ministry of Environment, Forest and Climate Change
MoFA	Ministry of Foreign Affairs
MoHA	Ministry of Home Affairs
MoHFW	Ministry of Health and Family Welfare
MoLGRD&C	Ministry of Local Government, Rural Development and Cooperatives
MoP	Ministry of Planning
MoPME	Ministry of Primary and Mass Education
MoU	Memorandum of Understanding
MoWCA	Ministry of Women and Children Affairs
NBSAP	National Biodiversity Strategy and Action Plan
NCB	National Competitive Bidding
NEMAP	National Environmental Management Plan
NFI	Non-Food Item
NGO	Non-Governmental Organization
NPV	Net Present Value

NTF	National Task Force
NWMP	National Water Management Plan
O&M	Operation and Maintenance
OP	Operational Policy
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PD	Project Director
PDO	Project Development Objective
PIA	Project Influence Area
PIC	Project Implementation Committee
PIU	Project Implementation Unit
PMU	Project Management Unit
PSC	Project Steering Committee
RAP	Resettlement Action Plan
ROSC	Reaching Out of School Children
RRRC	Refugee Relief and Repatriation Commission
SCD	Systematic Country Diagnostic
SEG	Strategic Executive Group
SCI	Service Civil International
SMC	School Management Committee
STEP	Systematic Tracking of Exchanges in Procurement
SWM	Solid Waste Management
TA	Technical Assistance
tbc	To be confirmed
ToR	Terms of Reference
ToT	Training of Trainers
TPP	Tribal Peoples Plan
TWS	Teknaf Wildlife Sanctuary
UN	United Nations
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund

UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UNHCR	United Nations High Commissioner for Refugees
UN-Women	United Nations Entity for Gender Equality and the Empowerment of Women
USD	United States Dollars
WASH	Water, Sanitation and Hygiene
WB	World Bank
WBG	World Bank Group
WHO	World Health Organization
WFP	World Food Programme

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1 Introduction

1.1 Background

Since August 25, 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 727,000⁸ people from the Rohingya community across the border into the Cox's Bazar District of Bangladesh. This exodus brings the total number of Displaced Rohingya Population (DRP) in the district to about 919,000⁹ in what is one of the fastest developing forced displacement crises in the world. Although the rate of arrivals has decreased considerably, there are reports of some refugees still arriving in Bangladesh¹⁰. 85% of the DRP are living in collective sites, 13% in collective sites with host communities, and 2% in dispersed sites in host communities. In Ukhia and Teknaf, the two Upazilas where most of the DRP have settled, they outnumber the host community by over a factor of three.

1.1.1 DRP Crisis

Currently, the total number of Displaced Rohingya Population (DRP) in the district is estimated to about 900,000 and the situation has become of the main forced displacement crises in the world. In Ukhia and Teknaf (see Figure 1-1), the two Upazilas (sub-districts) the DRP outnumber the host (local) community by almost a factor of four. Almost 90% of the DRP are currently settled in unplanned camps and the remaining live among host communities. They are sheltered in makeshift settlements and extremely congested shelters, in areas that have minimal access to basic infrastructure and services and are prone to natural disasters, especially cyclones and floods. Setting up of camps has led to rapid deforestation, further increasing vulnerability of the DRP to disasters such as landslides. The existing Kutupalong camp has rapidly expanded into forest areas and is now considered one of the largest camps in the world. Relocation of households of most at-risk from landslide and flood is underway but there is insufficient suitable land available to accommodate even the highest-risk category¹¹.

Most DRP women stay in their shelters due to social norms as well as to minimize risks of sexual assault, trafficking and violence¹². This has made it particularly difficult for women-headed households, who compose 16 percent of DRP households, in terms of accessing relief and support services provided by the Government of Bangladesh, local and international NGOs.

The influx of DRP is having a disproportionate impact on the local economy and increasing tensions between the DRP and host communities. More than 90 percent of the DRP populations have no sources of income. At least 80 percent of the overall DRP is highly or entirely dependent on external assistance while the remaining 20 percent can only partially meet their needs through coping strategies. Although not strictly permitted to leave the camp or work, some members of the DRP, mostly men are taking up jobs in construction, farming, fishing and restaurants, often accepting wages below half the normal rates. This decline in wages, price rise and strained access to services has increased tensions between host communities and the DRP. Host communities that live in the immediate vicinity of the camps, estimated at about 336,000¹³, initially welcomed the fleeing people but their prolonged stay has strained relations between the two communities.

⁸ ISCG: Situation Report Rohingya Refugee Crisis, (September 27, 2018)

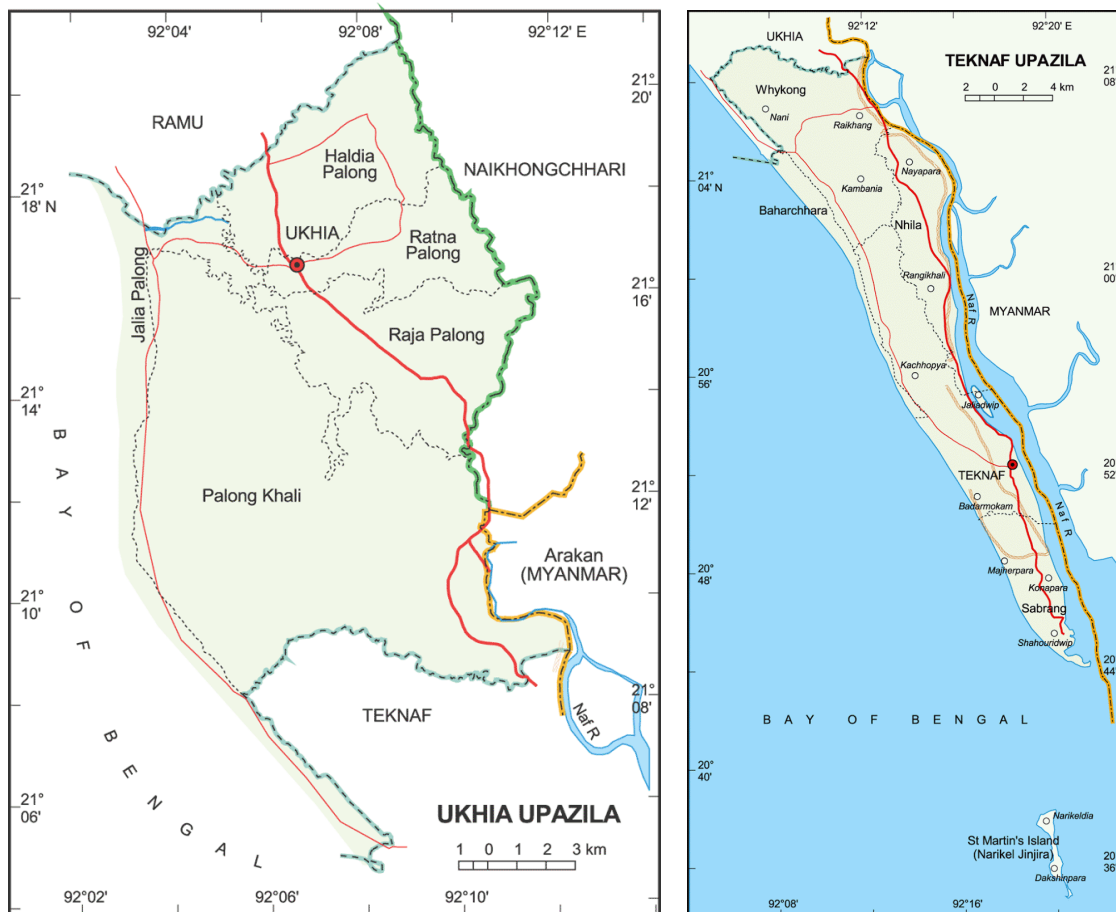
⁹ IOM Needs and Population Monitoring round 11

¹⁰ UNHCSR (2018) 16-31 October Operational updated reported that 85 refugees arrived in Bangladesh during the reporting period.

¹¹ 10th May ISCG report

¹² ISCG Situation report: Rohingya DRP Crisis Cox's Bazar | 24 May 2018

¹³ Joint Response Plan for Rohingya Humanitarian Crisis, March-December 2018



Background Map Source: Banglapedia

Figure 1-1: Maps of Unions of Ukhiya and Teknaf Upazila

Host Community Crisis:

The immediate effect of Bangladesh hosting about a million people is that prices of daily essentials have risen by about 50 percent, wages of day labourers have decreased, some 2,500 households fell below the poverty line, about 5,500 acres of reserve forests have been decimated and 1,500 hectares of wildlife habitat destroyed. Day labourers are bearing the brunt of the refugee influx since cheap labour is available from the Rohingya community and a ban on fishing on the Naf River along the Bangladesh-Myanmar border is causing hardship and threatening livelihoods of some 35,000 fishermen and their dependents. These fisher folk families each had, according to the study, an annual income of around Tk 70,000 per annum which has now all but dried up.

In the face of this massive crisis, governance institutions are becoming even more limited in their effectiveness. Some local administration and sector officials spend 50 per cent or more of their time on Rohingya matters, resulting in delayed if not scaled down public service delivery. They also work on weekends without remuneration. Overlapping roles add to the confusion.

Between August 2017 and March 2018, at least 100 ha of crop land in Teknaf and Ukhiya was damaged by refugee activities, in addition to 76 ha of arable land that has been occupied by refugee settlements and humanitarian agencies. Around 5,000 acres of land have been rendered useless because of sandy soil flowing down from the mountain slopes, which are being used for refugee housing purposes. Grazing lands have been destroyed.

To supply water to the refugees, an estimated 5,731 tube wells were installed between August and December 2017 (of which about 21 per cent had become non-functional by the end of January 2018) (ISCG, 2018a). This excessive dependence on groundwater is lowering the water levels in the area. The water levels around the camp areas are reported to have fallen between 5 and 9 m. Freshwater options in the affected areas are extremely limited, particularly in Teknaf, where the bedrock surface at 25–30 m below ground level makes deep tube wells a costly option for the locals. Irrigation wells are slowly drying up as the water table is falling as a result of watershed destruction and a significant reduction in the recharge of groundwater reserves. Continued pressure on the aquifer may result in salt water intrusion, rendering it unusable.

Teknaf has always faced a lack of freshwater for agricultural production. Faecal contamination is now present in more than fourth fifths of sources, and 93 ha of arable land around camps cannot be cultivated. An additional 380 ha cannot be cultivated owing to lack of water for irrigation.

Environmental damage is among the worst effects of the influx. According to the Cox's Bazar Forest Department, the influx has destroyed about 4,818 acres of forest reserves worth US\$55 million. Those who earn a living from forest resources have in many cases been deprived of their livelihood. Meanwhile, every day, around 750,000 kg of timber, vegetation and roots are collected as cooking fuel. Many species of wildlife are also coming under threat (UNDP, 2019).

1.1.2 World Bank Response

Building on humanitarian assistance, the World Bank adjusted ongoing operations to respond to prioritized medium-term needs of DRP. Two operations were expanded with additional financing to cover the DRP: US\$50 million in additional financing to the ongoing US\$500 million Health Sector Support Project (P167672) (HSSP), approved by the World Bank Board on June 28, 2018; and US\$25 million in additional financing to the US\$130 million Reaching Out of School Children (P167870) (ROSC) approved by the Board on September 19, 2018.

In parallel, the World Bank is supporting host communities in the Cox's Bazar district through existing IDA operations in the Bangladesh country program. Support to the host communities through World Bank IDA investments are as follows; US\$375 million Multi-Purpose Disaster Shelter Project (MDSP) is supporting disaster preparedness, US\$410 million Municipal Governance and Services Project (MGSP) is improving municipal governance and basic urban services in participating Urban Local Bodies (ULBs), US\$300 million Local Governance Support Project (LGSP) is institutionalizing the Union Parishad (UP) fiscal transfer system, and introducing a fiscal transfer system for Pourashavas on a pilot basis, and the new IDA US\$175 million Sustainable Forests and Livelihood Project (SUFAL) is supporting host communities to improve collaborative forest management and increase benefits for forest-dependent communities in targeted sites. The proposed stand-alone Emergency Multi-Sector Rohingya Crisis Response Project will complement the above projects and will target DRPs.

In line with the JRP, the Bank's assessment has identified a number of key needs to be addressed in the medium term (3 years). They include: access to drinking water and adequate sanitation; access to health and nutrition services and response to potential disease outbreaks; response to weather-related hazards; access to fuel and mitigation of associated environmental degradation; and inclusion in productive activities to yield basic services and to address needs and vulnerability of women and children as well as respond to psychosocial issues. Most of these challenges are inter-related, and the strain on resources, gaps in service delivery, and the exposure to shocks directly influence the relationship between host communities and the DRP.

The overall Bank response focuses on seven priority areas, identified during consultations with affected communities, DRP and local and central government and various needs assessments by

development partners. These areas are: (i) health and nutrition; (ii) water, sanitation and hygiene; (iii) social protection; (iv) disaster risk management; (v) environment; (vi) gender; and (vii) education. The proposed program aims to support the GoB in addressing these priority areas of intervention through a combination of restructuring/additional financing of existing projects in Health, Nutrition and population services and Education, as well as this multi-sector project addressing needs in the rest of the priority areas.

To address both the immediate and medium-term impacts and needs generated by this situation the Bank will take a phased approach starting with two additional financing projects in Health and Education and this multi-sector project including: (i) a surge of high-impact, early recovery interventions in the period of stabilization for rebuilding lives and economic resilience, and addressing social vulnerabilities, while humanitarian operations continue in tandem; and (ii) a gradual transition toward medium-term recovery and resilience building through investments in basic service delivery improvement, productive capital, environmental services, and social infrastructure and strengthening government systems and coordination.

The engagement will be accompanied by an ongoing dialogue with the Government on the management of the Rohingya situation, as well as poverty and vulnerability analytical work. Dialogue is expected to evolve over time to reflect changing circumstances and to be closely coordinated with other stakeholders, including UNHCR. The policy dialogue will focus on monitoring the maintenance of an adequate protection framework, in close cooperation with specialized agencies; supporting the Government in further enhancing the protection framework and developing its action plan to manage the crisis; helping the authorities in their efforts to strengthen coordination on the ground; and encouraging the Government to adopt measures that allow for poverty reduction among the Rohingya without undermining Bangladesh's position on eventual repatriation (e.g., learning for children and youth, rebuilding of social capital).

The proposed additional financing for EMCRP will support the GoB in enhancing the displaced Rohingya population's and host communities' resilience to extreme events and increasing access to energy, water, and sanitation. Due to the urgency of the situation, the activities under Additional Financing will focus on mitigating the mid-term impact of the situation on refugees and host communities. As the situation evolves, the Bank's support will adapt to remain flexible and responsive to the situation.

The EMCRP has the following components and sub-components:

- Component 1: Strengthening Delivery of Basic Services, Resilient Infrastructure, Emergency Response and Gender-Based Violence (GBV) Prevention
 - Subcomponent 1.A: Resilient Water, Sanitation, and Hygiene
 - Subcomponent 1.B: Basic Services, Resilient Infrastructure, Emergency Response and GBV Prevention
- Component 2: Strengthening Community Resilience
 - Subcomponent 2.A: Community Services
 - Subcomponent 2.B: Community Workfare
- Component 3: Strengthening Institutional Systems to Enhance Service Provision to the Displaced Rohingya Population
 - Subcomponent 3.A: Strengthening MoDMR, NTF, RRRRC, CiC, and Line Ministry Systems
 - Subcomponent 3.B: Strengthening LGED, DPHE, and GBV Services
- Component 4: Contingent Emergency Response Component (CERC)

Further details are provided in Section 2.

1.2 ESMF Rationale and Objectives

The World Bank Safeguards Policies requires the preparation of an ESMF as a safeguards instrument where specific intervention sites and designs are not known. As mentioned in the Safeguards Action Plan for this project, the objectives of the ESMF is to assist Ministry of Disaster Management and Relief (MoDMR), Local Government Engineering Department (LGED), Department of Public Health Engineering (DPHE) to administer necessary environmental and social management (including risk management of environmental and social impacts) procedures and measures of proposed sub-project(s) interventions and resilience activities whose exact locations and design are unknown at this stage and may change during project implementation. The ESMF comprises the guidance document required for the environmental and social screening of impacts and risks of each sub-project, determination of environment category of each sub-project, preparation, implementation and monitoring of relevant management plan and other planning instruments (i.e., ARAP or RAP) to be applied at project appraisal and formulation when technical design details become available. A separate Resettlement Policy Framework is being prepared for this project.

This ESMF is developed to guide the implementation of the EMCRP activities related to physical works and infrastructure interventions so that the Project Development Object (PDO) can be achieved¹⁴. The project is Category A under the World Bank's environmental classification and given the specific sites and locations of project interventions have not yet been identified, the project is required to prepare an Environmental and Social Management Framework (ESMF). Through this ESMF, the PIU seeks to mainstream all environmental and social concerns into the selection, preparation, design and implementation of the project. The ESMF must be prepared, approved and disclosed publicly in Bangladesh and at the World Bank before the Bank will appraise the project.

The ESMF is a guidance and decision-support tool for stakeholders. As an overarching guideline document, the ESMF provides assurances that:

- Sub-projects consider potential environmental and social issues, especially for different communities who would be directly impacted (positively or adversely) by the sub-project;
- Sub-projects consider socio-cultural and gender sensitivities and environmental values prevailing in areas where the proposed sub-project(s) would be implemented;
- During project formulation and design, adverse environmental and social impacts may arise during construction and operational phases and appropriate mitigation/enhancement measures need to be designed with a monitoring plan developed to track implementation of site-specific safeguards instruments;
- Environmental and social management safeguard instruments such as ESMP, and ARAP/RAP are suitably prepared and followed; and
- Safeguard instruments are compliant with World Bank environmental and Social assessment operational policies and procedures as well as GoB national laws and regulations.

The ESMF has been consulted with DRP, host communities and relevant stakeholders, and disclosed in country and on the World Bank's external website before the project Effectiveness.

¹⁴ The PDO is to strengthen the Government of Bangladesh systems to improve access to basic services and build disaster and social resilience of the displaced Rohingya population.

1.3 Structure of the ESMF

The ESMF has been structured as follows:

- Section 2 provides a description of the proposed project and its various components.
- Section 3 outlines the relevant policies, legislative and regulatory framework for this project
- Section 4 gives information about the baseline conditions in the expected project activity areas
- Section 5 highlights the expected environmental and social impacts from the proposed sub-projects
- Section 6 contains guidance on screening of sub-projects and their activities and also outlines the appropriate approach for considering mitigation measures
- Section 7 summarizes the stakeholder consultations undertaken to date and also proposed for the project
- Section 8 provides guidelines on ESMPs for different sub-projects
- Section 9 outlines institutional and monitoring arrangements for the project
- Various appendices are provided that include forms and terms of references to be used by the PIU and PIU Consultants.

1.4 Progress and Lessons Learned from the Original Project

As the main project is under implementation, local government and consultants are well aware about the Bank policy and implementation procedures. World Bank team has visited field several times with LGED and DPHE and conducted workshop at Dhaka and Cox's Bazar on safeguard implementation. DHHE and LGED has conducted several consultations with the host communities and DRP during screening the site selections. Based on the experience, screening form is also updated.

With the proposed additional financing activities, project may require to use land of Bangladesh Water Development Board (BWDB) and Forest Department. Team has conducted several meetings with BWDB and Forest Department. Through the consultation, it is clear to DPHE and LGED that to use the land of Forest Department and BWDB, adequate permission must have to be taken.

More training is required for consultant who are directly engaged with screening and consultations. Training is also require for report preparation, reporting system, handling of grievances, etc.

2 Project Description

2.1 Development Objective

The project development objective (PDO) is to strengthen the Government of Bangladesh systems to improve access to basic services and build disaster and social resilience of the displaced Rohingya population. In this context, there are key definitions that are used in this ESMF:

- “Basic services” is defined as water, sanitation, roads, street lighting, and lightning protection systems.
- “Disaster Resilience” is defined as increased access to climate resilient multipurpose disaster shelters, resilient roads and evacuation routes resulting in reduced climate vulnerability, multi-hazard risks as well as enhanced accessibility and adaptability.
- “Social resilience” is defined as increased access and participation in gender sensitive community services, workfare activities that mitigate the risk of engagement in negative coping behavior, community services, and gender-based violence prevention and response.
- “Government Systems” is defined as the framework of resources, skills and coordination capacity needed to respond to the crisis in the present and long run.

The following PDO Level Indicators will be used to assess effectiveness of the proposed project:

- Number of people with access to improved public infrastructure as a result of the project (disaggregated by gender).
- Number of people with access to climate resilient multi-purpose disaster shelters as a result of the project (disaggregated by gender).
- Households participating in community workfare and services.
- Development of a DRP Camp Management System.

2.2 Project Components

The four components of the proposed project are described below. However, Component 1 and component 3 is scaled up with “Additional financing to the Emergency Multi-sector Rohingya Crisis Response Project” and component 2 is scaled up with “Additional financing to the Social Safety Nets for the Poorest Project”. The AF will support the whole Cox’s Bazar area.

The project activities under additional financing will scale up activities under component 1 and component 3 to support host communities and DRP. The activities will be piped water supply schemes, rainwater harvesting systems, construction of toilets, integrated fecal sludge and solid waste management system, construction of drainage, rubber dams for irrigation, jetty rehabilitation, climate-resilient primary schools/disaster shelters, and climate-resilient community service centers/disaster shelters, climate-resilient access and evacuation roads and footpaths, awareness program for sanitation, etc. Additionally, project will support construction of lightning protection systems, solar street lights, nano-grids, firefighting/search and rescue warehouses which will benefit both Host and DRP communities to reduce the vulnerability. As part of the capacity building, different training programs will be arranged including for the unskilled labors. Training will involve social safeguard compliances, working condition of the labors and labor influx management, occupational health and safety, etc.

Component 1: Strengthening Delivery of Basic Services, Resilient Infrastructure, Emergency Response, and Gender-Based Violence Prevention

Subcomponent 1.A: Resilient Water, Sanitation and Hygiene

The objective of this subcomponent is to support improved access to safe water and sanitation (with climate resilient features to reduce the risk to climate vulnerability and disasters) as well as hygiene promotion in a gender and socially inclusive manner.

This subcomponent will establish improved water supply service with a combination of community standpoints, rainwater harvesting, and piped water supply systems. The water supply scheme will comprise of: (i) resilient mini piped water supply schemes (including rehabilitation of existing tube wells connected with solar powered photovoltaic (PV) pumping systems with elevated platforms above flood level); (ii) resilient tube wells (rehabilitation of existing tube wells with elevated platform above flood level); (iii) mobile desalination plants in Teknaf; (iv) water resource mapping and water quality monitoring including water resource availability considering climate vulnerability and extreme weather conditions; (v) resilient rainwater harvesting system and (vi) a feasibility study and design for Fecal Sludge and Solid Waste Management System. These interventions are expected to improve the quality, resilience, and sustainability of water services, as well as help, reduce water losses for DRP and host communities.

These facilities will also serve single or multiple villages in host community through house or shared connections and camp areas through community standpoints based on the needs and viability. O&M of the facilities will be critical which will be in built with construction during the project period. For the O&M of resilient mini piped water scheme, private sector will be engaged through competitive bidding on behalf of the Union Parishads (UPs) in host communities, which would own the asset whereas deep tube wells will be operated and maintained by the community using their own funds after the project period.

This subcomponent will also aim to improve access to resilient and eco-friendly sustainable sanitation. It will finance safe and acceptable sanitation services focusing on the entire sanitation service chain i.e. containment, collection, transport, treatment and safe disposal of fecal matter through: (i) construction of climate resilient improved individual and chamber community latrines (including measures for gender segregation; bath and cloth washing facilities, with water source, septic tanks and solar lighting system) with resilient superstructure and raised platform (above flood level) to enhance resilience against heavy rainfall and flooding; (ii) construction of biogas plants to capture and combust methane for energy in the camps with flood protective measures; (iii) construction of integrated waste and fecal sludge management systems, co-composting plants and waste collection facility with solar energy system, resilient superstructure, and raised platform (above flood level); (iv) design and construction of resilient drainage systems in growth centers for the management of storm water and (v) hygiene promotion, awareness program on sanitation, FSM, and safe water use, training on Operation and Maintenance (O&M) of the WASH interventions including climate vulnerability and disaster risks. Community mobilization will be critical for behavioral change as well as the O&M of the facilities. These interventions will contribute to improve sanitary and hygiene conditions in the camps, soil, and water contamination due to untreated fecal discharge to the environment, and to produce agricultural fertilizer and a clean renewable energy source for community use.

In the host community, the resilient and eco-friendly sustainable sanitation facilities will cover very poor households (around 12% of total population) through grants and moderate poor and non-poor households will be motivated to shift from unimproved to improved facilities through behavior change campaign and sanitation marketing which will include capacity building of local entrepreneurs to further develop a sustainable supply chain for rural sanitation. The behavioral change strategy will be formulated by blending demand creation and awareness raising activities, emphasizing health benefits. These interventions will contribute to improve sanitary and hygiene conditions both in the camps and host community.

Subcomponent 1.B: Basic Services, Resilient Infrastructure, Emergency Response, and Gender-Based Violence Prevention

The objective of this subcomponent is to support improved access to basic services, climate resilient infrastructure, emergency response services, in a gender and socially inclusive manner, and support a scale up of the gender-based violence prevention program. The disaster risk profile of the area will be incorporated in the design and execution of the activities to ensure increased sustainability and resilience.

This subcomponent will finance: (i) construction of all-weather resilient access and evacuation roads as well as internal roads to increase readiness and resilience to natural hazard events, including associated storm-water drainage network and slope protective works to reduce the risk of landslides; (ii) construction of climate resilient culverts and bridges (aligned with the storm water drainage network) to drain the increased surface run-off from extreme precipitation and flooding; (iii) repair, rehabilitation and construction of rural markets for DRPs and jetty in host communities incorporating resilient and environmentally friendly features including elevated platform above flood level; (iv) installation of solar powered street lights in DRP camps and host communities areas to improve energy efficiency, help increase safety, in particular of woman and children; (v) walkways; (vi) construction of climate resilient rubber dams for flood control for DRP and host communities and irrigation for host communities; and (vii) installation of lightning protection systems in DRP camp and host community areas to decrease vulnerability to lightning strikes resulting from extreme hydro-metrological events; (viii) installation of eco-friendly and energy efficient solar PV nano-grid schemes for increasing access to sustainable electricity to households and shared facilities like health centers, learning centers, children and women friendly spaces having no potential access to the grid and where the cumulative load is too high to be met by solar home systems (SHS); and (ix) support environmental protection works and afforestation to reduce the effects of climate change and damaged biodiversity in the DRP camps and host community. Sealing the surface of roads, storm-water drainage network, culverts and bridges, slope protective works will help prevent washouts while maintain critical access for logistics and resources to the Camps, overall enhance the resilience of road infrastructure. These activities will also benefit to reduce soil erosion and surface water contamination and improve hygiene condition.

This subcomponent will also finance construction of climate resilient multi-purpose disaster shelters/primary schools and climate resilient multi-purpose disaster shelters/community service centers including rainwater harvesting, solar powered lights and climate proofing connecting roads (above flood level) to provide a haven from cyclones, storm surges, and strong winds.

This subcomponent will support improved emergency response services to better prepare for catastrophic events including climatic hazards through: (i) contingency planning for evacuation and emergency preparedness; and (ii) strengthening community based early-warning systems for hydro-meteorological hazards; (iii) improved search & rescue operations including equipment and training of the first responders, Fire Service and Civil Defense (FSCD) in the onset of extreme hydro-meteorological events and geophysical hazards.

This subcomponent will also finance the establishment and operation of gender-friendly spaces incorporating some resilient features including elevated platforms (above the flood level) which would be linked to the Gender-Based Violence (GBV) referral pathway and be a safe space for women and adolescent girls. This will represent a scale-up of GBV prevention and treatment services to be delivered through the women and children centers, door to door services, and interactive workshops on general and specific topics, assessments to determine barriers including extreme hydrometeorological events as well as geo-physical hazard to access services in the camps and ways to address them, and the development of a GBV referral pathway that will link with the ongoing Bank-

financed Health Services Project in support of the DRPs and existing referral pathways being implemented by other development agencies and the development and implementation of a GBV prevention program for adolescent boys.

To ensure that the benefits of the project reach everyone in an inclusive manner, a concerted effort will be made to: (i) design services in a gender-informed manner and reach women and girls through appropriate targeting approaches; (ii) the promotion of child-friendly and disability friendly approaches to service delivery; (iii) mobilize local communities to ensure the participation and inclusion of the most vulnerable groups through the use of the organizations and volunteers described below under component 2; (iv) formation of water and sanitation committees for O&M, and (v) adoption of resilient and climate-friendly features to free from female dependent labors such as collection of firewood for household fuels.

Component 2: Strengthening Community Resilience

This component will address economic and social resilience of the vulnerable through their engagement in community services and workfare schemes. Under this component, DRP households will participate in subprojects and activities intended to enhance community services for the vulnerable (woman, children, disabled and elderly); strengthen their engagement mechanisms (through mobilization, outreach and GRM activities); contribute to climate and environment risk mitigation; improve camp living conditions through cleaner environments, and prevent anti-social behavior. This component will be also scaled up under Safety Net System for the poorest (SNSP)-Additional Financing (IDA18 Regional Sub-Window for Refugees and Host Communities).

Beneficiaries will be selected from among the DRP community to participate in activities and subprojects on a demand basis. Inclusive community services will prioritize subprojects that fill service gaps for vulnerable groups, while the community workfare schemes will be identified by camp authorities based on prevailing needs. Adequate training will be provided to the participating DRP community members on their respective compliance measures – participation in awareness raising/community mobilization sessions or in workfare schemes - and participation will be monitored. Stipends for their participation will provided through a secure, transparent and accessible mechanism that will enable households to purchase food and non-food items in a safe and dignified environment.

Subcomponent 2.A: Community Services

The objective of this subcomponent is to connect and engage women, children, elderly and persons with disabilities in community services catered to the vulnerable population. These community engagement activities will be carried out through a network of Rohingya volunteers and will cover about 60,000 beneficiary households. It will finance: (i) stipends for participants; (ii) supporting materials, and (iii) management activities (which includes planning, selection of beneficiaries, supervision of participation and delivery of stipends).

The subcomponent will support provision of and participation in awareness generation activities covering issues including: climate and disaster risk resilience or mitigation; community-based early warning systems of cyclones, flood and other natural disasters; adoption of clean energy for cooking which will serve to reduce deforestation for firewood collection; nutrition; prevention of child abuse, child marriage, GBV, sexual harassment, and trafficking of women and children; illegal drug trade. Other activities will include provision of child care and elderly support services; community group facilitation to strengthen social networks; grievance management volunteer groups, and other communication and outreach activities. These activities will be held in small groups in locations identified to be best suited to their delivery and convenient for participants to attend. Payments to

participating households will be made through the e-voucher scheme supported by the WFP. Implementation will be supported by a UN agency and or a Civil Society Organization (CSO) and details of sessions, logistics and monitoring will be described in the Project Operations Manual

Subcomponent 2.B: Community Workfare

This subcomponent aims at reducing the likelihood of at-risk-youths' participation in anti-social behavior by engaging them in workfare on basic infrastructure maintenance that would help to reduce climate vulnerability and disaster risks as well as camp cleaning and maintenance activities. Engaging the working-age youth can also contribute towards improved mental and emotional wellbeing through their participation in labor-intensive activities that also serve to enhance camp livability. This subcomponent will finance: (i) wages for beneficiaries in exchange for their work in rehabilitating or maintaining the environment where they live or camp assets; (ii) capital inputs for the subprojects, and (iii) supervision of participation and delivery of wages. The wage rate will be set at the prevailing official minimum wage for the DRP and as determined by district authorities and the ISCG. Each beneficiary household representative will work for a maximum of 120 person-days for a period of three years. Simple community workfare, which is unskilled labor intensive by nature includes (minor) slope protective works, storm water drainage network as well as bag gardening/vegetation for soil retention and tree plantation. These interventions will reduce the vulnerability to landslides and soil erosion, provide vegetation cover in the camp sites and carbon sinks, as well as drain the increased surface runoff from excessive rainfall inside the DRP camp area. The use of labor-intensive technologies in the construction and maintenance of these infrastructures also contribute to reduced greenhouse gas emissions in otherwise machine-dominated construction/ maintenance.

The number of beneficiaries in each camp will be selected according to its relative population. Approximately 40,000 households with able-bodied adults (aged 18 to 29) willing to accept the prevailing wage rate will self-select to work. If the number of eligible people willing to participate exceeds the opportunities available, a first-come first-serve approach will be used to select the beneficiaries. A waiting list will be kept for participant turnover. Each household will be allowed to register up to two eligible adults as alternate participants to ensure that on occasions where the primary household representative is not available, the alternate could work in his/her stead to guarantee continuous participation and payment in the works activities.

Community subprojects will be identified by the CiCs in conjunction with the UN agency/CSO that will support implementation. The RRRRC will approve subprojects to be implemented subject to meeting the criteria that a minimum of 80 percent of the combined subprojects' expenditure in the camps will be paid as wages using e-vouchers to the participating poor households. Eligible subprojects selected from camps will be validated with communities to ensure that the needs and interests of beneficiary communities are served. As a precondition for eligibility, camps will be required to put in place and record arrangements for asset management, which in turn will generate further work opportunities for households. CSOs will be engaged to provide quality assurance of the assets. Payments to participating households will be made through the e-voucher scheme supported by the WFP. Details of the menu of subprojects and eligibility criteria will be detailed in the Project Operational Manual.

Component 3: Strengthening Institutional Systems to Enhance Service Provision to the Displaced Rohingya Population

The objective of this component is to strengthen the GoB's capacity to plan and coordinate DRP response (including disaster response) and manage and coordinate project implementation. This includes surge capacity increase through equipment, systems, and staffing to address the needs of the

DRP including risks to climate vulnerability and disasters. Through the additional Financing, this component will also scale up support strengthening LGED, DPHE and GBV services.

Subcomponent 3.A: Strengthening MoDMR, NTF, RRRC, CiC, and Line Ministry Systems

MoDMR has historically played an important role in similar influx management in Bangladesh. MoDMR's Refugee Cell leads the coordination of refugee-related initiatives and has direct oversight of the Refugee Relief and Repatriation Commissioner (RRRC at the district level which is represented by the CiCs at the camp level). According to GoB's Allocation of Business (revision Dec. 2014)¹⁵, MoDMR is mandated to coordinate all activities related to emergency response management besides disaster management. However, to fulfill this central coordinating role in the current influx crisis, MoDMR's capacity needs to be increased through strengthened institutional and administrative systems at the national, district and camp level.

National: At the national level, this subcomponent aims to enhance the capacity of MoDMR and the NTF to plan, coordinate and respond to the needs of the DRP including after extreme hydromet events that affect particularly refugees in the Cox's Bazar area through: (i) policy dialogue on emergency and refugee management, response and coordination support;¹⁶ (ii) exchange and knowledge sharing with other countries with similar experiences on best practices for refugee management and response; (iii) (v) development of refugee-crises information management systems as well as benefit transfer mechanism; and (vi) central level communication and reporting mechanism.

RRRC: To strengthen this unit's capacity to coordinate, have oversight and report on field activities in Cox's Bazar (during/after disasters as well) including: (i) technical advice to improve planning and management of multi-agency activities in the camps; (ii) information systems, equipment and training to manage the reporting mechanism, benefit transfer oversight and refugee registry; (iii) logistics and technical support for improved coordination; and (iv) consultant remuneration for coordinator at the RRRC.

Camp-level: To strengthen CiCs' governance and DRP engagement capacity (including emergency response to disasters) as well as fostering community participation through the enhancement of the Rohingya volunteer network. This activity will finance: (i) two staff at the CiC level (one for GRM and one volunteer network supervisor); (ii) training and technical assistance on grievance management, community engagement and gender mainstreaming;

DRP Engagement Structure (Volunteer Network). Presently, the CiC personnel mobilize DRP through a volunteer network comprised of Rohingya community leaders (known as Majhi). This project will support the enhancement of the volunteer network to serve as the Government's main DRP engagement structure which will serve as the last mile delivery tool through which LGED, DPHE, and MoDMR will streamline outreach, behavior change communication (through ToT strategies) as well as the grievance redress mechanism. The volunteers will be chosen in a transparent, inclusive and representative manner giving due consideration to women and other vulnerable groups in this process. The DRP engagement structure will not only provide social resilience activities to the population, particularly women (supported through subcomponent 2A inclusive community service), but it will allow for the contextualization of the messaging and awareness-raising activities to the culture and language of the DRPs. For this purpose, this subcomponent will finance the service of a specialized agency (SCO) to set-up and facilitate the functioning of the DRP engagement system. The SCO will hire experienced staff to be placed at the CiC office for the recording of grievances and providing feedback

¹⁵ Cabinet Division, Bangladesh.

¹⁶ The Inter-Ministry Meeting on Execution, Monitoring and Coordination of Humanitarian Assistance activities for Forcibly Displaced Myanmar Nationals (headed by MoDMR) and the National Task Force (led by MoFA).

to the community. The agency will also facilitate, supervise and monitor the DRP engagement mechanism, which includes: (i) selection and training of volunteers; (ii) monitoring and reporting activities; (iii) periodic CiC-volunteer meetings; and (iv) distribution of IEC materials.

Subcomponent 3.B: Strengthening LGED, DPHE, and GBV Services

This subcomponent will strengthen the capacity of government agencies to provide essential services to the DRP and respond effectively to potential emergencies and extreme hydro-meteorological events particularly in the Cox's Bazar area. The subcomponent will encourage harmonization or transfer of systems and capacities between UN, other specialized agencies and the GoB, in the provisioning of basic services, infrastructure improvement, and emergency response services for the DRP and will also focus on the gradual transition of service delivery from humanitarian to country systems.

DPHE is the lead agency responsible for drinking water supply and sanitation in the country apart from the jurisdiction of Water and Sewerage Authority (WASA) of Dhaka, Chittagong, and Khulna. Access to improved and climate resilient water supply and sanitation facilities by the DRP is expected to contribute to poverty reduction and gender equity among the DRP by addressing burdens especially borne by women and girls.

This subcomponent will enhance the institutional capacity of DPHE to provide services to the DRP through: (i) technical training of DPHE staff; (ii) strengthening the technical capacity of DPHE to improve the camp sanitation, fecal sludge management, and safe water use; (iii) training of frontline public health workers; (iv) training on community WASH management (v) construction of WASH training facilities; and (vi) training of frontline public health workers.

LGED is the lead agency to develop rural and urban infrastructure as well as small scale-water resources. In addition, they construct primary schools and have been the implementing agency for all Bank-financed multi-purpose disaster shelters. They are also responsible for roads, bridges, culverts as well as emergency construction, repair, and maintenance after a disaster. This subcomponent will enhance the capacity of LGED's staff working in and around the DRP camps through: (i) technical training of LGED staff; (ii) strengthening the technical capacity of LGED to develop risk-informed maintenance guidelines for the roads and associated drainage network in and around the DRP camps and host communities; (iii) develop a training and capacity building program for LGED to evaluate additional resilience-enhancing measures and to prepare guideline to consider resilience in design of road works on geohazards (earthquake and landslides) risks in and around the DRP camps and host communities; (iv) technical assistance to support new site plans for service delivery to DRP and identify needed infrastructure (internal roads, solar street lights, lightning protection systems, drainage, markets); (i) construction training facilities. Considering the climate vulnerability and disaster risks of the DRP, this subcomponent will also provide capacity building sessions on (i) hazard, vulnerability and risk; and (ii), emergency crisis response during disasters in the DRP camps and host communities.

Strengthening services for prevention of GBV. Under this subcomponent, LGED will engage a specialized agency to carry out a GBV needs assessment to determine the current needs, coverage, and quality, and gap assessment for GBV services, and address gender-based barriers resulting from climate and disaster risks. This assessment will inform Project activities as well as serve as a basis to design a more comprehensive GBV prevention and treatment approach in Cox's Bazar including among others, local labor participation strategies, and labor recruitment/management strategies which would need to be included in civil contracts. This activity is directly linked with Component 1b intervention, scale-up of the GBV prevention and treatment services program.

Component 4: Contingent Emergency Response Component (CERC)

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 for the benefit of the DRP. 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; (iii) LGED, DPHE and MoDMR have 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; and (iv) the expenditures under the component will be to benefit the DRP.

2.3 Project Beneficiaries

Project beneficiaries are the approximately 900,000 Rohingya people settled in informal camps that are adjacent to previously existing Registered Camps (RCs). Approximately 720,000 are settled around the Kutupalong RC in Ukhia, approximately 130,000 around the Nayapara RC in Teknaf, and approximately 50,000 in three smaller camps in Teknaf. In addition, under the additional financing, project beneficiaries also include the approximately 335,000 Bangladeshi host community population in the Cox's Bazar district.

For Components 1 and 2, in the selection of specific investments, due consideration will be given to ensure that the investments are: (i) necessary for the project to achieve its objectives; (ii) directly benefiting DRP communities; (iii) creating greater development outcomes within the period of the project; and (iv) feasibility of the investments considering existing institutional systems. The selected investments will be screened based on environmental and social screening procedures to be defined in the Environmental and Social Management Framework (ESMF) to plan and mitigate the investment specific potential environment and social risks and impacts.

Selection Criterion of household latrines will be developed by DPHE in coordination with concerned Camp in Charge (CiC) and RRRC as well as in consultation with ISCG and other WASH Sector Players. For the host communities under AF, DPHE will coordinate with local government and administrative bodies to select HHs beneficiaries and site selection. Selection criterion includes but not limited to: defunct individual toilets as well as household with differently abled (physically disabled) persons. RRRC has the complete list of household data with differently abled persons.

2.4 Project Influence Area

The project influence area (PIA) will vary depending on the sub-project activity. Although some activities (such as tube wells and latrines) are in fixed locations, others are not (such as the proposed mobile desalination plants; some disaster shelters to be built outside the camps owing to lack of space within). In addition, some of the sub-project activities can have indirect impacts that lead to a larger project influence area compared to that if only direct impacts are considered. Therefore, a guideline for the project influence area is required for different potential impacts during pre-construction, construction, operation & maintenance as well as decommissioning phases of each sub-project activity.

In some cases, sourcing locations of raw materials also need to be considered within the project influence area. Table 2-1 provide guidelines for influence area considerations for the main sub-project activities.

Table 2-1: Project Influence Area Guidelines

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
Component 1: Strengthening Delivery of Basic Services, Resilient Infrastructure, Emergency Response and Gender-Based Violence (GBV) Prevention		
Subcomponent 1A		
Restoring tube wells	Draw down of aquifer depends on geological characteristics, rate of extraction and cumulative effects of other abstraction activities. Tubewell depths will be around 800 feet ¹⁷ .	Parent: No. of wells: 400 AF: 1500 Extraction rate: 2-4L/s Suggested PIA: 30-50m around tube well.
Installing mobile desalination plants	Surface water source can decrease considerably if it is not connected to river or a major khal. Groundwater source (aquifer) draw down can extend to several hundred meters depending on geological characteristics and also rate of extraction as well as also cumulative effects of other abstraction activities. Also discharge of reject brine can raise salinity levels considerably for several hundred meters, depending on seasonality and receiving water body condition. Availability of un-encroached public lands will be the first preference to avoid displacement. Considering the accessibility and safety for women, children and differently- able people, a detailed screening to the surrounding areas will be conducted.	No. of Plants: 4 Plant Capacity: 10kL/day Suggested PIA: 300-500m downstream of water abstraction point and brine discharge location
Mini piped water supply system (incl. tube wells, pump house, OHT, pipe network, water carriers and solar panel)	Sourcing locations of raw materials come within project influence area. During construction and operation phases, influence area should be within tens of meters of physical works/activities. Distance covered by water carriers expected to be within several kilometers. Avoiding the residential, commercial and private land will be the first priority.	Parent: No. of systems: 28 AF: 32 Capacity: 30kL/hr No. of water carriers: 5 Water carrier capacity: 3kL Suggested PIA: 5m either side of pipe alignment, 50m radius around OHT, 100-200m radius

¹⁷ Based on discussions with DPHE officials on 22, July 2018.

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
		around pump house, 10m either side of water carrier route, 50m radius around raw materials source and 10m either side of transportation route
Water resource mapping	No impacts expected.	N/A
Feasibility study for FSM and SWM	Some minor social impacts during field survey work may occur due to local level consultations.	N/A
Water quality monitoring including water resource availability	Sourcing locations of raw materials come within project influence area. Influence area should be within tens of meters of physical works/activities.	Monitoring of Water quality points by type: 428 wells Suggested PIA: 20-40m radius of physical works/activities, 50m radius around raw materials source and 10m either side of transportation route
Rehabilitation/New Construction of improved individual latrines	Sourcing locations of raw materials come within project influence area. During construction and operation phases, influence area should be within tens of meters of physical works/activities. However, if the latrines are not water-tight then influence area can extend to several hundred meters or more depending on receiving water body flow conditions. Considering the accessibility and safety for women, children and differently- able people, a detailed screening to the surrounding areas will be conducted before constructing the individual latrines.	Parent:Latrine quantity: 3,000 AF: 10,000 Suggested PIA: 20-40m radius of physical works/activities, water bodies within 300-500m, 50m radius around raw materials source and 10m either side of transportation route
Construction of HHs bio-fill toilet	Sourcing locations of raw materials come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on sludge disposal points.	Parent:500 AF:2000 Suggested PIA: 20-40m radius of physical works/activities, water bodies within 300m-5km of waste disposal points
Construction of chamber community latrines/Public toilet(with water source), septic tanks and solar support	Sourcing locations of raw materials (incl. solar equipment) come within project influence area. During construction and operation phases, influence area should be within tens of meters of physical works/activities. However, if the latrines are not water-tight then influence area can	Latrine quantity: 70 AF: 20 Latrine capacity: 20 people Suggested PIA: 20-40m radius of physical works/activities, water

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
	extend to several hundred meters or more depending on receiving water body flow conditions.	bodies within 800-1,000m, 50m radius around raw materials source and 10m either side of transportation route
Construction of a composting and biogas plant	Sourcing locations of raw materials (including materials to be composted) come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on compost and biogas use locations and waste byproduct disposal points.	No. of biogas plants: 30 Plant capacity: for 30 toilets each Suggested PIA: 20-40m radius of physical works/activities, water bodies within 300-500m of waste disposal points, 50m radius around raw materials source and 10m either side of transportation route
Construction of integrated waste and fecal sludge management (FSM) system	Sourcing locations of raw materials come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on sludge disposal points.	No. of FSM systems: Lump Sum Capacity: 150-200 toilets each Suggested PIA: 20-40m radius of physical works/activities, water bodies within 300m-5km of waste disposal points
Awareness program on sanitation, FSM, hygiene and safe water use	Some minor social impacts during field campaigns.	N/A
Sanitation marketing, demand creation and awareness campaign program		n/a
Drainage installation and Improvements	Sourcing locations of raw materials come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on water generation and rainfalls.	Beneficiary: 5500
Installation of rain water harvesting system	It depends on the requirement of the host community and water availability time requirement has to be determined.	The location of installation depends on the proximity of neighboring houses. AF: 200

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
		Ben: 1100
Subcomponent 1B		
Construction of climate resilient multi-purpose disaster shelters/ primary schools	Sourcing locations of raw materials come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on catchment area of the shelters.	No. of Shelters: 23 AF:20 Shelter Capacity: Up to 1,250 people Suggested PIA: 20-40m radius of physical works/activities, 2-3km around shelter, 50m radius around raw materials source and 10m either side of transportation route
Construction of Climate Resilient Multi-purpose disaster shelter/ community service centers	As the shelters will be constructed mainly within existing schools and in some community places, students safety, occupational health and safety of the community people should be taken care of.	30 AF: 10 Suggested PIA: 20-40m radius of physical works/activities, 2-3km around shelter, 50m radius around raw materials source and 10m either side of transportation route
Climate resilient access and evacuation roads	Sourcing locations of raw materials come within project influence area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on road connectivity and origin/destination of users.	Road length: 205km AF: 50 km Suggested PIA: 20-40m radius of physical works/activities, 10m either side of proposed road alignment, 50m radius around raw materials source and 10m either side of transportation route
Roads and Footpaths in camps	Width of roads and footpaths.	Total length: 25km
Construction of climate resilient access and evacuation bridges	Sourcing locations of raw materials come within project influence area. Upstream and downstream direct and indirect impacts can extend to several hundred meters depending on flow pattern of the water bodies as well as other hydrologic characteristics in the catchment area	Number of bridges: 10 Suggested PIA: 20-40m radius of physical works/activities, 300-500m upstream and downstream of culvert/bridge, 50m radius from raw materials source and 10m either side of transportation route
Local markets improved	Sourcing locations of raw materials (including market goods) come within project influence	No. of markets: 6

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
	area. During construction phase, influence area should be within tens of meters of physical works/activities. Operation phase influence area can be several hundred meters to several kilometers depending on market users.	Suggested PIA: 20-40m radius of physical works/activities, 1-3km radius of market, 50m radius from raw materials source and 10m either side of transportation route
Installation of Solar Street Lights	See above guidelines on street lighting.	No. 1500 AF:2500
Installation of lightning protection systems	Systems should be installed at locations with good earthing properties.	No.: 375 AF: 600 Suggested PIA NA
Construction of warehouses for firefighting and search & rescue equipment	See above guidelines on shelters.	No. of stations: 9 See above values related to shelters
Construction of Rubber Dam and Jetty rehabilitation	It may impact riparian areas. Adequate permission is required from relevant departments. The ESIA documents require clearance from Government and World Bank.	AF: rubber Dam-6 Jetty Rehabilitation: 5 Suggested PIA: Potentially all downstream reach can be affected and upstream reach up to extent of pooled water behind water dam.
Solar PV nano-grids	As solar PV panel will be connected through overhead distribution line, safety measures have to be taken according to electricity act 2018 and renewable energy act 2008. Capacities would be 4.0kWp to 8.0kWp. These nano-grids will be for DRP.	AF: No:130Suggested PIA: Each system can connect up to 200 households within 1km radius. Around 150sqft required for control unit of 4kWp system.
Component 2: Strengthening Community Resilience		
Workfare scheme (public works such	Approx. 40,000 DRP households expected to be benefited. Number of DRP at-risk-youths engaged in the scheme for basic-infrastructure maintenance and cleaning activities. This sub-component will finance (i) wages for beneficiaries in exchange for their work rehabilitating or maintaining the environment where they live or camp assets;	Camp Area where scheme is implemented

Sub-Project Activity	Varying factors to be considered to determine Influence Area	Suggested Value ^a
	(ii) the capital inputs for the sub-projects; and (iii) supervision of the community workfare.	
Community Services ((i) wages for subproject participants; (ii) supporting tools and materials; and (iii) subproject management activities)	Approx. 60,000 DRP households expected to be benefited depending on number of women, working-age children, elderlies and persons with disabilities engaged in subproject activities: child care and elderly support services; awareness generation/disruptive behavior prevention (prostitution, drug abuse, trafficking, abduction, etc.); training on use of improved cooking stoves/LPG, community group-facilitation; grievance management volunteer groups; communication and outreach activities, as well as awareness-raising activities. Source of alternative fuels need to be considered in PIA. Where LPG or other alternative fuels are being distributed, risks of fire hazards may increase.	Camp Area where scheme is implemented, including surrounding forest areas, which are vulnerable to fires.
Component 3		
Training Facilities Construction of LGED	Building footprint area and number of stories are not specified at this stage. The construction will be on land owned by the agencies.	AF:No: 1 Suggested PIA: 500m radius of construction site.
Construction of WASH training facility at Cox's Bazar	Building footprint area and number of stories are not specified at this stage. The construction will be on land owned by the agencies.	AF No: 1 Suggested PIA: 500m radius of construction site.

Notes:

- Suggested values need to be verified based on field and design condition during design and implementation.
- OHT=Overhead tank, DRP = Delivery and Resilience Project

As part of the environmental and social screening of sub-project activities, a project influence area (PIA) map should be prepared by technically qualified professionals in consultation with the local community. This can be a hand-drawn sketch. An example is shown in Figure 2-1.

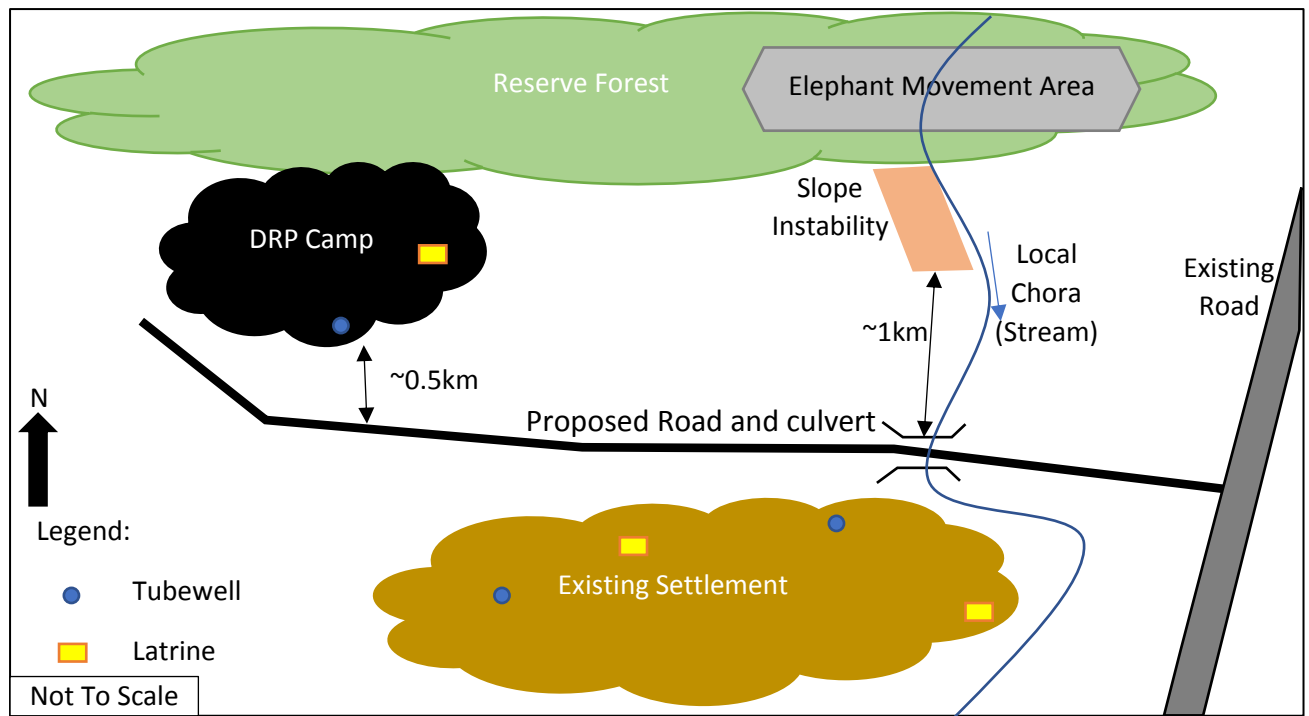


Figure 2-1: Example Project Influence Area Sketch Map

3 Policy, Legal and Regulatory Framework

3.1 Laws and Regulations of Bangladesh

3.1.1 Relevant Environmental Laws and Regulations

Relevant GOB Policies, Acts, Rules, Strategies and Guidelines include:

1. The Constitution of the Peoples' Republic of Bangladesh (1972)
2. Forest Act (1927, amended 1990 and 2000)
3. National Environmental Policy (1992)
4. Bangladesh Wildlife (Preservation) Order, 1973 (enacted in 1974 and Amended in 1994)
5. National Environmental Management Plan (NEMAP, 1995)
6. Environmental Conservation Act (ECA, 1995)
7. Environment Conservation Rules (ECR, 1997)
8. National Water Policy (1999)
9. Environment Court Act (2000, updated in 2010)
10. National Water Management Plan (2001, Approved in 2004)
11. Coastal Zone Policy (CZPo) (2005) and Coastal Development Strategy (2006)
12. Wildlife Conservation and Security Act (2012)
13. Disaster Management Act (2012)
14. Bangladesh Water Act (2013)
15. Ecological Critical Area Rules (2016)
16. Bangladesh Biodiversity Act (2017)
17. Acquisition and Requisition of Immovable Property Act 2017
18. Bangladesh Labor Law 2006
19. Bangladesh Labor Rules 2015
20. Bangladesh Electricity Act 2018
21. Bangladesh Renewable Energy Act 2008

Article 18A of the Constitution of the Peoples' Republic of Bangladesh was amended in 2012 (15th Amendment) to include environmental protection as well as preservation and safeguarding of natural resources, biodiversity, wetlands, forests and wildlife. This commitment is to present and future generations.

Forest Act (1927 and amended in 1990 and 2000) enables the Government to declare any area of forest as Reserved. This allows the Government to take measures for conservation of biological diversity. The Government can also establish some control over private forests through the Private Forest Ordinance. Any act or omission detrimental to the natural resources of reserve and protected forests is prohibited including clearing forest lands, removing timber, setting fires, felling or otherwise damaging trees, clearing or breaking up any land for cultivation or any other purpose, hunting and the pollution of water.

Bangladesh National Environmental Policy (GoB, 1992) provides the framework for environmental protection. The policy focuses on maintenance of ecological balance as well as development of the country through protection and improvement of the environment. The policy also highlights the need for protection against natural disaster and sustainable use of natural resources.

The Bangladesh Wildlife (Preservation) Order, 1973 (formulated as an Act in 1974 and amended in 1994) was based on India's 1972 Wildlife (Protection) Act. The preservation order focuses on the protection forests, wildlife sanctuaries and game reserves. The Order and Act forbids cultivation; damage/destruction of vegetation; wildlife killing or capturing; water pollution in these areas. Also,

the Preservation order (and subsequent Act) formed the basis of establishing a Wildlife Circle within the Forest Department.

The National Environmental Management Action Plan (NEMAP, 1995) builds on the National Environmental Policy. NEMAP also provides the framework for implementing the National Conservation Strategy. The plan groups the action items into four types: institutional, sectoral, location-specific and long-term issues. Institutional actions reflect the need for intersectoral cooperation to tackle environmental problems. The sectoral actions address the way the Ministries and agencies are organized and makes it easier to identify the responsible agency to carry out the recommended actions. The location-specific actions focus key local level environmental problems. The long-term actions address environmental issues that are expected to become more serious if cognizance is not taken immediately.

Environment Conservation Act (ECA, 1995) addresses the following key areas:

- a) Declaration of ecologically critical areas, and restriction on the operation and process, which can be carried or cannot be initiated in the ecologically critical area.
- b) Regulation in respect of vehicle emitting smoke harmful for the environment.
- c) Environmental clearance for all industrial units and projects.
- d) Regulation on the industries and other development activities — discharge permit.
- e) Promulgation of standards for quality of air, water, noise and soil for different purposes.
- f) Promulgation of standard limit for discharging and emitting waste.
- g) Formulation and declaration of environmental guidelines.
- h) Penal measures for non-compliance.

The Environment Conservation Rules (ECR, 1997) mainly contain:

- a) National Environmental Quality Standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust, etc.
- b) Requirements and procedures to obtain environmental clearance.
- c) Requirements for Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) according to categories of industrial and other development interventions.

National Water Policy (1999) focuses on watershed degradation and deforestation; reduction of biodiversity, wetland loss and coastal zone habitat loss. The policy also includes ensuring adequate upland flow in water channels to preserve the coastal estuary ecosystem threatened by the intrusion of salinity from the sea. The policy also addresses water pollution, sanitation and potable water aspects.

The Environment Court Act (2000, updated in 2010) aims to support implementation of the Environmental Conservation Act (1995) and Environment Conservation Rules (1997) through judicial activities. This Act established Environmental (Green) Courts for the disposal of offences related to environmental pollution for the purpose of conserving and maintaining the natural environment of Bangladesh. An Environment Appellate Court was established at Dhaka for the whole Bangladesh. The Act of 2000 also empowered Magistrates of the first class or Metropolitan Magistrates to deal with environmental offences punishable with less than two year's imprisonment or taka 10,000 as fine or both. The Act was amended in 2002 to allow the Joint District Judge/s for a Division to act as the judge of an Environment Court in addition to his/her ordinary functions. In 2010, a fresh Environment Court Act (Bangladesh Environment Court Act, 2010) has been passed and the Act of 2000 has been repealed. The 2010 Act aims to establish one or more Environment Court/s in each district with a Joint District Judge. The judge shall, in addition to ordinary functions, dispose of the cases that fall within the

jurisdiction of the corresponding Environment Court. Apart from these two types of Courts there are Executive Magistrates functioning under the Mobile Court Act, 2009. They can take cognizance of some offences at spot and convict the accused on the basis of his/her confession. Under almost all the environmental laws there is a provision to run Mobile Court.

The National Water Management Plan (2001, Approved in 2004) was prepared as a framework plan to guide relevant ministries; agencies, department, and local bodies to prepare projects related to development of water resources in Bangladesh. The NWMP consist of immediate plan to be implemented in the short term (2001-2006), indicative plan for medium term (2006-2011) and perspective plan for longer term (2011-2025). The Plan contains 84 programs under eight clusters for

The Coastal Zone Policy (CZPo) (2005) addresses integrated management of the coastal zone via agreement of different Ministries, Departments and Agencies to harmonize and coordinate their activities in the coastal areas. The Coastal Development Strategy (2006), which is based on CZPo, aims to harmonize the sectoral policies of relevant Ministries and provide an integrated coastal zone management framework for all development work in the coastal zone.

Wildlife Conservation and Security Act (2012) is the apex legislation for conservation of wildlife in Bangladesh. Under the act, any state-owned forest land, land or water-body can be declared an eco-park, safari park, botanical garden or breeding grounds. Such land can also be declared reserve land by Government gazettes. The act identifies 32 species of amphibian, 154 species of reptile, 113 species of mammal, 52 species of fish, 32 species of coral, 137 species of mollusk, 22 species of crustacean, 24 species of insect, six species of rodent, 41 species of plant and 13 species of orchid. Farming, woodcutting, burning and construction are prohibited on forest reserves and violators can be jailed for up to two years. The Act provides specific penalties for hunting or killing of wildlife that includes fines of up to Taka 200,000 and jail terms of up to seven years.

The Disaster Management Act (2012) provides a legislative framework for the preparedness, response and emergency management related to disasters in the country. The Act has mandated roles and responsibilities to ministries, departments, agencies, local bodies and specific committees to perform various activities related to disaster management such as: risk reduction interventions; effective implementation of post disaster emergency response; rehabilitation and recovery measures; provision of emergency humanitarian assistance to the most vulnerable community people; strengthening of institutional capacity for effective coordination of disaster management involving government and non-government organisations, and establishing a disaster management system capable of dealing with all hazards in the country. The Act also has specific articles related to the Standing Order on Disasters (SOD).

Bangladesh Water Act (2013) aims for integrated water resources development in the country through the preparation and implementation of a National Water Resources Plan. The National Water Resources Council, which is Chaired by the Prime Minister and has 12 Ministers as members, is mandated to approve and ensure implementation of such plans that cater for “proper use of, safe abstraction of, proper distribution of, proper protection of, and proper conservation of water resources” (Section 5). The Act gives access to potable water as well as water for hygiene and sanitation the highest priority (Section 3, Clause 2). The Government, through the Executive Committee, can issue a “Protection Order” to private land owners to prevent wastage, misuse, protect as well as conservation of water (Section 3, Clause 3).

Ecological Critical Area Rules (2016) provides further regulatory implementation tools for ECA 1995 and ECR 1997 with regards to environmentally vulnerable and sensitive sites. In 1999 the government

declared 8 areas as ECAs in Bangladesh, e.g., Cox's Bazar and Teknaf Peninsula, St. Martin's Island, Sonadia Island, Hakaluki Haor, Tanguar Haor and Marjat Baor, Gulshan-Baridhara Lake and Sundarbans. Subsequently in 2009, 4 rivers (Buriganga, Sitalakhya, Balu and Turag) around Dhaka city were declared as ECAs. Although the Department of Environment (DoE) is the statutory body to manage an ECAs, the ECA 2016 rules mandate committee systems for the management of ECAs from the national to village levels. In Districts with ECAs, the Rules mandate the District Committees, which is supposed to meet 3 times in a year, to monitor the sites regularly especially with regards to implementation of development plans and protection measures taken by DoE. The District Committee has to take necessary legal actions against any person or entity that commits, or attempted to commit any prohibited activities in an ECA.

The identified sub-project activities fall under Orange A or Orange B categories mainly due to their relatively small size. However, as the proposed interventions may be in the ECAs of Cox's Bazar District, these sub-projects need to be vetted by the District Committee. Apart from that, there is no specific requirement to do an EIA for the sub-projects.

Bangladesh Biodiversity Act (2017) provides specific directions local bodies to setup biodiversity management and monitoring committees. These committees shall prepare a Register of Biodiversity and include details of different usages of biological materials; support implementation of National Biodiversity Strategy and Action Plan (NBSAP); raise awareness; identify and protect biodiverse hotspots as well as estimate damages caused to biodiversity. Furthermore, the Act stipulates that alternative livelihood arrangements should be arranged at the local level for communities affecting biodiverse resources.

3.1.2 Relevant Social Laws and Regulations

The project activities will include small-scale infrastructural development like construction of access roads, mini pipe lines, disaster shelters, WASH intervention, reduction of pressure on fuel wood, construction of rubber dam within the host communities areas, etc. which will eventually reduce the vulnerability of the DRP and host communities from natural disaster and fire hazard, provide the basic urban facilities to both DRP and host communities and restore the badly degraded environment both in the short and medium term.

Some of the proposed infrastructure will be developed within the camps sites. While the main registered camp at Kutupalong is entirely on public land (various entities including Department of Forest), some of the unregistered camps in Teknaf are on private lands. DRPs are in some cases paying nominal rent for staying on these lands. Since acquisition within camp sites cannot be an option for the project (given the emergency nature of the intervention, and necessity to manage the relationship between host and DRPs), voluntary arrangements such as MoUs and/or renting/leasing (where appropriate, because the interventions may not all be discrete, but take the form of network laying, water supply pipes, etc.) will be considered. Construction of mini pipe lines, rubber dams may require to use private land temporary within the host community areas under AF. No land acquisition will be permitted in the camp areas as well as host community areas, some temporary livelihood impacts may occur due to civil works, in the event of which mitigation measures as per OP 4.12 may be required.

In all the camps, it may be necessary to shift or re-align some structures (expected to be few in terms of scale, involving quick rebuilding in nearby spaces within the camps) to make way for the infrastructure and service provision envisioned by the project. Any dismantling and relocation of structures/shelters within the camps will be done on a purely voluntary basis (with well documented consultation process and agreement with affected parties), and only after the shifting and rebuilding

activities are completed (the tents and bamboo structures with plastic sheeting for roofs are makeshift in nature and can be quickly rebuilt) by the responsible agencies. The structures must be fully relocated (with provision of temporary shelter for the family/families) before construction for project purposes can begin. The relocation sites (strictly within the same camp site) must have equal accessibility and security, if not better, compared to the location from which it is displaced. The government may not allow cash compensation for DRPs for any impacts incurred, hence all adverse, involuntary resettlement related impacts on DRPs have to be avoided. The cost of shifting and rebuilding structures/shelters within the camps have to be borne from the project. UN agencies are being considered for implementation of some activities under GoB issued contracts. They will adhere to all WB safeguards policies and safeguards documents including this ESMF.

Some access roads and multi-purpose disaster shelters may be built outside the camps to improve accessibility and make provisions for shelter during emergency/disaster situations. Some existing government facilities may require extension. The activities are expected to take place on government-owned lands and along existing alignments; nevertheless, impacts on private lands and persons cannot be ruled out at this stage. For the construction of approach roads, bridges and culverts, extension of existing facilities, private lands may be required (permanently or temporarily). Public lands will be used as far as possible, in-fact given the emergency nature of the project the cumbersome timeline for land acquisition will be extremely difficult to follow. However, if private lands are affected and/or squatters are impacted (on public or private lands), all tenets of OP 4.12 including those applying to compensation, will be followed along with ARIPA 2017. OP 4.12 is triggered for the project. The routes/sites for the above-mentioned activities are not determined at this stage. A Resettlement Policy Framework (RPF) has been prepared as part of this ESMF to mitigate for impacts on land, squatters, livelihood related impacts should they occur.

There are indigenous people present in Cox's Bazar District but not in the project areas. Therefore, OP 4.10 will not be triggered.

Given the sensitivities in the camps and host community areas (social, cultural, religious, gender, disabilities, orphaned and vulnerable children, relationship with host community), a vulnerability assessment covering the latter mentioned topics (and any other identified issues) will be undertaken. It may be mentioned that gender and gender-based violence issues (rape, trafficking, physical and mental violence, etc.) are being addressed through mainstreaming activities as well as concrete deliverables through the project. Also, there are similar assessments being carried out under the two other Bank funded projects aimed at the DRPs; these will be referenced and/or used where required. Addressing social inclusion, gender issues and preventing gender-based violence is being handled through a consultancy package which will cover gender mainstreaming, and the design and implementation of all other inclusion and gender actions. The consultancy will build referral systems for GBV cases as and when required, but since the DRPs are not subject to national laws, the project will rely on local systems and community-based approaches (as are being used by other UN agencies) to mitigate the issues.

A project specific GRM will be established as a part of Component 3 on the basis of the existing governing mechanisms in the camps as much as possible. Presently, the CiC personnel mobilize DRP through a volunteer network comprised of Rohingya community leaders (known as Majhi). This project will support the enhancement of the volunteer network to serve as the Government's main DRP engagement structure which will serve as the last mile delivery tool through which LGED, DPHE, and MoDMR will streamline outreach, behavior change communication (through ToT strategies) as well as

the grievance redress mechanism. The volunteers will be chosen in a transparent, inclusive and representative manner giving due consideration to women and other vulnerable groups in this process. Project will finance the service of a specialized agency (SA) to set-up and facilitate the functioning of the DRP engagement system. The specialized agency will hire experienced staff to be placed at the CiC office for the recording of grievances and providing feedback to the community. The agency will also facilitate, supervise and monitor the DRP engagement mechanism, which includes: (i) selection and training of volunteers; (ii) monitoring and reporting activities; (iii) periodic CiC-volunteer meetings; and (iv) distribution of IEC materials. In order to set up, monitor and streamline the Project's GRM, following steps will be taken:

(i) protocol design; (ii) setting-up the manual system (manual forms and registers, training and outreach); (iii) develop GRM management capacity; (iv) digital system development (software, computers, printers, telephones, mobile application, internet and electricity); (v) operation space (desks and chairs); and (vi) grievance hotline (service contract).

Project will have some activities within the host communities. LGED will have construction activities on cyclone shelters, roads, bridges, culverts etc. where community people might be affected temporarily. Project may require local labors during constructions which may also create grievances for non-compliances of the labor laws and occupational health and safety issue.

Labor and labor influx issues, including the prevention of any child labor via contractors will be addressed through the ESMF and review of contractors obligations under the procurement packages, which will also include OHS considerations and non-compliance remedies. The workfare program will be fully cognizant that no hazardous work is delegated to any children between 14 -18 and that their education is in no way harmed. No children under 14 will participate in the workfare program or any other type of labor.

3.2 WB Safeguard Policies and WBG EHS guidelines

3.2.1 Safeguard Policies

The project will trigger Environmental Assessment (OP/BP 4.01), Natural Habitat (OP/BP 4.04), Forest (OP/BP 4.36), Physical Cultural Resources (OP/BP 4.11), Involuntary Resettlement (OP/BP 4.12) and BP/OP7.50 (Projects on International Waterways). The approval for exception to riparian notification was obtained from Regional Vice President of the Bank on September 6, 2018. OP/BP 4.37 (Safety of Dams) is not triggered as the rubber dams do not permanently block the flow of water and their height will be approx. 3-5m.

3.2.2 Environmental Health and Safety Guidelines

The Project will include construction of access roads, disaster shelters, WASH, drains and introduction of alternative cooking stoves to reduce deforestation which will not only reduce the vulnerability of the DRP to natural disasters and fire hazards, but also provide basic facilities and help improve the degraded environment. Based on the type of intervention, the following EHS and industry sector guidelines apply based on the typology of subprojects.

1. General EHS Guidelines
2. EHS Guidelines for Construction Material extraction
3. EHS Guidelines for Water & Sanitation
4. EHS Guidelines for Waste Management

The Naf River rises in Myanmar and flows into the Bay of Bengal, the lower part of the river marks the border between Bangladesh and Myanmar. There are no treaties/agreements between Bangladesh and Myanmar relating to the Naf River, and no formal bilateral arrangement requiring riparian notification. Considering the above, it is concluded that these activities meet the elements for an exception to riparian notification under the paragraph 7 (a) and (b) of the Policy. Therefore, OP7.50 is triggered and the approval for exception to riparian notification was obtained from Regional Vice President of the Bank on September 6, 2018.

3.3 Relevant International Laws and Treaties

Bangladesh is a signatory to a number of Multilateral Environmental Agreements (MEAs). These MEAs impose requirements and restrictions of varying degrees upon the member countries, in order to meet the objectives of these agreements. However, the implementation mechanism for most of these MEAs is weak in Bangladesh and institutional setup mostly non-existent. The following are the relevant international treaties and conventions that have been ratified by Bangladesh. The project area includes the core habitat of endangered Asian Elephant which is listed in Appendix I of CITES. Appendix I lists species that are the most endangered among CITES-listed animals and plants. They are threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial, for instance for scientific research.

- Ramsar Convention 1971
- World Heritage Convention 1972
- Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) 1973
- Convention on the Conservation of Migratory Species of Wild Animals 1979
- Bio Diversity Convention 1992

Bangladesh is a signatory party to all of these aforementioned international legal instruments.

4 Environmental and Social Baseline

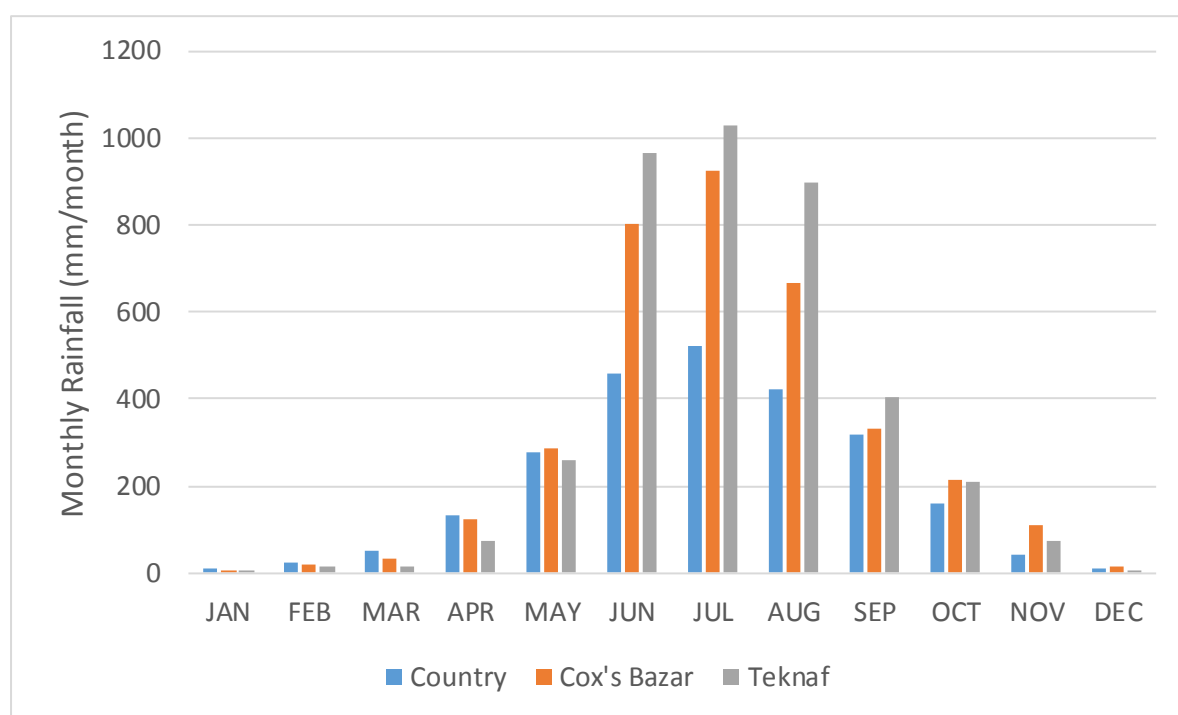
The environmental and social baseline of the project area and affected people are provided in this Section.

4.1 Physical Environment Baseline

4.1.1 Climate

The climate of this region is tropical, with monsoons characterized by a change of 4 seasons; pre-monsoon (March to May), Monsoon (June to September), post monsoon (October to November), and dry season (December to February). The project area is highly susceptible to tropical cyclone and tidal surges. Cyclone storms develop in the Bay, generally in April – May and October- November, occasionally coming to shore and causing severe damage to human settlements and vegetation.

The normal monthly rainfall pattern in the project area and the country is shown in Figure 4-1.



Source: BMD

Figure 4-1: Rainfall Pattern in Assessment Area

Annual rainfall in Cox's Bazar is about 45% higher compared to the national average. Annual rainfall in Teknaf is 63% higher compared to the national average. In both locations the higher intensity of monsoon rainfall is apparent, compared to the national average. Another clear pattern is that the rainfall begins later in Cox's Bazar compared to rest of the country and it is even more late in Teknaf (usually in June).

4.1.2 Hydrology

Hydrology of the project area is complicated by the varying terrain and topography. There is interaction between fresh water flowing from the upstream hilly areas and the tides flowing from the Bay of Bengal. Rainfall and runoff from adjacent uplands along with the relief pattern of the plains

regulates the surface hydrology in the forest areas. The area is interspersed by valleys, gullies and crossed by 149 streams which at the eastern side flow to the Naf River¹⁸.

The project area is representative of typical hill slope hydrology where numerous chorrhas flow down slope towards the bay on the west and the Naf River on the east. On the coastal side (western part), many of small and large khals run from the hilly hinterland to the bay. The main khals are: Reju, Inani, Mankhali, Rajarchora and Mathabhanga. There are a several shallow depressions in the area providing wetlands to migratory birds, and fish for local livelihoods.

4.1.3 Hydrogeology

The groundwater system in the project area is quite different compared to rest of the country. The area is part of the Zone N under UNDP's 1982 classification, which is based on lithology, thickness and structure of rock formations along with recharge potentiality and aquifer characteristics. The area has complex groundwater conditions characterized by a complex geology of folded Tertiary sediments.

There are apparently no arsenic problems reported in the groundwater system of the assessment area and faecal contamination of water sources was found to be mostly related to point sources¹⁹.

High groundwater salinity exists in areas close to the Bay of Bengal. The Teknaf area is generally unsuitable for shallow wells (less than 400ft). Overall, there is low potential for large scale groundwater development in the Teknaf area²⁰.

4.1.4 Water Sources

The main water sources used by local communities are: surface (khal or chorrha, pond, rubber dam); groundwater (artesian well, dug well (kua) or hand tubewell; and combination of surface and groundwater (chorrha and kua; or pond and kua). Water sources for the DRP are mainly tubewells and in some cases khals. Where water sources are common between DRP and local communities, there is considerable pressure on the limited resources.

4.1.5 Air Quality

In general, the air quality in the project area is not susceptible to intense pollution due to lack of industries or intense vehicular movement. Some localized dust pollution temporarily occurs near construction sites and brick kilns in the dry season (November to May). Some noise and vehicular pollution increases along roadsides in the Cox's Bazar to Teknaf areas during the peak tourist periods. Detailed baseline data on air quality is currently not available.

4.1.6 Soils and Topography

The soils of the region in particular the hills are mostly composed of coarse materials and is less mature than other coastal region of the country and are susceptible to erosion and landslides. The region has a long history of landslides. There have been recent reports of landslides in and around the camp areas, e.g. 21 incidents were reported in the period 16 to 31 October, 2018²¹.

¹⁸ Arannayk Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edn. The Arannayk Foundation, Dhaka.

¹⁹ UNHCR (2016) Bangladesh Hydrogeological Field Mission Report.

UNDP (1982) Groundwater Survey, The hydrogeological Condition of Bangladesh. UNDP Technical Report DP/UN/BGD-74-009/1.

²⁰ Ahmed, K. M. (2003) Constraints and issues of sustainable groundwater exploitation in Bangladesh. Proceedings of the International Symposium on Safe and Sustainable Exploitation of Soil & Groundwater Resources in Asia, Okayama University, Japan, pp. 44–52

²¹ UNHCR (2018) Operational Update, 16-31 October 2018.

The soils range from clay to clayey loam on level ground and from sandy loam to coarse sand on hilly land. In the forest areas, the clayey and sandy loams are fertile, and the sandy soil is often infused with iron resulting in red or yellowish tinge. The hilly soils developed from un-consolidated rocks are moderately well to excessively well drained, generally deep, and probably the oldest soils in this region, while those occurring on hills from consolidated rocks tend to be formed in weathered sandstones, shales, and siltstones²². The soils developing from the weathered sandstones tend to be sandy loams to clay loams, and those in shales silty clay loams. Generally, the soils of Tipam Surma formations are less acidic in reaction relative to the soils of Dupitila formations.

The Ukhia and Teknaf forest ranges cover gently sloping hills comprising several different geological formations. These are Pliocene and Miocene. The hills comprise of upper tertiary rocks with three representative series-Surma, Tipam and Dhupitila. The Pliocene covers the Dupitila formation which consists primarily of folded, fine to coarse sandstone, mixed with mottled siltstones and shales, plinthitic, and lateritic layers. The sediments are subject to strong erosion. The Miocene covers the oldest Surma formation which is situated in the centre of the anticlines and surfaces at the bottom of valleys.

4.1.7 Natural Disasters

The project area has record of the following natural hazards: river floods, flash floods, landslides storm surges, earthquakes and salinity intrusion²³. In the project area, river floods occur mainly during July to September. Flash floods and landslides occur in April and May. Storm surges can occur in May, June, October or November. Salinity intrusion tends to occur from December to May.

According to BBS 2011 Census data, neither Ukhia nor Teknaf have any fire brigade station²⁴.

4.2 Biological Environment Baseline

4.2.1 Terrestrial Flora and Fauna

The forest land in Ukhia and Teknaf upazilas is covered by tropical evergreen and semi-evergreen forests dominated by Garjan (*Dipterocarpus* spp.) occurring in deep valleys and shaded slopes²⁵. The human activities have denuded the most parts of the hills which have been reoccupied by sungrass, herbs and shrubs. Still the area houses rich biodiversity, especially within the protected areas (PA).

Within the last two decades, the forest areas in Ukhia and Teknaf have become degraded or have been cleared due to the human causes. Between 1989 and 2009, the forest coverage of Teknaf Wildlife Sanctuary (TWS) has been reduced by 46% from 3,304 ha to 1,794 ha. But the shrub type of forests was increased by 25% from 6,263 ha to 7,824 ha²⁶.

The project area is rich in biodiversity with numerous environmental assets and scenic beauty. The region has various tourist attractions. Most attractive feature of the influx area is a picturesque beach which is the longest in the world in one stretch. The sea beach also supports five species of sea turtles

²² Canonizado, J.A. (1999) Integrated forest management plan, Noakhali C/A Division (1999-2008), FRMP TA Component. Mandala Agril. Dev. Crop/FD/MOEF.

²³ UNDP (2014) Comprehensive Disaster Management Plan -Final Report, United Nations Development Programme, Bangladesh.

²⁴ BBS (2013) District Statistics 2011 – Cox's Bazar, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh.

²⁵ IUCN (2002) Bio-Ecological Zones of Bangladesh. IUCN Bangladesh Country Office, Dhaka

²⁶ Arannyak Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edition. The Arannyak Foundation, Dhaka.

including olive ridley turtle (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricate*), loggerhead turtle (*Caretta caretta*), and leather back turtle (*Dermochelys coriacea*). Mudflats and sand dunes across the sea beach are the other two environmental assets of the project area. The *Ipomoea pes-caprae* dominated sand dune vegetation in the shore line of Cox's Bazar through Teknaf protect the beach from soil erosion and recruit sands for increasing elevation of the beach. It supports the breeding of the turtles. There is a significant land of sea-beach found to be planted by Jhau (*Casuarina equisetifolia*) and Baen (*Avicennia officinalis*) tree in Cox's Bazar zone. A large size sand dune formation due to this plantation was observed²⁷.

Himchari National Park, declared in 1980, is one of the important protected areas in Bangladesh. It lies under the Cox's Bazar South Forest Division covering the area 1729 ha. This is the home of 56 species of reptiles, 13 amphibians, 286 birds, and more than 100 species of trees, shrubs, grasses, canes, palms, ferns and herbs, etc. Waterfalls adds a great weight with the total beauty of the Himchari national park. It attracts more than two million visitors each year. The biodiversity of this park is threatened by many anthropogenic factors. Rohingya influx has a distant influence on this forest too. Especially, the bamboo and fuelwood merchants illegally collect bamboo and fuelwoods from this forest and sold out to the Rohingya community, thereby impacting on this forest ecosystem.

Inani protected area under the Cox's Bazar South Forest Division, 26 km away from the Cox's Bazar city, lies between 21°6'-21°17'N latitude and 92°3'-92°7'E longitude. It covers an area of 7,700 ha of reserve forest falling under evergreen and semi-evergreen tropical forest zone. It includes both Inani and Ukhia forest range. Although Inani forest area was rich in biodiversity earlier, but presently the vegetation cover is being dominated by herbs, sungrass, shrubs and bushes. The high forest has been shrinking from 70% to less than 30% for the last three decades²⁸. In the bushes, sungrass and bamboos are dominating the landscape. Inani protected area belongs to 443 plant species under 93 families. A gymnospermic tree species, *Banspata* (*Podocarpus nerifolia*) is one of the rare trees still is found in this forest. Among the plant species, herbs are 140 (32%), shrubs are 85 (19%), trees are 151 (34%), climbers are 60 (13%) and epiphytes are 7 (2%). This forest houses 29 species of amphibians under six families. Among the amphibians, most species, 12, are rare, 9 are common and 8 are very common. It belongs to 58 species of reptiles of which 5 are turtles and tortoise (9%), 21 are lizards (36%), and 32 are snakes (55%). Arannyak Foundation confirmed that 34 reptiles (60%) found in this forests are rare, 18 (31%) are common and 6 (10%) are very common. It supports 253 birds species of which 195 are residents (77%) and the rest 58 are migratory (23%). Among the birds, 44 species are very rare (23%) and 68 are rare (35%). A total of 39 mammals are found in this forest. Among the mammals, 12 are carnivores, 11 are rodents, 7 are bats and 4 are primates. However, 61% of the total mammals of this forest are either rare or very rare species (Arannyak Foundation 2016). Although the current Rohingya influx does not have any direct influence on the Inani protected area, still there are some assumptions that bamboo and fuelwoods are being extracted from the Inani protected areas and being sold out for the Rohingya community.

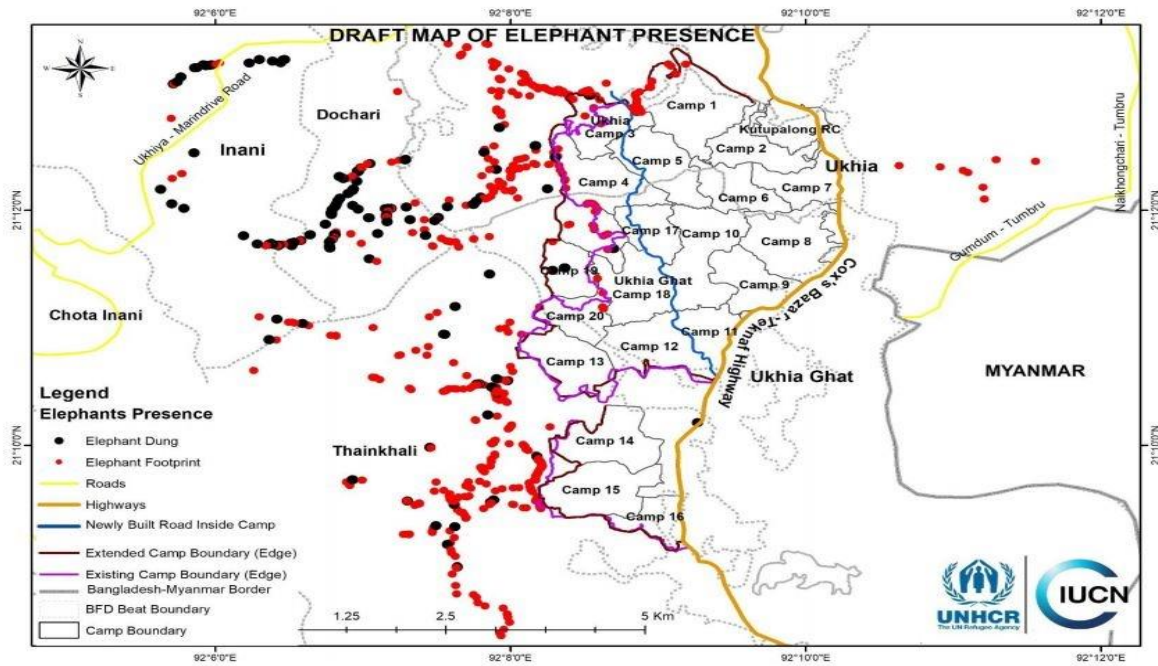
According to IUCN (2016), there are 50-78 elephants in the Cox's Bazar District South region (which consists 5 forest ranges in Ukhia and 4 in Teknaf)²⁹. Around 40 of these are trapped in and around the camps due to the sudden influx of DRP³⁰. Recently, IUCN have conducted extensive surveys of elephant presence in and around the camps (see Figure 4-2 and Figure 4-3).

²⁷ UNDP (2017) Report on Environmental Impact of DRP Influx.

²⁸ Arannyak Foundation (2016) Biodiversity of Inani Protected Forest. The Arannyak Foundation, Dhaka.

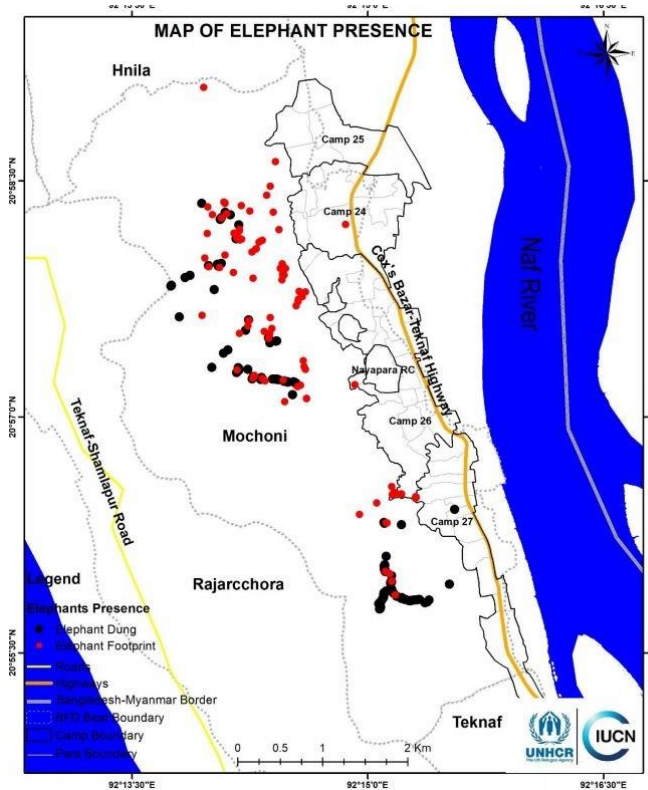
²⁹ IUCN (2016) Status of Asian Elephants in Bangladesh.

³⁰ Personal communication with Mr. Motaleb of IUCN.



Source: IUCN (2018)³¹

Figure 4-2: Locations of Elephant Presence near Camps in Ukhiya Area



Source: IUCN (2018)³²

³¹ IUCN (2018) Field survey <https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar>

³² IUCN (2018) Field survey <https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar>

Figure 4-3: Locations of Elephant Presence near Camps in Teknaf Area

4.2.2 Aquatic Flora and Fauna

A survey of the Fisheries fauna of the Naaf river estuary in 1990's recorded 123 fish species, 20 species of shrimp and prawns, 3 species of crabs and 2 species of lobster³³. The dominant group was represented by a few small sized fishes. Considering the close proximity to the sea and the presence of back waters, the people in the region are habituated in pisciculture and prawn culture. The people also practice salt farming.

4.3 Socio-Economic Baseline

4.3.1 Socio-Economic Condition

Baseline socio-economic conditions for Ukhiya and Teknaf Upazilas are summarized in the table below based on 2011 Census Data.

Table 4-1: Summary of Socio-Economic Data from 2011 Census

Statistic	Ukhiya	Teknaf
Number of Unions	5	6
Number of Mouzas	13	12
Number of Villages	54	146
Population	207,379	264,389
Area (acres)	64,694	
Population Density (people/sqkm)	792	680
Households	37,940	46,328
Male Population	104,567	133,106
Female Population	102,812	131,283
Sex Ratio	102	101
Average Household Size	5.4	5.7
Literacy Rate	36.3	26.7
Number of Voters	100,000	117,000
Muslim (number of people)	189,821	258,245
Hindu (number of people)	4,340	2,967
Buddhist (number of people)	13,000	3,089
Christian (number of people)	31	9
Others (number of people)	87	79
Married Male (% of population above 10 yrs old)	53.1	52.6
Unmarried Male (% of population above 10 yrs old)	46.4	47.0
Married Female (% of population above 10 yrs old)	60.1	60.3
Unmarried Female (% of population above 10 yrs old)	33.7	34.2
Widowed Male (% of population above 10 yrs old)	0.4	0.4
Divorced Male (% of population above 10 yrs old)	0.1	0.1
Widowed Female (% of population above 10 yrs old)	5.2	4.7
Divorced Female (% of population above 10 yrs old)	0.9	0.7
Speech Disability (% of population)	0.2	0.2
Vision Disability (% of population)	0.2	0.4
Hearing Disability (% of population)	0.1	0.1
Physical Disability (% of population)	0.4	0.6
Mental Disability (% of population)	0.1	0.2
Autistic (% of population)	0.1	0.1

³³ Islam, M.S. (1993) Fisheries fauna of the Naf river estuary, Bangladesh Journal of Fish.

Statistic	Ukhiya	Teknaf
Number of Cottage Industry Units	519	98
Total Number of People Engaged in Cottage Industry	1,038	306
Number of Bamboo & Cane Industry Units	480	38
Total Number of People Engaged in Bamboo & Cane Industry	1,000	114
Number of Wooden Furniture Units	150	70
Total Number of People Engaged in Wooden Furniture Units	970	280

Source: BBS (2014) Community Report of 2011 Population and Housing Census - Cox's Bazar District, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh. BBS (2013) District Statistics 2011 – Cox's Bazar, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh.

Table 4-2: Summary of Infrastructure and Facilities from 2011 Census

Statistic	Ukhiya	Teknaf
Total Length of Roads (km)	459	513.14
Length of Metalled Roads (km)	94	80.49
Length of Semi-Metalled Roads (km)	108	74.39
Length of Unmetalled (kacha) Roads (km)	284	358.26
Length of Embankment Road (km)	0	22
Total Railway Length (km)	0	0
Length of Waterway in Monsoon (river and canal, km)	15	28
Length of Waterway in Round the Year (river and canal, km)	15	28
Number of Government Hospitals	0	1
Number of Non-Government Hospitals	0	7
Number of Community Clinics	15	12
Drinking Water Source – Tap (% of households)	0.8	1.1
Drinking Water Source – Tubewell (% of households)	82.8	78.7
Electricity Connection	23.2	25.5
Sanitary Latrine with Water Seal (% of households)	6.1	7.7
Sanitary Latrine without Water Seal (% of households)	28.0	36.7
Non-sanitary Latrine (% of households)	43.6	42.2
No Sanitation Facility (% of households)	22.3	13.4

Source: BBS (2014) Community Report of 2011 Population and Housing Census - Cox's Bazar District, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh. BBS (2013) District Statistics 2011 – Cox's Bazar, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh.

Fishing is a major economic activity among the local people of Ukhiya. A recent survey of 60 nos. fishermen found that almost 50% have no formal education and only 4.7% of the fishers have secondary education³⁴. Of the respondents, 52% of lived in semi pacca houses; 70% accessed drinking water from tube wells and 71 had some form of sanitation system. Around 20% of the respondents did not have access to a sanitary latrine. Based on twelve months fishing activities and other economic activities, their monthly income ranged between TK. 3,000 to TK. 6,000 (45.5% respondents).

A survey of 105 fishermen in Teknaf found that around 60% were below 30 years, 30% were between 30 and 39 years, and the remaining 10% were more than 40 years old³⁵. In terms of education levels, it was found that 63% were illiterate, 19% can write their names, 15% had received education up to primary level and 4% had received secondary education. Income distribution showed significant

³⁴ Osman et al (2016) Socio-economic conditions of the fishing community of Rezu khal in Ukhiya, Cox's bazar. Discovery, 52 (250), pp 1933-1946.

³⁵ Ghosh et al (2015) Study on the Socio-Economic Conditions of Fishermen in Teknaf, es. Agric. Livest. Fish. Vol. 2, No. 3, pp. 483-489.

inequality between marginal and non-marginal fishermen from group fishing. The survey also found that 25% fishermen have semi-constructed sanitary latrines and 10% of the fishermen had no sanitary facilities. Most of the fishermen (65%) have un-constructed sanitary facilities.

4.3.2 Physical and Cultural Resources

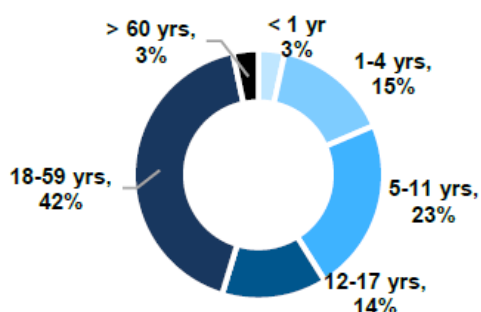
The project area has rich archaeologically rich and is a popular tourist location. In Ukhiya Upazila, there is the Zadimura Buddhist Vihara (in Raja Palong union); Painyasia Jami Mosque, Ukhia Central Jami Mosque, Kali Mandir, 18 Km long Enani Sea Beach and Stupa of Tek Pathar (Patua). In Teknaf Upazila there is a Buddhist temple (Naitong Hill), Mathiner Kup (well of Mathin, 1854), and Kana Rajar tunnel. Along with many archaeological site and tourist spots the Marine drive is another unique infrastructure both for communication and tourism promoting. Cox's Bazar with the reputed longest beach in the world, has long been a national tourist destination. Cox's Bazar over the last few years has seen tremendous increase of visitors and according to discussions with the locals, it has been learnt that the increasing trend continues. The basic itinerary of visitors includes walking along the beaches, sea bathing, and shopping in Burmese stalls. The beaches at Laboni point, Kolatoli point and adjacent Inani and Himchari parks are mostly visited by the tourists. Many of the visitors also visit Moheshkhali island Teknaf for sightseeing and some visit Saint Martin as well.

4.4 Social Baseline

4.4.1 Demographic Situations

Just before a half million households reside in Cox's Bazar with an estimated population of 2.7 million, comprising 1.7 percent of total population in Bangladesh. Teknaf and Ukhiya fall somewhere in the lower- middle in the range of most to least populous sub-districts of Cox's Bazar, with populations of about 0.31 million and 0.24 million, respectively. Estimated population densities in these two sub-districts are respectively 791 and 921 persons per sq.km. Demographic characteristics of Cox's Bazar are slightly different from the overall country. About one- third of total population in Bangladesh are children, falling in the age group 0-14, while for Cox's Bazar, this figure is seven percentage points higher for the population living in Teknaf and Ukhiya. The relatively large proportion of children and young population in this region can have important policy implications for increased investment on education and health, and support for families with higher number of non- working or dependent members.

Age breakdown of refugees in Cox's Bazar



source: UNHCR (2018)

Figure 4-4: Age Distribution of Refugees in Cox's Bazar

4.4.2 Infrastructure

The electricity connectivity in Cox's Bazar is far below the national average. As per official statistics, while 82.5 percent of Bangladesh households have electricity connections, only two-thirds of the Cox's Bazar households have access to electricity from the national grid. For Teknaf and Ukhiya, the comparable figures are around 60 percent and 40 percent respectively. Renewable energy (primarily solar panels) is used 4.2 percent of Teknaf and 12.3 percent of Ukhiya households.

The dependence on firewood for cooking fuel is very high in Cox's Bazar and the rate has increased significantly after DPR's arrived in Cox's Bazar. As high as 92 percent of households in Cox's Bazar primarily rely on firewood for cooking. This is comparison with 44 percent for overall Bangladesh. Lack of access to alternative fuels and easy availability of forest resources might have contributed to this dependence on firewood. It has been recently reported that about 7,000 LPG cylinders with cooking sets have been distributed to DRP³⁶.

The transportation system in Cox's Bazar is not well- developed. Apart from in Chakoria, earthen roads dominate transportation network in all sub-districts in Cox's Bazar. However, certain new developments have benefited the regions. For example, the 80 kilometers long Marine Drive Road along the Bay of Bengal is now a major road that connects Ukhiya and Teknaf to Cox's Bazar. Amongst others, building of a 129.6 kilometers rail track from Chattogram-Cox's Bazar- Ghumdum is underway.

4.4.3 Impact on Infrastructure

Infrastructure in host communities has been affected due to the influx. During the primary stage of the influx, DRPs took shelter on roads, dams and bridges, which resulted in notable damages. Major infrastructural damages occurred due to the movement of DRP in their transit and for the movement of heavy-duty transports used in humanitarian response (UNDP/UN Women). Road congestions have increased massively in the Teknaf – Cox's Bazar highway, especially from Rajapalong-Ukhiya Bazar-Kutupalong-Balukhali- Whykong- Noapara area and from Dakshin Nhila to Teknaf. Roads with narrow lanes are often blocked by relief- carrying vehicles for humanitarian activities. This results in frequent traffic jams, which were previously unknown to the host community in the area. Besides, the frequent visits by important foreign delegates and/or political leaders often cause suspension of regular transportation. Households in Teknaf and Ukhiya reported that road congestions in their respective localities had increased, while more than two- thirds considered deteriorating road conditions.

4.4.4 Impact on Labor Market

The labor force participation rate (LFPR) in Cox's Bazar is estimated at 54.8 percent, about 3.4 percentage points lower than the national average of 58.2 percent. This situation is worse when the female labor force participation rate is considered. It is almost 10 percentage points lower than the national average of 36.3 percent. The female labor force participation rate in Bangladesh is much lower than the world average of 48.5 percent in 2018 as estimated by ILO and almost half of the developing countries average female LFPR of 69.3 percent (ILO,2018). Lack of suitable infrastructure at workplace and poor and gender –insensitive public transport system also acts as hindrance to their participation.

Socio-economic impacts on host communities

In the face of this massive crisis, governance institutions are becoming even more limited in their effectiveness. Some local administration and sector officials spend 50 per cent or more of their time on Rohingya matters, resulting in delayed if not scaled down public service delivery. They also work on weekends without remuneration. Overlapping roles add to the confusion.

³⁶ UNHCR (2018) Operational Update, 16-31 October 2018.

Between August 2017 and March 2018, at least 100 ha of crop land in Teknaf and Ukhiya was damaged by refugee activities, in addition to 76 ha of arable land that has been occupied by refugee settlements and humanitarian agencies. Around 5,000 acres of land have been rendered useless because of sandy soil flowing down from the mountain slopes, which are being used for refugee housing purposes. Grazing lands have been destroyed.

To supply water to the refugees, an estimated 5,731 tube wells were installed between August and December 2017 (of which about 21 per cent had become non-functional by the end of January 2018) (ISCG, 2018a). This excessive dependence on groundwater is lowering the water levels in the area. The water levels around the camp areas are reported to have fallen between 5 and 9 m. Freshwater options in the affected areas are extremely limited, particularly in Teknaf, where the bedrock surface at 25–30 m below ground level makes deep tube wells a costly option for the locals. Irrigation wells are slowly drying up as the water table is falling as a result of watershed destruction and a significant reduction in the recharge of groundwater reserves. Continued pressure on the aquifer may result in salt water intrusion, rendering it unusable.

Teknaf has always faced a lack of freshwater for agricultural production. Faecal contamination is now present in more than fourth fifths of sources, and 93 ha of arable land around camps cannot be cultivated. An additional 380 ha cannot be cultivated owing to lack of water for irrigation.

Impacts on the livelihood: Environmental damage is among the worst effects of the influx. According to the Cox's Bazar Forest Department, the influx has destroyed about 4,818 acres of forest reserves worth US\$55 million. Those who earn a living from forest resources have in many cases been deprived of their livelihood. Meanwhile, every day, around 750,000 kg of timber, vegetation and roots are collected as cooking fuel. Many species of wildlife are also coming under threat.

There is severe strain on public health engineering services, including solid waste management. With about 10,000 tons of additional solid waste being produced a month, its management is now a priority. Many water resources have been contaminated by human waste, as have 86 per cent of drinking water wells. The situation is particularly worrisome near the Balukhali–Kutupalong mega-camp: reportedly over 30 per cent of latrines were located less than 10 m from water sources in the camp area as of January 2018 (ISCG, 2018a). Faecal contaminants are washed down by rainwater to then spread waterborne diseases to both refugees and host communities. Local people use water from ponds, canals and wells for washing clothes, cooking and bathing. About 20 per cent of host community households reported experiencing problems arising from declining underground water levels, as their wells, tube wells and shallow pumps dried out. About 6 per cent reported having to walk more than 30 minutes to get fresh drinking water. Impacts on housing: Land scarcity has worsened with the arrival of the refugees, with some refugee camps also built on cultivable lands. Any poor households that own land have just enough to build a house, and rarely enough to grow some seasonal vegetables. Most people live in one-room houses with polythene roofing. In general, the local people live in housing that is in very poor condition and is vulnerable to natural factors such as strong winds, heavy monsoon downpours and flooding. Impacts on roads: Increased traffic is seriously degrading existing roads. Roads, dams and bridges have sustained substantial damage. Transit camps and the subsequent abandonment of these have left behind a huge trail of infrastructural damage and environmental degradation. These sites include damaged schools and schoolyards and landslide-prone hills. About 45 per cent of households in Teknaf and 62 per cent in Ukhiya reported that road congestion in their locality had increased, while more than two thirds felt road conditions were deteriorating. According to the survey, 66.7 per cent of respondent households in Teknaf and 70.41 per cent in Ukhiya attributed damages caused to roads to the Rohingya influx. Impacts on business infrastructure: Power cuts have become more frequent, disrupting daily life and adding further to the cost of running a

business. Transport difficulties have also caused disruptions in the supply chain to local markets. Tourism has shown a declining trend because of the various security and other restrictions now imposed along the Bangladesh–Myanmar border.

4.4.5 Impact on labor and wages

One of the consequences that have most widely been recognized through consultation meetings with different stakeholders is falling wages. This came up in all consultation meetings with the community people that were conducted as part of this study. Many existing secondary documents and qualitative studies have also reported on the changes in labor rate. Most of the community people reported that the labor rate goes down from BDT 500 to BDT 200 which decreasing the livelihood of the community people. Some community labors also claimed that they are receiving around BDT 350. The labor rate in other sub-districts where there is no presence of DRP is same as before, even in some cases higher. One conceivable explanation for this contrasting finding is that the Rohingya are mostly working close to their camp areas. During the field work, road patrols and check posts were found to be in operation, possibly making long- distance travelling difficult for DRPs. On the other hand, undertaking wage work is likely to be much easier in Teknaf and Ukhiya and nearby the camps.

4.4.6 Effects by Male and Female –headed Households

According to different secondary data, women-headed households on average earn almost 25 percent less than the men-headed households do. It is also observed that day –laborers headed households earns significantly less than the households headed by non- day –laborers. Asset holding is found to be positively associated with household incomes as well.

The consultation and field observation however could not find any significant differential impact on household per capita income between male and female-headed households due to the DRP impact. People from different communities have claimed that some of the DPR's has occupied their agricultural land for residential purposes which causing impact on their income from agriculture. Moreover, agricultural land is losing its productivity.

4.4.7 Impact on Health, Water and Sanitation

As identified from the consultation meetings and secondary data that, the state of health and sanitation in Cox's was already weak and the arrival of the DRPs has placed a significant additional burden on these services. . The situation is particularly worrisome in the neighborhood of Balukhali-Kutupalong mega camp due to faecal contamination in surface and ground water reservoirs. The problem deepens as the faecal contaminants are washed down by rain waters and spread waterborne diseases. Local people use water from ponds, canals and wells for their daily needs such as for washing clothes, cookeries and to take baths. Water from these sources has become severely contaminated. Participants in the meetings in Teknaf and Ukhiya reported that they had to change their main water source due to contamination of surface water, depletion of ground water and increased pressure on water sources. They have reported experiencing problems arising from declining underground water level as their wells, tube-wells and shallow pumps dried out. A good number of host community households report that they have to walk more than 30 minutes to get fresh drinking water. The contamination and waste sediments are also hampering irrigation activities. Water borne diseases (e.g. cholera, bloody diarrhea, typhoid, hepatitis E, etc.) have been a major concern in the camps and host community households (particularly those living in the neighborhood of the DRP camps bear high risks of being affected).

DRP has also reported that they have scarcity of fresh drinking water. The amount of water they are receiving are not enough to take bath and to do other households works.

At the initial stage, local health services came under intense pressure. However, the situation improved as support from NGOs/INGOs arrived. People from host communities have access to camp health centers. However, the district general hospital and upazila health complexes are overstretched as critical Rohingya patients are treated there. Host community people now have to wait longer to get services and the average waiting time is reported to have significantly increased by 50 percent.

4.4.8 Impact on Education

The Rohingya crisis has affected the education sector in host communities in Cox's Bazar. Several educational institutions that were used as makeshift camps for freshly arrived DRPs suffered from infrastructural damages and loss of educational equipment. Regular educational activities in these schools were disrupted for several months. Even after relocation of refugees to the camps, the required repair and renovation work did not take place to resume regular school activities promptly. Some schools continue to be used as DRP-related support/coordination centers by various agency personnel who are involved in humanitarian projects. Educational activities in these schools are continuing parts of the school premises.

Many NGOs and other agencies are hiring local facilitators and translators from school/college –going students. It has been reported that high absenteeism is now a major issue facing by many institutions. According to secondary information's, absenteeism in Teknaf and Ukhiya schools and colleges has risen by up to 60 percent. It has also been highlighted that in some schools/colleges up to 70 percent teachers have left jobs for more lucrative NGO/INGO jobs. While these developments do benefit some people in terms of their enhanced income-earning opportunities, they affect overall educational activities in the host community. Students from the affected schools were performing poorly in the public exams. During the consultations, many participants reported security concerns arising from the DRP influx, specially affecting girls and women mobility. According to some participants, it might have also affected school presence rates.

DRP has raised concern on the language of educational curriculum, as before the influx, existing Rohingya people education was same as local language. However, from 2017, government is not allowing Bangla language as education medium for the Rohingya people. Changing the curriculum is actually hampering the education of Rohingya children. Moreover, during the consultation at the camps, Rohingya people claimed that many Rohingya children have already completed primary and secondary education. Now, if they must start from scratch, this will adversely impact their schooling timeline and they will lose interest in education.

4.4.9 Possible Social Conflict

At the initial stage, the host community was very sympathetic to Rohingya people and provided shelter and cash and/or in-kind assistance to the DRPs. However, over time discontent has grown. This concern has also been mentioned in JRP 2018 and several programs to address this issue have been undertaken.

The discontent of the local people arises from many different factors as mentioned by many participants during consultations. Falling wages are a major issue in Teknaf-Ukhiya peninsula, especially amongst the poor households. In Teknaf, Ukhiya, many Bangladeshi households lost their crops and/or became directly affected because of the influx. Some community members also observed that more and more Rohingya people were increasingly becoming involved in trade and running shops in market places adjacent to the camps, which was being seen as increased competition of livelihood

activities. In Teknaf and Ukhiya, most households consider the Rohingya as a cause for increased competition for sharing the natural resources such as ground water and forestry.

There is also a widespread perception among the local inhabitants of rising crimes since the arrival of DRP. Local people complain that thefts and robberies have increased in their localities. It is not about whether these complaints can be true substantiated or not, this has been general perception, which often characterizes social cohesion. Findings from elsewhere also show that there is general tendency of the local people to blame the DRP for insecurity and crimes (UNHCR, 1997 and 2017). There have been reports of clashes between host communities and DRP, DRP and the law enforcement authorities. Incidents of DRP outrage and violence at food distribution centers have been also exuded tensions.

Many host community households are poor and vulnerable. They do think all assistance and attention are being provided to DRP and because of that, the local community's problems do not get priority.

Apart from major issues related to falling wages, 70 per cent of Teknaf respondents and 50 per cent in Ukhiya mentioned security concerns. The host community almost universally has negative views of the Rohingya even though they are sympathetic to their plight. There is also rising anxiety among locals about being outnumbered, and a widespread perception that kidnappings, thefts and robberies have increased since the influx. Whether or not this is true, this perception has an impact on social cohesion.

5 Expected Environmental and Social Impacts

This Section of the ESMF lists the expected (potential) environmental and social impacts from the implementation of the various sub-project activities. The main sub-projects considered are:

- Resilient Water, sanitation and hygiene sub-project
 - resilient mini piped water supply schemes (including rehabilitation of existing tube wells connected with solar powered photovoltaic (PV) pumping systems)
 - resilient tube wells (rehabilitation of existing tube wells);
 - mobile desalination plants in Teknaf;
 - water resource mapping and water quality monitoring including water resource availability
 - a feasibility study and design Fecal Sludge and Solid Waste Management System.
 - Rehabilitation of improved individual latrines
 - construction of climate resilient improved chamber community latrines (including measures for gender segregation; bath and cloth washing facilities, with water source, septic tanks and solar lighting system);
 - construction of biogas plants to capture and combust methane for energy in the camps;
 - construction of integrated waste and fecal sludge management systems
 - hygiene promotion, awareness program on sanitation, FSM, and safe water use, training on Operation and Maintenance (O&M) of the WASH interventions
 - rainwater harvesting
 - construction of DPHE WASH training facility
- Basic Services, Resilient Infrastructure, Emergency Response, and Gender-Based Violence Prevention sub-project
 - *Multipurpose Disaster Shelters and Warehouses for FSCD*
 - construction of climate resilient multi-purpose disaster shelters/primary schools and climate resilient multi-purpose disaster shelters/community service centers including rainwater harvesting, solar powered lights and climate proofing connecting roads
 - contingency planning for evacuation and emergency preparedness;
 - strengthening community based early-warning systems for hydrometeorological hazards;
 - improved search & rescue operations including equipment and training of the first responders, Fire Service and Civil Defense (FSCD)
 - construction of warehouses for firefighting and search & rescue equipment constructed
 - *Climate resilient access and evacuation roads, bridges, local markets, street lights, lightning protection system, rubber dams and nano-grids*
 - construction of all-weather resilient access and evacuation roads with associated storm-water drainage network and slope protective works
 - improvement of internal roads and footpaths with associated storm-water drainage network and slope protective works;
 - construction of climate resilient culverts and bridges
 - repair, rehabilitation and construction of rural markets for DRPs
 - installation of solar powered street lights in DRP camps
 - installation of lightning protection systems in DRP camp
 - installation of nano-grids in/near DRP camps
 - construction of rubber dams
 - construction of LGED training facility
 - *Gender Based Violence Prevention*

- design services in a gender-informed manner and reach women and girls through appropriate targeting approaches;
- the promotion of child-friendly and disability friendly approaches to service delivery;
- mobilize local communities to ensure the participation and inclusion of the most vulnerable groups through the use of the organizations and volunteers described below under component 2;
- formation of water and sanitation committees for O&M, and
- adoption of resilient and climate-friendly features to free from female dependent labors such as collection of firewood for household fuels.

5.1 Environmental Impacts

Based on the sub-project activities described above, the following impacts on the physical and biological environment can be expected:

- **Noise pollution** and disturbance. This can be caused by operation of vehicles, machineries and equipment. For example, piling or drilling can generate excessive noise that can cause disturbance to people and the fauna near the project interventions.
- **Air Pollution.** This impact can be caused by dust or gaseous emissions. Dust caused by vehicle movement and land clearing can impact on fauna and flora. Gaseous emissions from construction vehicles and motorized equipment can also temporarily impact local air quality. Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna. Unintended gaseous emissions from the biogas plant affecting surrounding fauna.
- **Soils impact.** Soil can be damaged by erosion or pollution from chemical spills or improper disposal of waste materials. The waste materials can be from latrines (fecal sludge); construction materials; market wastes; etc. The impact can be severe if the waste materials are hazardous in nature (e.g. damaged solar panels or batteries). Residue from biogas plant improperly managed and disposed can cause soil pollution.
- **Vibration impacts** can occur during piling, drilling and heavy vehicle movement. Vibration near steep slopes can also increase risk of landslides (during monsoon season, even several months after construction has finished). Excessive vibration can disturb the local sensitive fauna living near the construction sites or nearby forest areas.
- **Surface water impacts** can occur due to alteration of quantity or quality. For example, unintentional runoff from site can cause pollution to water bodies and harm aquatic flora and fauna due to lack of bunding or drainage facilities. Also abstractions of surface water for water supply purposes (e.g. for mobile desalination plant) can alter the flow pattern in the source water body. Also, project interventions can alter the natural drainage pattern (e.g. construction of bridges and culvers). Discharges from mobile desalination plant as well as improperly constructed/maintained latrines can cause surface water pollution. Runoff from sites where waste materials have been disposed improperly can cause water pollution. Construction of rubber dams will alter hydrologic regime and morphology of the river.
- **Groundwater impacts** can occur due to various project activities. For example, there can be draw down of the groundwater table due to excessive water withdrawals for drinking purposes. Also, percolation from waste disposal sites can cause pollution of aquifers.
- **Flora (vegetation) impacts** can occur through clearing of vegetation, cutting of trees, etc.
- **Fauna (animals) impacts** can occur through habitat loss – temporary or permanent loss of habitat due to land clearing/conversion and/or tree felling. Disturbance of riparian and aquatic

ecosystem can occur during bridge/culvert/rubber dam construction and/or operation. Human elephant conflicts if the sub-project sites are not properly selected.

Table 5-1: Sub-Project Wise Expected Environmental Impacts

Environmental Component (Physical and Biological)	Sub-Project								
	WASH			Multipurpose Disaster Shelter			Access and evacuation roads, bridges, local markets, rubber dams, nano-grids, street lights and lightning protection system		
	PC	OM	DE	PC	OM	DE	PC	OM	DE
Noise	✓	✓	✓	✓		✓	✓	✓	✓
Air Pollution	✓	✓	✓	✓		✓	✓	✓	✓
Soils	✓	✓	✓	✓		✓	✓	✓	✓
Vibrations	✓			✓		✓	✓	✓	✓
Surface Water	✓	✓	✓	✓	✓	✓	✓	✓	✓
Groundwater	✓	✓	✓	✓	✓	✓	✓	✓	
Flora	✓	✓	✓	✓		✓	✓	✓	✓
Fauna	✓	✓	✓	✓	✓	✓	✓	✓	✓

Note: PC = Pre-construction and construction stages; OM = Operation and Maintenance Stage; DE = decommissioning stage

5.2 Social Impacts

5.2.1 Resilient Water, Sanitation and Hygiene (WASH) Sub-project

Expected impacts on workers' health and safety during the construction stage of sub-project activities include:

- Within the camp, tents might require to shift during construction period.
- During construction of mini water supply system within the camp and adjacent community, some household might be affected temporary.
- Project may require to use private land temporary during construction works at community level. If land acquisition is unavoidable at community level construction works, may require to acquire land as last option.
- Influx of external labors may raise conflict
- Injury or death can occur due to accidents around the construction site caused by various construction activities and heavy vehicular movement.
- Heavy vehicle movements can cause traffic to the project influenced areas and female and school going children may feel unsafe
- High sound levels can cause hearing injury to site workers.
- Unsafe working conditions may cause health risks to site workers.
- May cause labor influx if workers are selected from outside of the project influence areas.
- Contaminated drinking water and unhygienic sanitation can cause diseases and other health risks to site workers.

Potential impacts on workers' health and safety during operation stage of the WASH infrastructure include:

- Biogas plants process large quantities of combustible and toxic gases which pose an increased fire, explosion or suffocation hazards in case of faults in design, materials or control. In the

event of an incident at the plant, people may be injured, property damaged and the environment (air and water) polluted.

- Health and safety risks due to unsafe working conditions when maintaining latrines and desalination plants.
- Improved awareness and capacity of DRP and host communities due to activities in WASH Training Facility

Potential impacts on community health and safety during the construction stage include:

- Accidents: Injury or death can occur due to heavy vehicular movements to/from the site. Also, without proper signage and fencing, the public/DRPs may enter construction site risking injury or death.
- Noise: Excessive sounds can disturb community within project influence area.
- Labor influx: social tensions may arise between local community/DRP and construction workers. Risk of GBV may increase.

Potential impacts on community health and safety during operation stage include:

- Combustible or toxic gases may escape from the biogas plant causing a fire, explosion, injury/death to surrounding community and/or property damage.
- Pollution of air/land/water from latrines, biogas plant residue and desalination plant waste materials can harm local community.

It will be important to ensure that the proposed sub-projects do not have an effect on a place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical or social significance or other special value for present and future generations. However, there remains a possibility for (as yet undiscovered) sites of local cultural significance (i.e. sacred sites, cemeteries) and archaeological sites to exist near/within sub-project areas. In such cases, chance find procedures should be followed (see ESMP section).

No land acquisition within the camp is allowed. However, some access roads and multi-purpose disaster shelters may be built outside the camps to improve accessibility and make provisions for shelter during emergency/disaster situations. Some existing government facilities may require extension. The activities are expected to take place on government-owned lands and along existing alignments; nevertheless, impacts on private lands and persons cannot be ruled out at this stage. For the construction of approach roads, bridges and culverts, extension of existing facilities, private lands may be required (permanently or temporarily). Public lands will be used as far as possible, in-fact given the emergency nature of the project the cumbersome timeline for land acquisition will be extremely difficult to follow. However, if private lands are affected and/or squatters are impacted (on public or private lands), all tenets of OP 4.12 including those applying to compensation, will be followed along with ARIPA 2017. Multipurpose Disaster Shelters and Warehouses for FSCD

During the operation stage, the potential social impacts may include:

- Overcrowding can cause stress and conflict in local communities
- During construction of shelters, tents may require temporary or permanent relocation
- Construction of shelters at different primary schools may cause noise and disturbance during class time

- During severe disaster like cyclone, DRP and community people both may require to use the cyclone shelters. In that case there is possibility of conflict.

5.2.2 Climate resilient access and evacuation roads, bridges, local markets, rubber dams, nano-grids, street lights and lightning protection system

During the construction stage, the potential social impacts can be:

- Permanent or temporary use of private lands may be required, although public lands will be used to the extent possible in order to avoid land acquisition and involuntary impacts on people
- Trucks and vehicles will be passing through the adjacent community. There will be risk of accidents and community people might not feel safe.
- Squatters might be affected if access roads are widened, or facilities built on public or private lands where they are residing/earning livelihood from.

During operation phase of rubber dam:

- Decrease in income of fishers due to negative impacts on aquatic ecosystems
- Improved irrigation facilities can lead to increase in incomes of farmers in rubber dam command areas

During operation phase of nano-grids:

- Improved safety in DRP communities
- Improved health and education outcomes in DRP communities

5.3 Additional considerations

5.3.1 Human Elephant Conflict

Around 40 elephants are currently camps due to the sudden influx of DRP³⁷. Since in the influx, there have been reported 13 fatalities due to human elephant conflicts. Locations and details of identified conflict areas are shown in Figure 5-1.

³⁷ Personal communication with Mr. Motaleb of IUCN.

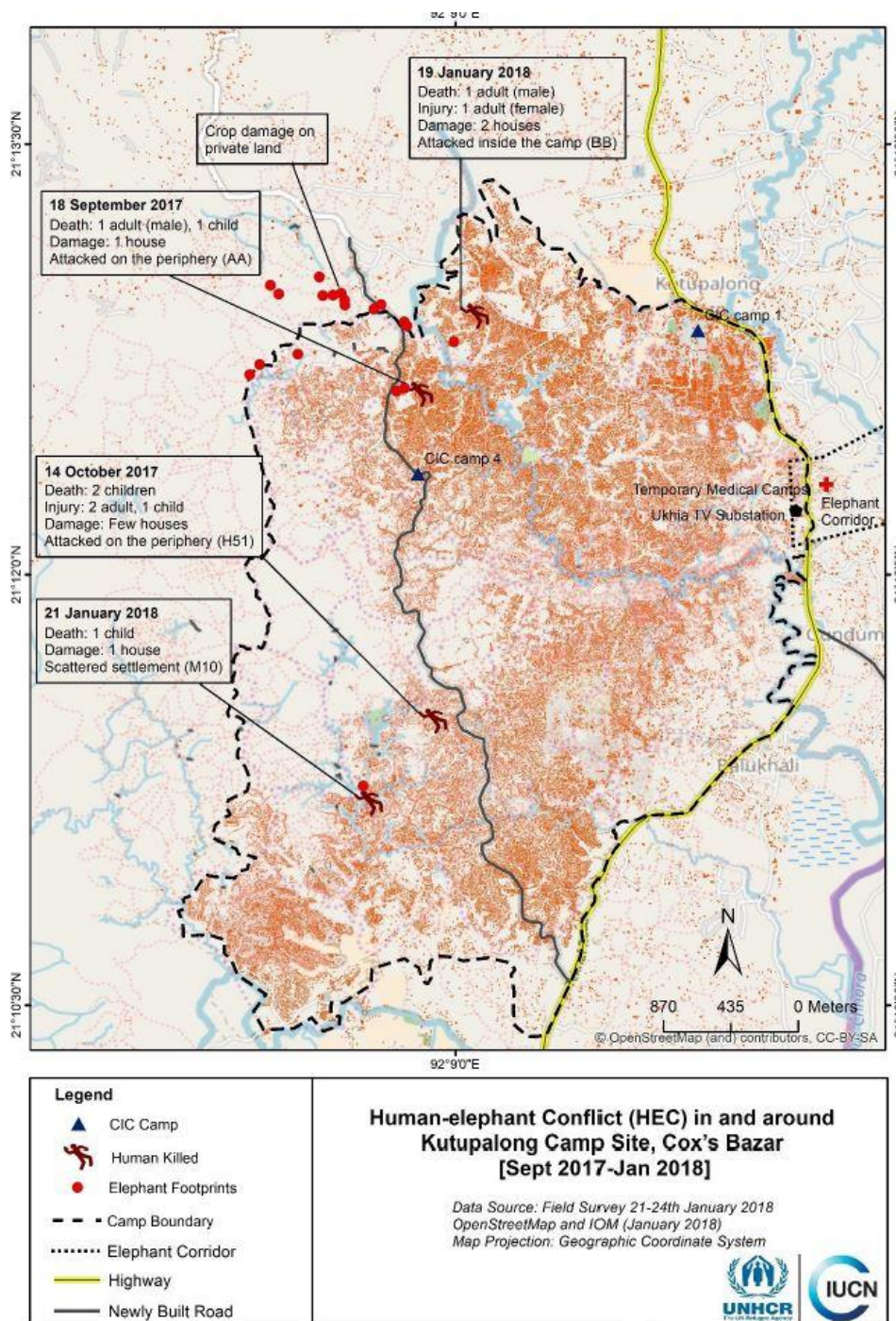


Figure 5-1: Locations of Human Elephant Conflicts near Kutupalong Camp, Ukhiya

There have not been any reported incidents since April 2018. One of the reasons has been the establishment of several mitigation measures by IUCN. These include:

- Construction of watchtowers (at cost of about BDT 1.5 lac/each) with 200-500m gap near known migration routes – these are manned by 2 refugees in the night (paid by IUCN as per ISCG determined rates)

³⁸ IUCN (2018) Field survey <https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar>

- Solar lamps installed (at cost of around BDT 1 Lac/each) 100-200m in between towers – to ward off elephants and also to allow better visibility between watchtowers
- Solar electric fence around camps (at cost of approximately BDT 8 lac/km)
- Establishment of Elephant response teams (at cost of about BDT 3 lac/team), consisting of 10-12 refugees, whose roles/responsibilities include: Night guarding, alert Forest Department and CIC of presence of elephant, crowd management, assist elephant to return to the forest



Photo Credit: Asif M. Zaman

Figure 5-2: Existing Watchtowers Established by IUCN around Camps, Ukhiya

With the installation of above mitigation measures, there is a potential increased risk of HEC in and around host community settlements. Therefore, some of the above mitigation measures may also be required for host communities. IUCN are also planning on collaring/tracking the trapped elephants to further understand their movement patterns and to eventually confirm their return to their natural habitats.

5.3.2 Gender Issues

Other than above mentioned impacts, the gender and social inclusion dimensions of the crisis are multifaceted, evolving, and particularly challenging. Almost 60% of the DRP are female, 51% of the total are under the age of 15, there are large numbers of orphans and female/children headed households in the camps. In addition, significant numbers still carry the scars of severe psychosocial trauma and serious injuries. Therefore, addressing gender and gender-based violence issues, as well as ensuring inclusion of women, children, youth, elderly and those who are differently abled, as

recipients of project benefits in an equitable manner is important to reach satisfactory project outcomes.

DPHE will develop the selection criterion for household latrine beneficiaries in coordination with concerned Camp in Charge (CiC) and RRRC as well as in consultation with ISCG and other WASH Sector Players. Selection criterion includes but not limited to: defunct individual toilets as well as household with differently abled (physically disabled) persons. RRRC has the complete list of household data with differently abled persons.

In terms of volunteers for early warning systems and awareness building, at least 1 female volunteer will be hired to support 50 families during disaster time. For around 50 families, at least three volunteers (2 males and one female) will be trained on early warning system who can further guide individual families during disaster time.

Table 5-2: Gender and Social Inclusion Framework

Activities	Indicator/Target	Implementation Procedure	Responsibility
Component 1:	Strengthening Delivery of Basic Services, Resilient Infrastructure, Emergency Response, and Gender-Based Violence Prevention		
i. Resilient mini piped water supply schemes (including rehabilitation of existing tube wells connected with solar powered photovoltaic (PV) pumping systems) . ii. Resilient tube wells (rehabilitation of existing tube wells); iii. Mobile desalination plants in Teknaf; iv. Water resource mapping and water quality monitoring including water resource availability. v. A feasibility study and design Fecal Sludge and Solid Waste Management System. vi. Rehabilitation of improved individual latrines. vii. Construction of bio-fill toilet viii. Construction of climate resilient improved chamber community latrines (including measures for gender segregation; bath and cloth washing facilities, with water source, septic tanks and solar lighting system); ix. Construction of biogas plants to capture and combust methane for energy in the camps; x. Construction of integrated waste and fecal sludge management systems. xi. Hygiene promotion, awareness program on sanitation, FSM, and	<ul style="list-style-type: none"> Number of people with access to improved water sources as a result of the project (Number) of which 52% are women. Number of people with access to improved sanitation provided as a result of the project (Number) of which 52% are women. Climate resilient multi-purpose disaster shelters/primary schools constructed (Number). Number of people access to the bio-fill toilet of which 52% are women from both DRP and host communities Climate resilient multi-purpose disaster 	<ul style="list-style-type: none"> Displaced Rohingya and host communities male and female will be consulted before construction. Community people must be consulted and inform about the project objectives and goals. DRP and community people will be informed about the project interventions. To avoid labor influx, community people will be given priority. During construction of community pipeline, if land is required to used, it must be voluntary basis and a contract between affected HH and PIU must be conducted. All the private land usage will be willing basis and must have legal contract. The community latrines must have 	DPHE, LGED, MoDMR, NGO, Gender and social Specialist

Activities	Indicator/Target	Implementation Procedure	Responsibility
<p>safe water use, training on Operation and Maintenance (O&M) of the WASH interventions.</p> <p>xii. Construction of climate resilient multi-purpose disaster shelters/primary schools and climate resilient multi-purpose disaster shelters/community service centers including rainwater harvesting, solar powered lights and climate proofing connecting roads.</p> <p>xiii. Contingency planning for evacuation and emergency preparedness;</p> <p>xiv. Strengthening community based early-warning systems for hydro-meteorological hazards;</p> <p>xv. Improved search & rescue operations including equipment and training of the first responders, Fire Service and Civil Defense (FSCD).</p> <p>xvi. Construction of warehouses for firefighting and search & rescue equipment constructed.</p> <p>xvii. Construction of all-weather resilient access and evacuation roads with associated storm-water drainage network and slope protective works.</p> <p>xviii. Improvement of internal roads and footpaths with associated storm-water drainage network and slope protective works;</p> <p>xix. Construction of climate resilient culverts and bridges.</p> <p>xx. Repair, rehabilitation and construction of rural markets for DRPs.</p> <p>xxi. Installation of solar powered street lights in DRP camps.</p> <p>xxii. Installation of lightning protection systems in DRP camp</p> <p>xiii. Design services in a gender-informed manner and reach women and girls through appropriate targeting approaches;</p> <p>xiv. Sanitation marketing, demand creation and awareness campaign program</p> <p>xxv. Drainage installation and Improvements</p>	<p>shelters/community service centers constructed (Number).</p> <ul style="list-style-type: none"> • Climate resilient access and evacuation roads improved as a result of the project (Kilometers). • Roads and footpaths in camps improved as a result of the project (Kilometers). • Climate resilient access and evacuation bridges constructed as a result of the project (Number). • Lightning protection systems installed (Number). • Local markets improved (Number). • Solar street lights installed as a result of the project (Number). • Warehouses for firefighting and search & rescue equipment constructed (Number). • Firefighting and search & rescue equipment provided to FSCD (Yes/No). • Local sanitation entrepreneurs, HHs, educational institutions and host communities. • Targeting 5500 beneficiaries from host communities 	<p>provision of separate latrines for the displaced disable Rohingya people</p> <ul style="list-style-type: none"> • At least one female member and two members from 50 Rohingya HH will be trained on early warning system. • During construction of bridges and roads, no land acquisition is allowed. If private land is requiring to use temporary, it must be voluntary basis; a MoU/contract between affected people and PIU must be in place. • During construction of community toilets, facilities for the disable people and child must be considered. • A volunteer organization will be formed where vulnerable groups like female headed HHs, disable people etc. • Community land usage of any tribal people will be avoided. • Engaging local sanitation entrepreneurs, HH heads, female headed HHs, teachers, religious and educational institutions during awareness campaign. 	

Activities	Indicator/Target	Implementation Procedure	Responsibility
xvi. Construction of LGED and WASH training facility at Cox's Bazar xvii. Installation of rain water harvesting system xviii. The promotion of child-friendly and disability friendly approaches to service delivery; xix. Mobilize local communities to ensure the participation and inclusion of the most vulnerable groups through the use of the organizations and volunteers described below under component 2; xx. Solar PV nano grids xxi. Formation of water and sanitation committees for O&M, and xxii. Adoption of resilient and climate-friendly features to free from female dependent labors such as collection of firewood for household fuels.	and among them at least 50% are women. <ul style="list-style-type: none"> • Training facilities will be also used for awareness campaign workshop for host communities, squatters etc of which 52% will be women • Atleast 200 beneficiaries from DRP and 1100 beneficiaries from host communities will be benefitted of which 50% will be female • At least 2500 DRP hhs will be benefitted of which 55% will be women • Women and girls with access to GBV services as a result of the project (Number). 		
Component 2:	Strengthening Community Resilience (MoDMR)		
Sub-component 2A: Community Services			
i. Child care activities ii. Awareness generation iii. Formulation and facilitation of community support groups (CSGs) iv. Household training on alternative clean cooking technology v. Grievance management vi. Humanitarian support vii. Any activity that has adverse social effects viii. Any activity that has adverse environmental effects. ix. Wages for beneficiaries in exchange for their short- term participation in community workfare;	<ul style="list-style-type: none"> • Non-wage costs; • Supervision of the community works by a specialized agency/NGO. • CVs will provide temporary babysitting services. • Nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and 	<ul style="list-style-type: none"> • One member from each Rohingya HH will register as CV. • Daily stipend for each CV will not be more than BDT 350 and it will be in non-cash format. E-vouchers will be provided to them to buy daily necessary items. • Babysitting services will be provided and priority will be given to single mothers or father. • At least one member from each family will be trained for clean cooking technology. 	MoDMR, NGO, Gender and social Specialist, communication specialist and service provider agencies and contractors

Activities	Indicator/Target	Implementation Procedure	Responsibility
	<p>children, illegal drug trade.</p> <ul style="list-style-type: none"> • CSGs will be facilitated by CVs with the aims of galvanizing community actions to curb common social problems, including those affecting women's and children's safety and protection of the at-risk-youth. • Training on the adoption of clean cooking technology that makes use of alternative sources of fuel instead of firewood will be conducted by CVs. • Beneficiaries and DRPs can file grievances about project related activities with assigned CVs, who will then report to the appropriate committee for community workfare or community services, and facilitate a resolution. 	<ul style="list-style-type: none"> • All the Rohingya female must be consulted to inform the project objectives and scope. • CV's will support DRP to file grievances. • No discrimination is allowed during selection of workforce or CVs. • All the CV's must be trained on health and safety. • There must be code of conduct for all CVs and Rohingya workforce. 	
Sub-component 2B: Community Workfare			
<ul style="list-style-type: none"> i. Site maintenance ii. Accessibility maintenance iii. Drainage maintenance Community tree planting 	<ul style="list-style-type: none"> • Slope protection, terracing, perimeter fencing, small workfare to reduce soil erosion etc. • Footpaths made of sandbags, footbridge made of bamboo, steps 		

Activities	Indicator/Target	Implementation Procedure	Responsibility
	<ul style="list-style-type: none"> and stairs, handrails for bridges and stairs, flags and signs for navigation etc. • Drainage channels, improved drainage at water points, improved accessibility to WASH facilities, latrines and bathing spaces. • Bag gardening/vegetation for soil retention/planting trees and plants for shade /insulation³⁹, creating charcoal from compacted residue of wheat harvest, garbage collection. 		
Component 3:	Strengthening Institutional Systems to Enhance Service Provision to the Displaced Rohingya Population		
<ul style="list-style-type: none"> i. MoDMR disaster and DRP related early warning systems; ii. MoDMR DRP management and administrative systems; iii. DRP Relief and Repatriation (RRRC) coordination systems; iv. District Coordination systems; v. CIC systems and DRP volunteer network. 	<ul style="list-style-type: none"> • Number of male and female trained from PIU. • Number of DRP trained. • Number of Community people trained. 	<ul style="list-style-type: none"> • At least 20% of female employees from PIU will be trained. • Gender and communication specialist will coordinate with the PIU regularly. • At least 20% female will receive RE training. 	DPHE, LGED, MoDMR, NGO, Gender and social Specialist, communication specialist and service provider agencies and contractors

5.3.3 Impact of Labor Influx

During implementation of the project, different construction works will be going on where skilled and unskilled labors are required. Even during construction at the adjacent community of the camps, labor will be involved. So management of the labors are very important to avoid conflicts.

Labor influx may cause gender based violence (GBV), which is an umbrella term for any harmful act that is perpetrated against a person's will, and that is caused by differences in power between people of different genders, i.e. between males and females and people of other gender and sexual identities.

³⁹ World Bank supported proposed Sustainable Forests & Livelihoods (SUFAL) Project (P161996) aims to work on reforestation outside the camps.

Women and girls in the Rohingya camp may be affected by GBV due to the subordinate status of women in the camp. GBV takes many forms, including sexual, physical, and psychological abuse.

Social impacts are critical to address, as even a modest labor influx may lead to negative impacts on the host community. During construction, project activities may require some non-Rohingya labors which may cause conflict among Rohingya population, host community and outside labors. The list below indicates categories of social risk associated with labor influx and any of the following issues may rise conflict in the project area.

Risk of social conflict: Conflicts may arise among the local community, displace Rohingya people and the construction workers, which may be related to religious, cultural or ethnic differences, or based on competition for local resources. The local community through consultation and FGD's should be informed about the labors. Unskilled labors should be engaged from the local community. Host community engagement in this process will be helpful. Tensions may also arise between different groups within the labor force, and pre-existing conflicts in the local community may be exacerbated. Ethnic and regional conflicts may be aggravated if workers from one group are moving into the territory of the other.

Different UN agencies, government and different donors are involved in this displaced Rohingya issues. So different construction works are going on at the same time. So management of the labors are very important to avoid any types of conflict during implementation.

Increased risk of illicit behavior and crime: The influx of workers and service providers into communities may increase the rate of crimes and/or a perception of insecurity by the local community. Such illicit behavior or crimes can include theft, physical assaults, substance abuse, prostitution and human trafficking. List of all workers in the project area should be recorded on a regular basis. So that monitoring will be easier for the project authority.

Influx of additional population: Host community is already supporting lots of Rohingya population. As this project will be running for longer period, people can migrate to the project area in addition to the labor force, thereby exacerbating the problems of labor influx. These can be people who expect to get a job with the project, family members of workers, as well as traders, suppliers and other service providers (including sex workers), particularly in areas where the local capacity to provide goods and services is limited.

Impacts on community dynamics: Depending on the number of incoming workers and their engagement with the host community, the composition of the local community, and with it the community dynamics, may change significantly. Pre-existing social conflict may intensify as a result of such changes.

Increased burden on and competition for public service provision: The presence of construction workers and service providers can generate additional demand for the provision of public services, such as water, electricity, medical services, transport, education and social services. This is particularly the case when the influx of workers is not accommodated by additional or separate supply systems.

Increased risk of communicable diseases and burden on local health services: The influx of people (both Rohingya and labor) may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources. Workers with health concerns relating to substance abuse, mental issues or STDs may not wish to visit the project's medical facility and instead go anonymously to local medical providers, thereby placing further stress on local resources.

Gender-based violence: Construction workers are predominantly younger males. Those who are away from home on the construction job are typically separated from their family and act outside their normal sphere of social control. This can lead to inappropriate and criminal behavior, such as sexual harassment of women and girls, exploitative sexual relations, and illicit sexual relations with minors.

Child labor and school dropout: Increased opportunities for the host community to sell goods and services to the incoming workers can lead to child labor to produce and deliver these goods and services, which in turn can lead to enhanced school dropout.

Local inflation of prices: A significant increase in demand for goods and services due to DRP is already exist. In addition to that increase of labor influx may lead to local price hikes and/or crowding out of community consumers.

Increased pressure on accommodations and rents: Depending on project worker income and form of accommodation provided, there may be increased demand for accommodations, which again may lead to price hikes and crowding out of local residents. Due to the influx of Rohingya people, the demand of accommodation in the project area is already high. So influx of labors may create the demand more.

Increase in traffic and related accidents: Delivery of supplies for construction workers and the transportation of workers can lead to an increase in traffic, rise in accidents, as well as additional burden on the transportation infrastructure.

5.3.4 Resettlement Issues

Some of the proposed infrastructure will be developed within the camps sites and host communities. While the main registered camp at Kutupalong is entirely on public land (various entities including Department of Forest), some of the unregistered camps in Teknaf are on private lands. DRPs are in some cases paying nominal rent for staying on these lands. Some construction activities will be within the host communities like construction of training facilities for LGED and DPHE, construction of rubber dam and jetty rehabilitation, installation of solar street lights, 50 km climate resilient and evacuation roads, multi-purpose disaster shelters, drainage installation and improvement and bio-fill toilets which may require relocation temporary. Since acquisition within camp sites or host communities cannot be an option for the project (given the emergency nature of the intervention, and necessity to manage the relationship between host and DRPs), voluntary arrangements such as MoUs and/or renting/leasing (where appropriate, because the interventions may not all be discrete, but take the form of network laying, water supply pipes, etc.) will be considered. Government land will be preferred option for any construction within the host communities. No land acquisition will be permitted in the host communities and camp areas, some temporary livelihood impacts may occur due to civil works,

in the event of which mitigation measures as per OP 4.12 may be required. Project may require private land within the host communities and if land acquisition is unavoidable, land will be acquired according to OP 4.12 and ARIPA 2017.

In all the camps or host community areas, it may be necessary to shift or re-align some structures (expected to be few in terms of scale, involving quick rebuilding in nearby spaces within the camps) to make way for the infrastructure and service provision envisioned by the project. Any dismantling and relocation of structures/shelters within the camps will be done on a purely voluntary basis (with well documented consultation process and agreement with affected parties), and only after the shifting and rebuilding activities are completed (the tents and bamboo structures with plastic sheeting for roofs are makeshift in nature and can be quickly rebuilt) by the responsible agencies. The structures must be fully relocated (with provision of temporary shelter for the family/families) before construction for project purposes can begin. The relocation sites (strictly within the same camp site) must have equal accessibility and security, if not better, compared to the location from which it is displaced. The government may not allow cash compensation for DRPs for any impacts incurred, hence all adverse, involuntary resettlement related impacts on DRPs have to be avoided. The cost of shifting and rebuilding structures/shelters within the camps have to be borne from the project. UN agencies are being considered for implementation of some activities under GoB issued contracts. They will adhere to all WB safeguards policies and safeguards documents including this ESMF.

If any squatters are affected by the project interventions, compensation has to be paid as guided in the RPF. Squatters must be included with the awareness program, livelihood restoration programs (if require) and with all other activities within the host communities. Once the sites for the dam will be selected, the socioeconomic baseline data must be collected and identify whether there will be any impact on their livelihood, income, fishing activities etc. Impact on the downstream farmers will be also identified. Livelihood restoration programs will be taken if downstream farmers and fishermen are affected.

Some access roads and multi-purpose disaster shelters may be built outside the camps to improve accessibility and make provisions for shelter during emergency/disaster situations. Some existing government facilities may require extension. The activities are expected to take place on government-owned lands and along existing alignments; nevertheless, impacts on private lands and persons cannot be ruled out at this stage. For the construction of approach roads, bridges and culverts, extension of existing facilities, private lands may be required (permanently or temporarily). Public lands will be used as far as possible, in-fact given the emergency nature of the project the cumbersome timeline for land acquisition will be extremely difficult to follow. However, if private lands are affected and/or squatters are impacted (on public or private lands), all tenets of OP 4.12 including those applying to compensation, will be followed along with ARIPA 2017. OP 4.12 is triggered for the project. The routes/sites for the above-mentioned activities are not determined at this stage. A Resettlement Policy Framework (RPF) has been prepared as part of this ESMF to mitigate for impacts on land, squatters, livelihood related impacts should they occur. There are presence of indigenous people in Cox's Bazar District but not in the project areas. Therefore, OP 4.10 will not be triggered. 5.3.5 Security Personnel

Initially, security of the Rohingya camps were arranged from two local police Stations located at Ukhia and Teknaf. These two Police Stations were primarily responsible to look after the law and order situation of some 500,000-host population living in these two Upazila. With an influx of over 900,000 Rohingya refugees the policemen were now responsible for maintaining the law and order situation of some 1,400,000 persons without any increase in the manpower and other assets. The policemen

were toiling very hard to do their part while handling over twice the population than originally planned. The civil administration was also in dire crisis as newer security and safety related issues were on the rise. To get over this crisis the following were adopted at the Refugee camps:

- a. All development, camp siting and construction and other works are to be done inside the camps during daytime only.
- b. All outsiders are required to vacate the camp by 5 pm and only health care duty personnel were allowed inside the camps.
- c. Only Government Agencies, particularly security agencies are permitted entry in the camp area after 5 pm.

However, Police recorded some 497 cases of disturbances that included 3 rapes and 8-10 killings between August 2017 to June 2018, many of which was opportunity driven (rape) and internal feud amongst various groups to assert leadership role in the community. The Government was determined to handle security issues with iron hand and emphasized on Joint Security measures using Army, Police and Rapid Action Battalion elements. RRRC was consulted with and they also opined in the same tune. The focus was on Human security and Human Protection.

Present threats emanate from the fact that the refugees do not work for livelihood/are not permitted to work and this is giving rise to social problems and thus remain inactive and idle. The refugees are looked after well by the RRRC in coordination with the generous assistance INGOs, local NGOs and international donor agencies. Adequate food material through Group feeding and E - Voucher is provided using which the refugees can obtain from the 19 category of food items. Often they are found to sell food items/medicine to earn some hard cash. Healthcare support is available round the clock and critical patients are moved to tertiary hospitals at no cost using camp based ambulance cars. The present disturbances are in the forms like:

- a. One male Rohingya have multiple wives; the women fight amongst themselves for petty reasons, thus causing social unrest.
- b. Tension with Host community as the latter find the Rohingya community getting benefits while they are toiling hard to earn their livelihood. They view this as a discriminatory action against them.
- c. Abduction/ kidnapping and Gender based violence on opportune moments as the huts are quite fragile.
- d. Race to become MAJHI/Community Leader to gain extra leverage from the camp authority.
- e. There are gossips that the Rohingya refugees are funding the Fundamentalist groups hiding among them voluntarily or due to coercion. However, no tangible evidence could be linked to this claim.
- f. Petty theft.
- g. Fire Hazard as the Huts and other structures are constructed with material that would easily catch fire and spread quickly as the huts are contiguous. The coming winter season is particularly dangerous as all the huts and establishments are dry. There is no Fire Station within the camp.

To arrest and control the overall security situation in the 31 refugee camps, the Government has tasked Bangladesh Army since October 1, 2018. The Army is in overall command of the security measures and has established 6 Army Camps outside the Refugee Camp premises from where they operate as a joint task force along with Police and Rapid Action Battalion elements. Some 5 Police camps operate from within the Refugee camps. 5 Semi-permanent camps are being constructed for housing the Police elements. It may be noted that each camp has a Camp In Charge (CIC) and some 16

camps have 16 Deputy Secretary level Government officers. They maintain good communication with the military and police chain of command and feed them with relevant information.

Since October 1, 2018 there had been a sharp fall in security related incidents. It presently amounts to 3/4 incidents only (One month's statistics). At one incident some 8 rounds of bullet were fired and a Family head was critically hit and is presently undergoing treatment.

The Army has demanded fencing the camps along with fixing CCTV Cameras at vantage points to monitor activities in the perimeter and within the camp area round the clock. RRRC has also proposed the Government to raise 2 Armed Police Battalions for the Refugee Camps that is presently under active consideration of the Government. There is also plan to establish required Fire Stations within the camp premise.

Currently, present security measures are working well and the security related incidents have decreased substantially. Therefore, the engagement of private security is not foreseen at the moment. However, the security situation on the ground will be continuously assessed through the existing coordination mechanism with government security personnel such as the police and army, and when necessary, the further security arrangement would be considered. The PIUs will interact with the police and army to ensure their rules of conduct, training, equipping and monitoring of personnel to deal with the risks associated with security personnel.

During construction work at host communities there are possibilities of interaction between host communities and DRP. Project will conduct awareness program on a regular basis among the host communities and DRP to avoid any conflict.

6 Screening and Impact Mitigation Approach

Each sub-project shall be appraised through primary environmental and social screening. The objectives of screening are to (i) screen the social and environmental impacts and risk of a subproject; and (ii) determine the type/s of mitigation measures, assessment, specific plan/s or safeguard instrument/s to be prepared based on the outcomes of the screening. The screening process could also be used to identify eligible or ineligible subprojects. This is done by analyzing the proposed sub-project activities in relation to their environmental & social context (surrounding area) using a checklist approach. Environmental and Social Screening Form is provided in Appendix 2.

For the water supply schemes, water balance analysis will be carried out considering (i) water requirements of newly forested areas for plants' total evapotranspiration, (ii) new settlements water supply requirement for drinking water, household use, bathing and sanitation, (iii) replenishment rate from annual rainfall etc. The analysis is useful to determine extraction/abstraction rate versus recharge to ensure there is no over-extraction of water sources, which could also cause land subsidence.

This Section of the ESMF also describes the mitigation approach that should be considered to reduce significant impacts of sub-project activities to acceptable levels and also to enhance benefits where possible. The last sub-section describes the different roles and responsibilities of Contractors in relation to environmental and social safeguard issues.

6.1 Overall Steps

The steps in the screening process are provided in Table 6-1.

Table 6-1: Screening Steps, Responsibilities and Timing

Screening Step	Responsibility	Timing
Identification of Sub-Project (form Appendix 1)	Implementing Agency PIU and Environmental Safeguard Support firm to complete the form.	After identification of potential location(s) for implementing sub-project
E & S Screening of Subprojects (form provided in Appendix 2,)	Environmental Safeguard Support firm and PIU (and consultants: Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist and Senior Social Specialist) to conduct environmental and social screening based on site visits and initial consultations with local community/DRPs as well as other agencies working in/near the proposed location(s). Environmental Safeguard Support firm to prepare screening report. World Bank safeguard team will review the samples of screening result, especially for the sub-projects which requires further assessment/plans.	Within 2 weeks of identifying potential locations(s) for implementing sub-project
Preparation of mitigation measures (Appendix 2) – for the sub-project where further detailed environmental and social assessment or ESMP is not required	Environmental Safeguard Support firm and PIU (and consultants: Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist and Senior Social Specialist) to evaluate feasible mitigation measures for the sub-project where further detailed environmental and social assessment or ESMP is not required. World Bank safeguard team will review the samples of the proposed mitigation measures.	Within 1 week of impact screening

Screening Step	Responsibility	Timing
Preparation of specific plans and instruments (ESIA, ESMP, RAP, ARAP, etc.) – for the sub-project where further detailed environmental and social studies is required (Appendix 3, 4, 5 and RPF)	Environmental Safeguard Support firm, M&E firm and PIU (Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist and Senior Social Specialist, and consultant) to decide whether further assessment such as full-fledged ESIA; ESMP and related studies (Vulnerability Assessment for gender and GBV, elderly, children and orphans, persons with disabilities, other identified vulnerabilities); impact assessment or studies on ecological impacts and human-elephant conflict would be required. Specific safeguard plans/instruments will be prepared according to the ToRs attached to the ESMF and RPF. World Bank safeguards team will review and clear safeguards instruments.	Within 1 week of determining mitigation measures and before any bidding documents are issued, contracts signed, or construction activities started
Inclusion of relevant environmental specifications and ESMPs in the bidding documents	PIU (Environmental Specialist; Social Specialist; Gender Specialist; Senior Environmental Specialist, Senior Social Specialist and consultant)	Before finalization of tender/bidding documents
Implementation of mitigation measures/plans	The contractors will carry out the E&S mitigations measures/management plans/instruments according to the screening form/other safeguard instruments which will become part of the legal agreement between PIU and the contractor. World Bank safeguards team will review the status of mitigation/ESMPs implementation through supervision.	During construction and operation
Monitoring, supervision and reporting	The PIU with assistance from environmental and social support firm will supervise and monitor the implementation of mitigation measures/management plans/instruments. PIU will prepare a monthly monitoring report. World Bank safeguards team will review monitoring reports.	Regularly during construction and operation

Typical Sub-project preparation and implementation timeline is shown in Figure 6-1. As there are a wide range and large number of proposed-subprojects, specific timeline cannot be provided at this stage. However, the overall project timeline is provided in the relevant procurement plans provided in World Bank's STEP system.

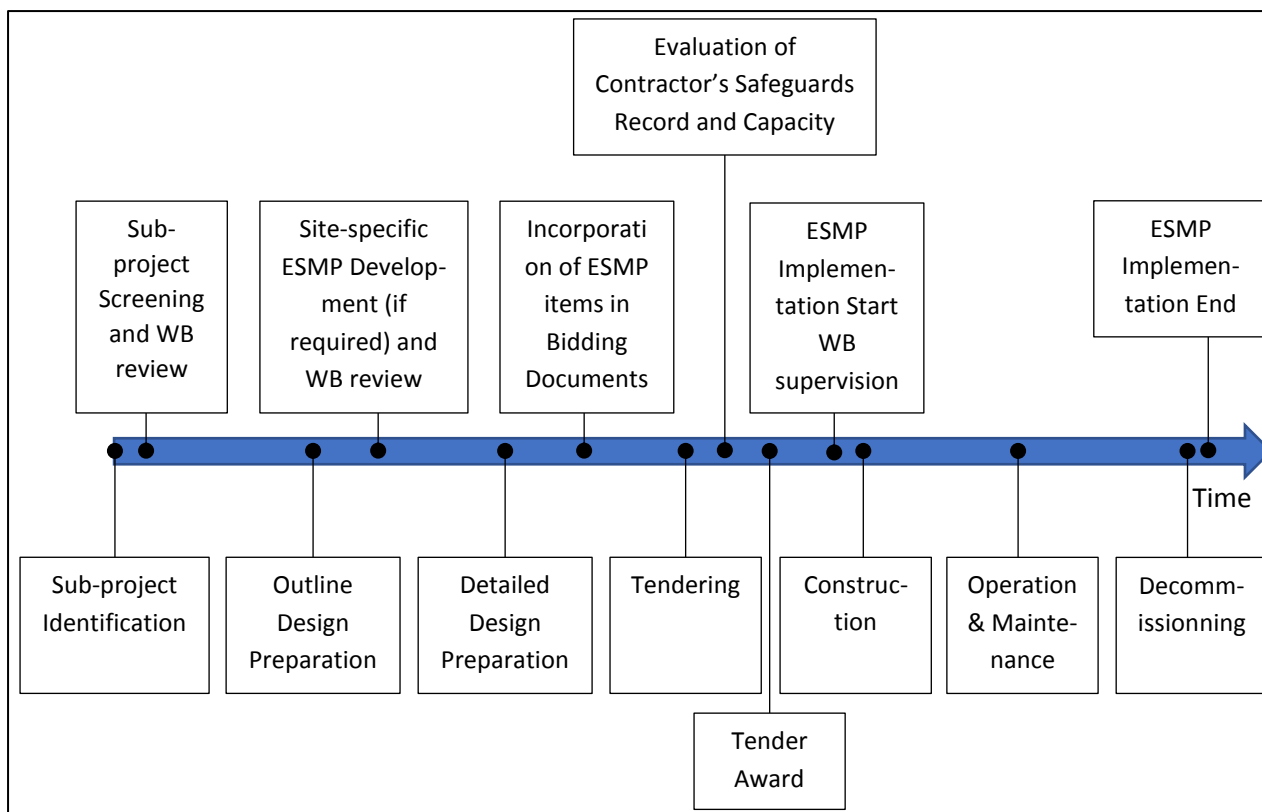


Figure 6-1: Typical Sub-project Implementation Timeline and Safeguards Activities

6.2 Sub-project Screening Criteria

The sub-projects with physical works/interventions require screening. The environmental and social safeguard screening will occur during the project preparation stage as a soon as the fairly accurate site location(s) is (are) known for the sub-project.

The environmental and social screening form provides a preliminary assessment of the potential impacts of the sub-project and proposal of mitigation measures. The forms (provided in Appendix 1 and 2) will help to identify issues which can be verified during field investigations and also provide a preliminary idea regarding the nature, extent, and timing of environmental and social issues that would need to be handled during the subsequent stages. It will also help to identify opportunities for avoidance or minimization early in the project cycle so that the design process can be informed appropriately.

The screening forms will also help to identify the scope of further assessments and timeframe required for obtaining the regulatory clearances (if any). If further assessments and plans (such as ESIA, ESMP, RAP, ARAP etc) are deemed necessary (for higher risk sub-projects), these plans will be prepared according to ToRs included in ESMF (Appendix 4 and 5) and RPF. If the screening output indicates that a particular sub-project activity is expected to have low negative impacts, then appropriate mitigation measures need to be considered as part of Appendix 2, i.e. Environmental and Social Screening Summary.

6.3 Mitigation Measures

The specific safeguard instruments and/or Environmental Screening Form will become part of legal agreement between PIU and a contractor in order to make sure the proposed mitigation measures are properly implemented as planned. In this project, a Mitigation Hierarchy needs to be followed, as outlined in Figure 6-2.

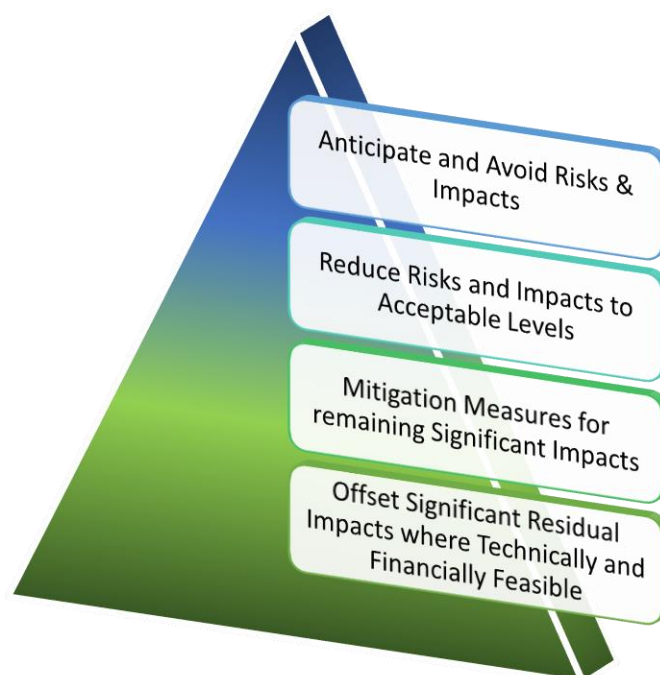


Figure 6-2: Mitigation Hierarchy

The first step in the Mitigation Hierarchy is locate the sub-project or design it in such a way so that the impacts can be avoided. In this regard, analyses of alternatives are important and these include:

- Analyses of different locations/sites for the proposed sub-project/activity
- Evaluation of different design options to select cost-effective solution that does not have significant social and environmental risks/impacts

However, in some situations, especially in this project which is dealing with activities in/near environmentally sensitive sites and also with vulnerable communities, it is not possible to completely avoid risks and impacts. Therefore, the second step in the hierarchy is to reduce the potential risks and impacts of the proposed sub-project activity to acceptable levels through design considerations. When there are no further design solutions and the potential risks or impacts remain significant, then the third stem in the hierarchy is to develop feasible mitigation measures. Suggested mitigation measures have been provided in the guideline ESMPs in Section 8 of this ESMF. The final step in the Mitigation Hierarchy, is to offset any remaining significant residual impacts by technically⁴⁰ and financially⁴¹ feasible means. This can be in the form of compensation or enhancement of similar environmental/social component in another location. As with mitigation measures, the expected costs of the enhancement measures need to be included in the project costs. Furthermore, monitoring is required to not only ensure that the enhancement measures are being properly implemented but also to determine whether the benefits of these measures are being realized over time. Again, the costs of monitoring needs to be included in the project budget.

6.4 Roles and Responsibilities of Contractors

Contractors will play a vital role in this project to ensure that environmental and social risks and impacts are minimized effectively. They also play an important role in ensuring adequate health and

⁴⁰ Proposed measure needs to be practical given availability of appropriate skills, materials, equipment given the local conditions (geographical, natural, socio-political, infrastructure, security and disaster vulnerability).

⁴¹ Cost of proposed measure should not make the sub-project nonviable for the implementing agency.

safety measures are put in place not only for their workers but also for the surrounding community and DRPs. Contractor's role and responsibilities commence at the tender preparation stage and continue until all monitoring responsibilities end, which may extend beyond the construction phase.

In addition, each contractor shall have an Environmental Supervisor and a Social Safeguard Officer on the site who will be responsible for all environmental and social safeguard issues, gender, labor management, labor influx management and E&S mitigation measures/ESMP implementation.

PIU with the support of social and environmental support firm and safeguard specialist will ensure that all contractor's staff and counterpart who are involve in project implementation receive both initial and ongoing environmental and social safeguard awareness and training sufficient to ensure they are familiar with their environmental and social safeguard responsibilities of the project.

6.4.1 Environmental Aspects

Contractors have a duty to ensure that their activities do not cause significant and irreversible damage to the environment they are working in. All necessary measures, as specified in the Screening Form and/or ESMP, should be followed and monitoring measures put in place. Special care needs to be taken during pre-construction and construction phases when heavy machinery and equipment are used. Also, felling of trees or removal of vegetation need to be carefully managed. Specific management plans, e.g. drainage management, traffic management, emergency preparedness and response, etc. need to be prepared by the Contractor. In addition, the Contractors needs to ensure that proper induction and training is given to all of their workers. A full-time, on-site Environmental Supervisor (covers also OHS aspects) will be required for sub-projects working in/near particularly sensitive environmental sites.

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation

The Contractor shall be responsible for the remedy or mitigation measure(s) required by the environment related effects of any of his construction or construction-related activities. In case of an environmental problem, the Contractor shall immediately notify the PIU and safeguard team who will instruct them as to the next course of action to take. Among the situations which may require such steps, are complaints or legal actions by third parties on matters such as environmental damage to property and natural resources, ground subsidence, interruption of groundwater flow, and surface and groundwater contamination.

During the entire process of constructing, the Works - including preparation of the site and clean up upon completion - the Contractor shall exercise the utmost care in order to prevent damage to the environment. The Contractor shall conduct his operations being aware of and employ necessary means and measures for eliminating and/or if impracticable, minimizing environmental impacts

Contractors employed during operation & maintenance as well as decommissioning phases have similar roles and responsibilities of environmental aspects as described above.

6.4.2 Social Aspects

After finalization of the site-specific RAP/s or ARAP/s, if needed, will be implemented. No tender package will be issued without an attached ESMP and no contract signed without respective clauses obliging the contractor to the use and implementation of the site specific social safeguards instruments. A dedicated social safeguard officer from contractor will ensure compliances of social

safeguard issues, gender issues, GBV, working condition of the labor and labor influx according to ESMF and RPF. Contractors also have particularly important roles and responsibilities to ensure that social risks and impacts are managed. These include taking adequate measures for minimizing disturbance to the community living and working near the project site(s). Also, Contractors need to ensure that there are no conflicts between the local community/DRPs with their works/labour. Where appropriate, Contractors should try to employ local people during the pre-construction and construction phases. Contractors are also responsible for the health and safety of their workers and the community living and working near their site(s). Proper signage and fencing need to be used at all times.

To avoid health and safety impacts the Contractor shall conform to the following:

- Due precautions shall be taken by the Contractor to ensure the safety and security of his staff and labor to ensure that medical facilities, first aid equipment are available at the camps, housing, and on the Site at all times throughout the period of the Contract and that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements
- The Contractor shall report to the PIU details of any accident or incident pertaining to the security of its personnel, equipment, the site, its camp or the completed Works as soon as possible after its occurrence. The report shall be based on a detailed investigation by the Contractor of the event and provide particulars of what occurred (with explanatory sketch as necessary), who was involved (including names, and affiliations of such persons), what caused the incident, when the incident occurred (time and date), where the incident occurred and why the incident occurred. In the case of any fatality or serious injury, the Contractor shall, in addition, notify the PIU immediately by the quickest available means.
- The Contractor shall at all times take the necessary precautions to protect all staff and labor employed on the Site from insect nuisance, rats, and other pests and reduce the dangers to health and the general nuisance caused by the same. The Contractor shall provide his staff and labor with suitable prophylactics for the prevention of malaria and shall take steps to prevent the formation of stagnant pools of water.
- The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of his staff and labor
- Communicable diseases of most concern during the construction phase due to labor mobility are sexually transmitted diseases (STIs) such as HIV/AIDS. But in addition to this, it is recommended that the contractor incorporates STI/HIV/AIDS awareness and prevention program into the training programs for all construction workers. Also extend the awareness and prevention program to the nearby local communities. An awareness program will ensure that workers are apprised of the modes of transmission and risk of infection.

Regarding traffic safety:

- The Contractor shall ensure that disruptions to traffic and road transport are minimized. The contractor shall ensure that the roads remain open to traffic during construction activities;

- Prior to construction activities, the Contractor will install all signs, barriers and control devices needed to ensure the safe use of the road by traffic and pedestrians, as required by the traffic control plan;
- Signs, crossing guards and other appropriate safety features will be incorporated at grade level rail and road crossings;
- DRP, Local authorities and residents in a working area will be consulted before any detours for construction or diverted public traffic are established;
- Disposal sites and haul routes will be identified and coordinated with local officials; and

Construction vehicles will use temporary roads constructed for that purpose to minimize damage to agricultural land and local access roads. Where local roads are used, they will be maintained and reinstated to their original condition after the completion of work.

Labor and labor influx issues, including the prevention of any child labor via contractors will be addressed through the ESMF and review of contractors obligations under the procurement packages, which will also include OHS considerations and non-compliance remedies. The workfare program will be fully cognizant that no hazardous work is delegated to any children between 14 -18 and that their education is in no way harmed. No children under 14 will participate in the workfare program or any other type of labor.

LGED and MoDMR will deploy permanent social specialists at the central/local level, supported by a specialized expert/firm, to oversee the overall implementation, monitoring and reporting of safeguards aspects. In addition, each local partner will have a safeguards focal point to ensure on-site compliance with social mitigation measures and health and safety, labor condition requirements for the various project activities. There will be one focal point/Safeguard expert from the contractors for each sub-project who will be trained on social safeguard, gender and labor related issues. PIU and firms safeguard specialist will provide the training ensuring that contractors safeguard focal point is capable to report PIU and firms safeguard team. Contractors employed during operation & maintenance as well as decommissioning phases have similar roles and responsibilities of social aspects as described above.

6.4.3 Grievance Redress Mechanism

Contractors, with active support of the PIU, need to ensure that the Grievance Redress Mechanism is effective so that potential conflicts are avoided and claims by affected people are addressed in a genuine manner. Focal point from each contractor will be trained on GRM as well. Further details are provided in Section 7.2.

6.4.4 Preparation of Bid Documents

PIU need to prepare bid documents so that necessary environmental and social safeguard measures are included in the specifications and bill of quantities (BOQs). For example, the Screening Form and ESMP should be provided in the bid documents so that the bidders can propose the relevant cost for implementation. This will assist Contractors to prepare realistic tenders and also help reduce delays and negotiations during project implementation. Examples of items to be included in bid documents include:

- Preparation of specific management plans: waste management plan; health safety plan; traffic management plan; etc.
- Costs associated with safe and proper disposal of construction waste materials
- Costs associate with mitigation measures (bundling for managing site runoff; dust control measures; etc.)

- Costs associated with regular noise, air quality, water quality and soil quality monitoring
- Health and safety equipment e.g. (PPE, safety barriers, etc.)
- Cost associated with safeguards focal point and OHS focal point
- GBV provisions including code of conduct for workers:
 - All male and female must receive same wages and opportunities for the similar types of jobs.
 - All the workers must receive contract/appointment letter
 - Bangladesh Labor Law 2006 and Bangladesh Labor Rules 2015 must be followed.
 - Child labors are not allowed.
 - young labors are not allowed to work in any hazardous place.
 - There must be a separate GRC for the labors. If female labors are there, presence of female members must be ensured in the GRC
 - In case of any GBV, agencies must ensure appropriate actions according to labor law and Bank policies. Reports have to be submitted to World Bank.
- Training of contractors and their staff

7 Stakeholder Engagement and Suggestions Handling Mechanism

7.1 Consultation Strategy

Considering the potentials impacts and nature of the project, consultation and communication with different stakeholders is essential. As there are different 4 components in this project and implementation agencies are different, developing communication among the different PIU's is important for the successful implementation of this project. As project activities will include small-scale infrastructural development like construction of access roads, disaster shelters, WASH intervention, reduction of pressure on fuel wood etc. to reduce the vulnerability of the DRP from natural disaster and fire hazard, provide the basic urban facilities to both DRP and host communities and restore the badly degraded environment both in the short and medium term, stakeholders engagement will be vital for smooth implementation. During identification of scopes of AF, DPHE and LGED has conducted 10 consultation meetings with host communities, local government and UN agencies.

Project will screen each site and its surroundings, and all physical works that might be undertaken to provide infrastructure support (e.g., access roads, electricity, water supply, cyclone shelters etc.) to identify the associated safeguards issues and impacts, in order to determine applicability of the OP 4.12 and the required impact mitigation plans (a Screening Form is provided in Appendix 3). No land will be affected within the camp, only few structures may be re-aligned. However, outside of the camp, squatters, private land, crops, trees may be affected and based on the impact, mitigation measures will be taken.

Community/stakeholder consultations will be conducted throughout the project cycle, with varying focus on issues relating to the subproject activities and the people who may have stakes therein. More formal consultations, focus group discussions and interviews of knowledgeable local persons will start with feasibility study, social (and environmental) screening, AP's census for voluntary land donation and impact assessment, and preparation and implementation of the impact mitigation plans. Focus of consultations will generally shift from wider audience to specific groups who have direct stakes in the project.

Due to the unique nature and language, consultations with the DRP will be conducted following the principles of OP 4.10. Separate consultations with DRP will be organized for every group identified during implementation. All the project information's will be shared with the DRP through routine publication and dissemination of information on sub-project interventions in communication strategies that are acceptable and understandable to the DRP. Traditional/cultural norms will be followed in any interactions with the DRP.

7.1.1 Key Stakeholders

The key stakeholders from safeguards point of view include:

- Implementing agencies and their field staff
- People/communities directly affected by project activities
- People/communities/organizations within the project influence area indirectly affected by project activities
- Local elected representatives (Union and Upazila levels)
- Government departments/agencies: Dept. of Environment and Forest Department.

- Development Partners
- Local and international NGOs working with local communities/DRP

Safeguard team together with three implementing agencies has conducted several consultation meetings with the DRP, host communities and local government agencies. Host communities and DRP's are in favor of the World Bank support in this crisis. List of consultation meetings carried out are given below

.Table 7-1: Consultation Meetings Summary

Meeting No.	Date	Venue	Main Participant Groups	No. of Participants	
				Male	Female
1.	September 29, 2018	LGED Office, Cox's bazar District	Govt. Officials, INGOs, NGOs	11	2
2.	September 30, 2018	Nayapara Camp 26	DRP	20	10
3.	September 30, 2018	UNO Office, Teknaf Upazila	Host Community	11	5
4.	October 01, 2018	Kutupalong Camp 1e	DRP	5	13
5.	October 01, 2018	Balukhali Camp 9	DRP	15	7
6.	October 01, 2018	Balukhali Sub-Primary Medical center	DRP	0	3
7.	October 01, 2018	UNO Office,Ukhia Upazila Sadar	Host Community	7	0
8.	November 05, 2018	Ukhiya Camp	DRP	5	3
9.	November 06, 2018	LGED Office, Cox's bazar District	Govt. Officials, ISCG	8	4
10.	July 19, 2019	Palongkhali Union, Ukhia, Cox's Bazar	UP Chairman, members, host Communities, DPHE and LGED	8	5
11.	July 19, 2019	Whykong Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities, DPHE and LGED	12	7
12.	July 20, 2019	Hneela Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities, DPHE and LGED	9	2
13.	July 20, 2019	Baharchhara Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities, DPHE and LGED	15	11
14.	July 21, 2019	Cox's Bazar	UNHCR Safeguard Expert	04	01
15.	July 21, 2019	DRRO Office, Cox's Bazar	All PIO's from 8 sub-district of Coz' Bazar	10	00
16.	September 18, 2019	District Commissioner's Office, Cox's Bazar	UNO, DRRO, PIO, local government, UP chairmen, and local communities etc.	20	09

Meeting No.	Date	Venue	Main Participant Groups	No. of Participants	
				Male	Female
17.	September 29, 2019	Symon Beach Resort, Cox's Bazar	RRRC officials, DRRO, PIO, local government, DPHE and LGED UP chairmen, and local communities etc.	35	11
18.	October 7, 2019	Mayor Office, Cox'Bazar	Mayor, local government, host communities and DPHE	13	2
19.	October 7, 2019	Forest Office, Cox'Bazar	Forest Officials	2	2



Figure 7-1: Consultation Meeting Photos

7.1.2 Consultation and Disclosure Roles and Responsibility

DPHE, LGED, MoDMR, PIU's, Country Director of World bank, Vice president of World Bank has conducted several consultation meetings with different stakeholders including DP's, NGO's, GoB, ISCG etc. Based on the consultations conducted with different stakeholders, this consultation and communication strategy (CCS) is being prepared.

- Consultations with DRP and host community people will always include the following as they relate to project preparation and implementation:
- The objectives, scope and implications with respect to the project, socioeconomic impacts, as well as the adverse impacts that are likely to be caused on users of khas and other public lands and private landowners;
- If private land may require to use during construction on voluntary basis. As land acquisition is not allowed in this project, PIU must make a contract with the private land owner ensuring that land will be used voluntary basis for certain period. During consultation PIU must disclose the voluntary land uses.
- Gather community and DRP's inputs/feedbacks as to how adverse impacts could be minimized; and the rights and responsibilities on the parts of the communities themselves and the agencies involved in preparation and implementation, such as GOB, World Bank, the consultant, etc.
- Potential impacts and their sources relating to the location and scope of the civil works required to build infrastructures in order to support the DRP and communities
- Inform the community about Grievance Redress Mechanism and the Grievance Redress Committee that would be constituted at the local level and project level, its membership composition, and explain its functions and limitations and how an aggrieved person could lodge complaints and grievances

Project will hold separate consultations with community women, female DRP and other vulnerable groups if identified during preparatory stage. The main objective is to explore the possibilities of introducing activity that would benefit the local women and Rohingya women.

Outcomes of Consultation Meetings:

Impact on Infrastructure

Infrastructure in host communities has been affected due to the influx. During the primary stage of the influx, DRPs took shelter on roads, dams and bridges, which resulted in notable damages. Major infrastructural damages occurred due to the movement of DRP in their transit and for the movement of heavy-duty transports used in humanitarian response (UNDP/UN Women). Road congestions have increased massively in the Teknaf – Cox's Bazar highway, especially from Rajapalong-Ukhiya Bazar-Kutupalong-Balukhali- Whykong- Noapara area and from Dakshin Nhila to Teknaf. Roads with narrow lanes are often blocked by relief- carrying vehicles for humanitarian activities. This results in frequent traffic jams, which were previously unknown to the host community in the area. Besides, the frequent visits by important foreign delegates and/or political leaders often cause suspension of regular transportation. Households in Teknaf and Ukhiya reported that road congestions in their respective localities had increased, while more than two- thirds considered deteriorating road conditions.

Impact on labor and wages

One of the consequences that have most widely been recognized through consultation meetings with different stakeholders is falling wages. This came up in all consultation meetings with the host community people that were conducted as part of this study. Many existing secondary documents and qualitative studies have also reported on the changes in labor rate. Most of the community people reported that the labor rate goes down from BDT 500 to BDT 200 which decreasing the livelihood of the community people. Some community labors also claimed that they are receiving around BDT 350. The labor rate in other sub-districts where there is no presence of DRP is same as before, even in some

cases higher. One conceivable explanation for this contrasting finding is that the Rohingya are mostly working close to their camp areas. During the field work, road patrols and check posts were found to be in operation, possibly making long- distance travelling difficult for DRPs. On the other hand, undertaking wage work is likely to be much easier in Teknaf and Ukhiya and nearby the camps.

Impact on Health, Water and Sanitation

As identified from the consultation meetings and secondary data that, the state of health and sanitation in Cox's was already weak and the DRP has made it worsen. The situation is particularly worrisome in the neighborhood of Balukhali- Kutupalong mega camp due to faecal contamination in surface and ground water reservoirs. The problem deepens as the faecal contaminants are washed down by rain waters and spread waterborne diseases. Local people use water from ponds, canals and wells for their daily needs such as for washing clothes, cookeries and to take baths. Water from these sources has become severely contaminated. Participants in the meetings in Teknaf and Ukhiya reported that they had to change their main water source due to contamination of surface water, depletion of ground water and increased pressure on water sources. They have reported experiencing problems arising from declining underground water level as their wells, tube-wells and shallow pumps dried out. A good number of host community households report that they have to walk more than 30 minutes to get fresh drinking water. The contamination and waste sediments are also hampering irrigation activities. Water borne diseases (e.g. cholera, bloody diarrhea, typhoid, hepatitis E, etc.) have been a major concern in the camps and host community households (particularly those living in the neighborhood of the DRP camps bear high risks of being affected).

DRP has also reported that they have scarcity of fresh drinking water. The amount of water they are receiving are not enough to take bath and to do other households works.

At the initial stage, local health services came under intense pressure. However, the situation improved as support from NGOs/INGOs arrived. People from host communities have access to camp health centers. However, the district general hospital and upazila health complexes are overstretched as critical Rohingya patients are treated there. Host community people now have to wait longer to get services and the average waiting time is reported to have significantly increased by 50 percent.

Impact on Education

The Rohingya crisis has affected the education sector in host communities in Cox's Bazar. Several educational institutions that were used as makeshift camps for freshly arrived DRPs suffered from infrastructural damages and loss of educational equipment. Regular educational activities in these schools were disrupted for several months. Even after relocation of refugees to the camps, the required repair and renovation work did not take place to resume regular school activities promptly. Some schools continue to be used as DRP-related support/coordination centers by various agency personnel who are involved in humanitarian projects. Educational activities in these schools are continuing parts of the school premises.

Many NGOs and other agencies are hiring local facilitators and translators from school/college –going students. It has been reported that high absenteeism is now a major issue facing by many institutions. According to secondary information's, absenteeism in Teknaf and Ukhiya schools and colleges has risen by up to 60 percent. It has also been highlighted that in some schools/colleges up to 70 percent teachers have left jobs for more lucrative NGO/INGO jobs. While these developments do benefit some people in terms of their enhanced income-earning opportunities, they affect overall educational activities in the host community. Students from the affected schools were performing poorly in the public exams. During the consultations, many participants reported security concerns arising from the

DRP influx, specially affecting girls and women mobility. According to some participants, it might have also affected school presence rates.

DRP has raised concern on the language of educational curriculum, as before the influx, existing Rohingya people education was same as local language. However, from 2017, government is not allowing Bangla language as education medium for the Rohingya people. Changing the curriculum actually hampering the education of Rohingya children. Moreover, during the consultation at the camps, Rohingya people claimed that many Rohingya children has already completed primary and secondary education. Now, if they have to start the education from the beginning, it will create an adverse impact on their career and they will lose interest in education.

Recommendation by Stakeholders:

- The socio-economic situation in the two most affected upazilas of Teknaf and Ukhiya is evolving in nature and thus continued monitoring is needed. Particularly, price movements and changes in wages and their impact are critical issues for future assessments.
- This impact on wages is likely to exacerbate as the DRP participation in the labor market rises.
- Several studies undertaken in the context of other countries show that cash assistance to DRPs can create significantly bigger positive income spillovers to host community business and households. While in-kind assistance was essential at the initial stage of the crisis, introducing more cash assistance for DPR can be an indirect way of supporting the host community.
- DRP inflows take the worst toll on the environment among all the board sectors. In some cases, the environmental issues are potential risks to health hazards. This will require more in-depth assessments in the future.
- The importance of ensuring effective public service delivery and expanded social protection schemes, especially for most affected areas in Cox's Bazar district, cannot be overemphasized. Bangladesh already has an elaborate social safety net programme. Nevertheless, more in-depth and expanded coverage for the affected areas with greater efficiency will be critical in helping mitigate adverse consequences for the host community.
- Excessive dependence on groundwater is lowering the water levels in the area. The water levels in the host community areas are fallen more than 10 m. Freshwater options in the affected areas are extremely limited, particularly in Teknaf, where the bedrock surface at 25–30 m below ground level makes deep tube wells a costly option for the host communities. Irrigation wells are slowly drying up as the water table is falling as a result of watershed destruction and a significant reduction in the recharge of groundwater reserves. Continued pressure on the aquifer may result in salt water intrusion, rendering it unusable. Host communities requested to use surface water as much as possible.
- Host communities requested to construct multi-purpose cyclone shelter.
- Community awareness program is required to reduce GBV in the host communities and DRP communities.
- Local people will provide land if waste management is ensured by the project.
- Project team must consult and take permission from the Bangladesh Forest Department and BWDB if any activities are conducted on their land.

During consultation the following steps will be followed by all relevant agencies like DPHE, LGED and MoDMR. The following methodology will be followed during consultation meetings in all stages.

Table 7-2: Consultation and Disclosure Roles and Responsibilities

Project Stages	Participatory Activities/Participants	Responsible Institutions
Preparatory stage	Briefing of local government officials, and stakeholders about the Project, ESMF, plan of action, World Bank activities in all stages and the activities of the consultants	DPHE, LGED, MoDMR
	Consultation with DRP, local communities and all relevant stakeholders and inform about project objectives and scope of works.	PIU, and Consultants
	Initial disclosure meeting with affected households to discuss the results of the IOL and gather suggestions on how to minimize and mitigate impacts	PIU and Consultants, assisted by local government officials
	Disclose project safeguard documents to all relevant stakeholders, Project information dissemination on various components, Disclosure of preliminary plans of different activities, Preliminary Information sharing about the tentative alignment/sites with the PAPs in case of temporary impact on livelihood, Separate consultation with Rohingya people about the project activities and interventions, and the possible impacts and Procedure to Address the grievances	PIU and Consultants
	Separate consultation with Rohingya women and children, engage Rohingya people during consultation due to language difference and inform the procedure to Address the grievances	PIU and Consultants
Implementation Stage	Second disclosure meeting/consultation with affected households of the community, DRP to discuss on updated safeguard issues, government and World bank policies, entitlements etc.	PIU and implementing NGO
	If RAP is prepared during initial stage, it will be also disclosed.	PIU and NGO's
	Discussion on job opportunities, labor issues, code of conduct of the community labors, code of conduct of the DRP labors etc.	Contractors, PIU and NGO's
	Discussion on construction works and potential impacts	Contractors, PIU and NGO's
	Separate consultation with Rohingya female and inform them about project's different components mainly component 3 where female DRP will be involved.	Contractors, PIU and NGO's
	Procedure to Address the grievances	Contractors, PIU and NGO's

Table 7-3: ESMF Consultation Timeline

Consultation Topic	Stakeholders	Responsibility	Timing
Project components and activities	GoB agencies/depts. Development Partners	LGED, DPHE, MoDMR	June, 2018
Identification of potential Environmental and Social Risks and Impacts as well as Mitigation Measures	Local communities	LGED, DPHE, MoDMR	July, 2018
AF components and activities	GoB agencies/depts. Development Partners	LGED, DPHE,	October, 2019
Identification of potential Environmental and Social Risks and Impacts as well as Mitigation Measures for AF	Local communities and DRP, Development partners and relevant stakeholders	LGED, DPHE,	December, 2019

7.2 Grievance Redress Mechanism

A well-defined grievance redress and resolution mechanism will be established to resolve grievances and complaints in a timely and satisfactory manner for all four components. A project specific GRM will be established as a part of Component 3 on the basis of the existing governing mechanisms in the camps as much as possible. The GRM will be implemented under the following operating principles: i) all cases received should be recorded; ii) resolutions must be communicated to the complainant; and iii) all cases will be monitored through its completion or countermeasure implementation

This GRM is undertaken in view of the particular vulnerability and precarious conditions of displaced Rohingya people in the camps, and in particular the women and adolescent girls who have suffered and in many cases, still continue to suffer silently from gender-based abuse and violence. The objective the grievance redress mechanism (GRM) is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. All project affected persons including host communities will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign.

Presently, the CiC personnel mobilize DRP through a volunteer network comprised of Rohingya community leaders (known as Majhi). This project will support the enhancement of the volunteer network to serve as the Government's main DRP engagement structure which will serve as the last mile delivery tool through which LGED, DPHE, and MoDMR will streamline outreach, behavior change communication (through ToT strategies) as well as the grievance redress mechanism. The volunteers will be chosen in a transparent, inclusive and representative manner giving due consideration to women and other vulnerable groups in this process. Project will finance the service of a specialized agency (SA) to set-up and facilitate the functioning of the DRP engagement system. The specialized agency will hire experienced staff to be placed at the CiC office for the recording of grievances and providing feedback to the community. The agency will also facilitate, supervise and monitor the DRP engagement mechanism, which includes: (i) selection and training of volunteers; (ii) monitoring and reporting activities; (iii) periodic CiC-volunteer meetings; and (iv) distribution of IEC materials. In order to set up, monitor and streamline the Project's GRM, following steps will be taken:

(i) protocol design; (ii) setting-up the manual system (manual forms and registers, training and outreach); (iii) develop GRM management capacity; (iv) digital system development (software, computers, printers, telephones, mobile application, internet and electricity); (v) operation space (desks and chairs); and (vi) grievance hotline (service contract).

Project will have some activities within the host communities. LGED will have construction activities on cyclone shelters, roads, bridges, culverts etc. where community people might be affected temporarily. Project may require local labors during constructions which may also create grievances for non-compliances of the labor laws and occupational health and safety issue.

To address DRP and host communities grievances, a four level GRM will be established with the support of LGED, DPHE, MoDRM and specialized agency. Details are given below:

First level (community and camp level grievance reporting): The first level and most accessible and immediate contact for the fast resolution of grievances will be on-site at camp level and community level. Complaints for components 1 and 2 will be received here. Due to the nature of the project, there will be two grievance reporting procedures.

1. **Grievance reporting by DRP:** The Rohingya volunteer network will serve as the field-level interface for the DRPs to file grievances both in-writing and verbally. Field level DRP volunteers will be trained on GRM and procedures together with project interventions. All the volunteers must be fluent in both Rohingya language and Bangla language. They must be expert to write and document the grievances. Specialist agency will form different groups of volunteers where there will be at least 2 males and 2 female volunteers. Each group will support 300 to 500 DRP families in receiving, solving and recording the grievances. If the grievances are not solved at this level, will be forwarded to camp level.
2. **Grievance reporting by Host communities:** Grievances may also emerge from host communities primarily due to project activities some of which are expected to take place outside of the camps and implemented by LGED and its contractors. These grievances may be reported to the grievance focal point of specialized agency, representative from INGO/NGO (if any), safeguard focal point from LGED/DPHE, representative from LGED. If the grievances are not resolved at this stage, they will be referred to the camp level. The focal person will fully document the following information: (i) name of the person; (ii) date complaint was received; (iii) nature of complaint; (iv) location, and (v) how the complaint was resolved.

Second level GRM (Camp Level): Should the grievances from DRP remain unresolved at local level (for both DRP); the focal point of specialist agency with assistance from either DPHE, LGED or MoDMR representatives will raise the matter to camp level grievance redress committee (CL-GRC). This committee will be chaired by CiC. Members of the committee will be Majhis, respective Rohingya volunteers, camp level grievance focal point of specialized agency, members from PIU/agency specific participants will be coopted as needed with relevance to grievance cases. For example, if any grievances received from labors, contractor's representative will be invited during the hearing. Grievances will be resolved through continuous interactions with affected persons, and the focal person will answer queries and resolve grievances regarding various issues including environmental or social impacts. A software application and a hotline will also be established to allow grievances to be channeled through electronic means. The CiC office will periodically consolidate and register the grievance cases. A Camp-level Grievance Redress Committee (CL-GRC) will be set-up in each camp and will be responsible for reviewing each case and providing a resolution. In accordance to the resolution, the grievance cases will be referred to the service provider or relevant agency for the implementation of corrective measures.

For Host Community (if remain unresolved at local level), Environmental/Social safeguard specialist (LGED PIU) will raise the matter to Executive Engineer Level Grievance Redress Committee (Xen-GRC) at the LGED Cox's Bazar Executive Engineer's office. Unsolved cases at local level for the DPHE intervention will be transferred to the DPHE Cox's Bazar Executive Engineers office. Executive Engineer will be the designated official as the convener of the GRC at this respective level. Members will be selected to represent the communities and other stakeholders including local administration, Environmental and Social Team (EST) (Consultants) and civil society. The safeguard specialist will fully document the following information: (i) name of the person; (ii) date complaint was received; (iii) nature of complaint; (iv) location, and (v) how the complaint was resolved. The structure of GRC and membership will be as follows:

Convener	Executive Engineer
Member-Secretary	Environmental/ Social Safeguard Specialist (PIU)
Member	Representative from Local Administration
	Environmental and Social Team (EST) Consultant's representative
	Civil society representative

Third level (District level-RRR GRC): Should the grievance remain unresolved at camp level/LGED Executive Engineer's Office level, the MoDMR/LGED PIU will activate the third level of the GRM by referring the issue (with written documentation) to a Grievance Redress Committee (GRC) at the RRRC's office, which will, based on review of the grievances, address them in consultation with the DPD, safeguard consultants, program consultant and grievance redress consultant. This will make use of any existing committee at the RRRC's office and engage the RRRC, DC, and district level responsible representatives of relevant agencies: MoDMR, LGED and DPHE, as and when needed. This will be set up at the district level, for its respective review and resolution. A software based system will be developed to register and follow-up grievance cases. Parallely, manual system will be followed to assure functionality in the initial stages of the project, as well as to serve as a fallback system in case of contingencies. As a part of the GRM design, a set of grievance categories will be produced to prioritize cases as well as facilitate their redressal which include several categories related to project grievances, GVB related grievances, safeguard related grievances etc. A software based hotline will also collect and respond to environmental and social safeguard related grievances.

Fourth Level (National Level): If a grievance remains unsolved at district level, it will be referred to the respected agencies at the national level i.e. MoDMR, if the grievance is regarding MoDMR's activities; LGED, if the grievance is regarding LGED's activities; and DPHE, if the grievance is regarding DPHE's activities. Each agency then will address the referred grievances using their existing grievances resolution protocols. Safeguards focal points of relevant agencies will be responsible for facilitating the resolution process. All the meeting minutes of a particular case (level 1-level 3) must be presented before the hearing. Based on the hearing and supporting document, committee will solve the issues. Moreover, in case of any labor elated issues, labors can directly complain to the contractors and contractors are bound to solve the issues immediately by Bangladesh Labor law 2006. Labors, DRP and host communities are also allowed to complain to any level directly.

GRM has been set up for LGED and DPHE. A separate GRM is also being setup for the labors which is being practiced by the contractors of DPHE. All the DPHE contractors and officials are being trained up by the Bank about the management of grievances. LGED contractors will be fielded in December 2019 and a separate GRM will be also formed for the contractors of LGED. LGED and DPHE will share all the grievance received and resolved with the monitoring report to the Bank.

In addition, communities and individuals who believe that they are adversely affected by this World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

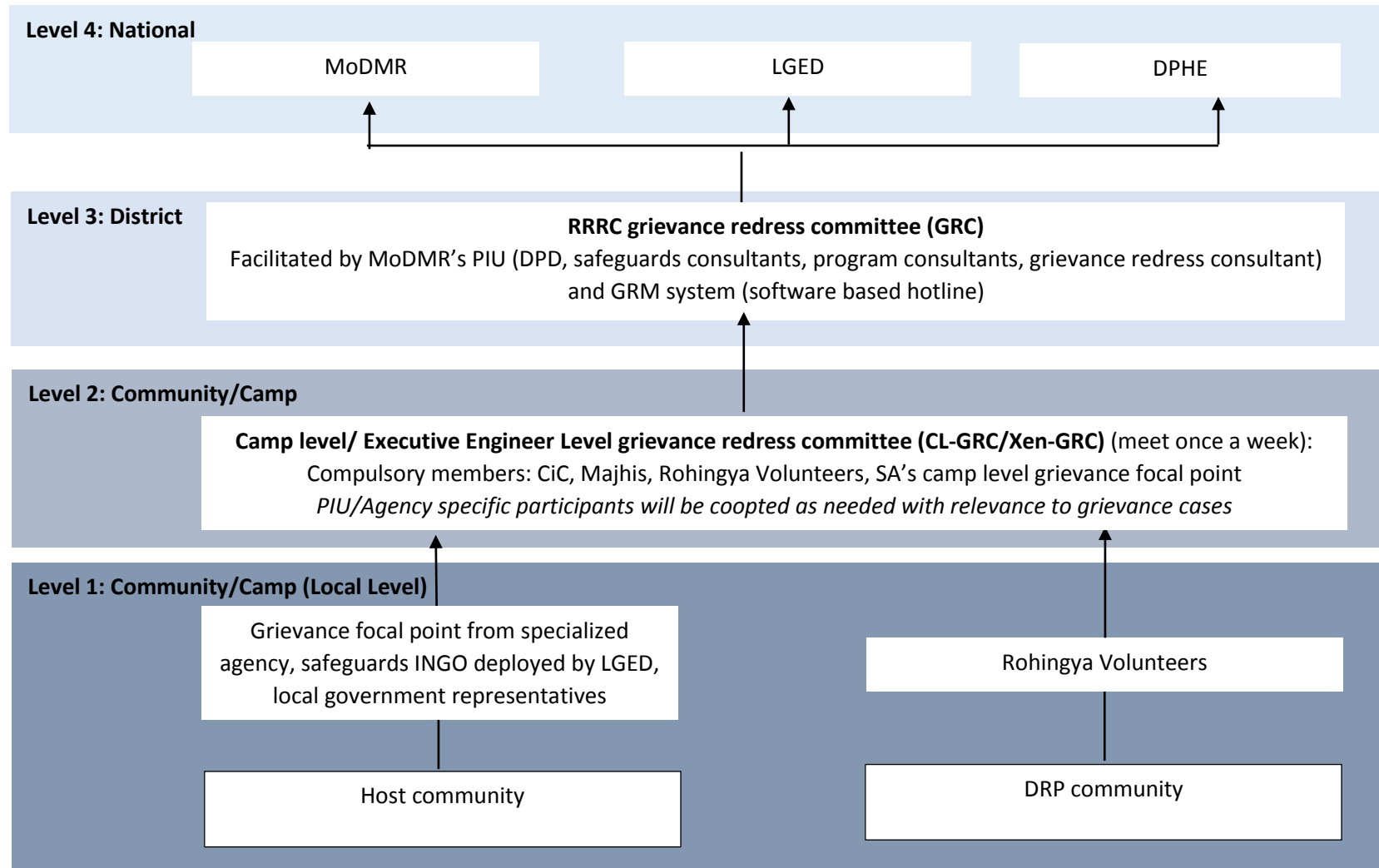


Figure 7-2: GRM System

Table 7-4: GRM Structure Prior to the commencement of Overall GRM Service by the Specialized Agency

Level 4 (National Level)	MoDMR (PIU)	LGED (PIU)	DPHE (PIU)
Level 3 (RRRC)	RRRC grievance redress committee (RRC-GRC): RRRC has an existing GRM structure		
Level 2 (Xen GRC): LGED & DPHE (DPHE Xen GRC will be prior to the commencement of overall GRM service by the specialized agency)	Executive Engineer GRC (Xen-GRC): Executive Engineer, safeguard Specialist, representative from EST consultant Team, representative from the communities and other stakeholders including local administration, and civil society. DRP can also place grievances through LGED and DPHE representatives or existing GRM structure at camp level.		
Level 1 (Camp and Host communities):	DRP & Host Community: Safeguards team deployed by LGED/DPHE, local LGED/DPHE representatives		

Tracking the GRM:

A robust and well-sequenced communication strategy will be crucial for better sequencing of the interventions, larger stakeholder support and smoother implementation. This will help mitigate potential resistance and misunderstanding between the DRP and the host community. The strategy will help the stakeholders better understand and adopt the project interventions as well as create support for those at all levels. A Communications Need Assessment will be undertaken first for designing an effective strategy. The assessment will identify all stakeholders and allow a better understanding of the socio-political context, information gaps, attitudes, aspirations, real and perceived concerns and fears as well as barriers to change.

The strategy will have two-prong objectives: i) behavioral change communication and information sharing to ensure the affected communities are aware of and can benefit from the project interventions; and ii) to build consensus of proposed interventions at the local and national level. As the communication will be aimed at multiple stakeholders including different ministries at central and local level, development partners, policy makers, media, and DRPs and host community; it will be important to ensure consistent messaging aimed at managing and mitigating any evolving risks, including domestic violence and trafficking. The project will deploy multiple communication channels to reach different stakeholder groups in order to help build public understanding and support for the project and create an enabling environment for the projects implementation.

This standard operating procedure will be followed to manage stakeholder engagement and communications using a simple log in sheet to record (i) date, (ii) stakeholder name, (iii) category of inquiry, (iv) a short description of the issue (logged as a grievance, problem, or question); (v) actions necessary to follow-up the issue; and, finally, (vi) a status (either active or closed) along with a date. A space for optional comments provide space for 'memos-for-record' for each entry. The tracking template with instructions is intended for use by safeguard specialists or representatives of PIU's staff engaged in stakeholder consultations for recordkeeping and tracking purposes.

The task of managing the tracking template is assigned to safeguard specialist/communication specialist who will consolidate inputs from (1) any members from PIU or INGO participating in

stakeholder consultations; (2) all stakeholders, including individuals and groups who contact PIU directly (phone call, text, Internet, face-to-face meeting) to file a grievance, report a problem, or ask a question. The safeguard specialist will maintain a ‘master’ tracking template of consolidated inputs updated daily and/or as necessary using a simple year, month, date format, plus an identifier consisting of number to establish a sequence for inquiries received as of the same date along with a letter indicating grievance (G), problem (P), or question (Q): e.g., 2018-10-01-XXXG would indicate that a stakeholder identified by name and cell phone number either has filed a grievance with the Local Grievance Redress Committee.

The following formats will be followed during the tracking of stakeholders’ engagement.

Table 7-5: Format for Tracking Stakeholders’ Engagement

Tracking number	Stakeholder	Issue	Actions	Status
2018-DD-MM-000G 2018-DD-MM-000P 2018-DD-MM-000Q	Name of individual /group e-mail address or cell phone number	Identify stakeholder issue as a (1) Grievance, or (2) Problem, or (3) Question	<p>If stakeholder chooses to file a formal grievance, (1) Refer to Local Grievance Redress Committee administrative contact for review. (2) Confirm receipt with stakeholder and offer to assist with filing (3) Record dates & time as (i) submitted, (ii) reviewed by, (iii) actions taken by (iv) decision by (4) Follow up with stakeholder satisfaction survey (with grievance process and outcome) (5) Update status as active</p> <p>If stakeholder seeks a solution for a problem, (1) Consolidate with similar issues, if appropriate (2) Identify PIU, other source(s), actions for response (3) Assign to follow up with deadline (4) Notify stakeholder(s) using preferred channel for ‘alert’ (5) Post status/closure on website, community notice boards, (6) Evaluate for potential (i) long term impact/crisis, (ii) collateral needs, (iii) discussion/briefing points for subsequent consultations with recommendations</p> <p>If stakeholder asks for basic information, (1) Refer to Frequently Asked Questions (FAQ) list for appropriate response; and, if necessary, (2) Update FAQ with revised information, or add new Q&A to list, sourcing information with appropriate PIU source(s), others (3) Evaluate for potential (i) collateral needs, (ii) discussion/briefing points for subsequent consultations with recommendations</p>	Active: as of Closed: as of

The safeguard specialist and communication specialist will be responsible for maintaining liaison with PIU members to update the tracking report to reflect actions as decided by either/both committees necessary to redress grievances; as well as coordinating timely responses to stakeholder problems or

requests for information with responsible line units, both on an 'ad hoc' basis, individually, in special meetings, or in a general PIU staff meeting as he/she may decide.

8 Environment and Social Management Guidelines

This section provides guidelines on Environmental and Social Management Plans (ESMPs) for the different sub-projects. These guidelines can be used for preparing mitigation measures for low risk sub-projects and for the preparation of ESIA/ESMP for higher risk subprojects. Same guidelines will be followed preparing RAP/ARAP if required. An ESMP focuses on implementation phase activities of sub-projects (pre-construction, construction, operation & maintenance and decommissioning) and ensures that the project impacts are reduced to acceptable levels within the Project Influence Area (PIA). Thus, ESMP becomes the document for ensuring that all the preceding analysis is used to preserve or improve overall environmental quality within the influence area of the proposed project.

The ESMP should be specific, clearly and concisely describing adverse impacts, selected mitigation measures to bring it to an acceptable level and timelines for implementing these measures. The ESMP aims to ensure that the compliance of all activities undertaken during implementation of the proposed project with the environmental and social safeguards requirements of the World Bank and GoB. The structure of an ESMP is based on:

1. Potential adverse impacts identified in the PIA (Please verify the PIA identified during screening) and mitigation measures to be adopted, together with conditions within which one or other measure would apply and their integration with phases – Pre-construction, Construction, Operation & Maintenance and Decommissioning
2. Enhancement plans for positive impacts
3. Monitoring Plan with indicators, mechanisms, frequency, locations
4. Budgetary allocations for all the above activities.
5. Institutional arrangements for each activity and mitigation measures.
6. Implementation schedules for each activity and its integration with the sub-project implementation timelines.
7. Reporting procedures, including for redressing grievances related to environmental and social issues.

8.1 ESMP Guidelines for Resilient Water, Sanitation and Hygiene (WASH) Sub-project
A summary of the likely issues/impacts and mitigation measures for the WASH sub-project is presented in Table 8-1 as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-1: ESMP Guideline for Resilient Water, Sanitation and Hygiene (WASH) Sub-project

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> No land acquisition is allowed inside the camp If private land acquisition is unavoidable outside of the camp for constructing/extending the roads/bridges, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets Consultation required with all potentially affected households Separate consultation with displaced male, female Rohingya people if tents/shelters are required to be shifted temporarily Preferred land will be government /khash land To use other departments land, must take adequate permission Compensation shall be at replacement value if land acquisition outside of the camp is unable to avoid. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Preferable employment with contractor for the affected unskilled workers. Avoid activities that will have adverse impacts on the host communities If structures are affected within the camp, contractors/project will replace/reconstruct the affected structures with the cost of project. No cash compensation to the DRP is allowed. Code of conduct required for the Rohingya labors and labors from outside Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking Household training on alternative clean cooking technology 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Involve Rohingya women with community tree plantation Alternative livelihood options and training for skill enhancement Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed Replacement value for the loss of crops, trees and income (for the construction work outside of the camp) 		
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted Separate community level consultation meeting with the potential affected HHs Consultation meeting with Rohingya male and female about the project objectives and scope of works All the safeguard documents will be disclosed to all the relevant stakeholders Host community and camp people will be involved with the GRM All the stakeholders will be informed about the GRM 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of Access rights	<ul style="list-style-type: none"> Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Construction facilities to be placed 100 meters (where possible) from water bodies, natural flow paths; For tube-well sinking a minimum distance from latrines' soak well to be maintained A minimum distance to be maintained among tube-wells 	PIU & Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		for cone depression and optimizing the production of wells etc. <ul style="list-style-type: none"> • Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. • Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. • The existing slope and natural drainage pattern on the site should not be significantly altered. • Trees on private lands are felled or damaged during construction operations, compensation shall be paid to the owner as determined by the forest/horticulture departments. • The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 		
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> • Construction activity shall be restricted to daytime as far as possible to avoid disturbance to surrounding areas. • Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> • Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. • Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. • Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> • Prevent entry of unauthorized personnel and proper storage and control of hazardous materials on site • Health and safety training to the Rohingya labors 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • All the camp labors to wear ID cards • Child labors are not allowed for any form of activities • Site(s) shall be secured by fencing and manned at entry points 		
Construction Activity	Traffic Management	<ul style="list-style-type: none"> • Contractors to provide traffic management plans to be approved by relevant authorities • Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. • Adequate road signs to be planted on access roads to limit vehicular speeds • Construct properly designed speed ramps on access roads • Traffic signs should be both in Bangla and Rohingya language • Transportation of large RWH tanks need to be properly secured 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> • A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. • If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. • Local community must be consulted before any construction works start • RWH tanks need to be installed in water scarce areas as a priority 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		identified along designated vehicular transportation routes. <ul style="list-style-type: none"> • Local community will be trained on traffic management and awareness 		
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for fuel wood, heating and cooking required to meet fuel requirement of the labor camps . • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour • Labor code of conduct to be disclosed through consultation and FGD 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	Preparation of a waste management plan covering the following aspects: <ul style="list-style-type: none"> • Residual waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers. • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		sold to authorized recyclers. <ul style="list-style-type: none"> • Waste from civil works • Applicability of the Hazardous Waste Management Rules 		
Construction Activity	Health & Safety Risks: <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. • Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. • Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. • Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan • Electrical equipment must be safe and properly maintained; works shall not be carried out on live 	Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>systems.</p> <ul style="list-style-type: none"> • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities.</p> <ul style="list-style-type: none"> • Ensure that all workers exposed to a risk are aware of the possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used • Large RWH tanks needs to be properly installed and secured to prevent movement during high wind conditions 		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Unintended gaseous emissions from the biogas plant affecting surrounding fauna	<ul style="list-style-type: none"> • Use of HDPE pipes • Ensure fire extinguisher available at site • Ensure preventative maintenance schedule is followed • Regular inspections of potential gas emissions points 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna	<ul style="list-style-type: none"> • Ensure preventative maintenance schedule is followed • Regular inspections of potential leaking points 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Residue from biogas plant improperly managed and disposed causing land and water pollution	<ul style="list-style-type: none"> • Ensure effective Waste Management Plan is developed and implemented • Regular third-party monitoring of receiving land and water bodies 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Draw down of groundwater due to excessive withdrawals	<ul style="list-style-type: none"> • Monitoring of extraction rates • Coordination with other development agencies • Regular third-party monitoring of groundwater levels • RWH to be used in water scarce areas as a priority 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Operation & Maintenance	Change in water flows due to abstractions by mobile desalination plant	<ul style="list-style-type: none"> Identify suitable water source locations before setting up mobile plant Monitoring of extraction rates Regular third-party monitoring of groundwater levels 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Pollution caused by discharge of brine water from mobile desalination plant	<ul style="list-style-type: none"> Identify suitable discharge locations before setting up mobile plant Regular third-party monitoring of groundwater levels 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Operation & Maintenance	Improper disposal of solids wastes from solar powered systems can cause land and water pollution	<ul style="list-style-type: none"> Ensure effective Waste Management Plan is developed and implemented Regular third-party monitoring of receiving land and water bodies 	PIU, Private Operator	Environmental Consultant of PIU, PSC, Local WATSAN Committee
Decommissioning	The impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> Pollution from waste materials Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	Environmental Consultant of PIU, PSC, Local WATSAN Committee

8.2 ESMP Guidelines for Multi-Purpose Disaster Shelter and Warehouses for FSCD

A summary of the likely issues/impacts and mitigation measures for the shelter sub-project is presented in Table 8-2 as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-2: ESMP Guideline for Multi-Purpose Disaster Shelter and Warehouses for FSCD

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> No land acquisition is allowed inside the camp If private land acquisition is unavoidable outside of the camp for constructing/extending the roads/bridges, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets Consultation required with all potentially affected households Separate consultation with displaced male, female Rohingya people if tents/shelters are required to be shifted temporarily Preferred land will be government /khash land Compensation shall be at replacement value if land acquisition outside of the camp is unable to avoid. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Preferable employment with contractor for the affected unskilled workers. Avoid activities that will have adverse impacts on the host communities Code of conduct required for the Rohingya labors and labors from outside Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking If structures are affected within the camp, contractors/project will replace/reconstruct the affected structures with the cost of project. No cash compensation to the DRP is allowed Household training on alternative clean cooking technology Involve Rohingya women with community tree plantation Alternative livelihood options and training for skill enhancement Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted 	PIU & Contractor	Social

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Stage		<ul style="list-style-type: none"> Separate community level consultation meeting with the potential affected HHs Consultation meeting with Rohingya male and female about the project objectives and scope of works All the safeguard documents will be disclosed to all the relevant stakeholders Host community and camp people will be involved with the GRM All the stakeholders will be informed about the GRM 		Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Construction facilities to be placed 30 meters (where possible) from water bodies, natural flow paths; Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. The existing slope and natural drainage pattern on the site should not be significantly altered. Trees on private lands are felled or damaged during construction operations (if any), compensation shall be paid to the owner as determined by the forest/horticulture departments. The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 	PIU & Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> Construction activity shall be restricted to daytime as far as 	Contractor	Environmental

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>possible to avoid disturbance to surrounding areas.</p> <ul style="list-style-type: none"> Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 		Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Prevent entry of unauthorized personnel and ensure proper storage and control of hazardous materials on site Health and safety training to the Rohingya labors All the camp labors to wear ID cards Child labors are not allowed for any form of activities Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds Construct properly designed speed ramps on access roads Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. Local community must be consulted before any construction 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		works start		
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. • Local community will be trained on traffic management and awareness 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for fuel wood, heating and cooking should be arranged for the labors at labor camp • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour • Labor code of conduct to be disclosed through consultation and FGD 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> • Waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers.</p> <ul style="list-style-type: none"> Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. Applicability of the Hazardous Waste Management Rules 		
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. 	PIU & Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU	Environmental Consultant of PIU, PSC. Union Member
Operation & Maintenance	Odours and pollution caused by leaking latrines and faecal sludge impacting surrounding water bodies, flora and fauna	<ul style="list-style-type: none"> • Ensure preventative maintenance schedule is followed • Regular inspections of potential leaking points 	PIU	Environmental Consultant of PIU, PSC. Union Member
Operation and Maintenance	Pollution of water bodies	<ul style="list-style-type: none"> • Annual third party monitoring of nearby surface and underground water bodies for signs of contamination. Parameter include: pH, TDS, TSS, Coliforms, Pb, Cd and Hg. Test results to be compared with Bangladesh Environmental Quality Standards of DoE 	PIU	PSC. Union Member
Decommissioning during the project implementation period (including site clearance after the construction)	The impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC. Union Member

8.3 ESMP Guidelines for Training Facilities

A summary of the likely issues/impacts and mitigation measures for training facilities is presented in the table below as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-3: ESMP Guideline for Training Facility Construction

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> If private land acquisition is unavoidable, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets Consultation required with all potentially affected households Preferred land will be government /khash land Compensation shall be at replacement value if land acquisition is unavoidable. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Preferable employment with contractor for the affected unskilled workers. Avoid activities that will have adverse impacts on the host communities Code of conduct required for the Rohingya labors and labors from outside Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking Household training on alternative clean cooking technology Involve women with community tree plantation (if any) Alternative livelihood options and training for skill enhancement Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted 	PIU & Contractor	Social Development

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Separate community level consultation meeting with the potential affected HHs • Consultation meeting with Rohingya male and female about the project objectives and scope of works • All the safeguard documents will be disclosed to all the relevant stakeholders • Host community and camp people will be involved with the GRM • All the stakeholders will be informed about the GRM 		Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> • Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. • In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> • Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. • Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> • Construction facilities to be placed 30 meters (where possible) from water bodies, natural flow paths; • Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. • Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. • The existing slope and natural drainage pattern on the site should not be significantly altered. • Trees on private lands are felled or damaged during construction operations (if any), compensation shall be paid to the owner as determined by the forest/horticulture departments. • The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 	PIU & Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> • Construction activity shall be restricted to daytime as far as 	Contractor	Environmental

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>possible to avoid disturbance to surrounding areas.</p> <ul style="list-style-type: none"> Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 		Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Prevent entry of unauthorized personnel and ensure proper storage and control of hazardous materials on site Health and safety training to the labors All the camp labors to wear ID cards Child labors are not allowed for any form of activities Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds Construct properly designed speed ramps on access roads Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. Local community must be consulted before any construction 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		works start		
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. • Local community will be trained on traffic management and awareness 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for fuel wood, heating and cooking should be arranged for the labors at labor camp • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour • Labor code of conduct to be disclosed through consultation and FGD 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> • Waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers. <ul style="list-style-type: none"> • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. • Applicability of the Hazardous Waste Management Rules 		
Construction Activity	Health & Safety Risks: <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. • Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. • Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. • Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. 	PIU & Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU	Environmental Consultant of PIU, PSC
Operation & Maintenance	Odours and pollution caused by leaking toilets and faecal sludge impacting surrounding water bodies, flora and fauna	<ul style="list-style-type: none"> • Ensure preventative maintenance schedule is followed • Regular inspections of potential leaking points 	PIU	Environmental Consultant of PIU, PSC
Operation and Maintenance	Pollution of water bodies	<ul style="list-style-type: none"> • Annual third party monitoring of nearby surface and underground water bodies for signs of contamination. Parameter include: pH, TDS, TSS, Coliforms, Pb, Cd and Hg. Test results to be compared with Bangladesh Environmental Quality Standards of DoE 	PIU	PSC
Decommissioning during the project implementation period (including site clearance after the construction)	The impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC

8.4 ESMP Guidelines for Access and evacuation Roads and Bridges

A summary of the likely issues/impacts and mitigation measures for the sub-projects related to roads, culverts, bridges and drains is presented in Table 8-4 as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-4: ESMP Guideline for Access and evacuation Roads and Bridges

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> • No land acquisition is allowed inside the camp • If private land acquisition is unavoidable outside of the camp for constructing/extending the roads/bridges, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. • Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets • Consultation required with all potentially affected households • Separate consultation with displaced male, female Rohingya people if tents/shelters are required to be shifted temporarily • Preferred land will be government/Khash land • Compensation shall be at replacement value if land acquisition outside of the camp is unable to avoid. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> • Preferable employment with contractor for the affected unskilled workers • Avoid activities that will have adverse impacts on the host communities • Code of conduct required for the Rohingya labors and labors from outside • If structures are affected within the camp, contractors/project will replace/reconstruct the affected structures with the cost of project. No cash compensation to the DRP is allowed. • Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking • Household training on alternative clean cooking technology • Involve Rohingya women with community tree plantation • Alternative livelihood options and training for skill enhancement • Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		payment to the Rohingya labors are not allowed		
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted Separate community level consultation meeting with the potential affected HHs Consultation meeting with Rohingya male and female about the project objectives and scope of works All the safeguard documents will be disclosed to all the relevant stakeholders Host community and camp people will be involved with the GRM All the stakeholders will be informed about the GRM 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Construction facilities including materials are to be placed at least 30 m distance from any water body in order to minimize impacts on water bodies and natural flow paths; Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. The existing slope and natural drainage pattern on the site should not be significantly altered. Trees on private lands are felled or damaged during construction operations, compensation shall be paid to the owner as determined by the forest/horticulture departments. 	PIU & Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 		
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> Construction activity shall be restricted to daytime as far as possible to avoid disturbance to surrounding areas. Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Prevent entry of unauthorized personnel to the site and ensure proper storage and control of hazardous materials on site Health and safety training to the Rohingya labors All the camp labors to wear ID cards Child labors are not allowed for any form of activities Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds Construct properly designed speed ramps on access roads Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from 	PIU & Contractor	Social Development Specialist and Gender

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
	resource base.	existing surface water sources shall be taken. <ul style="list-style-type: none"> • If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. • Local community must be consulted before any construction works start 		Specialist of PIU, PSC
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. • Local community will be trained on traffic management and awareness 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for the labors to avoid fuel wood. • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour • Labor code of conduct to be disclosed through consultation and FGD 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction	Waste Management:	Preparation of a waste management plan covering the following	Contractor	Environmental

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Activity	Improper management and handling of hazardous and non-hazardous waste during construction.	aspects: <ul style="list-style-type: none"> • Waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers. • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. • Applicability of Hazardous Waste Management Rules 		Consultant of PIU, PSC
Construction Activity	Health & Safety Risks: <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. • Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. • Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. • Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency 	Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>response and evacuation procedure, in addition to training for personnel and drills to test the plan</p> <ul style="list-style-type: none"> • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		different locations within the site, <ul style="list-style-type: none"> • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used 		
Operation and Maintenance	Traffic Accidents	<ul style="list-style-type: none"> • Clear road markings and signage • Road design to ensure traffic speed is not hazardous given slopes and bends • Recording and reporting of accident incidents to local police station • Annual reporting of accident figures to PSC 	PIU	PSC
Decommissioning during the project implementation period (including site clearance after the construction)	The impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC

8.5 ESMP Guidelines for Street Lights, Local Markets, Lightning Protection System and Other Activities

A summary of the likely issues/impacts and mitigation measures for other sub-project activities (such as installation of street lights, rehabilitation/construction of rural markets) is presented in Table 8- as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-4: ESMP Guideline for Street Lights, Rural Markets, Lightning Protection System and Other Activities

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> No land acquisition is allowed inside the camp If private land acquisition is unavoidable outside of the camp for constructing/extending the roads/bridges, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets Consultation required with all potentially affected households Separate consultation with displaced male, female Rohingya people if tents/shelters are required to be shifted temporarily Preferred land will be government/Khash land Compensation shall be at replacement value if land acquisition outside of the camp is unable to avoid. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Preferable employment with contractor for the affected unskilled workers Avoid activities that will have adverse impacts on the host communities Code of conduct required for the Rohingya labors and labors from outside If structures are affected within the camp, contractors/project will replace/reconstruct the affected structures with the cost of project. No cash compensation to the DRP is allowed. Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking Household training on alternative clean cooking technology Involve Rohingya women with community tree plantation Alternative livelihood options and training for skill enhancement Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction	Stakeholders Engagement	<ul style="list-style-type: none"> All the project stakeholders will be consulted 	PIU & Contractor	Social

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Stage		<ul style="list-style-type: none"> Separate community level consultation meeting with the potential affected HHs Consultation meeting with Rohingya male and female about the project objectives and scope of works All the safeguard documents will be disclosed to all the relevant stakeholders Host community and camp people will be involved with the GRM All the stakeholders will be informed about the GRM 		Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> Construction facilities to be placed 30 meters (where possible) from water bodies, natural flow paths; Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. The existing slope and natural drainage pattern on the site should not be significantly altered. Trees on private lands are felled or damaged during construction operations, compensation shall be paid to the owner as determined by the forest/horticulture departments. The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 	PIU & Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> Construction activity shall be restricted to daytime as far as possible to avoid disturbance to surrounding areas. 	Contractor	Environmental Consultant of PIU,

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 		PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Prevent entry of unauthorized personnel to the site and ensure proper storage and control of hazardous materials on site Health and safety training to the Rohingya labors All the camp labors to wear ID cards Child labors are not allowed for any form of activities Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds Construct properly designed speed ramps on access roads Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. Local community must be consulted before any construction 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		works start		
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> The movement of heavy machinery and equipment shall be restricted to defined routes. Proper signage to be displayed at major junctions. Road diversions and closures to be informed well in advance to the local community. The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. Local community will be trained on traffic management and awareness 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> An alternate arrangement instead of fuel wood, heating and cooking should be arranged for labors at labor camp. Alternating cooking arrangement for the HHs living in the camp Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. Adequate facilities ensuring sanitation for labour camps. Treated water will be made available at site for labour drinking purpose. Adequate accommodation arrangements for labour Labor code of conduct to be disclosed through consultation and FGD 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> Waste from the temporary accommodation facilities for labor Waste from equipment maintenance/vehicles on-site. The scrap material generated from the erection of structures 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers.</p> <ul style="list-style-type: none"> • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. • Applicability of the Hazardous Waste Management Rules 		
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. • Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. • Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. • Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. 	Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU	Environmental Consultant of PIU, PSC, Union Member
Operation & Maintenance	Odours and pollution caused by improper handling and disposal of wastes	<ul style="list-style-type: none"> • Ensure preventative maintenance schedule is followed • Regular inspections of potential leaking points • Regular collection and disposal of waste materials • Annual third party monitoring of nearby surface and underground water bodies for signs of contamination. Parameter include: pH, TDS, TSS, Coliforms, Pb, Cd and Hg. Test results to be compared with Bangladesh Environmental Quality Standards of DoE 	PIU	Environmental Consultant of PIU, PSC, Union Member
Decommissioning during the project implementation period (including site clearance after the construction)	Impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC, Union Member

8.6 ESMP Guidelines for Rubber Dam

A summary of the likely issues/impacts and mitigation measures for rubber dams is presented in the table below as a guide. A separate ESIA should be prepared for each rubber dam (see sample ESIA Terms of Reference for Rubber Dam in Appendix 15). The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-5: ESMP Guideline for Rubber Dams

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> • If private land acquisition is unavoidable, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. • Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets • Consultation required with all potentially affected households • Preferred land will be government /khash land • Compensation shall be at replacement value if land acquisition is unavoidable. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Impacts on regional flood regime/hydrology: increased flood intensity, increased/decreased water flow in khal/river, enhanced flood risk in adjacent areas.	<ul style="list-style-type: none"> • Design to ensure no induced flooding takes place. • Incorporation of adequate flow in design of hydraulic structures. • More recharge by increasing inundation area and period • Increase surface water irrigation facilities. 	PIU	Environmental Specialists of PIU and D&SC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> • Preferable employment with contractor for the affected unskilled workers. • Avoid activities that will have adverse impacts on the host communities • Code of conduct required for the Rohingya labors and labors from outside • Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking • Household training on alternative clean cooking technology • Involve women with community tree plantation (if any) • Alternative livelihood options and training for skill enhancement • Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> • All the project stakeholders will be consulted • Separate community level consultation meeting with the potential affected HHS 	PIU & Contractor	Social Development Specialist and

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Consultation meeting with Rohingya male and female about the project objectives and scope of works • All the safeguard documents will be disclosed to all the relevant stakeholders • Host community and camp people will be involved with the GRM • All the stakeholders will be informed about the GRM 		Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> • Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. • In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> • Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. • Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Terrestrial and wetland Habitat: Removal /cutting of trees and vegetation, Drying up or drastic reduction of permanent water bodies/areas, Significant reduction of seasonal floodplain area	<ul style="list-style-type: none"> • Locating sub-project to minimize loss or avoid encroachment on sensitive areas • Design considering minimum removal / clearance of trees and vegetation • Design to avoid complete drying up of water bodies • Design to minimize reduction of seasonal floodplain area 	PIU	Environmental Specialists of PIU and D&SC
Pre-Construction Stage	Fisheries: Decline in fisheries production, Reduction of fish habitat, Reduction of fish biodiversity	<ul style="list-style-type: none"> • Consider Construction of fish passage ways in structures and timely operation of gates to facilitate hatchling migration • Design for provision of fish shelter in khals, fish sanctuary in the Beels and fixing of fish net at the drainage structure to restrict out-migration of fish 	PIU	Environmental Specialists of PIU and D&SC
Pre-Construction Stage	Drainage /Water logging: congestion in low lying areas and silting of khals, excessive/unwanted drainage	<ul style="list-style-type: none"> • Design to avoid drainage congestion in any lower area either inside or outside the subproject by draining upper / inside areas, inside subproject area due to inadequate drainage path • Design to ensure no excessive drainage reducing permanent water body significantly; 	PIU	Environmental Specialists of PIU and D&SC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Design to provide adequate drainage facilities • Regular maintenance of re-excavated khals for removing deposited silt • Measures to minimize soil erosion from roads / embankments • Design to prevent significant seepage from irrigation canal • Prevention of seepage from irrigation canal 		
Pre-Construction Stage	Erosion and Siltation: Increase sediment deposit on land outside embankment, Increase siltation in tidal khal below regulators/sluices	<ul style="list-style-type: none"> • Design to consider existing risk and cause no significant induced impact (provide close turf on top and side slopes of embankments, set sill levels of structures at lower levels or use other techniques to flush out most of sediment load; site regulators/sluices close to outfall channels to avoid stagnant flow at tides. 	PIU & Contractor	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Environmentally sensitive area, Archaeological / Historical Sites	<ul style="list-style-type: none"> • Avoid archaeological/ historical sites, environmentally sensitive areas while considering both the subproject implementation and influence area. 	PIU & Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Degradation of soil fertility due to removal of top soil	<ul style="list-style-type: none"> • Ensure no top soil removal from fertile agricultural land (top soil to be excavated and kept reserved at one place, take soil for construction in shallow cutting from the land and spread the preserved top soil on land again. 	PIU & Contractor	Environmental Consultant of PIU, PSC, CO
Construction Activity	Erosion and Siltation during the construction activity	<ul style="list-style-type: none"> • Adopt appropriate construction management to minimize erosion of soil from excavations, embankments/spoil deposits, etc. during rains; 	PIU & Contractor	Environmental Consultant of PIU, PSC, CO
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> • Construction activity shall be restricted to daytime as far as possible to avoid disturbance to surrounding areas. • Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Dust generation	<ul style="list-style-type: none"> • Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. • Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. • Dust generation due to vehicle movement on haul 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		roads/access roads shall be controlled through regular water sprinkling.		
Construction Activity	Safety Issues	<ul style="list-style-type: none"> • Prevent entry of unauthorized personnel and ensure proper storage and control of hazardous materials on site • Health and safety training to the Rohingya labors • All the camp labors to wear ID cards • Child labors are not allowed for any form of activities • Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> • Contractors to provide traffic management plans to be approved by relevant authorities • Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. • Adequate road signs to be planted on access roads to limit vehicular speeds • Construct properly designed speed ramps on access roads • Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> • A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. • If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. • Local community must be consulted before any construction works start 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. • Local community will be trained on traffic management and 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		awareness		
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for fuel wood, heating and cooking should be arranged for the labors at labor camp • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour • Labor code of conduct to be disclosed through consultation and FGD 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	<p>Preparation of a waste management plan covering the following aspects:</p> <ul style="list-style-type: none"> • Waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers. • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. • Applicability of the Hazardous Waste Management Rules 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	<p>Health & Safety Risks:</p> <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated 	PIU & Contractor	Environmental Consultant as well as Social Development and

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
	<p>activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks.</p> <ul style="list-style-type: none"> Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<p>prior to the commencement of work for all types of work activities on site.</p> <ul style="list-style-type: none"> Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. Establish and communicate emergency response plan (ERP) with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. 		<p>Gender Specialists of PIU, PSC</p>

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat exhaustion, heat stroke, dehydration. • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used 		
Construction	Reduction in Fish stocks	<ul style="list-style-type: none"> • Ensure minimum flow from dam during raising/filling of rubber dam • Construction of fish pass if upstream/downstream migration hampered by operation of rubber dam • Annual third party monitoring of fish catch and biodiversity. 	PIU	PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Operation & Maintenance Stage	Loss of soil fertility due to intensive/ diversified agriculture (increased use of inorganic fertilizers, pesticides), preventing nutrient rich sediment deposition on lands.	<ul style="list-style-type: none"> • Training to farmers on IPM / ICM through DAE/SRDI Support • Analysis of soil samples (base data) of subprojects cultivated land and fertilizer application at SRDI/DAE recommended doses • Enhance use of organic manure by farmers 	UE	WMCA, CO, line agency DAE
Operation & Maintenance Stage	Erosion and Siltation: erosion of loose soil from new earthwork (embankment/spoil) and deposition on agricultural land, increased siltation of river/khal bed due to construction of Rubber Dam	<ul style="list-style-type: none"> • Include in the O & M program- special care taking of new earthwork structures under both routine and periodic for the initial years to reduce erosion of soil during rain and deposition on nearby crop lands. • Include in the O&M program- removal of deposited silt from the channel bed upstream of weirs and elevated sill structures 	UE	WMCA, CO
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU	Environmental Consultant of PIU, PSC
Operation & Maintenance	Odours and pollution caused by leaking toilets and faecal sludge impacting surrounding water bodies, flora and fauna	<ul style="list-style-type: none"> • Ensure preventative maintenance schedule is followed • Regular inspections of potential leaking points 	PIU	Environmental Consultant of PIU, PSC
Operation and Maintenance	Pollution of water bodies	<ul style="list-style-type: none"> • Annual third party monitoring of nearby surface and underground water bodies for signs of contamination. Parameter include: pH, TDS, TSS, Nitrates and pesticides. Test results to be compared with Bangladesh Environmental Quality Standards of DoE 	PIU	PSC
Operation and Maintenance	Decline in fisheries production, fish habitat and biodiversity	<ul style="list-style-type: none"> • Ensure minimum flow from dam during raising/filling of rubber dam • Utilization of all subproject wetlands for fisheries production. • Fish-friendly gate operation schedule to facilitate in-migration of fish for breeding and spawning. • Conservation of reproduction sites like beels, haors, etc. • Construction of fish shelters in re-excavated khals at regular intervals and protecting the shelters for mother fishes. 	UE	WMCA, CO

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Introduction of IPM for crops and rice-fish farming in the paddy fields. • Training on improved fisheries technology, community based culture fisheries in subproject water bodies including hatchery and restocking programme. • Annual third party monitoring of fish catch and biodiversity. 		
Operation & Maintenance Stage	Eutrophication and spreading of nuisance plant	<ul style="list-style-type: none"> • Incorporation of nuisance plant destruction program in the sub-project mitigation plan • Agriculture extension services for training farmers on water hyacinth based compost preparation and motivational program for using compost fertilizer. 	UE	WMCA, CO
Operation and Maintenance Stage	Deterioration of water quality	<ul style="list-style-type: none"> • Protection of water bodies from domestic and sanitary waste disposal, and agricultural field run-off • Providing adequate natural flushing • Training to farmers on IPM / ICM through DAE/SRDI Support and inspire them to use organic manure. 	UE	WMCA, CO, line agency DAE
Operation & Maintenance Stage	Good Practice	<ul style="list-style-type: none"> • Proper and timely opening / closing of regulator gates, maintaining gates and hoisting gears/systems in good operable condition, etc. • Maintain rubber seal of gates property and close gates properly/timely to prevent loss of water required to be conserved • Maintaining drainage channels clear of fish bundhs, water weeds/ hyacinths 	UE	WMCA, CO
Decommissioning during the project implementation period (including site clearance after the construction)	<p>The impacts are similar to those listed in construction stage:</p> <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC

UE = Upazila Engineer, WMCA = Water Management Cooperative Association, CO = Community Organizer

8.7 ESMP Guidelines for Nano-Grid

A summary of the likely issues/impacts and mitigation measures for nano-grids is presented in the table below as a guide. After design of each sub-project activity is completed, a more specific assessment and management plan can be prepared. The generic ESMP is only a guideline document and would require updating/detailing of the mitigation measures to ensure that the project complies with the policies and legal requirements set by World Bank, DoE environmental guidelines and other relevant GoB legal requirements.

Table 8-6: ESMP Guideline for Nano-Grid

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Pre-Construction Stage	Loss of land / and other physical assets	<ul style="list-style-type: none"> No land acquisition is allowed inside the camp If private land acquisition is unavoidable outside of the camp for constructing/extending the roads/bridges, compensation will be paid following the guidelines of OP 4.12 and ARIPA 2017. Carrying out analysis of alternatives to avoid involuntary taking of land and other physical assets Consultation required with all potentially affected households Separate consultation with displaced male, female Rohingya people if tents/shelters are required to be shifted temporarily Preferred land will be government /khash land Compensation shall be at replacement value if land acquisition outside of the camp is unable to avoid. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of livelihood	<ul style="list-style-type: none"> Preferable employment with contractor for the affected unskilled workers. Avoid activities that will have adverse impacts on the host communities Code of conduct required for the Rohingya labors and labors from outside Awareness generation for nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking If structures are affected within the camp, contractors/project will replace/reconstruct the affected structures with the cost of project. No cash compensation to the DRP is allowed Household training on alternative clean cooking technology 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Involve Rohingya women with community tree plantation • Alternative livelihood options and training for skill enhancement • Engagement of Rohingya labors during construction with credit system payment to buy daily necessary items. Cash payment to the Rohingya labors are not allowed 		
Pre-Construction Stage	Stakeholders Engagement	<ul style="list-style-type: none"> • All the project stakeholders will be consulted • Separate community level consultation meeting with the potential affected HHs • Consultation meeting with Rohingya male and female about the project objectives and scope of works • All the safeguard documents will be disclosed to all the relevant stakeholders • Host community and camp people will be involved with the GRM • All the stakeholders will be informed about the GRM 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Loss of right to access	<ul style="list-style-type: none"> • Project to ensure thorough analysis of alternatives that access enjoyed by the community remains intact. • In case of unavoidable circumstances, alternative access will be provided. 	PIU	Social Development Specialist and Gender Specialist of PIU, PSC
Pre-Construction Stage	Site Selection & implementing interventions: Human-elephant conflict	<ul style="list-style-type: none"> • Selection of sub-project sites and all implementing interventions must take place outside of the elephant corridor/influence area. • Forest department and Border Guard Bangladesh to be consulted during site selection 	PIU	Environmental Consultant of PIU, PSC
Pre-Construction Stage	Site Preparation: Soil Erosion; Alteration of natural drainage	<ul style="list-style-type: none"> • Construction facilities to be placed 30 meters (where possible) from water bodies, natural flow paths; • Minimize cut & fill operations, the site clearing and grubbing operations should be limited to specific locations only. • Any disruption of socially sensitive areas with regard to human habitation and areas of cultural significance will be avoided. • The existing slope and natural drainage pattern on the site should not be significantly altered. 	PIU & Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> Trees on private lands are felled or damaged during construction operations (if any), compensation shall be paid to the owner as determined by the forest/horticulture departments. The contractor shall ensure that site preparation activities do not lead to disruption of activities of the local residents. 		
Construction Activity	Noise from construction works	<ul style="list-style-type: none"> Construction activity shall be restricted to daytime as far as possible to avoid disturbance to surrounding areas. Wherever required, personal protective equipment (PPE) such as ear plugs, earmuffs, helmets, etc. should be provided to the persons working in high-risk areas. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Dust	<ul style="list-style-type: none"> Construction machinery shall be properly maintained to minimize exhaust emissions of CO, particulate matter (SPM, PM_{2.5, 10}) and Hydrocarbons. Dust generated as a result of clearing, leveling and site grading operations shall be suppressed using water sprinklers. Dust generation due to vehicle movement on haul roads/access roads shall be controlled through regular water sprinkling. 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Safety Issues	<ul style="list-style-type: none"> Prevent entry of unauthorized personnel and ensure proper storage and control of hazardous materials on site Health and safety training to the Rohingya labors All the camp labors to wear ID cards Child labors are not allowed for any form of activities Site(s) shall be secured by fencing and manned at entry points 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Traffic Management	<ul style="list-style-type: none"> Contractors to provide traffic management plans to be approved by relevant authorities Adequate alternative arrangements to be made to minimize impact on motorist and pedestrians. Adequate road signs to be planted on access roads to limit vehicular speeds Construct properly designed speed ramps on access roads Traffic signs should be both in Bangla and Rohingya language 	Contractor	Environmental Consultant of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
Construction Activity	Conflicts with existing users due to the scarcity of resource base.	<ul style="list-style-type: none"> • A detailed assessment of the available resources and consent of the local representative for withdrawal of water from existing surface water sources shall be taken. • If ground water is withdrawn, adequate approvals from the appropriate department need to be undertaken before setting up bore wells. • Local community must be consulted before any construction works start 	PIU & Contractor	Social Development Specialist and Gender Specialist of PIU, PSC
Construction Activity	Increase in road accidents	<ul style="list-style-type: none"> • The movement of heavy machinery and equipment shall be restricted to defined routes. • Proper signage to be displayed at major junctions. • Road diversions and closures to be informed well in advance to the local community. • The vehicular movement to be controlled near sensitive locations viz. schools, colleges, hospitals, DRP camps identified along designated vehicular transportation routes. • Local community will be trained on traffic management and awareness 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Labour Base Camp: Conflicts with the local residents	<ul style="list-style-type: none"> • An alternate arrangement for fuel wood, heating and cooking should be arranged for the labors at labor camp • Alternating cooking arrangement for the HHs living in the camp • Awareness building about nutrition, disaster risk resilience or mitigation, adoption of clean energy for cooking; and prevention of child abuse, child marriage, GBV, sexual harassment, trafficking of women and children as well as illegal drug trade • Work force should be prohibited from disturbing the flora, fauna including hunting of animals, wildlife hunting, poaching and tree felling. • Adequate facilities ensuring sanitation for labour camps. • Treated water will be made available at site for labour drinking purpose. • Adequate accommodation arrangements for labour 	Contractor	Social Development Specialist and Gender Specialist of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<ul style="list-style-type: none"> • Labor code of conduct to be disclosed through consultation and FGD 		
Construction Activity	Waste Management: Improper management and handling of hazardous and non-hazardous waste during construction.	Preparation of a waste management plan covering the following aspects: <ul style="list-style-type: none"> • Waste from the temporary accommodation facilities for labor • Waste from equipment maintenance/vehicles on-site. • The scrap material generated from the erection of structures and related construction activities will be collected and stored separately in a stack yard and sold to local recyclers. • Hazardous waste viz. waste oil etc will be collected and stored in the paved and bounded area and subsequently sold to authorized recyclers. • Applicability of the Hazardous Waste Management Rules 	Contractor	Environmental Consultant of PIU, PSC
Construction Activity	Health & Safety Risks: <ul style="list-style-type: none"> • The potential for exposure to safety events such as tripping, working at height activities, fire from hot works, smoking, failure in electrical installation, mobile plant and vehicles, and electrical shocks. • Exposure to health events during construction activities such as manual handling and musculoskeletal disorders, hand-arm vibration, temporary or permanent hearing loss, heat stress, and dermatitis. 	<ul style="list-style-type: none"> • All construction equipment used for the execution of the project works shall be fit for purpose and carry valid inspection certificates and insurance requirements. • The risk assessment shall be prepared and communicated prior to the commencement of work for all types of work activities on site. • Provide walkways that are clearly designated as a walkway; all walkways shall be provided with good conditions underfoot; signposted and with adequate lighting. • Signpost any slippery areas, ensure proper footwear with a good grip is worn for personnel working within slippery areas. • Carry out fire risk assessment for the construction areas, identify sources of fuel and ignition and establish general fire precautions including, means of escape, warning, and fighting fire. • Set up a system to alert workers on site. This may be temporary or permanent mains operated fire alarm. • Fire extinguishers should be located at identified fire points around the site. The extinguishers shall be appropriate to the nature of the potential fire. • Establish and communicate emergency response plan (ERP) 	PIU & Contractor	Environmental Consultant as well as Social Development and Gender Specialists of PIU, PSC

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		<p>with all parties, the ERP to consider such things as specific foreseeable emergency situations, organizational roles and authorities, responsibilities and expertise, emergency response and evacuation procedure, in addition to training for personnel and drills to test the plan</p> <ul style="list-style-type: none"> • Electrical equipment must be safe and properly maintained; works shall not be carried out on live systems. • Only competent authorized persons shall carry out maintenance on electrical equipment, adequate Personal Protective Equipment (PPE) for electrical works must be provided to all personnel involved in the tasks. • An adequate number of staff and first aiders shall be on site in accordance with Bangladesh Labor Law requirements. • First aid kit with adhesive bandages, antibiotic ointment, antiseptic wipes, aspirin, non-latex gloves, scissors, thermometer, etc. shall be made available by the contractor on site. • Emergency evacuation response shall be prepared by the contractor and relevant staff shall be trained through mock-up drills. • Ensure all equipment is suitable for jobs (safety, size, power, efficiency, ergonomics, cost, user acceptability etc.), provide the lowest vibration tools that are suitable and can do the works. • Ensure all tools and other work equipment are serviced and maintained in accordance with maintenance schedules and manufacturer's instructions. • Regular noise exposure assessments and noise level surveys of noisy areas, processes and equipment shall be carried out in order to form the basis for remedial actions when necessary • Awareness training sessions should be established and provided to all personnel involved during the construction phase in order to highlight the heat related illnesses of working in hot conditions such as heat cramps, heat 		

Project Stage	Potential Environmental & Social Impacts/Issues	Proposed Mitigation Measures	Institutional Responsibilities	Supervision Responsibility
		exhaustion, heat stroke, dehydration. <ul style="list-style-type: none"> • Ensure adequate quantities of drinking water are available at different locations within the site, • Eliminate the risk of exposure whenever possible, provide proper PPE wherever necessary and to ensure that there are satisfactory washing and changing facilities. • Ensure that all workers exposed to a risk are aware of the possible dangers. They should be given thorough training in how to protect themselves and there should be effective supervision to ensure that the correct methods are being used 		
Operation & Maintenance	Noise disturbances to fauna	<ul style="list-style-type: none"> • Ensure operation & maintenance machinery and equipment has noise dampeners • Avoid night time activities as much as possible • Regular third-party monitoring of noise levels 	PIU	Environmental Consultant of PIU, PSC, Union Member
Decommissioning during the project implementation period (including site clearance after the construction)	The impacts are similar to those listed in construction stage: <ul style="list-style-type: none"> • Pollution from waste materials • Health & Safety risks to workers and local community/DRPs 	<ul style="list-style-type: none"> • The main mitigation and monitoring measures to minimize or reduce the environmental and social impacts during decommissioning are anticipated to be similar to those identified for the construction phase. • Regular third-party monitoring of air as well as receiving land and water bodies 	PIU / Contractor	PSC, Union Member

8.8 Management of Labor Influx

Contractor's obligations under each procurement package will be reviewed for incorporation of mitigation measures against labor influx issues, with particular attention to gender, as it may be expected that workers from outside the DRP will be employed during construction works. Age verification will also be conducted to avoid the risk of child labor. In addition, the workfare program will provide an avenue for employing women; requisite training will have to be provided to instill skills for this purpose. Obligations of the contractor will also include environmental and social obligations (such as OHS) and the contracts will include non-compliance remedies. Contractor will engage a social safeguard officer who will be responsible to implement overall social safeguard compliances together with gender and labor issues with the guidelines of PIU/social firm's safeguard team. Social safeguard management firm and/or social safeguard specialist of PIU will provide training to the contractors on working condition of the labors and labor influx management. Contractors will submit report to PIU each month about the numbers of local and foreign (labors outside of the project influenced area) and any issues related to labor and labor influx.

During construction, it is required to conduct a screening (see Appendix 3) and submit it to World Bank. MoDMR and DPHE with the support of the contractors will try to engage local labors as much as possible. Before engaging the labors, it is required to conduct consultation with the community people and Rohingya people. A code of conduct must be prepared for the non-Rohingya labors. It is very important that MoDMR and DPHE together with the contractor will conduct a general screening. If more detailed is required, then detailed screening can be conducted. Screening report have to be submitted to World Bank.

Moreover, The Contractor is encouraged, to employ staff and labor with required qualifications and experience on or near the project adjacent community. To ensure health and safety of the workers and project personnel, the Contractor shall arrange with local health providers, doctors, bed facilities, ambulance service etc. are available. Contractor shall take all necessary welfare and hygiene requirements and for the prevention of epidemics for his personnel and the surrounding community. The Contractor shall conduct awareness programme on Sexually Transmitted Diseases (STD) including HIV/AIDS, at regular interval via a qualified service provider for his workers and community. The Contractor shall take all necessary steps and precautions at all times to preserve peace and protection of persons and property on and near the Site, may be occurred by his labor. The work area and labor accommodation area shall be properly marked and fenced, so that surrounding community will not be disturbed.

The Contractor shall submit to the MoDMR and DPHE at every month, a complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers.

Table 8-7: Representative Examples of Mitigation Measures by Impacts during Project Implementation

Expected Adverse Impact	Potential Mitigation Measures	
	Contractor	Project Owner (MoDMR, DPHE, UN Agencies etc)
Social		
All		<ul style="list-style-type: none"> -Establishment and operation of an effective GRM accessible to community members -Provision of information to communities on how to use the GRM to report issues; -Monitoring and taking appropriate actions to ensure CESMP provisions are met; -Inclusion of relevant provisions in the ESMP; -Inclusion of relevant provisions in the contract. -Conduct consultation with the local communities about the labor influx. Separate consultation with non-Rohingya people as well.
Risk of social conflict	<ul style="list-style-type: none"> -Provision of information regarding Worker Code of Conduct in local language(s); -Provision of cultural sensitization training for workers regarding engagement with local community. -Consultation with DRP, community people and labors outside the DRP -Provision of engagement local labors as much as possible. 	<ul style="list-style-type: none"> -Consultations with and involvement of local communities in project planning and implementation; -Awareness-raising among local community and workers.
Increased risk of illicit behavior and crime (including prostitution, theft and substance abuse)	<ul style="list-style-type: none"> -Paying adequate salaries for workers to reduce incentive for theft; -Paying salaries into workers' bank accounts rather than in cash; -Paying salaries to Rohingya labors through e-voucher -Sourcing of local workforce; -Creation of supervised leisure areas in workers' camp; -Cooperation with local law enforcement; -Introduction of sanctions (e.g., dismissal) for workers involved in criminal activities; -Provision of substance abuse prevention and management programs. 	<ul style="list-style-type: none"> -Reinforcement of local law enforcement staff; -Enforcement of laws on drug abuse and traffic; -Police monitoring to prevent drugs trafficking; -Sensitization campaigns both for workers and local communities.
Adverse impacts on community dynamics	<ul style="list-style-type: none"> - Camp for the outside labors must be set up outside the Rohingya camp to avoid any conflict -Provision of services in the workers' camp to reduce the need for workers to use local community facilities (internet, sports); 	<ul style="list-style-type: none"> -Liaison with civil society organizations, UN agencies and other relevant organization working for the DRP to create integrative action plans; provision of upfront information on potentially detrimental impacts on local communities.

Expected Adverse Impact	Potential Mitigation Measures	
	Contractor	Project Owner (MoDMR, DPHE, UN Agencies etc)
	-Provision of entertainment and events for workers within labor camp to reduce incentives for mixing with local community.	
Influx of Additional Population ("Followers")	-Contractor to hire workers through recruitment offices and avoid hiring "at the gate" to discourage spontaneous influx of job seekers.	-Communications campaign to manage expectations and discourage spontaneous influx of job seekers; Local government to address this additional influx of the "followers" to ensure that no illegal and unsafe settlements develop; Explore options for orderly accommodation on open space that can be monitored by law enforcement.
Increased burden on public service Provision	-Workers' camp to include wastewater disposal and septic systems; -Identification of authorized water supply source and prohibition of use from other community sources; -Separate service providers for community and workers' camp/construction site; -Worker Code of Conduct on water and electricity consumption. -Regular consultation meetings with the labors and community people	-Contingency plans for temporary rise in demand for utilities and public service provision.
Increased risk of communicable diseases (including STDs and HIV/AIDS)	-Labors are not allowed to mix with Rohingya people. -Regular consultation with DRP and local communities -Vaccinating workers against common and locally prevalent diseases; -Contracting of an HIV service provider to be available on-site; -Implementation of HIV/AIDS education program; -Information campaigns on STDs among the workers and local community; -Education about the transmission of diseases; -Provision of condoms.	-Establishment or upgrade of health centers at camp and construction sites (unless designated as contractor responsibility); -Free testing facilities; -Provision of condoms; - Monitoring of local population health data, in particular for transmissible diseases. -Community sensitization campaigns - Awareness raising about public health impacts from labor influx. ;
Gender-based violence, including sexual harassment, child abuse and exploitation	-Mandatory and regular training for workers on required lawful conduct in host community and legal consequences for failure to comply with laws; -Commitment / policy to cooperate with law enforcement agencies investigating	-Instruction and equipping of local law enforcement to act on community complaints; - Information and awareness raising campaigns for community members, specifically women and girls; -Provision of information to host community about the contractor's policies and Worker Code of Conduct (where applicable). -Increased security presence in nearby communities;

Expected Adverse Impact	Potential Mitigation Measures	
	Contractor	Project Owner (MoDMR, DPHE, UN Agencies etc)
	perpetrators of gender-based violence; -Provision of opportunities for workers to regularly return to their families; -Provision of opportunities for workers to take advantage of entertainment opportunities away from rural host communities.	- Enforcement of laws on sexual violence and human trafficking. - Application of long-term community-based approaches to address the issue;
Child labor and school drop out	-Ensuring that children and minors are not employed directly or indirectly on the project.	-Communication on hiring criteria, minimum age, and applicable labor law 2006 and labor rules 2015, Bangladesh.
Local inflation of prices and crowding out of local consumers	-Appropriate mix of locally and non-locally procured goods to allow local project benefits while reducing risk of crowding out of and price hikes for local consumers.	-Monitoring of local prices and security of supply.
Increased pressure on accommodation and rents	-When accommodation supply is limited establishment of workers' camp facilities with sufficient capacity for workers— including sub-contractors—and associated support staff.	Inclusion in contract of funding for establishment of workers' camp.
Increased traffic and rise in accidents	-Preparation and implementation of a traffic management plan to be approved by supervision engineer; -Building additional/separate roads to project and workers' camp sites; -Organization of commute from camp to project to reduce traffic; -Road safety training and defensive driving training for staff; -Sanctions for reckless driving.	-Local government engagement with contractor and communities to identify accident hotspots and formulation of solutions. - Upgrading and maintaining roads affected by project
Environmental		
Inadequate waste disposal and creation of illegal waste disposal sites	-Reduction of waste generation; -Sound practices for waste disposal.	-Inspection of waste disposal arrangements.
Wastewater Discharges	-Ensuring workers' camp and associated facilities are connected to septic tank or other waste water systems which are appropriate and of sufficient capacity for the number of workers and local conditions.	- Regular inspection to ensure proper functioning.
Camp related land use, access roads, noise and lights	-Placement of workers' camp away from environmentally sensitive areas to avoid impacts on the local wildlife;	-Inclusion in contract of requirements for camp locations.

Expected Adverse Impact	Potential Mitigation Measures	
	Contractor	Project Owner (MoDMR, DPHE, UN Agencies etc)
	-Routing of new access routes for workers' camp to avoid/minimize environmentally sensitive areas.	

8.9 Guidelines for Bid Documents

Bid documents to be prepared by interested contractors need to incorporate relevant items from the ESMP as well as the monitoring plans. Therefore, during preparation of tender documents, the PIU need to ensure that:

- All relevant ESMP items relevant for contractors are included in tender documents (specifications and BOQs)
- Provide clear information to potential bidders regarding environmental, social as well as health and safety considerations for the work package
- Submission of supporting documentation/materials of previous experience and track record on ESMP implementation should be mentioned in the instructions to bidders
- Evaluation of submitted bids should include criteria for adequacy of ESMP responses and costings

8.10 Future Studies

The proposed studies related to this project and ESMF in particular are provided in Table 8-8.

Table 8-8: Future Studies/Plans Related to ESMF

SN	Study/Plan	Timeline	Institutional Responsibilities
1	Feasibility study and design Fecal Sludge and Solid Waste Management System	Mar 2019 to Sep 2020	DPHE
2	Water Monitoring Programme	Mar 2019 to Sep 2020	DPHE
3	Comprehensive Water Resources Assessment	Mar 2019 to Sep 2020	DPHE
4	Cumulative Impact Assessment	Mar 2019 to Sep 2019	MoDMR, LGED and DPHE

In addition, all the contractors and sub-contractors must prepare a safety rules (with 1 or 2 pages) according to Bangladesh Labor Law 2006 and Labor Rules 2015.

8.11 Costing of ESMP (Preparation and Implementation)

The estimated costs for ESMP related activities for Components 1 and 2 of the project are provided in Table 8-9.

Table 8-9: Estimated ESMP Costs

No	Items	Roles/Purposes	USD
<i>Component 1</i>			<i>2,600K</i>
1	Environmental Specialist (field based, full time)	<ul style="list-style-type: none"> • Review/ field verification of Environmental Screening of each physical intervention • Preliminary endorsement of environmental impacts and mitigation • Environmental Monitoring and drafting reports 	60K

No	Items	Roles/Purposes	USD
		<ul style="list-style-type: none"> • Training provision and support • Drafting Consultation planning in consultation with the environmental safeguard support under design and supervision firm • Coordinate with the field based environmental specialists of the other components of the project 	
2	Social Specialist (field based, full time)	Field level Sub-projects' screening, monitoring and reporting, organize field level training	60K
3	Gender Specialist (field based)	Field level Sub-projects' screening, monitoring and reporting, organize field level training	60K
4	Senior Environmental Specialist (field based, full time)	<ul style="list-style-type: none"> • Overall coordination and supervision on environmental safeguard • Review and endorsement of Environmental Screening • Support and supervision of EMP implementation • Monitoring and Reporting • Management of contractual obligation on environmental safeguard • Training provision • Finalizing the ToR of CIA • Provide guidance to environmental safeguard support to the firm • Technical advice to PD on environmental safeguard 	90K
5	Senior Social Specialist (field based, full time)	Oversee and coordinate on social safeguards, Consolidate information and reporting to WB, manage contractual obligation on social safeguard	90K
6	Environmental safeguard support firm	<ul style="list-style-type: none"> • Preparation of Environmental Screening and monitoring reports • Identification of impacts of the project activities • Preparation and implementation of site and activity specific EMPs • Information consolidation and reporting to PIU • Assist PIU Environmental specialists regarding management of contractual obligation on environmental safeguard • Training provision • Assist in data collection of Cumulative Impacts due to the entire activities in/around DRP camps • Working with field based environmental specialist of PIU • Arrange and conduct public consultations • Will provide support in wild life and forestry management 	600K
7	Social safeguard support firm	Review of Social Screening and monitoring reports, SMPs preparation, social safeguard training	600K
8	Cumulative Environmental and Social Impact Assessment	Assess the cumulative impacts due to the entire activities in/around camps	500K
9	Implementation of the EMP	Air, water, noise quality measurement, purchase of PPE, labor camp establishment	30k

No	Items	Roles/Purposes	USD
10.	Tree plantation	Street side, around the shelter, outside the camp	10k
11.	Fire hazard equipment	Part of the project component but the task should be reflected as part of environmental enhancement	-
12.	Cash compensation for non-acquisition costs in case of crop damage, damage to personal property or livelihood losses		500K
13	Preparation of ESIA for Rubber Dams	6 nos. rubber dams for irrigation purposes proposed by LGED under Additional Financing activities	200K
14	Rubber Dam ESMP Implementation	Ensure proper mitigation and monitoring of rubber dam impacts	Tbd in ESIA
Component 2			900K
1	Environmental Specialist (field based)	<ul style="list-style-type: none"> Review the Environmental and Social Management Framework (ESMF) and supervise implementation of the environmental management part parts in coordination with the Social Safeguards Specialist; Provide basic orientation and training to the PIU and field staff involved in project implementation, on the ESMF; Ensure the quality of environmental screening which can be completed by UN environmental focal person, firms hired by LGED; Ensure adherence of project implementation with the World Bank's environmental safeguards policies; Supervise the preparation of site specific Environmental Management Plan (EMP) and ensure the quality of implementation of the EMP; Coordinate with and supervise specialized agency and their subcontractors where applicable, assigned to support the Project's compliance to environmental safeguards; Provide technical advice to the Project Director on ensuring environmental safeguards compliance and support troubleshooting; Maintain coordination with the activities implemented by LGD under the same Project; Consolidate information and prepare reports for the World Bank; Assist in policy dialogue with counterpart agencies; 	150K
2	Social Specialist (field based)	Filed level Sub-projects' screening, monitoring and reporting	60K
3	Gender Specialist (field based)	Filed level Sub-projects' screening, monitoring and reporting; liaising with the specialized UN agency hired to ensure gender and social inclusion across the project	30K
4	Social safeguard support specialist UN agency	Review of Social Screening and monitoring reports, SMPs preparation, social safeguard training	300K
5	Implementation of the EMP	Air, water, noise quality measurement, purchase of PPE, watchtowers and solar fencing for elephant movement	30k

No	Items	Roles/Purposes	USD
		protection and also establishment of elephant response teams;	
6	Implementation of SMPs	Ensuring shifting activities if required take place only after consultations, proper documentation and building of alternative shelter/infrastructure at a suitable location within the camp; ensuring compensation where required and as per SMP/RP. Carry out and document regular consultations; operate and report on the GRM etc.	30k
7	Forestry Specialist	Inside the camp. Part of the project component but the task should be reflected as part of environmental enhancement Ensure indigenous species are being planted; Oversee the overall technical aspect of the forestation program; Prepare a forestry plan in the camp area; Coordinate with Environment Specialist of LGED	30K
8	Alternative fuel supply	Inside the camp. Part of the project component but the task should be reflected as part of environmental enhancement	-

9 Institutional and Monitoring Arrangements

9.1 Institutional Arrangements

The Government will have overall responsibility for project implementation and management through its Ministry of Local Government, Cooperatives and Rural Development (MoLGRD&C) and Ministry of Disaster Management and Relief (MoDMR).

The project will be implemented by LGED, DPHE, and MoDMR with three Project Implementation Units (PIU). All activities will be coordinated by the Refugee, Relief and Repatriation Commissioner (RRRC) at the field level. The rationale for adopting the proposed implementation structure is to be in accordance with the mandate of government agencies, in-line with the rules of business for DRP assistance and coordination, and in order to enable most efficient decision making taking into account internal government fiduciary clearance procedures.

Following the Government’s Rules of Business, the PIUs will report to their respective Ministerial Project Steering Committee (PSC). There will be a PSC chaired by the Sr. Secretary/Secretary, LGD, MoLGRD&C and a PSC chaired by Sr. Secretary/Secretary MoDMR, representatives of each PIU will be present at both PSC meetings.

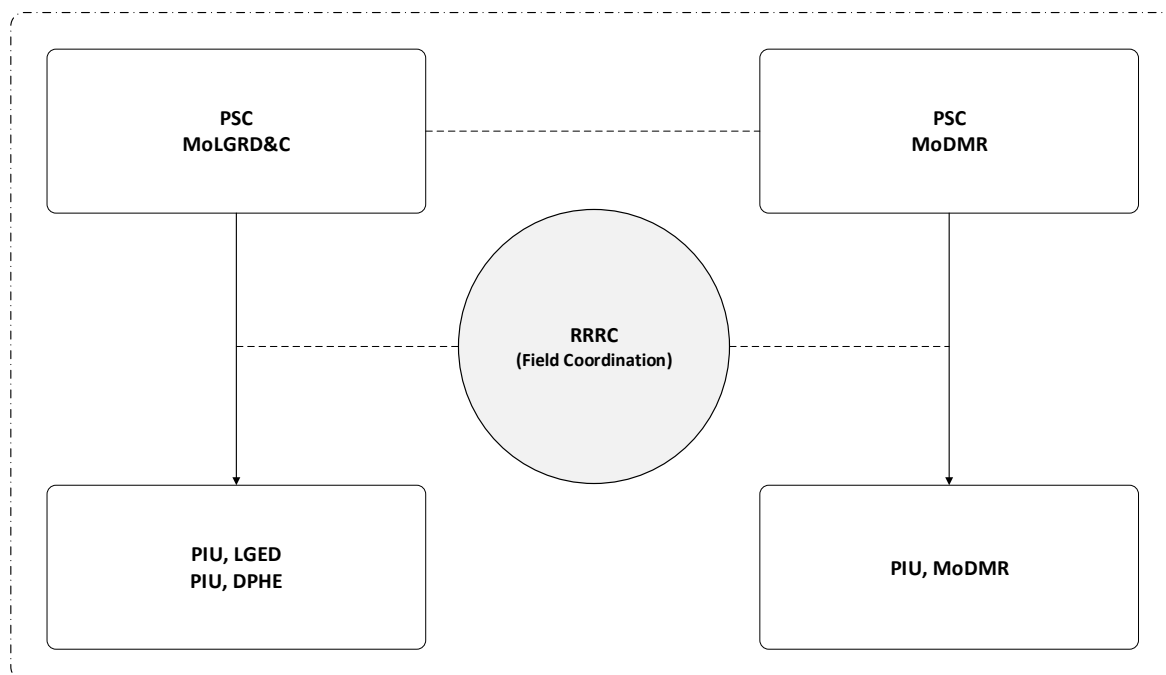


Figure 9-1: Overall Institutional Arrangements

PSCs will include representatives from ministries, division, departments/agencies that are part of overall implementation, coordination, and strategy. PSCs will be responsible for: (i) providing implementation advice and operational guidance; (ii) reviewing financial and physical progress; (iii) resolving any implementation problems (iv) providing any other necessary direction for effective implementation. Each PSC will meet at least every six months and at least once every year there will be a joint PSC meeting, chaired by both Sr. Secretary/Secretary LGD, MoLGRD&C and MoDMR.

Each project implementation agency will have a Project Implementation Committee (PIC), chaired by the head of the agency (CE of LGED/ DPHE, Head of Refugee cell), which will assist in the supervision of the respective components. The PIC is expected to include relevant representatives from ministries,

division, departments/agencies. The PIC will ensure that implementation follows both Government and Bank rules and regulations. Specifically, the PIC will be responsible for: (i) supervising and reviewing implementation and providing necessary advice for timely delivery; (ii) monitoring and evaluating implementation progress and suggesting necessary course corrections; (iii) resolving issues and conflicts that may emerge during implementation; (iv) facilitation coordination and convergence with other line ministries, division, and departments/agencies; and (v) keeping the PSC apprised on overall performance and key issues relating to the project.

DPHE will be the implementing agency of Component 1a and part of Component 3b. DPHE PIU will have a dedicated Project Director and one DPDs. DPHE will hire a Procurement Specialist, Financial Management Specialist, Water Supply Specialist, Sanitation Specialist, Waste Management Specialist, Hydrologist, Environmental Specialist, Social Development and Gender Specialist, M&E Specialist, Training Consultant. A Monitoring & Supervision as well as feasibility study Firm, Social Impact Assessment Firm and an Environmental Impact Assessment Firm will also be hired.

LGED will be the implementing agency of Component 1b and part of Component 3b. Currently, as LGED is already implementing the IDA financed US\$375 million Multi-Purpose Disaster Shelter Project (MDSP), with an existing Project Director, PIU and interventions in the Cox's Bazar District, it was agreed the existing MDSP PD will be the PD of the proposed project's LGED related component and the existing MDSP PIU and MDSP Procurement Panel would provide necessary support to the project. This setup is not expected to have any implications for the continued successful implementation of MDSP.

This existing MDSP PIU would be strengthened to implement additional activities proposed under the proposed Project. MDSP and this proposed Project would maintain separate Deputy Project Directors (DPDs). LGED will hire a Senior Technical Specialist, Senior Procurement Specialist, Senior Financial Management Specialist, Senior Environment Specialist, Field level Environmental Specialist, Senior Social Development Specialist, Field level Social Development Specialist, Gender Specialist, Field level Gender Specialist, Communication Specialist, Disaster and Climate Change Specialist, Senior Monitoring and Evaluation (M&E) Specialist, M&E Specialist, and a GIS specialist. LGED will also hire a Design and Supervision Firm, which will include an Environmental Safeguards Team and a Social Safeguards Team who will be responsible for carrying out the environmental and social assessments and prepare all necessary safeguards documents and will monitor the implementation of the safeguards requirements. LGED will hire the Cumulative Environmental and Social Impact Assessment (CESIA) Firm. LGED will also hire a UN Specialized Agency to address Gender and Social Inclusiveness and Preventing Gender Based Violence.

MoDMR will be the implementing agency for Component 2 and 3a. A dedicated PD, not below the rank of Joint Secretary, and two DPDs will be appointed to ensure smooth project implementation and supervision. A PIU will be set up within the Refugee Cell and at the field level to assist the PD in project management and supervision. The PIU will include a Procurement Specialist and a Financial Management Specialist for fiduciary management; Program Specialists (one of whom will be the gender focal point); Information Management/Database Specialist, and Training and M&E Specialist, and a field based environmental safeguards specialist and a social safeguards specialist. MoDMR will enter into a partnership agreement with a UN Specialized Agency, which will include the necessary expertise in Environmental and Social Safeguards, to carry out the safeguards compliance requirements. One forestry specialist will be employed within the UN Specialized Agency who will ensure only endemic species are introduced and organic fertilizer is applied as part of the tree plantation.

The Refugee Cell and its field level team represented by Camp-in-Charges/Refugee, Relief and Repatriation Commission (RRRC) will also be supported by qualified service provider(s), including specialized agencies, to coordinate and administer day-to-day activities under this component. This will of comprise beneficiary enrollment; compliance and sub-project monitoring; payments; and training and administrative systems development and management.

For Component 2, at the field level, the Office of the RRRC will be the focal point for implementation and coordination. CiCs will be the primary officials responsible for all program-related processes with the camps. CiCs will be supported by two Cyclone Preparedness Program (CPP) volunteers and a team of 10-12 staff, including sub-assistant engineer, computer operator, and technician, who are in the process of recruitment under existing Government operations.

To ensure the proper management of safeguards aspects under the Project, field level officers will be responsible for liaising with the UN agencies and other entities which may be sub-contracted, and ensuring that the Bank’s policies are adhered to, similar arrangements will have to be established at every layer of contracting. LGED, DPHE, and MoDMR will support to conduct the Cumulative Environmental and Social Impact Analysis (CESIA). ToR for the cumulative impact assessment is included in Appendix 7. The LGED, DPHE, MoDMR PIUs may be strengthened with additional staff as required and as agreed with the Bank. LGED (incorporating the update from DPHE) and MODMR both will prepare separate monitoring reports and will share with World Bank quarterly.

Coordination Arrangement: The Project will use existing implementation arrangement 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). There will be inter-agency field level coordination on project activities with the RRRC, the ISCG, and the implementing agencies.

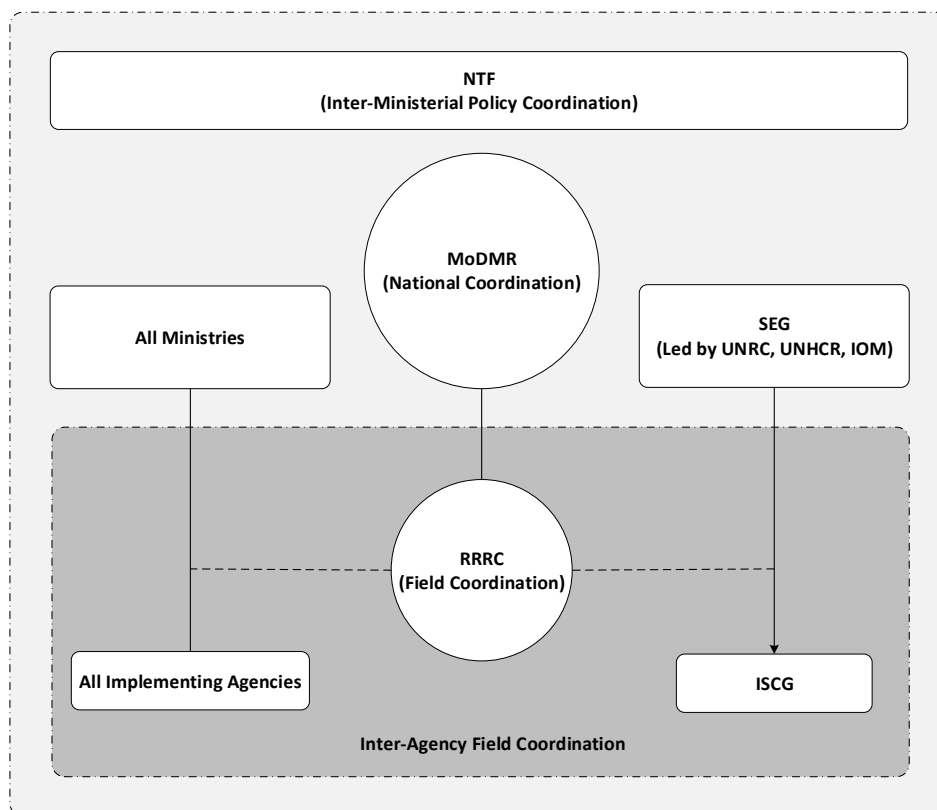


Figure 9-2: Inter-agency Coordination Arrangements

Overall policy coordination at the national level will be by the National Task Force (NTF), which is a Cabinet approved inter-ministerial body with secretarial services provided by the Ministry of Foreign Affairs. National level coordination will be through MoDMR and field level coordination through the RRRC. 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.

It should also be noted that various Working Groups within the UN system meet every 2 weeks. The PIU of LGED and DPHE will also be involved in these meetings, which will ensure that coordination exists with other agencies working in and around the camps.

Various institutions' roles related to screening have been explained Section 6 and monitoring responsibilities are explained in Section 9.4

9.2 Construction Phase

Senior Environment Specialist and Environmental Specialist in PIU. The PIU will have dedicated Environmental Specialists to ensure implementation of ESMP and other environmental management responsibilities. They will maintain liaison with WB safeguards team, regulatory agencies, and other stakeholders during the Project implementation. The Specialists will also monitor construction activities to ensure that environmental mitigation measures are properly implemented.

Forestry Specialist in PIU. The PIU will have a dedicated Forestry Specialist to ensure that mitigation measures related to reducing impacts and enhancing benefits to forest areas are properly implemented. They will maintain liaison with the Forestry Department, WB safeguards team, regulatory agencies, and other stakeholders during the Project implementation.

Senior Social Specialist and Social Specialist in PIU. The PIU will have a dedicated Social Specialists to ensure implementation of ESMP and other social management responsibilities. They will maintain liaison with WB safeguards team, regulatory agencies, and other stakeholders during the Project implementation. The Specialists will also monitor construction activities to ensure that social mitigation measures are properly implemented.

Gender Specialist in PIU. The PIU will have a dedicated Gender Specialist to ensure implementation gender safeguard responsibilities. They will maintain liaison with WB safeguards team, regulatory agencies, and other stakeholders during the Project implementation. The Specialist will also monitor gender aspects associated with construction activities are properly implemented.

Contractor's Environment Supervisor. The construction contractors should assign a dedicated, properly qualified and experienced, site-based Environment Supervisor (ES) at the construction site. The ES will be responsible to implement various aspects of the ESMP particularly the mitigation measures to ensure that the environmental and social impacts as well as the health and safety issues of the construction works remain within acceptable limits. The ES will also be responsible to conduct environmental training for the construction crew. The ES needs to be a graduate preferably in environmental science/engineering with at least 3 years' experience in environmental management and health and safety.

Contractor's social safeguard Officer: The contractor shall have an Social Safeguard Officer on the site who will be responsible to implement all social safeguard, gender and labor issues with the guidelines

of PIU/Social firms safeguard team.. PIU with support of social safeguard specialist and social firm will make sure that all contractors workers and counterpart who are involve in project implementation receive both initial and ongoing social safeguard and gender awareness and training sufficient to ensure they are familiar with their social safeguard responsibilities under the ESMP.

Environmental and Social Support Firms: These firms shall support the PIU (and their consultants) by independently supervise environmental and social safeguards related activities in the field. Firm will provide all necessary training to the contractors.

Supervision Consultant: This consultant shall ensure that design of all physical works take into account of environmental and social safeguards considerations.

Monitoring and Evaluation Consultant: This consultant shall carry out independent monitoring and evaluation of monitoring items identified in Section 9.4. In particular, the consultant shall evaluate the training records, GRM register and ESMP monitoring documents.

Department of Environment (DoE): Where relevant, DoE is responsible for issuing Site Clearance and Environmental Clearance Certificates (ECC).

9.3 Operation Phase

The LGED and DPHE will look after operation and maintenance arrangements of the infrastructure interventions. Dedicated Engineer (at Executive Engineer grade) will be part of the O&M staff and will be responsible to prepare and then implement the relevant environmental and social mitigation measures including ensuring health and safety during project operation and maintenance phase.

The DoE is also responsible for monitoring and enforcement of conditions specified in the ECC on an annual basis.

9.4 Monitoring and Reporting Framework

9.4.1 Monitoring Framework

The objective of the monitoring framework is to ensure that the mitigation measures designed to prevent, reduce and where possible offset any significant adverse on environmental and social impacts throughout the Project lifecycle.

A database would be developed by PIU with the assistance of PSC for storing the results of the quantitative monitoring. The facility would be capable of producing tabulated weekly and monthly reports that provide the following information:

- Sampling points;
- Dates and times of sample collection;
- Test results;
- Control limits;
- "Action limits" at which steps must be taken to prevent the impending breach of the control limit; and
- Any breaches of the control limits, including explanations if available.

The monitoring data would be continually processed by the PIU as it is received, so as to avoid a build-up of unprocessed data.

ESMF monitoring will be carried out to ensure that the mitigation measures and plans are regularly and effectively implemented (Table 9-1). The PIU environment and social specialists will carry out ESMF monitoring to ensure that the mitigation plans are being effectively implemented, and will conduct field visits on a regular basis.

Table 9-1: ESMF Monitoring Plan

Project Phase	What	When	Who	How
Preparation	Training and Capacity Building Activities	Before preparation of tender documents	PD with Environmental and Social Support Firms	Review Training Records
Preparation	Ensure Screening of Environmental and Social Issues	After locations and alignments are confirmed by PD	PIU with Environment and Social Firms	Review completed Screening Sheets
Construction	Training and Capacity Building Activities	Monthly	PD with Environment and Social Firms	Review Training Records
Construction	Grievances Records	Monthly	PD with Environment and Social Firms	Review GRM register
Construction	Environmental and social mitigation/ enhancement measures (including health and safety measures) outlined in the ESMP and incorporated in the tender bidding documents and the approved contracts.	Monthly	PD with Environment and Social Firms	Review ESMP monitoring documents
Operation and Maintenance	Grievances Records	Monthly	PIU	Review GRM register
Operation and Maintenance	Environmental and social mitigation/ enhancement measures (including health and safety measures) outlined in the ESMP	Monthly	PIU	Review ESMP monitoring documents

Table 9-2: ESMF Reporting Requirements

Report/Document	Description	Prepared By	Submitted To	When
Training Records	Register of all Trainings and Capacity Building activities conducted under the project	Environment and Social Cell of PIU or Consultants	PD	Within 3 weeks of any training/capacity building activity
Completed Safeguards Screening Forms	Identifies Potential Environmental and Social Issues	Environment and Social Cell of PIU or Consultants	PD	After completing forms
GRM Records	Register of grievances received and actions taken	GRC or Consultants during construction phase and then relevant Implementing Agency officer thereafter	PD	Monthly
ESMP Monitoring records	Monitoring data as defined in the ESMP	Contractor, Environment and Social Cell of PIU and/or Consultants	PD	Monthly or as per ESMP requirements

The PIU will prepare a monthly report to be submitted to the PSC. These reports will summarize the following:

- Progress in implementing this ESMF and subsequent ESIA, ESMP, etc.;
- Findings of the monitoring programs, with emphasis on any breaches of the control standards, action levels or standards of general site management;
- Any emerging issues where information or data collected is substantially different from the baseline data reported in the Environmental Assessment;
- Summary of any complaints by external bodies and actions taken / to be taken; and
- Relevant changes or possible changes in legislation, regulations and international practices.

9.4.2 Monitoring of Labor Influx

As part of the ESMF or related management plans, a monitoring and reporting system is required for the MoDMR, DPHE and the contractor to monitor implementation progress and report to the World Bank. The main objectives of the monitoring are to:

- Help identify the presence and significance of project-related impacts on local communities;
- Ensure that adequate mitigation measures are established (and modified as needed) and implemented in a timely manner;
- Ensure that the mitigation measures are achieving their objectives of addressing corresponding impacts, and
- The Contractor is encouraged, to employ staff and labor with required qualifications and experience on or near the project adjacent community.
- To ensure health and safety of the workers and project personnel, the Contractor shall arrange with local health providers, doctors, bed facilities, ambulance service etc. are available.
- Contractor shall take all necessary welfare and hygiene requirements and for the prevention of epidemics for his personnel and the surrounding community.

- The Contractor shall conduct awareness programme on Sexually Transmitted Diseases (STD) including HIV/AIDS, at regular interval via a qualified service provider for his workers and community.
- The Contractor shall take all necessary steps and precautions at all times to preserve peace and protection of persons and property on and near the Site, may be occurred by his labor.
- The work area and labor accommodation area shall be properly marked and fenced, so that surrounding community will not be disturbed.

Monitoring of and reporting on the project must be complemented by an effective GRM proposed in ESMF in order to address issues arising from project implementation. GRM will help to detect unanticipated or recurring problems, and to manage them. The project implementing agency sets up and supports the GRM, in a manner satisfactory to the World Bank, to receive, manage and facilitate resolution of stakeholders' concerns and grievances in a timely manner. It is important that the GRM is designed to accommodate all issues raised, including issues related to labor influx. The way to make complaints needs to be simple and well publicized. The GRM is usually scaled to the risks and potential adverse impacts of the project. The following factors will be considered in the project for the effective GRM:

(i) their publicity and accessibility, (ii) the transparency of their operation, (iii) the credibility of their decision-making process and structure, (iv) their confidentiality and hence protection from any potential retaliation, and (v) the effectiveness of the associated business processes to resolve grievances where appropriate.

MoDMR and DPHE have to make sure that:

- PIU has a contract management framework with a risk management plan identifying all risks and mitigating measures and providing for regular meetings of the parties to monitor the contractor's performance in all areas.
- The contractor and relevant organizations are familiar with the ESMF approved by the World Bank and Government.
- Communications between the UN agencies, MoDMR, DPHE, local government, NGO's, contractors, local communities and DRP are well managed.
- The contractor and PIU follow up on feedback from community leaders, beneficiaries and other project-affected parties.
- Mitigation measures for issues that were previously not identified but have emerged during implementation are swiftly planned and implemented.
- Consultation and community engagement activities are carried out as planned.
- The GRM is in place and functioning effectively.

9.5 Capacity Building

Environmental and social safeguards training will help ensure that the requirements of the ESMF and subsequent ESIA and ESMP are clearly understood and followed by all project personnel throughout the project period. The PIU will ensure, in collaboration with the PSC, that these training are provided to all Project personnel. The environmental and social training program will be finalized before the commencement of the project. The training will be provided to the LGED staff, the DPHE staff, the MoDMR staff, construction contractors, and other staff engaged in the Project. Training will cover all staff levels, ranging from the management and supervisory to the skilled and unskilled categories. The scope of the training will cover general environmental and social awareness and the requirements of the ESMF, ESIA (where relevant) and the ESMP, with special emphasis on sensitizing the project staff to the environmental, social and genders aspects of the area. Table 9-3 provides a summary of various

aspects of the environmental and social safeguards training to be conducted under this construction. PSC/PIU may revise the plan during the Project implementation as required.

Table 9-3: Environmental and Social Safeguards Training

Contents	Participants	Responsibility	Schedule
General environmental and socioeconomic awareness; Environmental and social sensitivity of the project area; E&S screening; Key findings of ESIA (where relevant); Mitigation measures; ESMP; Social and cultural values of the area.	Selected LGED and DPHE and MoDMR staff; PSC; PIU, Contractors	PSC	Prior to the start of the Project activities. (To be repeated as needed)
General environmental and socioeconomic awareness; Environmental and social sensitivity of the project area; E&S screening; Mitigation measures; Community issues; Awareness of transmittable diseases Social and cultural values.	PSC; PIU; Selected contractors' crew	PSC	Prior to the start of the field activities. (To be repeated as needed)
ESMP; Waste disposal; HSE	Contractors, Construction crew	PIU	Prior to the start of the construction activities. (To be repeated as needed)
Road safety; Defensive driving; Waste disposal; Cultural values and social sensitivity.	Drivers	Contractors	Before and during the construction activities. (To be repeated as needed)
Restoration requirements; Waste disposal.	Restoration teams	Contractors	Before the start of the restoration activities.
HSE during Operation Phase	Selected LGED and DPHE and MoDMR staff	PSC	Prior to the Start of the Project Operation and when required during the operation phase

Appendix 1: Sub-Project Description Form

Name of Sub-Project:

Implementing Agency/Agencies:

Estimated total cost of sub-project (in Taka):

Estimated construction period duration:

Estimated Operation and Maintenance period (life of sub-project):

District:

Sub-District:

Union:

Name of Community/Local Area:

Description of proposed sub-project activities (incl. type of activities, footprint area, natural resources required, etc.):

Brief description of sub-project site: (e.g. present landuse, Important Environmental Features (IEFs) near site, etc.

Overall Comments

Types of waste to be generated during construction and operation phase:

Sensitive environmental, cultural, archaeological, religious sites near (within 1km) of site including elephant migration routes and remaining forests:

Prepared by : (Name, designation, mobile number, signature, date)

Reviewed by : (Name, designation, mobile number, signature, date)

Instructions: Attach completed environmental and social screening forms with this form.

Appendix 2: Environmental and Social Screening Form

Section A: Sub-Project Overview

Description of sub-project/component interventions:
Sub-project Location:
Expected construction period:
Description of project intervention area and project influence area with schematic diagram (where relevant, indicate distance to sensitive environmental areas such as elephant corridors, water bodies, etc. and historical or cultural assets): Please also explain any analysis on alternative location was conducted

Section B: Environmental Screening

B.1: Environmental feature of sub-project location

Description of cultural properties (if applicable, including distance from site):
Location of environmentally important and sensitive areas: (1) Within/near Elephant Migration Routes Yes/No* (2) potential impacts on remaining forests in/around camps Yes/No (3) Other issues:
*This question needs to be answered by checking the elephant migration route map established by UNHCR/IUCN
Baseline air quality and noise levels:
Baseline soil quality: Landslide potential (high/medium/low, with explanation):
Baseline surface water and groundwater quality (FE, TDS, fecal coliform, pH):
Status of wildlife movement:
State of forestation:
Summary of water balance analysis (For water supply scheme only): Please consider (i) water requirements of newly forested areas for plants' total evapotranspiration, (ii) new settlements water supply requirement for drinking water, household use, bathing and sanitation, (iii) replenishment rate from annual rainfall etc.

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B.2: Pre construction Phase

Information on Ancillary Facilities (e.g. status of access road or any other facility required for sub-project to be viable):
Requirement of accommodation or service amenities (toilet, water supply, electricity) to support the workforce during construction:
Possible location of labor camps:
Requirement and type of raw materials (e.g. sand, stone, wood, etc.):
Identification of access road for transportation (Yes/No):
Location identification for raw material storage:
Possible composition and quantities of wastes (Solids wastes, demolition materials, sludge from old latrines, etc.):

B.3: Construction Phase

Type and quantity of waste generated (e.g. Solids wastes, liquid wastes, etc.):
Type and quantity of raw materials used (wood, bricks, cement, water, etc.):
Approx. area (in square meters) of vegetation and soil in the right-of-way, borrow pits, waste dumps, and equipment yards:
Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)
Disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)
Destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)
Activities that can lead to landslides, slumps, slips and other mass movements in road cuts:
Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with description)
Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

B.4: Operation Phase

Activities leading to health hazards and interference of plant growth adjacent to roads by dust raised and blown by vehicles:
Chance of long-term or semi-permanent destruction of soils: (High/Medium/Low with description)
Possibility of odor and water, soil quality impacts from SWM and FSM disposal system: (High/Medium/Low with description)
Possibility of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors: (High/Medium/Low with explanation)
Likely direct and indirect impacts on economic development in the project areas by the sub-project:
Extent of disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes): (High/Medium/Low with description)
Extent of destruction or damage of terrestrial or aquatic ecosystems or endangered species directly or by induced development: (High/Medium/Low with description)
Activities leading to landslides, slumps, slips and other mass movements in road cuts:
Erosion of lands below the roadbed receiving concentrated outflow carried by covered or open drains: (High/Medium/Low with explanation)
Describe possible traffic movement impacts on (unwanted) light, noise and air pollution:

High = Likely to cause long-term impacts or over large area (>1sqkm); Medium = Likely to cause temporary damage or over moderate area (0.5 to 1sqkm); Low = Likely to cause little, short-term damage and over small area (<0.5sqkm)

Section C: Social Screening

C.1 General Labor Influx Screening

Key Screening questions	Aspects to Consider
Will the project potentially involve an influx of workers to the project location, and will the influx be considered significant for the local community?	<p>How many foreign and local workers will be needed for the remaining period of the project, with what skill set?</p> <p>Can the project hire workers from the local workforce?</p> <p>What is the size and skill level of the existing local workforce?</p> <p>If the skill level of the local workforce does not match the needs of the project, can they be trained within a reasonable timeframe to meet project requirements?</p> <p>How will the workers be accommodated? Will they commute or reside on site or outside of the camp? If so, what size of camp will be required?</p>
Is the project located in a rural or remote area?	<p>What is the size of local population in the project area?</p> <p>What is the size of the host Rohingya community?</p> <p>Is the project located / being carried out in an area that is not usually frequented by outsiders?</p> <p>What is the frequency and extent of contact between the local community and outsiders?</p> <p>Are there sensitive environmental conditions that need to be considered?</p>
Based on the socioeconomic, cultural, religious and demographic qualities of the local community, Rohingya population and the incoming workers, is there a possibility that their presence or interaction with the local community could create adverse impacts?	<p>Is it likely that the incoming workers and the local community come from a shared socio-economic, cultural, religious or demographic background?</p> <p>What is the level of existing resources, and will the incoming workers use or create competition for these resources?</p> <p>What is the expected duration of the incoming workers' presence in the community?</p> <p>Given the characteristics of the local community, are there any specific adverse impacts that may be anticipated?</p>
Consultation with Community People	<p>Has the project authority and contractors conducted any consultation meetings with the community people and Rohingya population?</p> <p>Are local people aware about the labors?</p> <p>Has the project authority involved the local community with the project?</p>

C.2 Land acquisition and stakeholder screening

- Probable Involuntary Resettlement Effects -	Yes	No	Not Known	Remarks
Involuntary Acquisition of Land/ Land Donation/ Land Taking				
1. Will there be any land acquisition?				
2. Is the site for land taking known?				
3. Is the ownership status and current usage of land to be required temporary known?				
4. Will easement be utilized within an existing Right of Way (ROW)?				
5. Will there be loss of shelter and residential land due to land acquisition?				
6. Will there be loss of agricultural and other productive assets due to land acquisition?				
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?				
8. Will there be loss of businesses or enterprises due to land acquisition?				
9. Will there be loss of income sources and means of livelihoods due to land acquisition?				
Involuntary restrictions on land use or on access to legally designated parks and protected areas				
10. Will people lose access to natural resources, communal facilities and services?				
11. If land use is changed, will it have an adverse impact on social and economic activities?				

12. Will access to land and resources owned communally or by the state be restricted?				
Information on Displaced Persons:				
<i>Any estimate of the likely number of persons that will be displaced by the Project?</i> <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, approximately how many?				
<i>Are any of them poor, female-heads of households, or vulnerable to poverty risks?</i> <input type="checkbox"/> No <input type="checkbox"/> Yes				
<i>Are any displaced persons from indigenous or ethnic minority groups?</i> <input type="checkbox"/> No <input type="checkbox"/> Yes				
<i>During Screening, project authority will conduct consultation with the primary and secondary stakeholders and provide their observations in the following sections (13 to 18)</i>				
<i>13: Who are the stakeholders of the project?</i>				
<i>Answer:</i>				
<i>14: What social and cultural factors affect the ability of stakeholders to participate or benefit from the proposed policy or project?</i>				
<i>Answer:</i>				
<i>15: Are project objectives consistent with their needs, interests and capacity?</i>				
<i>Answer:</i>				
<i>16: What will be the impact of the project or sub-project on the various stakeholders, especially women and vulnerable groups?</i>				
<i>Answer:</i>				
<i>17: What social risks might affect project or sub-project success?</i>				
<i>Answer:</i>				
<i>18: Has the project authority or any other organizations conducted any consultations with the affected community or people? If yes. Please provide a summary.</i>				
<i>Answer:</i>				

C.3. Social Capital Format

The objective is to list various types of social institutes/bodies working in the camp, intended project influence areas to enlist them for the possible inclusion in the management, and monitoring of the projects. List the name of social institutes/ bodies under the given categorization along with the following information. Use separate sheet for each category of social institute/body. The information can be collected through secondary sources such as RRC/UN agencies or different development organizations that are involved with the Rohingya crisis projects, etc.

Type of Social Institutes/bodies	Name of the Institution	Contact Person and Address and phone number	Primary areas of Work	Coverage areas in the camp and communities (list name of the places)
Government Organizations				
UN Agencies				
National Organizations				
Community Based Volunteer Organizations are those, which constitute the members of the community working towards social development.				

Section D: Environmental and Social Screening Summary

Please summarize the results of environmental and social screening conducted above. Mitigation measures need to be proposed in referenced to ESMP Guidelines relevant to the type of the sub-project, proposed in Section 8.2 of ESMF. This table needs to be completed by both environmental and social specialists. Please add rows to the table as necessary.

Section	Main Environmental and Social Impacts	Impact Significance*	Suggested Mitigation Measures	Person/Institution Responsible	Monitoring Suggestions	
					Indicators	Frequency
1: Sub-Project Location						
2: Pre-construction Phase						
3: Construction Phase						
4: Operational Phase						

* Overall Impact Score: High = Likely to cause long-term E&S impacts; Medium = Likely to cause temporary impacts; Low = Likely to cause little, short-term impacts

Recommendation for further environmental and social assessment and/or site specific environmental and social management plan: Yes/No

**If yes, please specify what assessments/plans would be required.*

From completed by : (Name, designation, mobile number, signature, date)

From checked by : (Name, designation, mobile number, signature, date)

Reviewed by : (Name, designation, mobile number, signature, date)

Project Director Signature & Date:

Appendix 3: Voluntary Land Donation Form

Province / Region:	
District:	
Commune/Sangkat:	
Village:	
Sub-project ID:	

Name of land owner:	ID Number:	Beneficiary of the project: Y/N		
Sex:	Age:	Occupation:		
Address:				
Description of land that will be taken for the project:	Area affected:	Total landholding area:	Ratio of land affected to total land held:	Map code, if available:
Description of annual crops growing on the land now and project impact:				
	Details	Number		
Trees that will be destroyed				
Fruit trees				
Trees used for other economic or household purposes				
Mature forest trees				
Other				
Describe any other assets that will be lost or must be moved to implement the project:				
Value of donated assets:				

By signing or providing thumb-print on this form, the land user or owner agrees to contribute assets to the sub-project. The contribution is voluntary. If the land user or owner does not want to contribute his/her assets to the project, he or she should refuse to sign or provide thumb print, and ask for compensation instead.

Date:

Date:

District PMO representative's signature

Affected persons signature
(both husband and wife)

Appendix 4 :ToR for Environmental and Social Impact Assessment

Objective

The objective of the assignment is to assist the Government of Bangladesh in preparing Environmental and Social Impact Assessment (ESIA) including an Environmental and Social Management Plan (ESMP) for the sub-project which was assessed based on the environmental and social screening to involve potential higher environmental and social risks and impacts through their implementation

Scope of Work

Task 1. Review of project and existing technical studies

1. The consultant will define project activities and any linked and/or associated activities. The consultant will review and analyse the technical documents on environment and social, economic benefits related to the proposed infrastructure investments (Pre-Feasibility and Feasibility studies, preliminary designs, Environmental and Social Screening result, relevant field investigations and other surveys, modelling results, etc).

Task 2: Baseline Environmental and Social Conditions

2. The Consultant will review, evaluate and update baseline data on the relevant environmental, social, economic and physical cultural heritage characteristics within the project area. Specifically, the baseline conditions should include information on:

- a. Physical environment: geology, topography, sediments/soils, surface and ground water hydrology, land pollution, water quality, air quality and sources of air emissions, noise emissions, utilities and sewage networks;
- b. Biological environment: existing flora and fauna at the site; natural habitats; waterbodies
- c. Social and economic: community structure; pedestrian and commuter activities; residential and commercial activities; description of direct and indirect livelihoods)
- d. Information on disadvantaged groups or persons for whom special provisions may have to be made, if affected, and in the context of developing mitigation measures;
- e. Assess whether there will be any displacements as a result of the physical works;
- f. Physical cultural property: Cultural heritage assets such as cultural, religious, historical or archaeological sites, including sacred and/or burial places, that might be affected during construction.

3. Baseline data shall include but not limited to following:

- Primary data/monitoring shall define characteristics of the existing natural environment including soil, water, air, noise, land use, cultural properties and flora & fauna.
 - Monitoring to be carried at critical locations
 - Identification of specific areas for monitoring
 - Air and Noise Monitoring at junctions, major settlements, school and hospitals etc.
 - Water and soil monitoring.
 - Tree inventory to be carried out, in consultation with relevant Government Department.
 - Inventory of Cultural Property Resources shall be done along with measurements, details and photographs; consultation shall be done for gathering public opinion.
- Secondary Data to define meteorology, geology, climate change (flooding potential) quarries, borrow areas, disposal sites etc.

- Baseline conditions of ambient air and noise should be analysed by comparing with not only national standards but also WBG EHS guidelines values

Task 3: Legislative Framework

4. The Consultant shall analyse the existing relevant laws/regulations, and add any new legislations, decisions and/or guidance notes relevant to the environment quality, health and safety, cultural property, waste management, hazardous substance storage and handling; noise emissions; protection of sensitive areas and endangered species, land-use planning, involuntary resettlement and expropriation; public information; environmental liability, etc. determining their relevance to the project.

5. The Consultant shall also assess the institutional arrangements and institutional capacity for supervision and enforcement of ESMP during construction and operation. The consultant shall reference any international relevant legislation and treaties applicable to the project, including World Bank Operational Policies, and Occupational Health and Safety Guidelines.

Task 4: Determination of potential environmental and social impacts

6. The Consultant shall update the existing documents to determine impacts, direct, indirect and cumulative impacts, and immediate and long-term impacts related to the construction phase of the proposed works as well as once the works are finalized (operational phase). The Consultant shall propose mitigation measures and affiliated costs for each of the above identified impacts that will represent the content/summary of an Environmental and Social Mitigation Plan for the overall project during its construction as well as the operation phases. The Mitigation Plan is part of the overall project Environmental and Social Management Plan.

Task 5: Analysis of Alternatives

7. The Consultant shall review the available technical documents and summarize alternatives proposed during the project development, including the alternative of not constructing the proposed project. Such alternatives could be related to different options in terms of design of structures and facilities, selection of technologies, construction techniques, and project phasing, operating and maintenance activities. These alternatives must be compared on technical, economic, environment, and social merits and to the extent possible, with costs and benefits of each alternative. The concept of alternatives extends to siting and design, technology selection, rehabilitation/construction techniques and phasing, and operating and maintenance procedures. The alternative should also emphasize analysis of secondary/induced impacts and potential conflicts. The Consultant shall briefly compare these alternatives in terms of potential environmental and social impacts, cost and benefits.

Task 6: Preparation of Environmental and Social Management Plan (ESMP)

8. The ESMP shall be prepared in such a manner that environmental and social requirement (mitigation measures and monitoring, technical specifications) related to the construction phase could be incorporated in the bidding/contract documents. The ESMP should include proposed enhancements such as landscaping and “greening” of the sub-project area. The existing documents can be used for updating and adding new requirements and issues not already addressed. The World Bank Operational Policy Annex B – *Content of an Environmental Assessment* for a Category A project and Annex C – *Environment Management Plan* - must be followed in this assignment⁴². The consultant will also refer to the requirements of O.P 4.04 and O.P 4.11 and include appropriately into the ESMP.

⁴² <https://policies.worldbank.org/sites/ppf3/PPFDocuments/3902Operational%20Manual%20-%20OP%204.pdf>
<https://policies.worldbank.org/sites/ppf3/PPFDocuments/3903Operational%20Manual%20-%20OP%204.pdf>

9. The ESMP should propose the criteria, procedures, and responsibilities for monitoring and enforcing all of the environmental measures included in the alignment sheets and the construction practices included on the construction specifications. The consultant shall review the authority and capability of institutions responsible for implementation of this project and recommend steps to strengthen or expand them, including proposals for intersectoral arrangements, management procedures and training, staffing, operation and maintenance training, budgeting, and financial support. This must include the institutional arrangement which needs to be set in place to implement the ESMP and the monitoring framework. The ESMP should clearly present estimated budget associated with proposed mitigation and monitoring actions as well as the institutions responsible for implementation.

10. In addition to the World Bank Operational Policies, the consultant will refer to the following key documents:

- (i) Guidelines for Managing the risks of adverse impacts on communities from temporary project induced Labor influx
- (ii) Environmental Health and Safety Guidelines

11. The mitigation measures and environmental management plan should be sufficiently specific to provide clear guidance to the Contractors for enforcement by the engineer. The contract clauses should be focused towards specifications to be complied and enforcement with built in mechanism to take recourse on failure of implementation. For supervision, the ESMP will provide comprehensive checklists for the verification of compliance of environmental specifications by contractors and checklists for the reception of final works. The ESMP will also include a monitoring program.

12. The mitigation measures and monitoring framework required during operations should also be prepared, in an Operations Manual and/or ESMP format for operations phase.

Task 7: Stakeholder Consultations

13. The Consultant will assist the Client in undertaking at the minimum two structured consultations, during the preparation of the ESIA and ESMP. In addition, such consultations with primary and secondary stakeholders will continue throughout project implementation, as necessary to address EA related issues that affect them. 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. Stakeholders should be consulted at least twice during ESIA preparation: shortly after E&S screening and before ToR is finalized, and once a draft ESIA report is prepared. Please also note the result of the stakeholder consultation should be reflected in ESIA report as well as in the project design and in implementation and operational approaches. The consultant shall be responsible for keeping a record of all such consultation meetings, for obtaining the informed views of the stakeholders.

Deliverables

After commencement of the studies, the separates reports will be submitted in as follows (assuming timely delivery of required inputs from MoLGRD&C, as discussed below).

- 1) An Inception and scoping report, including initial findings of environmental and social risks and impacts, proposed definition of project study area, full outline of ESIA, detailed workplan and schedule. the reports will be submitted within 1 month of signing of contract in 6 copies.

- 2) Separate complete reports on Draft ESIA report will be submitted in at the end of 4th month of signing the contract, prior to disclosure and preparation of consultations on the drafts in 6 copies.
- 3) Separate reports on Final ESIA report, taking into account feedback from consultations, will be submitted in by the end of 6th month of signing the contract in 6 copies.
- 4) The reports summarizing the outcome of each stakeholder consultation opportunity according will be provided within one month upon completion

Duration and Timing

The ESIA Report should be completed within 6 months from commencement. All draft deliverables should be presented in English, with final deliverables also translated into Bangla at the Consultant's expense. The final presentation workshop should be held within 8 months of commencement of the contract.

Institutional Arrangements

The consultant shall report to Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) and liaise with other agencies of the government including Ministry of Disaster Management and Relief (MoDMR), Ministry of Health and Family Welfare (MoHFW), Ministry of Environment, Forest and Climate Change (MoEFC), and local authorities. Data will be provided by MoLGRD&C, MoDMR and MoHFW.

Existing relevant reports such as ESMF, EIAs, EMPs, elephant corridor map and plans for development will be provided by relevant ministries with facilitation from MoLGRD&C. Coordination and contract management will be carried out by LGED Project Implementation Unit.

The final output will be subject to acceptance by MoLGRD&C and World Bank for compliance with the World Bank Safeguard Policies and relevant guidelines

Selection Procedure and Form of Contract.

The selection method of consultancy service is CQS [Open] Method of World Bank Procurement Regulation for IPF for Borrowers for Goods, Works, Non-Consulting and Consulting Services revised in July 2016 revised in November 2017 (Procurement in Situations of Urgent need of Assistance or Capacity Constraints). Form of contract will be lump sum.

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 months for key professional staff is 30 and those of non-key staffs is 60. 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 and proposed methodology.

Qualification and Input for Key Professional Staffs:

Position	Academic qualification	Desirable years of professional experience	Specific Experience	Indicative No. of position
Team Leader (International)	Graduation in relevant field	12 years	<ul style="list-style-type: none"> a) 3 years of international experience as Team Leader. b) Experience of environmental and social impact assessment preferably of infrastructure specially road, building and water supply & sanitation. c) Experience in World Bank project or similar Financier's project. 	1
Deputy Team Leader cum	Graduation in relevant field	10 Years	<ul style="list-style-type: none"> a) 3 years of experience as Deputy Team Leader. b) Experience of environmental and social impact assessment preferably of infrastructure specially road, building and water supply & sanitation. c) Experience in World Bank project or similar Financier's project. 	1
Environmental Specialist/Scientist, or Ecologist	B.Sc. Engineering (Civil)/Ecology/relevant field	8 years	<ul style="list-style-type: none"> a) 3 years of experience in the impacts assessment of infrastructure activities on natural habitats, water, land and biodiversity. b) Experience in Bangladesh terrestrial and aquatic ecosystems is desirable. c) Experience in World Bank project or similar Financier's project. 	1
Social Development Specialist	Graduation in Social Science	8 years	<ul style="list-style-type: none"> a) 3 years of experience of direct and indirect social impacts (positive and negative) assessment of infrastructure development-related activities including water supply & sanitation. b) Proven experience in anthropological studies of indigenous populations preferably in Bangladesh. c) Experience in World Bank project or similar Financier's project. 	1

In addition to above listed positions of professionals; the consultant should make arrangements for other experts and support staff 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.

Other Non-Experts and staff

Sl. No.	Positions	Indicative Number
1	Stakeholder Engagement Specialist	1
2	Infrastructure Specialist	1
3	GIS Specialist	1
4	Computer Operator	1
5	Office Manager	1
6	Driver	2
7	MLSS	2

9. Responsibilities of LGED

The consultant shall work under the direct supervision of the Project Director, MDSP (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-MDSP and the consultants. Any unresolved issue, technical or otherwise, would be taken up with LGED through the Project Director and LGED, Dhaka.

For smooth completion of the study; the Project Director, MDSP (LGED) shall assist the consultant, as far as possible, in collection of the following data, services and facilities:

Available studies carried out by different study partners in relation to this study for generation of secondary information and future plans.

Appendix 5: Generic ToR for Environmental and Social Management Plan

A. Scope of Work

The Consultant is required to prepare ESMP highlighting a set of mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate or reduce adverse environmental and social impacts to acceptable levels. The plan will also include the actions needed to implement these measures. To prepare a management plan, the Consultant will identify (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

An ESMP should include the following components:

- **Description of Adverse Effects:** The anticipated environmental and social effects are identified and summarized.
- **Description of Mitigation Measures:** Each measure is described with reference to the effect(s) it is intended to deal with. As needed, detailed plans, designs, equipment descriptions, and operating procedures are described. Measures to enhance positive impacts should also be proposed.
- **Description of Monitoring Program:** Monitoring provides information on the occurrence of environmental effects. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation.
- **Institutional Arrangement:** The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies. Reporting procedure including grievance redress mechanism should also be proposed.
- **Implementation Schedule:** The timing, frequency and duration of mitigation measures and monitoring are specified in an implementation schedule, and linked to the overall subproject schedule.
- **Cost estimates and sources of funds:** These are specified for the initial subproject investment and for the mitigation and monitoring activities as a subproject is implemented. Funds to implement the ESMP may come from the subproject grant, from the community, or both. Government agencies and NGOs may be able to assist with monitoring.

Please note that the methods for monitoring the implementation of mitigation measures or environmental effects should be as simple as possible. Further guidance on preparation of ESMP can also be provided, if required. **The ESMP will be required to be reviewed and cleared by the World Bank.**

B. Deliverables and Proposed/Indicative Structure of ESMP Report

The proposed structure of the ESMP report is as follows:

- **Executive Summary:** This should provide a general summary of the ESMP contents and key findings, in a vocabulary that is easily understood by the general public. It should be clear, concise ranging from 3 to 5 pages;
- **Introduction:** An introduction describing the ESMP purpose, objectives, principles and methodology. This section should introduce the project proponents, the study team, and provide other relevant information. The layout of ESMP should also be described to facilitate its use;
- **Sub-Project Description:** A description of the subproject which will include background, purpose and different components. Also indicate any subproject specific resource requirements such as material, manpower, equipment, etc.
- **Environmental Baseline of Subproject Area:** This section gives site specific overview of baseline covering physical and biological environment. It will include ambient air quality, noise, temperatures, rainfall, etc.
- **Socio-Economic Profile of Subproject Area:** This section describes socio-economic profile of the subproject area. It will cover community structure, planned development activities, population, occupation and livelihoods, methods of communication and transport, cultural heritage sites, etc.
- **Stakeholder consultation and Information Disclosure:** This section will describe the objective, process, and outcome of the stakeholder consultations carried out during the ESMP preparation. This section should also list arrangements for disclosing subprojects information in order to comply with the Bank's Policy of Disclosure of Information.
- **Impacts and Mitigation:** This section will identify all positive as well as negative environmental and social impacts with cost effective and feasible measures to reduce adverse environmental impact to acceptable level. It will describe with technical details mitigation measures including the type of impact to which it relates to. It will also describe methodology for social impacts
- **Environmental Management and Monitoring Plan:** This section will provide specific description and technical details of monitoring measures including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions. The monitoring and reporting procedures will ensure early detection of conditions that necessitate particular mitigation measures, and furnish information on the progress and results of mitigation.
- **Institutional Arrangement:** Detailed description of institutional arrangements, roles and responsibilities and reporting procedures should be presented. This section should also propose capacity building and training plan for implementing agencies responsible for this project.
- **ESMP Implementation Budget:** An ESMP implementation budget estimates are provided here. The budget will include funds for institutions development activities, training programs for implementation teams and local/national institutions, technical assistance to authorities,

costs for preparations of EMPs and other safeguard documents; and

- **Annexures:** Technical annexes to support ESMP implementation.

C. Qualifications and Skills Required

The Consultant needs to demonstrate that the proposed ESMP preparation team has the expertise required to fully appreciate the requirements of *all* the Safeguards Policies to be addressed in the ESMP, and to complete *all* required sections of the ESMP. The team should include appropriate number of specialists from different disciplines including but not limited to environmental sciences, social sciences and GIS expert. The team should have complete understanding of the national legislative requirements as well as WB safeguard policies.

Appendix 6: ToR for Environmental Safeguard Support under Design and Supervision Firm

Terms of Reference for Environmental Safeguard Support under Design and Supervision Firm

Emergency Multi-Sector Rohingya Crisis Response Project

Objective

The main objective of Environmental safeguard support under Design and Supervision Firm 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 firm 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 site specific impact assessment reports
- 3) Preparation and implementation of site and activity specific EMPs
- 4) Field implementation of environmental safeguard
- 5) Information consolidation and monthly monitoring report to firm/PIU
- 6) Ensure management of contractual obligation on environmental safeguard in the field
- 7) Training provision
- 8) Assist the CIA firm in data collection and assessment of Cumulative Impacts due to the entire activities in/around DRP camps
- 9) Arrange and conduct public consultations

Scope of Work

1. Preparation of Environmental Screening

During pre-construction of each physical intervention, the firm 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 support 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 uses, 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.

2. Identification of impacts of project activities and site specific impact assessment reports

- i. When the screening result indicates the specific physical intervention is likely to require more detail impact assessment, the firm will conduct the detail impact assessment with the guidance of the Sr. Environmental Specialist. The firm will develop the site specific environmental impact assessment along with the environmental management plan in light of the ESMF.

3. Preparation and implementation of site and activity specific EMPs

- i. The support will prepare the site and activity specific EMPs in light of the ECoPs 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 support will update the EMPs periodically and ensure the proper implementation of the EMPs.

4. Information consolidation and reporting to PIU

- i. The support will collect and consolidate information at any stage of the project implementation as required.
- ii. The support will collect required data for cumulative impact assessment (CIA). PIU environment specialists will direct the support regarding the type, methodology of the data collections.
- iii. The environmental safeguard support under design and supervision firm will prepare the environmental screening and monitoring report under the guidance of Environmental Specialists of PIU.
- iv. The support will share consolidated monthly monitoring report with the PIU.

5. Assist PIU in management of contractual obligation

- i. The support will assist Environmental Specialists of PIU to ensure the safeguard 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 sub-sequent site-specific as well as activity specific safeguard instruments. The support will ensure the implementation of the contractors' obligation approved by the Sr. Environment Specialist.
- ii. The support will inform Environmental Specialist to address safeguard related non-compliance issues of contractors according to the project specific non-compliance rectification procedures and will assist for remedy action application

6. Training Provision

- i. The support will develop the training plan which will be approved by the PIU Sr. Environment Specialist.
- ii. The support will organize trainings related to environmental safeguard to raise the capacity of contractor and other relevant stakeholders to implement and monitor the EMPs implementation. Key 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 Environmental safeguard support for preparation and provision of the trainings.

7. Assist in assessment of Cumulative Impact

- i. The support shall 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.

8. Technical Advice to PIU field based Environmental Specialist

- i. When necessary and required by PIU, the support shall 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.

9. Arrange and Conduct Public Consultations

- i. The support 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.

Duration

The Firm is envisaged to work over a period of 3 years.

Reporting

Quarterly progress reports shall be submitted to the PD.

Qualifications**Team leader**

The Team Leader The focal point of the support, who will be responsible for the tasks required by the support.

Education: Master's in Environmental Engineering, Environment Science or related field. The Team Leader shall have responsibility for providing the requisite leadership, direction and supervision, and be accountable to PIU for day-to-day performance of the team and shall be vested with sufficient authority to act. The team leader shall exercise all standard management functions including planning, scheduling, directing, organizing, and controlling, and shall be involved as much as possible in technical activities assigned to specific technical tasks to achieve maximum efficiency and benefit.

Experience: At least 20 years of experience as Civil/Environment Engineer, Environmental Scientist, Environmental Planner or related field, and at least 10 years of experience as Environmental Specialist

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. Prior experience leading the team to prepare one or more Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) and Environmental Management Frameworks (EMFs) in accordance with World Bank Safeguard Policy requirements or other international standards is required. Expertise in the project area is preferred.

Team members (local)

Education: Master's in Environmental Engineering, Environment Science, forestry or related field with forestry background.

Experience: At least 10 years of minimum experience as Civil/Environment Engineer, Environmental Scientist, Environmental Planner, Natural Resources Management or related field, and at least 5 years of experience as Environmental Specialist 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 preparing one or more Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) or Environmental Management Frameworks (EMFs) in accordance with World Bank safeguard policy requirements is a plus.

Team members (international)

Education: Master's in Environmental Engineering/Environment Science with wildlife conservation and forestry or related field.

Experience: At least 15 years of minimum experience as Civil/Environment Engineer, Environmental Scientist, Environmental Planner or related field, and at least 8 years of experience as Environmental Specialist 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. The team members shall have extensive experience in handling wildlife conservation and forestry, Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) and Environmental Management Frameworks (EMFs) in accordance with World Bank safeguard policy requirements and other internationally accepted standards/guidelines.

Team members (local)

Education: Master's in Wildlife and Forestry, Environmental Engineering/ Environment Science with wildlife conservation and forestry or related field.

Experience: At least 15 years of minimum experience Environmental Planner or related field, and at least 8 years of experience as wildlife expert. Experience must include at least one World Bank/ADB or other development partner funded project. Expertise as Environmental Specialist in conducting environmental assessments of road, water, wastewater or other infrastructure sector of similar nature and complexity in the project area is preferred. The team members shall have extensive experience in handling wildlife conservation and forestry, Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) and Environmental Management Frameworks (EMFs) in

accordance with World Bank safeguard policy requirements and other internationally accepted standards/guidelines.

Note: Detailed ToR will be prepared and finalized in consultation with the World Bank during Implementation

Appendix 7: ToR for Cumulative Impact Assessment

Terms of Reference

Cumulative Impact Assessment Consultant (CIA)

1. Introduction

Since 25 August 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 702,160 people from Rohingya community across the border into Cox's Bazar District of Bangladesh. This exodus brings the total number of Displaced Rohingya Population (DRP) in the district to about 914,678 in what is one of the fastest developing forced displacement crises in the world. In Ukhia and Teknaf, the two Upazilas where most of the DRP have settled, they outnumber the host community by almost a factor of four, with 87% settled in unplanned camps and the remaining 13% living among host communities.

Almost all the DRP are hosted in some of the world's most congested areas, including in the Kutupalong "mega-camp", which has fast become the largest refugee camp in the world. The DRP account for about one third of the total population in Cox's Bazaar, a district that was already densely populated and facing severe development challenges. They are sheltered in makeshift settlements and extremely congested shelters, in areas that have minimal access to basic infrastructure and services and are prone to natural disasters, especially cyclones and floods. Setting up of camps has led to rapid deforestation, further increasing vulnerability of the DRP to disasters and approaching monsoon. Relocation of households of most at-risk from landslide and flood is underway but there is insufficient suitable land available to accommodate even the highest-risk category.

The influx is straining existing infrastructure and degrading an already resource-constrained social service delivery system and the environment in Cox's Bazar District. Stress on existing water points has increased over 20-fold with the new influx, rendering many of them dysfunctional while disposal and treatment of fecal sludge has become a challenge. Over 70 per cent of water stored in households is contaminated and there have been outbreaks of diseases like diphtheria, measles and diarrhea. The influx has increased strain on referral and inpatient services provided by the District hospital and the two Upazila Health Complexes.

Over 60% of the DRP are women and children. DRP women face high levels of discrimination within their community, and most women stay in their shelters due to social norms that limit their roles in the public sphere as well as to avoid sexual assault and trafficking that is occurring in the camps. This restricted mobility is particularly challenging for women-headed households who compose 16% of DRP households. The extent of GBV faced by DRP women is difficult to quantify, but UN agencies and local NGOs report high levels. Approximately 85% of sites within Bangladeshi communities hosting DRP have no services for survivors of violence. There is a need to expand services that address particular concerns faced by DRP women, and subsequently design interventions that provide safety and freedom of movement for women. Such interventions would support: (i) the provision of immediate health services for survivors of violence; (ii) working with community based organizations to prevent GBV through outreach, peer counseling and behavior change interventions; and, (iii) opportunities for DRP women to engage in productive activities.

The influx is having a disproportionate impact on the local economy and increasing tensions between the DRP and hosts. More than 90 percent of the DRP populations have no sources of income. At least 80 percent of the overall DRP is highly or entirely dependent on external assistance while the remaining 20 percent can only partially meet their needs through coping strategies. Although not strictly permitted to leave the camp or work, some members of the DRP, mostly men are taking up jobs in construction, farming, fishing and restaurants, often accepting wages below half the normal rates. This decline in wages, price rise and strained access to services has increased tensions between host communities and the DRP. Host communities that live in the immediate vicinity of the camps, estimated at about 336,000, initially welcomed the fleeing people but their prolonged stay has strained relations between the two.

In response to the crisis, international humanitarian agencies are providing almost all services and basic needs, with a focus on addressing the urgent needs of the DRP community. Prior to August 25, 2017, a number of agencies were present to provide support for both registered refugees (under UNHCR leadership) and other DRP (under IOM leadership). With the crisis, humanitarian efforts have been rapidly scaled up, with a strong engagement by UN agencies (WFP, WHO, UNICEF, UNFPA), humanitarian financiers (e.g. ECHO), key bilaterals, and international and local NGOs. However, the magnitude of the crisis is such that these efforts remain insufficient. The overall effort is coordinated under the Inter-Sector Coordination Group (ISCG), which is chaired by IOM. Meanwhile, a number of ad hoc individual initiatives undertaken by international and local charities are further complicating coordination efforts. For the humanitarian agencies, strategic guidance and national level government engagement is provided by the Strategic Executive Group (SEG) in Dhaka, which is co-chaired by the Resident Coordinator, IOM, and UNHCR.

Building on humanitarian assistance, the Bank adjusted ongoing operations to respond to prioritized medium-term needs. The first existing operation that is expected to receive Additional Financing for support to the DRP community is the Health Sector Support Project (P167672) (HSSP), which is expected to be approved by the Boards in July 2018. In addition, additional financing for another existing operation, Reaching Out of School Children (P167870) (ROSC), is expected to be approved by the Board in August 2018. This new multisectoral project will coordinate with both aforementioned projects to yield synergies and minimize duplication of Bank resources on the ground.

In line with the JRP, the Bank's assessment has identified a number of key needs to be addressed in the medium term (3 years). They include access to drinking water and adequate sanitation, access to health and nutrition services and response to potential disease outbreaks, response to weather-related hazards, access to fuel and mitigation of associated environmental degradation, inclusion in productive activities to yield basic services and to address needs and vulnerability of women and children as well as respond to psychosocial issues. Most of these challenges are inter-related, and the strain on resources, gaps in service delivery, and the exposure to shocks directly influence the relationship between host communities and the DRP.

The overall Bank response focuses on seven priority areas, identified during consultations with affected communities, DRP and local government and various needs assessments by development partners. These areas are (i) health and nutrition; (ii) water, sanitation and hygiene; (iii) social

protection; (iv) disaster risk management; (v) environment; (vi) gender and (vii) education. The proposed program aims to support the GoB in addressing these priority areas of intervention through a combination of restructuring/additional financing of existing projects in Health, Nutrition and population services and Education, as well as a multi-sector program addressing needs in rest of the priority areas.

2. Objective

These terms of reference (ToR) describe the requirements for cumulative impact assessment and management for various infrastructure development provided by UN agencies, NGOs, bilaterals and multilateral development banks to respond to influx of Displaced Rohingya Population in Cox's Bazar. The objectives of the proposed cumulative impact assessment are to:

1. Plan and execute an integrated assessment of the cumulative impacts of DRP camps and related development in the Cox's Bazaar area, including power optimization and development scenarios.
2. Lead the design of a framework for ongoing co-management with public and private sector in Cox's Bazaar to address identified cumulative impacts, including collaborative environmental and social impact monitoring and management.
3. Strengthen the capacity of DRP influx area stakeholders in CIA and co-management.

3. Scope of Work

3.1 Cumulative Impact Assessment

Cumulative Impact Assessment should follow the following six step process described in IFC's Good Practice Handbook, "Cumulative Impact Assessment and Management Guidance for the Private Sector in Emerging Markets".

Step 1: Scoping phase I – VECs, spatial and temporal Boundaries

Step 2: Scoping phase II – Other activities and environmental drivers

Step 3: Establish information on baseline status of VECs

Step 4: Assess cumulative impacts on VECs

Step 5: Assess significance of predicted cumulative impacts

Step 6: Management of cumulative impacts – design and implementation

The following ToR sections provide a brief outline of the work to be undertaken in conducting the CIA.

3.1.1 Review the regulatory framework

Tasks:

- 1) Review the existing legal, institutional and governance framework, policy and plan for DRP related development in the Cox's Bazaar to gain a complete understanding of the regulatory context.

3.1.2 Scoping Phase I – VECs, Spatial and Temporal Boundaries

Tasks:

- 1) Identify the VECs to include in the CIA. Identify and verify previously identified Valued Ecosystem Components (VECs) in consultation with stakeholders. Impacts on elephant habitat and forest ecosystem would be examples of potential VECs.
- 2) Identify the spatial boundaries of the CIA. The special boundaries should be determined considering the camp areas where DRP has flown into, relative significance and practical issues of time/resources for effective outcome.
- 3) Identify the temporal extent of the CIA. Please consider the time frame when significant DRP inflow to the camp area has occurred and would occur.
- 4) Engage stakeholders in at least one 1-day workshop to explore and determine the final spatial and temporal boundaries and VECs based on the different developments and stressors considered over time (refer to Section 3.4 'Stakeholder Engagement'). Ultimately, professional judgment is required to estimate the appropriate scope and to justify the reasoning behind the boundaries/VECs used.

Note:

- VECs to include are those that would be affected by the project. Thus VECs for which an impact was deemed insignificant in the ESIA are not to be included in the CIA.
- If the number of VECs is too large to conduct an analysis of all, then priority for analysis should be given to those for which there is existing regional concern, as reflected in the regional baseline information (see section 3.1.4).

3.1.3 Scoping Phase II – Other Activities and Environmental Drivers

Tasks:

- 1) In collaboration with PIUs and other relevant governmental organizations, Identify other existing and reasonably predictable future development that do/would affect the VECs to be included in the CIA. Please consider the other previous, and foreseeable development activities to support DRP provided by UN agencies, humanitarian financiers, key bilaterals, and international and local NGOs etc. Please collate completed plans, programs and studies of potential relevance to the CIA for such consideration.
- 2) Identify natural environmental drivers, e.g. increased risks of landslide, flooding or erosion etc. that also impact the condition of VECs identified in section 3.1.2

Note:

- Developments that could be reasonable expected to be induced by the projects are considered to be reasonably predictable.
- Where there is a significant potential for further development, but not specific development proposals in place, a scenario of potential development may be considered.

3.1.4 Establish Information on Baseline Status of VECs

Tasks:

- 1) Collect available information on the impacts of the other activities and natural drivers on the condition of the VECs. E.g. EIAs and SIAs.
- 2) Collect available data and information on trends in VEC condition.
- 3) Collect available information on regional thresholds for VEC condition.
- 4) Conduct a gap analysis and propose measures to address critical data deficiencies.

Note:

- If regional thresholds for VEC condition have not been established, they may have to be estimated based on estimates from other regions. When feasible, the estimation should be peer reviewed.

3.1.5 Assess Cumulative Impacts on VECs

Tasks:

- 1) Establish indicators for expression of VEC condition. This may already be reflected in the information collected on VEC baseline status (in Section 3.1.4). If not, then indicators will need to be established that can be estimated from the baseline information.
- 2) Estimate the “future baseline” for condition of the VECs—i.e., the condition of VECs as affected by the other projects, human activities, and natural drivers.
- 3) Estimate the project impact on VEC condition. This estimation is done with the effects of planned project mitigation included.
- 4) Estimate the cumulative impact on VECs—the total impact on the VECs when the impacts of the development are combined with the future baseline.

Note:

- A wide variety of methods have been used for CIA analysis, methods chosen for the analysis should be chosen to be compatible with the information available for the analysis and that can provide, whenever possible, a quantitative estimate of cumulative impact.
- If qualitative estimates of cumulative impact are to be developed, they should be based on the consensus estimate of a panel of experts rather than on the opinion of an individual expert.

3.1.6 Assess Significance of Anticipated Cumulative Impacts

Task:

- 1) Assess the significance of the foreseen cumulative impacts on the VEC.

Note:

- When the cumulative impact on VEC condition will approach, be near to, or exceed a threshold, the impact is significant.
- The analysis may reveal that significant cumulative impacts will exist without the project.

3.1.7 Management of Cumulative Impacts – Design and Recommendation

Tasks:

- 1) Identify and design adequate policy, strategy and measures (beyond that identified in the project ESIA) to manage (avoid, minimize, compensate, etc.) an estimated unacceptable cumulative impact on a VEC to an acceptable level (iteration with the tasks described in Sections 3.1.5 and 3.1.6 will be necessary to assess the value of such additional mitigation). This should represent effective application of the mitigation hierarchy in environmental and social management of the specific project contributions to the expected cumulative impacts.
- 2) If necessary, identify the potential, or need for, additional mitigation of other existing or reasonably predictable future projects.
- 3) Identify the potential for other regional strategies that could maintain VECs at acceptable conditions.
- 4) Undertake a multi-stakeholder workshop to report back on the assessment process and verify / seek buy-in from stakeholders on the integrated CIA recommendations
- 5) Complete draft and final Integrated Cumulative Impact Assessment report

3.2 Cox's Bazaar Cumulative Impact Co-management Platform

The Consultant is required to design a framework for involving the public and private sector in addressing identified cumulative impacts in Cox's Bazaar, including collaborative environmental and social impact monitoring and management.

The Platform would ultimately aim to enhance collaboration and governance in the Cox's Bazaar by:

- (i) Supporting the co-management (avoidance, minimization, compensation, etc.) of environmental and social impacts resulting from multiple or successive developments in the Cox's Bazaar to address DRP.
- (ii) Exploring the recommendations for the future land use/conservation of the area where the development to accommodate DRP has been taken place.
- (iii) Coordinating, to the extent possible, regional approaches and methodologies for environmental and social impacts assessment, monitoring, data analysis, reporting and management.
- (iv) Maintaining open communication and engagement with relevant stakeholders.

Note: The Consultant is not responsible for fully operationalizing the Platform; only for developing its framework and providing foundational capacity building

Building on lessons learned from related initiatives, the Consultant will lead in the participatory design of a framework for a Cox's Bazaar Cumulative Impact Co-Management Platform.

The Consultant team will develop the Platform framework through consultation with all relevant stakeholders, including:

- Defining the key features of the Platform, including a governance committee, institutional arrangements, standard operating procedures and plans for implementation.
- Developing institutional and financial mechanisms to support co-management of common environmental and social challenges, impacts and risks.

- Investigating options for linking into past and present regional collaboration initiatives

3.3 Capacity Building

The Consultant is to strengthen the capacity of government and other stakeholders in cumulative impacts assessment and co-management through workshops, seminars and on-the-job training

The Consultant should plan and facilitate a Project Inception and Training Workshop with key stakeholders. The workshop will cover the project and development overview in Cox's Bazaar, importance and methodology of CIA, strategy/plan development based on CIA. The Consultant will also conduct a brief capacity building needs assessment of the key Government departments and other stakeholders to inform planning of subsequent capacity building activities.

The Consultant is to use the outcome from that assessment, supplemented by wider stakeholder engagement activities, to prepare a Capacity Building Plan. This Plan should include provisions for simultaneous interpretation for all capacity building sessions and for all final materials to be provided in both English and Bangla. Based on Capacity Building Plan, three capacity building workshops focusing on the key issues, the proposed strategy/plan and Co-Management Framework and other important topics should be carried out.

3.4 Stakeholder Engagement

Stakeholder engagement is critical to the success of CIA. Engagement should start early in the process, i.e., in Scoping (Sections 3.1.2, 3.1.3) and continue throughout the CIA process. It will be essential to collect the information needed for the CIA analysis and likely also to secure cooperation in implementation of mitigation of the impacts of other projects, and or identification and design of regional cumulative impact management strategies that may be needed to avoid unacceptable cumulative impacts.

The Consultant is required to prepare a Stakeholder Engagement Plan (SEP) to guide the consultations in-line with the work schedule for the Project. The preparation of the SEP should involve the identification and mapping of stakeholders and a detailed plan of consultation and communication activities specific to each group, to be implemented by the Consultant. The consultation activities may range from meetings, workshops, forums, telephone calls, on-site discussions, focus groups discussions and surveys. The SEP should be developed in the early stages of the Project, and form part of the Inception Report.

Stakeholder engagement should be designed and implemented to:

- clarify stakeholder roles and responsibilities in the CIA process, and to
- establish and maintain a constructive relationship with government and other stakeholders.

The second point is essential when additional mitigation is needed for other projects. Engaging in assigning blame for cumulative impacts is likely to be counterproductive. Cumulative impacts are, by their multiparty nature, a collective responsibility and in this regard maintaining a constructive relationship will be essential.

In addition to the inception and draft report workshops, and meetings with government stakeholders, there are three key Project activities requiring stakeholder consultations, including:

1. Definition of parameters: Definition of the VECs, along with the corresponding temporal and spatial boundaries will require the participation of a range of stakeholders and experts. It is not possible to assess impacts on every VEC, therefore, it will be necessary to define those VECs which are most valued by stakeholders or vital to the functioning of the ecosystem.
2. Participatory design of the cumulative impacts co-management framework: This will require investment from the project as well as appropriate Government departments to manage and see through the recommendations of the CIA.
3. Collaboration with other initiatives: The Consultant should be aware that there are other initiatives being undertaken simultaneously for DRP management in Cox's Bazaar. The Consultant should make every effort to understand these initiatives, identify their relevance to this Project and establish mechanisms to avoid duplicative efforts. There may be instances wherein the Project will be able to incorporate the findings and outcomes of these initiatives within this Project, and/or identify the need to collaborate with other initiatives. As part of a response to the TOR, the Consultant should note their approach to coordinating with relevant initiatives and managing risk of stakeholder fatigue.

Preliminary identification of stakeholders includes:

Type/Group	Stakeholder
Government Ministries/Departments/ Committees in Bangladesh	Refugees, Relief, and Repatriation Commission (RRRC); Ministry of Disaster Risk Management and Relief (MDRMR); Local Government Engineering Department (LGED); Department of Public Health Engineering (DPHE), Ministry of Environment, Forest and Climate Change (MoEF)
International / multilateral / bilateral development institutions	UNHCR, UNDP, UNICEF, IOM, WFP, UNFPA, WHO, Inter Sector Coordination Group (ISCG) World Bank, ADB, AIIB, NORCAP, JICA
Local and international NGOs	BRAC, Action Against Hunger, Save the Children, International Rescue Committee
Local communities	Rohingya and host communities affected by and likely to be affected by existing and planned development
Universities & research organizations	Asian University for Women
Developers	Major construction firms, engineering firms etc.

4. Deliverables

After commencement of the studies, the separate reports will be submitted in as follows (assuming timely delivery of required inputs from MoLGRD&C, as discussed below).

- 5) An Inception and scoping report, including initial findings of environmental and social risks and impacts, proposed definition of project study area, full outline of CIA, detailed workplan and

schedule, result of inception workshop and stakeholder engagement/consultation plan for completing the studies will be submitted within 1 month of signing of contract in 6 copies.

- 6) Separate complete reports on Draft Cumulative Impact Assessment including the result of workshop to present / verify findings of CIA will be submitted in at the end of 4th month of signing the contract, prior to disclosure and preparation of consultations on the drafts in 6 copies.
- 7) Separate reports on Final Cumulative Impact Assessment, taking into account feedback from consultations, will be submitted in at the end of 6th month of signing the contract in 6 copies.
- 8) Framework for Cox's Bazaar Cumulative Impact Co-Management Platform will be submitted at the end of 8th month of signing the contract in 6 copies.
- 9) The reports summarizing the outcome of each stakeholder consultation opportunity according to SEP will be provided within one month upon completion
- 10) Capacity building workshop report will be provided upon completion of workshops. The workshops should be tentatively scheduled during 5-7th month after contract.
- 11) Final stakeholder meetings and dissemination: Series of activities to disseminate Project outcomes to stakeholders and ensure awareness of ongoing processes by the end of contract.

5. Duration and Timing

The Cumulative Impacts Assessment Report should be completed within 6 months from commencement. All draft deliverables should be presented in English, with final deliverables also translated into Bangla at the Consultant's expense. The final presentation workshop should be held within 8 months of commencement of the contract.

6. Institutional Arrangements

The consultant shall report to Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C) and liaise with other agencies of the government including Ministry of Disaster Management and Relief (MoDMR), Ministry of Health and Family Welfare (MoHFW), Ministry of Environment, Forest and Climate Change (MoEFC), and local authorities. Data will be provided by MoLGRD&C, MoDMR and MoHFW.

Existing relevant reports such as ESMF, EIAs, EMPs, elephant corridor map and plans for development will be provided by relevant ministries with facilitation from MoLGRD&C. Coordination and contract management will be carried out by LGED Project Implementation Unit.

The final output will be subject to acceptance by MoLGRD&C and World Bank for compliance with the World Bank Safeguard Policies and relevant guidelines

7. Selection Procedure and Form of Contract.

The selection method of consultancy service is CQS [Open] Method of World Bank Procurement Regulation for IPF for Borrowers for Goods, Works, Non-Consulting and Consulting Services revised in July 2016 revised in November 2017 (Procurement in Situations of Urgent need of Assistance or Capacity Constraints). Form of contract will be lump sum.

8. 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 months for key professional staff is 30 and those of non-key staffs is 60. 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 and proposed methodology.

Qualification and Input for Key Professional Staffs:

Position	Academic qualification	Desirable years of professional experience	Specific Experience	Indicative No. of position
Team Leader (International)	Graduation in relevant field	12 years	d) 3 years of international experience as Team Leader. e) Experience of cumulative impact assessment preferably of infrastructure specially road, building and water supply & sanitation. f) Experience in World Bank project or similar Financier's project.	1
Deputy Team Leader cum	Graduation in relevant field	10 Years	d) 3 years of experience as Deputy Team Leader. e) Experience of cumulative impact assessment preferably of infrastructure specially road, building and water supply & sanitation. f) Experience in World Bank project or similar Financier's project.	1
Environmental Specialist/Scientist, or Ecologist	B.Sc. Engineering (Civil)/Ecology/relevant field	8 years	d) 3 years of experience in the impacts assessment of infrastructure activities on natural habitats, water, land and biodiversity. e) Experience in Bangladesh terrestrial and aquatic ecosystems is desirable. f) Experience in World Bank project or similar Financier's project.	1
Social Development Specialist	Graduation in Social Science	9 years	d) 3 years of experience of direct and indirect social impacts (positive and negative) assessment of infrastructure development-related activities including water supply & sanitation.	1

			e) Proven experience in anthropological studies of indigenous populations preferably in Bangladesh. f) Experience in World Bank project or similar Financier's project.	
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In addition to above listed positions of professionals; the consultant should make arrangements for other experts and support staff 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.

Other Non-Experts and staff

Sl. No.	Positions	Indicative Number
1	Stakeholder Engagement Specialist	1
2	Infrastructure Specialist	1
3	GIS Specialist	1
4	Computer Operator	1
5	Office Manager	1
6	Driver	2
7	MLSS	2

10. Responsibilities of LGED

The consultant shall work under the direct supervision of the Project Director, MDSP (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-MDSP and the consultants. Any unresolved issue, technical or otherwise, would be taken up with LGED through the Project Director and LGED, Dhaka.

For smooth completion of the study; the Project Director, MDSP (LGED) shall assist the consultant, as far as possible, in collection of the following data, services and facilities:

- Available studies carried out by different study partners in relation to this study for generation of secondary information and future plans.

Appendix 8: ToR for Monitoring and Evaluation Consultant

A. Introduction

1. The mass fleeing of hundreds of thousands of Forcibly Displaced Myanmar Nationals (FDMNs) risking their lives by sea or on foot, in order to avoid the death or persecution in the northern Rakhine province of Myanmar (Burma) for neighboring Bangladesh since August 2017 has caused the advent of the World's fastest growing refugee crisis. About 10.00 lac FDMNs have crossed the border from Myanmar to several camps across Cox's Bazar District in Teknaf and Ukhiya Upazilas, placing an immense strain on the existing infrastructure and on an already resource-constrained social service delivery system and the environment. The large influx of FDMNs population outnumbers the host community by about 2:1 in the affected Upazilas, posing significant risks of exposure to natural disasters, road communication, crowding and congestion in hat-bazar, social service delivery system etc. In the above backdrop, Emergency Multi-Sector Rohingya Crisis Response project aided by World Bank with the objective to provide greater protection for the FDMNs in times of natural disaster and improve social service delivery system by way improving communication network, social resilience and other facilities to the FDMNs has been undertaken. The objective has been planned to achieve through procurement and implementation of following works, supply of goods and hiring of services:

I: Construction of new shelters: This sub-component will support construction of new multi-purpose disaster shelters to build greater protection for future disaster events.

II: Improvements of roads: This sub-component will finance the repairs and improvement of existing shelters that are damaged or cannot be used as disaster shelters due to some inadequacies to meet the required standard;

III: Construction of bridges/culverts: This sub-component will finance the reconstruction/construction of roads communication network to the shelters to be constructed or repaired under the project to make them more accessible and effective; and

IV. Miscellaneous works like drainage structure, internal road, hatbazar, footpath, supply of solar street light, supply of lightening protection devices, firefighting equipment, multipurpose community center, relief distribution and administration center, warehouse for firefighting equipment and firefighting satellite stations etc.

The components would cover mainly Ukhiya and Teknaf Upazila of Cox's Bazar districts of Bangladesh.

The project has three components, viz, LGED component, FSCD component and DPHE component. First two components will be implemented by LGED. The LGED intends to hire a local consulting firm to assist the PIUs in monitoring and evaluating all aspect of the EMCRP which includes LGED, FSCD and DPHE components. Package number is EMCRP/M&E/S2 and post review contract. It will be financed by World Bank and duration of the assignment is for 3 (three) years.

B. Objectives of the assignment

2. The overall objective of this assignment is to hire services of a competent Monitoring and Evaluation (M&E) consultancy firm for four primary purposes; (i) carry out M&E of project progress, inputs, outputs, processes, outcomes and impacts in relation to the various project components carried out by the project implementing agency, including the PIU; (ii) carry out monitoring of project specific operational risks and mitigation measures; (iii) provide and regular feedback to CE, the Project Director, PD, LGED on its evaluations of the above as well as on any other specific issue as directed by

the CE: and (iv) provide assistance to the PIU in monitoring and evaluating: (a) project physical and financial progress and performance, project inputs, outputs, outcomes and impacts; and (b) environmental and social development and safeguard management aspects with respect to all project components of the project. The M&E Consultant will be directly accountable to the Chief Engineer (CE), LGED, and the PIU of the project will be responsible for its contract management and supervision. In particular, the tasks of the consultants would include:

- Create a comprehensive monitoring and evaluation framework for the EMCRP;
- Develop baselines for the key project indicators for tracking project inputs, outputs, outcomes, and operational risks;
- Track key indicators (input, output and outcome) during project implementation,
- Carry out process monitoring and evaluation;
- Carry out monitoring and evaluation of governance risks of the project;
- Recommend appropriate corrective actions and recommendations;
- Supervise the implementation and compliance of the Environmental Management Framework (EMF) and Social /Resettlement Policy Framework(S/RPF);
- Provide concurrent report to CE and World Bank;
- Preparation of Mid Term Review (MTR) report;
- Preparation of Implementation Completion Report (ICR) and
- Strengthen the capacity of the project implementing agencies, including the PIU, to monitor project impacts.

C. Outline of the tasks / responsibilities of the consultants

Key Activities: The key activities under this assignment include:

Task 1: Create a comprehensive monitoring and evaluation framework for the Project

3. It includes the outcome indicators for monitoring Project Development Objective, intermediate output indicators for all project components, and tentative baseline conditions for each indicator, year wise achievement of targets against each outcome/output indicator. The Consultant is expected to use this as the base document for the development of project specific M&E framework, if necessary, by adjusting and fine tuning the indicators and targets.

4. The M&E framework should also include indicators to monitor and evaluate project specific operational risks and risk mitigation measures. The major objective of this dimension of monitoring is to ensure governance aspects of the project and minimize risks of misappropriation of project resources. However, more operational indicators need to be developed and systems, procedures and record keeping arrangements have to be established on ground to monitor compliance with the proposed broader remedial measures; These measures need to be maintained efficiently to identify fraud and corruption risks of the project in respect of each project component and to monitor and evaluate the levels of risk, compliance with and impact of the designed risk mitigation measures in the project. The Consultant is expected to develop, establish, and monitor a sound and transparent system of record keeping at community level, related with the transfer and delivery of capital assets and consumable items and related financial transactions.

5. The Consultant is expected to finalize the M&E framework covering those dimensions as early as possible after its mobilization, preferably through a consultative workshop with the participation of relevant official of the above mentioned stakeholder agencies. The Consultant is expected to present final M&E framework, inter-alia, as one of the main outputs in the Inception Report of the Consultant.

Task 2: Develop baselines for the key project indicators for tracking project Inputs, outputs and outcomes.

6. The Consultant is responsible for the establishment of baseline status against all project indicators of the final M&E framework to be able to monitor outcomes and impacts. Accurate establishment of the generic baseline situation is particularly vital. As early as possible after the mobilization, Consultant is expected to design a baseline survey methodology in the project areas in consultation with the PIU.

7. The Consultant is expected to start the baseline surveys including the environmental parameters (physical, chemical and biological environment) and establish the baseline status immediately after the mobilizations and present the methodology for and progress of compiling generic baseline status for each indicator as one of the outputs of Inception Report. Consultant is expected to suggest its proposed methodology for baseline surveys in their proposal which will be used as one of the criterion for proposal evaluation.

Task 3: Track key indicators (input, output, outcome, and operational risks) during project implementation

8. Consultant is expected to develop appropriate methods, surveys, tools, data collection formats, and analytical procedures to track and monitor project inputs, evaluate outputs and outcomes generated due to project interventions throughout project implementation. The M&E may include periodic as well as generated regular field surveys, Interviews/Focus Group Discussions, Participatory monitoring, and social and technical auditing. Consultant is expected to suggest its proposed methodologies for tracking and M&E of inputs, outputs and outcomes in their proposal to the PIU which will be used as one of the criterion for proposal evaluation.

Task 4: Carry out process monitoring of the Project

9. Consultant is expected to carry out process monitoring of the project using specialized techniques and tools. The process monitoring is very important because the project implementation is designed on the principles of a community based approach in all phases from need identification, targeting and selecting beneficiaries, and training, and monitoring the inputs. The Consultant is expected to design, establish and carry out a sound process monitoring system for this purpose. Consultant is expected to report on its evaluation of the process in addition to the regular reporting of project progress, inputs, outputs, and outcomes to the PIU and the World Bank task team. The process monitoring system may also be linked to M&E of operation risks and governance aspects as outlined under Task 3 above of this TOR

Task 5: Recommend appropriate corrective actions and recommendations

10. Consultant is expected to play a continuing role in analyzing the findings and results of M&E and make recommendations to the CE and Implementing agency to be able to take timely corrective actions on implementation strategies and practices. Consultant will provide regular feedback to the implementing agency to ensure and maintain satisfactory implementation progress and

disbursements as against the targets and work plans. Based on the M&E of outcomes, Consultant will provide feedback to the CE and to implementing agency on the effectiveness of the implementation processes and approaches. Based on the M&E findings, recommend necessary changes in the project scope, interventions and implementation processes etc., to ensure timely and satisfactory achievement of the expected outcomes of all project components and the overall development objective of the project; If necessary, Consultant will recommend necessary changes in the project scope, interventions and implementation processes etc., for consideration of the CE and implementing agency to ensure timely and satisfactory achievement of the expected outcomes of all project components and the overall development objective of the project.

Task 6: Supervise the implementation and compliance of the Environmental and Social Management Framework (ESMF) and Resettlement Policy Frame-work.

11. To ensure overall environmental and social sustainability of the Project, an Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF) is being prepared. The Frameworks will serve as a tool to separately assess the environment and social impacts of the components and will serve as a set of guidelines to be used for projects where the precise nature and scale of sub-projects are little known or unknown in advance. These guidelines will also serve as a tool to select the optimal project intervention from social and environmental perspectives, prepare preliminary designs, and to ensure complete integration of social and environmental concerns and mitigation measures in the design for the activities to be undertaken by project implementing agencies. The Consultant will have access to draft framework at the time of preparing the proposals for this Consultancy. The consultant will do the following tasks:

Inception Stage (to be included in the Inception Report)

- (i) Review the ESMF and the environmental and social impacts;
- (ii) List the monitoring parameters and present in the Inception Report along with the measurement timeline;
- (iii) Collect/measure the baseline information from the primary and secondary data and will include in the Inception Report;
- (iv) Prepare the outline of the safeguard monitoring report and cleared with the World Bank;

Implementation Stage (To be included in Safeguard Section of Quarterly/Annual Progress/MTR/ICR)

- (v) Ensure that all tasks have met country regulatory requirement and update the information in the monitoring report;
- (vi) Measure the activity specific monitoring parameters;
- (vii) Report on the status of GRS;
- (viii) Monitor the status of quality of overall safeguard compliance;
- (ix) Monitor the status of training, consultation with stakeholders and include the training and consultation plan for the next quarter;

- (x) Report on the lessons learned from the previous quarter and the area of improvement to ensure better safeguard compliance;
- (xi) Report on the status of the application of area of improvement proposal
- (xii) Ensure the lab report and relevant pictures are in place;
- (xiii) Monitor the adequacy of documentation;

12. Separate design and supervision consultants will be hired by the project to assist LGED and the in the designs and supervision of interventions. The responsibility of the M&E Consultant will be, if necessary, to provide recommendations for the revision and updating of the ESMF and RPF during the project implementation based on actual needs and implementation experience; to verify adequacy of assessment and clearance of sub-project specific Environmental Assessments (EAs), Environmental Management Plans (EMPs), Social Assessments (SAs), Social Management Plans (SMPs) and Resettlement Action Plans (RAPs) for all sub-projects under the components and of their implementation status and compliance and to analyze the causes of major accidents/injuries (including near misses) and grievances from the stakeholders. Consultant is also responsible to guide project implementing agencies and ensuring that satisfactory institutional arrangements and staffing/skills are available for the above tasks and outcomes.

Task 7: Prepare and submit consolidated quarterly and annual progress reports to the CE, LGED.

13. Consultant will develop appropriate reporting formats in consultation with the CE, PIU and the implementing agencies and guide and provide training to the officials and staff of the implementing agencies for timely preparation of the quarterly and annual work plans, budgets and progress reports. With regards to Financial Management Reports, Consultant will adopt the Financial Reporting Formats agreed between the World Bank and the GOB at Credit negotiations. The Consultant will guide officials and staff of the project implementing agencies on the timely preparation of those reports, prepare and submit consolidated reports required by the PIU and the World Bank on agreed dates. In addition, Consultant will provide concurrent reporting to World Bank and PIU on project status and lessons learned during implementation (including data, analysis, surveys, interviews, photographs, description, and easy-to-read visuals) to enable better adaptive management.

Task 8: Prepare Mid Term Review Report (MTRR) :

14. The GOB and the World Bank will carry out a comprehensive Mid Term Evaluation around December 2018. The purpose of the Mid Term Evaluation is to assess project progress and outcomes and to make mid-course corrections and adjustments to the project design and implementation arrangements based on implementation experience, lessons learned and outcome by the time of the evaluation. Consultant will therefore be responsible for systematic analysis and recording of implementation issues, experience and lessons from the inception of the project. Consultant is also expected to assist the PIU in the preparation of the GOB's Mid Term Review Report (MTRR). The MTRR should include a comprehensive assessment of the lessons, issues and outcomes and recommendations for mid-course adjustments to project design, budget and implementation arrangements etc. to be served as a guide to the GOB-Bank MTR teams.

Task 9: Prepare Implementation Completion Report (ICR)

15. The GOB and the World Bank will carry out a comprehensive Implementation Completion Review after project completion or any date determined at the MTR leading to the preparation of an Implementation Completion Report by the World Bank. The World Bank mobilized its own resources to prepare the ICR based on analytical data and information provided by the GOB. Consultant may be expected to carry out some analytical work for this purpose but it is premature to provide information on the nature of the analytical work required.

D. Data, Services & Facilities to be provided by the Client

16. The consultant will be provide with the following data, services and facilities by the PIU for executing and supporting the activities:

- All necessary secondary level data required by the M&E consultant for undertaking the project activities;

The M&E unit officials of the implementing agencies will also be directly involved in data collection along with the consultants. Additional officials and staff needed for this purpose will be provided by the respective implementing agencies.

E. Outputs of the consultants / reporting requirements

Deliverable	Description	Schedule (months after signing)
Inception Report	- Outline of overall methodology to be used - Work plan - Deployment schedule of key officials and staff - Monitoring and Evaluation strategy - Initial list of key indicators to develop baselines - Methodologies for surveys - Formats for Reporting	2 months
Detailed M&E Strategy Report	- Identification of Indicators and Surveys required - M&E Methodologies	3 months
Baseline Survey Report	- Detailed Baseline Status for each indicator	4 months
Regular Reports (monthly, quarterly, annual reports)	- Summary of work completed in last six month and cumulative since inception - Work expected in next six months - Key issues for attention of PSC/World Bank - Process monitoring. - Presentations/Documentation/Video.	As indicated starting from inception report stage
Mid-term Evaluation report	- Assessment and analysis of project outcomes - Benchmarking - Online surveys - Organized monitoring database	1 month before scheduled Mid Term Review
Mid-Term final Report	- Report on progress up to mid-term review - Work expected in remainder of project	1 month after scheduled

Deliverable	Description	Schedule (months after signing)
	- Key issues for attention of PCMU/World Bank/PSC (including any suggestions for restructuring related to this Consultancy)	Mid Term Review
Draft Final Impact Evaluation Report/ Draft Implementation Completion Report	Project implementation experiences Suggestions for improvement, sustainability and exit strategy Impact assessment of project activities	30 months
Final Report/Implementation Completion Report	After incorporating suggestions on the Draft Final Report	32 months

The consultant will submit 5 copies of the final Impact Evaluation Report and 2 copies of the other reports. All data and reports will also be submitted electronically (as 10 copies of CD-ROMs) in commonly used software formats.

F. Review procedure to monitor consultant's work

17. The consultant shall submit the details of work plan together with their proposal. This work plan should include the details of activities and their schedule. This schedule will be used to monitor and evaluate the progress of activities of the consultant's work. Some other aspects include:

- Timely completion of the activities that include inception report, baseline survey reports etc.
- Content of the reports.
- Methods of data analysis and presentation.

18. The PIU, LGED will be responsible for supervising the consultant's work.

G. Staffing Requirements

19. 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 112 and those of non-key staffs is 120. These staff-months are indicative and the consultants are free to propose their estimate supported by methodology proposed for the implementation of the service.

20. 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	Positions
1.	Team Leader-1 no.
2	Senior Monitoring and Evaluation Specialist-1 no.
3	Senior Environment Specialist - 1 no
4	Senior Social Specialist -1 no

Non-Key experts/support staff

Sl. No.	Position
1	Monitoring Specialist – 1 no.
2	Office Manager cum accountant – 1 no.
3	Computer Operator -1 no.
4	MLSS - 1 no.

Qualification requirements for the Key staffs are provided below

Position	Educational qualification	Desirable years of professional experience	Specific Experience	Indicative No. of position
Team Leader	Bachelor in civil/water Engineering /Science/ Social Science/other relevant field	8 years	a) 2 years' experience as Team Leader in similar project OR 3 years' experience as Deputy Team Leader in similar project. b) Experience in World Bank or similar institution funding project.	1
Senior Monitoring and Evaluation Specialist	Bachelor in Civil/Irrigation/Water Engineering/other relevant field	5 years	a) 3 years of experience in monitoring & evaluation of project preferably construction project. b) Experience in World Bank or similar institution funding project.	1
Senior Environment Specialist	Graduation in Environmental Engineering/Environmental science	5 years	(a) 3 years of experience in environmental screening, site specific impact assessments, mitigation measures and oversee the compliance of Environmental Management Plan and preferably their monitoring & evaluation activities. (b) Experience in World Bank or similar institution funding project.	1

Senior Social Specialist	Graduation in Social Science	5 years	(a) 3 years of similar experience in social screening, preparation and implementation of Social Action Plan/Resettlement Action Plan and preferably their monitoring & evaluation activities. (b) Experience in World Bank or similar institution funding project.	1
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H. Consultant Selection

21. As the services is required to be procured on emergency basis the consultants would be selected by CQS[Open-National] World Bank Procurement Regulation for IPF for Borrowers for Goods, Works, Non-Consulting and Consulting Services revised in November 2017.

I. Responsibilities of LGED

22. The consultant shall work under the direct supervision of the Project Director, MDSP (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-MDSP 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, MDSP (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

Appendix 9: ToR for Senior Environment Specialist at PIU

Terms of Reference for Sr. Environmental Specialist (based in Dhaka/field)

Emergency Multi-Sector Rohingya Crisis Response Project

Objective

The main objective of Sr. Environmental Specialist is to: 1) oversee and coordinate on environmental safeguards implementation, 2) ensure the quality of screening and approve it, 3) confirm proper implementation of EMP, 4) consolidate information and report to WB through PD, 5) manage contractual obligation on environmental safeguard, 6) provide training to the contractor and field level staff, PIU and relevant HQ level stakeholder, and assist Environmental safeguard support under design and supervision firm for preparation and provision of the trainings, 7) Finalizing the ToR of Cumulative Impact Assessment (CIA), 8) provide technical advice to PD on ensuring environmental safeguard. The assignment includes the following tasks:

- 1) Overall coordination and supervision on environmental safeguard
- 2) Review and endorsement of Environmental Screening
- 3) Support and supervision of EMP implementation
- 4) Monitoring and Reporting
- 5) Management of contractual obligation on environmental safeguard
- 6) Training provision
- 7) Finalizing the ToR of CIA
- 8) Provide guidance to environmental safeguard support under design and supervision firm
- 9) Technical advice to PD
- 10) Co-ordination with other component's environmental safeguard specialist

Scope of Work

1) Overall coordination on environmental safeguard

While PD has overall responsibility of the project including safeguard, Sr. Environmental Specialist will be responsible to assist the PD for completing all activities/tasks, its quality control and overall coordination associated with environmental safeguard with field based Environmental Specialist, Environmental Support under design and supervision firm, PD and other relevant stakeholders.

2) Review and endorsement of environmental screening

- i. Sr. Environmental Specialist shall review and approve the Environmental Screening carried out by environmental support under design and supervision firm and reviewed by field based Environment Specialist employed by PIU. The Sr. Environmental Specialist shall coordinate with PD as necessary on the further actions required based on the screening result.

3) Support and supervision of EMP implementation

- i. EMP implementation is responsibility of Contractor and Environmental support under design and supervision firm as well as Environmental Specialist has primary responsibility of ensuring EMP implementation at the field. Since the ultimate responsibility of ensuring environmental safeguard implementation falls with the PD,

the Sr. Environmental Specialist will guide and consult with the firm regularly and as necessary regarding the issues on EMP implementation identified by Environmental Specialist.

- ii. For high risk physical intervention, during pre-construction, Sr. Environmental Specialist 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 Sr. Environment Specialist will conduct field visit at least once in a month.
- iii. For high risk operation, the Sr. Environmental Specialist regularly visit the sub-project sites with Environmental Specialist to monitor the implementation of ECoPs/EMPs and provide input to prepare sub-project specific monitoring report.

4) Monitoring and reporting

- i. Sr. Environmental Specialist will review the draft environmental monitoring report for each investment prepared by Environmental Specialist. When necessary or required, the monitoring reports shall be field verified by the environmental specialist.
- ii. Sr. Environmental Specialist shall consolidate the relevant information on environmental safeguard including environmental monitoring report, 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 Specialist will be responsible to ensure preparation and delivery of half yearly environmental monitoring report to the WB after approval by the PD

5) Management of contractual obligation on environmental safeguard

- i. Sr. Environmental Specialist shall ensure the safeguard obligation of the project will be duly reflected into the legal agreement with contractor. Such obligation would include implementation of ESMF and sub-sequent site-specific safeguard instruments. Sr. Environmental Specialist will approve the contractor's EMPs.
- ii. Sr. Environmental specialist with assistance from Environmental Specialist and environmental safeguard support under design and supervision firm and in coordination with PD, shall lead to address safeguard related non-compliance issues of contractors according to the project specific non-compliance rectification procedures.

6) Training Provision and support

Sr. Environmental Specialist shall lead the trainings related to environmental safeguard to raise the capacity of contractor, field level staff and other relevant stakeholders to implement and monitor the EMPs implementation. Key topics to be focused on include forest conservation, human-elephant conflict, occupational and community health and safety and pollution management. The Specialist shall also guide Environmental Specialist and Environmental safeguard support under design and supervision firm for preparation and provision of the trainings. The training plan both at the HQ and field level will be approved by the Sr. Environment Specialist.

7) Public Consultation/GRM

- i. Sr. Environmental Specialist shall coordinate consultation necessary during preparation and implementation of the project. Such consultation includes

consultation during preparation on safeguard instruments and construction and operation of each investment.

- ii. S/He will ensure the quality of public consultation at the field level and will reflect the concern in the project implementation.
- iii. The Specialist is also responsible to review and take necessary actions on the complaints received through the project GRM in coordination with PD.

8) Finalization of CIA ToR

The Sr. Environmental Specialist with consultation and guidance of PD and WB shall finalize the ToR of Cumulative Impact Assessment (CIA). He will be responsible for continuous coordination with the CIA firm and report progress to PD.

9) Technical Advice to PD

When necessary and required by PD, Sr. Environmental Specialist shall provide technical advice related to environmental safeguard to PD. 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.

Duration

The Consultant is envisaged to work over a period of 3 years and will be based in the PIU. However, frequent (at least once in a month) field visit is needed.

Reporting

The Sr. Environment Specialist will report to the PD.

Qualifications

Education: Master's in Environmental Engineering, Forestry/ Wildlife, Environment Science or related field.

Experience: At least 10 years of minimum experience as Civil/Environment Engineer, Environmental Scientist, Health and safety specialist, Forestry/ Wildlife expert, Environmental Planner or related field, and at least 5 years of experience as Environmental Specialist 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 preparing one or more Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) or Environmental Management Frameworks (EMFs) in accordance with World Bank Safeguard Policy requirements is a plus.

Note: Detailed ToR will be prepared and finalized in consultation with the World Bank during Implementation

Appendix 10: ToR for Environment Specialist at PIU

Terms of Reference for Environmental Specialist (based in the field)

Emergency Multi-Sector Rohingya Crisis Response Project

Objective

The main objective of the Consultant shall be to monitor/ensure the field implementation of the environmental safeguard. S/He will identify potential environmental risks of project intervention, and regularly review and monitor the progress of environmental mitigation measures of the Projects. It is also important that the PIU builds its own capacity for impact mitigation and monitoring under emergency situation. This assignment includes the following tasks:

- 1) Review/ field verification of Environmental Screening of each physical intervention
- 2) Preliminary endorsement of environmental impacts and mitigation
- 3) Environmental Monitoring and drafting reports
- 4) Training provision and support at the field and central level
- 5) Drafting Consultation planning in consultation with the Environmental support under the design and supervision firm
- 6) Coordinate with the field based environmental specialists of other components of the project

Scope of Work

1) Review/field verification of Environmental screening of each physical intervention

The specialist will review the draft environmental screening report prepared by the Environmental Specialist of the design and supervision firm and will do the field verification accordingly. Environmental specialist shall confirm the consideration of the followings into the screening form and the draft report:

- i. 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 uses, 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

2) Preliminary endorsement of impacts and required mitigation and management measures identification.

- i. The Specialist shall coordinate with the design and supervision firm to complete the environmental screening.
- ii. S/He will monitor the Environmental Specialist of the design and supervision firm and also review preliminary impact analysis, based on primary and secondary information, environmental screening, and outputs from the stakeholder consultation process.
- iii. The Specialist shall direct the support from field knowledge/experience/reality to analyze the nature, scale and magnitude of the impacts and risks that the sub-project is likely to cause on the environment, workforce, and surrounding

communities, and classify the sub-project based on the risks/impacts. The preliminary assessment should discuss direct as well as indirect, induced and cumulative environmental, social, health and safety impacts and risks during all phases and activities of project activities.

- iv. Given that all impacts cannot be fully identified due to the preliminary status of site planning, the Specialist shall identify potential or likely impacts which may result from various design options and/or alternative locations. For the potential negative impacts and risks identified, alternative design option and/or site location shall be considered, and potential strategies/techniques for minimizing, mitigation and/or managing the impacts should be suggested. For the potential positive measures identified, alternative and preferred enhancement measures shall be proposed.
- v. For site-specific impacts, the consultant shall indicate likely detailed site specific management plans to be needed (for example, Environmental Management Plan, Community Health and Safety Plans, Cultural Resources Management Plans, site-specific Occupational Health and Safety Plans, etc.) for all phases of project activities (construction, operation/maintenance, etc.).

3) Environmental Monitoring of Field Implementation

- i. The specialist regularly visits the sub-project sites to monitor the implementation of ECoPs/EMPs and prepare site specific and sub project specific Environmental Management Plan (EMP).

4) Drafting Reports

- i. The Specialist will review the sub-project specific monitoring report for environmental safeguard requirement implementation. The draft monitoring report for each sub-project will be submitted to the Senior Environmental Specialist and finalized, and used for preparation of monthly environmental monitoring report.

5) Training Provision and support

- i. Environmental Specialist with consultation with the environmental safeguard support under design and supervision firm shall plan and schedule the trainings related to environmental safeguard to raise the capacity of contractor, field level staff and other relevant stakeholders to implement and monitor the EMPs implementation. The Specialist shall also assist Environmental safeguard support under design and supervision firm for preparation and provision of the trainings.

6) Public Consultation/GRM

- i. The Specialist will assist the environmental safeguard support under design and supervision firm in undertaking at the minimum one structured consultations during screening and risk identification. In addition, such consultations with primary and secondary stakeholders will continue throughout project implementation, as necessary to address environment related issues that affect them. Quarterly public consultation plan will be developed by the consulting firm in consultation with the environment specialist.
- ii. The Specialist shall review and take necessary actions on the complaints received through the project GRM in coordination with Sr. Social and Environmental Specialist.

Duration

The Consultant is envisaged to work over a period of 3 years.

Reporting

The Consultant will report to the Sr. Environmental Specialist and the Project Director.

Qualifications

Education: Master's in Environmental Engineering, Forestry/ Wildlife, Environment Science or related field.

Experience: At least 5 years of minimum experience as Civil/Environment Engineer, Environmental Scientist, Health and safety specialist, forestry/ wildlife expert, Environmental Planner, Natural Resources Management or related field, and at least 3 years of experience as Environmental Specialist 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 preparing one or more Environmental Impact Assessments (EIAs), Environmental Management Plans (EMPs) or Environmental Management Frameworks (EMFs) in accordance with World Bank Safeguard Policy requirements is a plus.

Note: Detailed ToR will be prepared and finalized in consultation with the World Bank during Implementation

Appendix 11: ToR for Archaeological Impact Assessment

Terms of Reference for Archeological Impact Assessment

Emergency Multi-Sector Rohingya Crisis Response Project

Objective

The main objective of the assignment is to identify measures to avoid or mitigate adverse impacts on archeological resources from proposed project activities. Archeological resources can be movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. The impacts on such resources resulting from project activities, including mitigating measures, cannot contravene either Bangladesh national legislation, or its obligations under relevant international environmental treaties and agreements.

The Consultant shall identify potential archaeological resources in proposed project influence areas. In close collaboration with the PIU and other consultants of the project, the Consultant shall also develop suitable mitigation and monitoring measures to ensure that archaeological resources are not impacted during project activities. The Consultant shall also build the PIU's capacity for impact mitigation and monitoring of archaeological resources.

This assignment includes the following tasks:

- 1) Review/ field verification of project influence areas
- 2) Consultations with national and local stakeholders regarding archaeological, historical and cultural issues
- 3) Identification of known and potential archaeological resources in project influence areas and establishment of baseline conditions
- 4) Identification of potential impacts on archaeological resources
- 5) Development of mitigation and monitoring plan to protect archeological resources
- 6) Training of PIU and selected field staff

Scope of Work

1) Review/field verification of project influence areas

The Consultant will review the proposed locations of sub-projects under this project and will do the field verification accordingly.

2) Consultation with stakeholders

- i. The Consultant shall identify key national and local stakeholders that need to be consulted regarding archaeological, historical and cultural issues. These can include relevant project-affected groups, concerned government authorities, and relevant nongovernmental organizations.
- ii. The Consultant will consult with identified stakeholders in order to determine the existence or possible existence of archaeological resources in the project influence areas and their significance.
- iii. The Consultant shall also discuss with the key stakeholders regarding potential impacts, as well as possible mitigation and monitoring measures to minimize impacts on archaeological resources.

3) Identification of known and potential archaeological resources in project influence areas and establishment of baseline conditions

- i. Based on site visits, consultations with key stakeholders and review of relevant secondary information sources, the Consultant shall identify known and potential archaeological resources in project influence areas
- ii. Inventory of archaeological resources should be prepared including existing baseline conditions of each resource, such as: extent of disturbance, current usage, access permissions, etc.
- iii. Map indicating location of identified and potential archaeological resources shall be prepared (e.g. using GIS or on Google Earth or other similar software)

4) Identification of potential impacts on archaeological resources

- i. Potential impacts on archaeological resources for each sub-project activity needs to be identified and described. Particular attention needs to be given to activities involving significant excavations, demolition, movement of earth, flooding, or other environmental changes.
- ii. The nature of the impacts in terms of likely location, timing, severity and significance need to be described with justifications.

5) Development of mitigation and monitoring plan to protect archeological resources

- i. Based on site visits, consultations with key stakeholders and review of relevant secondary information sources, the Consultant shall develop appropriate mitigation measures for each of the identified potentially significant impacts on archaeological resources. Measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.
- ii. The Consultant shall develop clear steps for managing chance finds
- iii. The Consultant shall also develop a practical monitoring plan to be implemented by PIU and contractors and supporting consultants with clearly assigned responsibilities
- iv. Budget for implementing the mitigation and monitoring plan shall be prepared by the Consultant

6) Training of PIU and selected field staff

- i. The Consultant shall train the PIU and selected field staff on the consideration of physical cultural resources (including archaeological resources) in the screening forms.
- ii. The Consultant shall also provide training to PIU and selected field staff on appropriate mitigation and monitoring measures to protect archaeological resources.

Duration

The Consultant is envisaged to work over a period of 6 months.

Reporting

The Consultant will report to the Project Director.

Qualifications

Education: Master's in Archaeology or related field.

Experience: At least 5 years of minimum experience as Archaeologist or related field. Experience must include at least one World Bank/ADB or other development partner funded project. Expertise in the project area is preferred. Prior experience preparing one or more Archaeological Impact Assessments in accordance with World Bank Safeguard Policy requirements is a plus.

Note: Detailed ToR will be prepared and finalized in consultation with the World Bank during Implementation

Appendix 12: ToR for Assessment of Human-Elephant Conflict

Terms of Reference for Assessment of Human-Elephant Conflict

Emergency Multi-Sector Rohingya Crisis Response Project

1. Background

Around 40 elephants are currently camps due to the sudden influx of Displaced Rohingya Population (DRP). Since in the influx, there have been reported 13 fatalities due to human elephant conflicts.

There have not been any reported incidents since April 2018. One of the reasons has been the establishment of several mitigation measures by IUCN. These include:

- Construction of watchtowers with 200-500m gap near known migration routes – these are manned by 2 refugees in the night (paid by IUCN as per ISCG determined rates)
- Solar lamps installed 100-200m in between towers – to ward of elephants and also to allow better visibility between watchtowers
- Solar electric fence around camps
- Establishment of Elephant response teams, consisting of 10-12 refugees, whose roles/responsibilities include: Night guarding, alert Forest Department and CIC of presence of elephant, crowd management, assist elephant to return to the forest

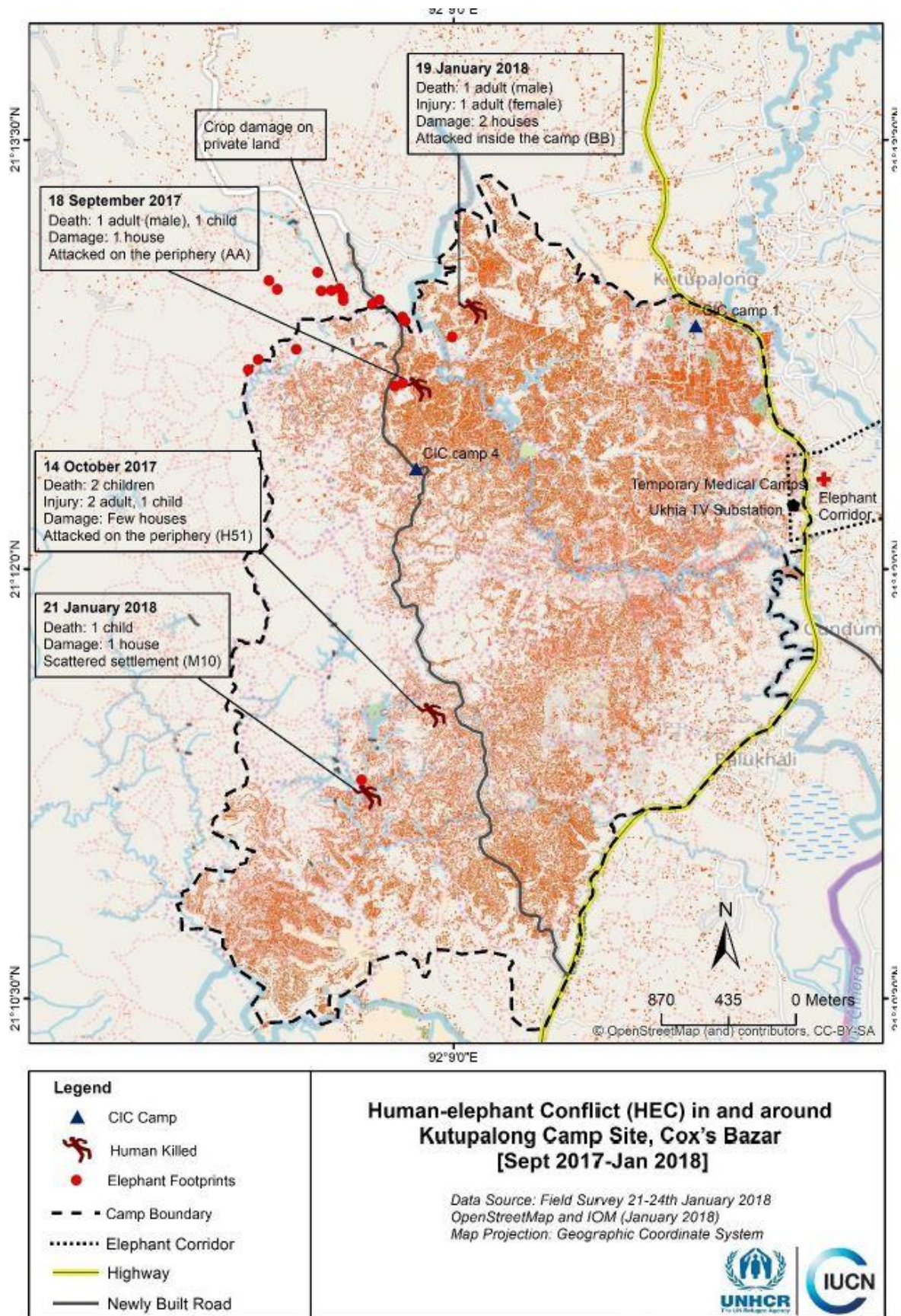


Photo Credit: Asif M. Zaman

Figure 1: Existing Watchtowers Established by IUCN around Camps, Ukhiya

With the installation of above mitigation measures, there is a potential increased risk of HEC in and around host community settlements. Therefore, some of the above mitigation measures may also be required for host communities.

Locations and details of identified conflict areas are shown in the figure below.



Source: IUCN (2018)⁴³

Figure 2: Locations of Human Elephant Conflicts near Kutupalong Camp, Ukhiya

2. Objectives

The objectives of this assignment is to carry out a detailed assessment of the potential human-elephant conflict issues related to the

3. Scope of Work

This assignment includes the following scope of work:

1) Consultation with stakeholders

- a. The Consultant shall identify key national and local stakeholders that need to be consulted regarding human-elephant conflict issues. These can include relevant project-affected groups, concerned government authorities, and relevant nongovernmental organizations.
- b. The Consultant will consult with identified stakeholders in order to determine the existence or potential for human-elephant conflict issues in the project influence areas.
- c. The Consultant shall also discuss with the key stakeholders regarding potential impacts, as well as possible mitigation and monitoring measures to minimize human-elephant conflict issues.

2) Survey of project influence areas to identify past and existing map elephant habitats and movement corridors

- a. The Consultant will review the proposed locations of sub-projects under this project and will do the field surveys accordingly.
- b. Based on site visits, consultations with key stakeholders and review of relevant secondary information sources, the Consultant shall identify known and potential human-elephant conflict areas in project influence areas
- c. Inventory of human-elephant conflicts should be prepared including relevant information of each conflict, such as: date and time, location, number of people and elephants involved, human injuries and deaths reported, damage to properties, elephant injuries and deaths reported, etc.
- d. Map indicating location of identified and potential human-elephant conflict areas shall be prepared (e.g. using GIS or on Google Earth or other similar software)

3) Development of mitigation and monitoring plan to protect archeological resources

- a. Based on site visits, consultations with key stakeholders and review of relevant secondary information sources, the Consultant shall develop appropriate mitigation measures for minimizing human-elephant conflict in the project influence areas.
- b. The Consultant shall also develop a practical monitoring plan to be implemented by PIU and contractors and supporting consultants with clearly assigned responsibilities.
- c. Budget for implementing the mitigation and monitoring plan shall be prepared by the Consultant

4) Training of PIU and selected field staff

- a. The Consultant shall train the PIU and selected field staff on the consideration of human-elephant conflict issues in the screening forms.
- b. The Consultant shall also provide training to PIU and selected field staff on appropriate mitigation and monitoring measures to minimize human-elephant conflicts.

4. Duration

The assignment duration is envisaged be 12 months.

5. Reporting

The consultants will report to the Project Director. They are expected to prepare and submit the following reports.

SN	Report	Months after Contract Signing
1.	Inception Report	1
2.	Survey Report	6
3.	Draft Assessment Report	10
4.	Final Assessment Report	12

6. Selection Procedure and Form of Contract.

The selection method of consultancy service is CQS [Open] Method of World Bank Procurement Regulation for IPF for Borrowers for Goods, Works, Non-Consulting and Consulting Services revised in July 2016 revised in November 2017 (Procurement in Situations of Urgent need of Assistance or Capacity Constraints). Form of contract will be lump sum.

7. Staffing Requirements

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 and proposed methodology.

Qualification and Input for Key Professional Staffs:

Position	Academic qualification	Desirable years of professional experience	Specific Experience
Team Leader	Graduation in relevant field	12 years	<ul style="list-style-type: none"> a) 3 years of international experience as Team Leader. b) Experience of human-elephant conflict assessments in projects related to infrastructure specially road, building and water supply & sanitation. c) Experience in World Bank project or similar Financier's project.
Environmental Specialist/Scientist, or Ecologist	B.Sc. Engineering (Civil)/Ecology/relevant field	8 years	<ul style="list-style-type: none"> a) 3 years of experience in the impacts assessment of infrastructure activities on natural habitats, water, land and biodiversity. b) Experience in Bangladesh hilly-forest ecosystems is desirable. c) Experience in World Bank project or similar Financier's project.
Forestry Specialist	B.Sc. Forestry/Ecology/relevant field	8 years	<ul style="list-style-type: none"> a) 3 years of experience in the impacts assessment of infrastructure activities in Bangladesh hilly-forest ecosystems is desirable.

			b) Experience in World Bank project or similar Financier's project.
Social Development Specialist	Graduation in Social Science	8 years	<p>a) 3 years of experience of direct and indirect social impacts (positive and negative) assessment of infrastructure development-related activities including water supply & sanitation.</p> <p>b) Proven experience in anthropological studies of indigenous populations preferably in Bangladesh.</p> <p>c) Experience in World Bank project or similar Financier's project.</p>

In addition to above listed positions of professionals; the consultant should make arrangements for other experts and support staff with adequate experience in relevant fields.

Note: Detailed ToR will be prepared and finalized in consultation with the World Bank during Implementation

Appendix 13 : Terms of Reference Gender-based Violence assessment and prevention

I. BACKGROUND

Since 25 August 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 702,160 people from Rohingya community across the border into Cox's Bazar District of Bangladesh. This exodus brings the total number of Displaced Rohingya Population (DRP) in the district to about 914,678 in what is one of the fastest developing forced displacement crises in the world. In Ukhia and Teknaf, the two Upazilas where most of the DRP have settled, they outnumber the host community by almost a factor of four, with 87% settled in unplanned camps and the remaining 13% living among host communities.

Almost all the DRP are hosted in some of the world's most congested areas, including in the Kutupalong "mega-camp", which has fast become the largest refugee camp in the world. The DRP account for about one third of the total population in Cox's Bazaar, a district that was already densely populated and facing severe development challenges. They are sheltered in makeshift settlements and extremely congested shelters, in areas that have minimal access to basic infrastructure and services and are prone to natural disasters, especially cyclones and floods. Setting up of camps has led to rapid deforestation, further increasing vulnerability of the DRP to disasters and approaching monsoon. Relocation of households of most at-risk from landslide and flood is underway but there is insufficient suitable land available to accommodate even the highest-risk category.

The influx is straining existing infrastructure and degrading an already resource-constrained social service delivery system and the environment in Cox's Bazar District. Stress on existing water points has increased over 20-fold with the new influx, rendering many of them dysfunctional while disposal and treatment of fecal sludge has become a challenge. Over 70 per cent of water stored in households is contaminated and there have been outbreaks of diseases like diphtheria, measles and diarrhea. The influx has increased strain on referral and inpatient services provided by the District hospital and the two Upazila Health Complexes.

Over 60% of the DRP are women and children. DRP women face high levels of discrimination within their community, and most women stay in their shelters due to social norms that limit their roles in the public sphere as well as to avoid sexual assault and trafficking that is occurring in the camps. This restricted mobility is particularly challenging for women-headed households who compose 16% of DRP households. The extent of GBV faced by DRP women is difficult to quantify, but UN agencies and local NGOs report high levels. Approximately 85% of sites within Bangladeshi communities hosting DRP have no services for survivors of violence. There is a need to expand services that address particular concerns faced by DRP women, and subsequently design interventions that provide safety and freedom of movement for women. Such interventions would support: (i) the provision of immediate health services for survivors of violence; (ii) working with community based organizations to prevent GBV through outreach, peer counseling and behavior change interventions; and, (iii) opportunities for DRP women to engage in productive activities.

The influx is having a disproportionate impact on the local economy and increasing tensions between the DRP and hosts. More than 90 percent of the DRP populations have no sources of income. At least 80 percent of the overall DRP is highly or entirely dependent on external assistance while the remaining 20 percent can only partially meet their needs through coping strategies. Although not strictly permitted to leave the camp or work, some members of the DRP, mostly men are taking up jobs in construction, farming, fishing and restaurants, often accepting wages below half the normal

rates. This decline in wages, price rise and strained access to services has increased tensions between host communities and the DRP. Host communities that live in the immediate vicinity of the camps, estimated at about 336,000, initially welcomed the fleeing people but their prolonged stay has strained relations between the two.

II. GOAL AND OBJECTIVES

The overall goal of the Gender-Based Violence (GBV) is to facilitate coordinated, accountable and effective GBV emergency preparedness and risk reduction to address the humanitarian crisis in Cox Bazar District, Bangladesh. Gender-based violence encompasses “any harmful act that is perpetrated against a person’s will, and that is based on socially ascribed (gender) differences between male and females.” It includes acts that inflict physical, sexual or emotional harm or suffering, threats of such acts, coercion, and other deprivation of liberty. GBV can occur both in public or private space. As per global guidelines and ESMF of this project, all humanitarian personnel ought to assume GBV is occurring and threatening affected populations in times of crisis; treat it as a serious and life-threatening problem; and take actions regardless of the presence or absence of concrete ‘evidence’.

Specific Objectives:

1. The objective of the GBV is to develop an effective and inclusive mechanism to address the DRP in Bangladesh. These actions will be in line with relevant project documents like ESMF and government policies.
2. The GBV Sub-sector shall prioritize accessibility to life-saving services for DRP disproportionately at-risk of GBV, including girls, women, individuals with disability.

III. TASKS

The GBV will consolidate, coordinate, improve and support the efforts and activities of all relevant stakeholders in GBV emergency response and prevention through:

- 1. Establishment of a multi-sector coordination mechanism by inclusion of relevant government ministries, civil society organizations, and international actors:**
 - 1.1. Identify partners with expertise in GBV response and prevention, including relevant ministries, UN agencies, bi-lateral agencies, and NGO/INGO including Red Cross/Red Crescent Societies, considering their respective mandates and program priorities.
 - 1.2. Identify and divide specific roles and responsibilities of each GBV partner based on mandate, capacities and geographical coverage presence during and after the emergency phase of the crisis.
 - 1.3. Ensure effective coordination with all partners working on GBV prevention and response in Bangladesh, including national and local authorities and different institutions such as the Department of Disaster Management (MoDMR), LGED and Ministry of Women and Children’s Affairs (MoWCA).
 - 1.4. Develop capacities of the relevant stakeholders to respond to GBV in emergencies.
 - 1.5. Support the inclusive inter-agency/multi-sectoral GBV coordination mechanisms at district and site/zone levels and scale up interventions to prevent and respond to GBV.
 - 1.6. Liaise with other sector(s) to ensure that GBV issues are integrated across all relevant humanitarian response efforts.

- 1.7. Provide a forum for sharing information on activities, identifying needs and gaps in relation to the prevention of and response to GBV, as well as for planning inter-agency GBV activities.
- 1.8. To work together with the Child Protection (CP) in order to ensure coverage of all vulnerable groups that require special protection

2. Needs Assessment and Situational Analysis

- 2.1. Establish standardized GBV assessment tools and approaches to share with all relevant actors for follow-up action and advocacy.
- 2.2. Work with all three agencies of the project and ensure that key GBV concerns are reflected in the interagency multi-sectoral assessments, as well as other non-GBV specific sectoral assessments.
- 2.3. Ensure coordinated assessments within the GBV Sub-sector and with other sectors are prepared and carried out in a timely manner.
- 2.4. Support effective joint data collection and analysis to enable effective planning

3. Standard Promotion and Setting

- 3.1. Ensure a Standard Operating Procedures (SOP) for addressing GBV in emergencies are developed, in line with the ESMF and UN Guidelines.
- 3.2. Support participation from other sectors (e.g. Health, Protection, Education, WASH etc.) in the SOP development processes to ensure effective and coordinated GBV interventions.
- 3.3. Ensure implementing members comply with Sub-sector standards for inclusion in GBV referral pathways and/or exclusively utilize GBV referral mechanisms endorsed by the Sub-sector.

4. Planning and Strategy Development

Preparedness

- 4.1. Ensure an evidence-based, interagency GBV contingency plan is in place, including both programmatic and advocacy activities.
- 4.2. Elaborate a communication strategy to build awareness and empower communities, families, women and girls to better be prepared, and respond to emergencies.
- 4.3. Ensure functioning GBV referral pathways are in place

Response

- 4.4. Coordinate the implementation of harmonized response to address GBV needs.
- 4.5. Ensure the reporting on the program implementation.
- 4.6. Develop and participate in advocacy initiatives with authorities, donors and other relevant stakeholders.

Early recovery

- 4.7. Coordinate and facilitate regular GBV situation analysis during the emergency response to plan to make appropriate changes according to needs.
- 4.8. During the transition phase, work with GBV actors, government and other key stakeholders, to develop a clear plan of action to mainstream GBV in emergencies work to the relevant stakeholders.

Risk reduction

- 4.9. Ensure an action plan is in place, for short term and long-term capacity building for risk reduction and GBV prevention, in consultation with communities.
- 4.10. Promote and engage with stakeholders for ensuring integration of GBV risk reduction and prevention programming

5. Capacity development

- 5.1. Ensure an interagency GBV capacity building plan is in place, that meets the needs and priorities of key national and local stakeholders (i.e. Community, Civil society, Government officials, local governments, NGOs, non- CP Humanitarian actors).
- 5.2. Conduct periodic review on the implementation of the capacity development initiatives at different levels, to further strategize the demands and priorities of key national and local stakeholders

6. Information Management

- 6.1. Identify indicators for the interagency GBV response plan and ensure periodic review of agency and interagency response.
- 6.2. Ensure a common monitoring and reporting system is in place, which includes Information Management System (IMS).
- 6.3. Identify response gaps (including geographic coverage and programmatic scope) and seek solutions for filling gaps.
- 6.4. Drawing lessons learned from past activities and revise strategies accordingly.

7. Advocacy, Media Relations and Resource Mobilization

- 7.1. Identify core advocacy concerns, including resource requirements and contribute key messages to broader advocacy initiatives.
- 7.2. Raise, discuss and make recommendations for GBV policy issues and refer to the authorities and other sectors as required.
- 7.3. Facilitate and support awareness-raising initiatives, targeting government bodies and community structures for the prevention of GBV.
- 7.4. Advocate to development partners and relevant ministries to ensure appropriate financial support and domestic resource mobilization for inter-agency GBV response.
- 7.5. Serve as a platform to discuss and coordinate joint emergency funding proposals.
- 7.6. Adapt and disseminate guidelines for appropriate approaches for engaging with media, in line with best practices.

8. Reporting

- 8.1. Reports produced will require to the adhere to the guiding principles of not disclosing any sensitive individual information of GBV cases.
- 8.2. The GBV Sub-sector will produce reports relevant to provide information about general needs that are required for planning of response activities or required funding.
- 8.3. Sharing of reports will be approved by the relevant agencies and World Bank.
- 8.4. Specific work plan, monthly reports on progress, mission reports to be submitted

9. QUALIFICATIONS AND EXPERIENCE

Education

Master degree with a specialization in areas such as social work, gender, law/human rights, international relations, and/or other related social science disciplines

Professional Experience

1. 5 to 7 years of relevant experience in livelihood/GBV program development and management, preferably in an emergency context.
2. Field experience in complex emergencies, including humanitarian emergency response, is desired.
3. Demonstrated leadership and management experience within a multinational and multicultural environment.
4. Ability to develop and coordinate livelihood /GBV programs that target refugees, IDPs/returnees, and their host communities.
5. Proven relevant experience in working as a livelihood specialist/officer for GBV prevention program.
6. Excellent understanding of human rights-based, survivors-centered and participatory approach.
7. Experience in capacity development/training.
8. Experience in developing SOPs, guidelines, tools for livelihood component for GBV prevention.
9. Proven communications and inter-personal skills, IT literacy, as well as organizational skills and time-management.
10. Good understanding of international GBV best practices and guidelines.
11. Experience of working at a global or regional level especially in the developing countries.

Language

Fluency in oral and written English.

Appendix 14: ToR for Social Safeguard Support under Design and Supervision Firm

Emergency Multi-Sector Rohingya Crisis Response Project

Objective

The main objective of social safeguard support under Design and Supervision Firm is to conduct the environmental screening, identify the impact of project activities, collect and consolidate the filed information, prepare all the required social reports, provide technical oversight on the project activities especially high-risk operations, provide support in the areas that technical assistance is required by social specialists of PIU. Overall, the firm is responsible for the social safeguard implementation in the field following WB OP 4.12 , Bangladesh ARIPA 2017 and relevant policies and guidelines. The assignment includes the following tasks:

- 10) Conduct Social Screening
- 11) Identification of impacts of the project activities and site specific impact assessment reports
- 12) Preparation and implementation of site and activity specific SMPs
- 13) Field implementation of social safeguard
- 14) Information consolidation and monthly monitoring report to firm/PIU
- 15) Ensure management of contractual obligation on social safeguard in the field
- 16) Training provision
- 17) Assist the CIA firm in data collection and assessment of Cumulative Impacts due to the entire activities in/around DRP camps
- 18) Arrange, conduct and disclose project information's through public consultations
- 19) Provide training to contractors on social safeguards, working conditions of the labors and labor influx.
- 20) Support specialized agency in collection and resolution of grievances.

Scope of Work

The key duty of the consultant will be to strengthen coordination among the project stakeholders to enhance identification and fast track implementation of resettlement and rehabilitation measures as per ESMF and RPF . During implementation, the Specialist will support executing and implementing agencies (EA/IAs) and their project implementation units (PIUs) in screening projects for involuntary resettlement and GBV in accordance with OP 4.12 and ARIPA 2017. The screening should ensure compliance with the subproject selection criteria, frameworks, and OP 4.12. Where screening compliant with the subproject selection criteria shows significant/non-significant impacts, the Specialist will guide the EA/IAs in the preparation of a resettlement action plan (RAP) for approved subprojects. The Specialist will review the RAP ensuring compliance with OP 4.12 for involuntary resettlement safeguards, the resettlement framework, and national laws and regulations. The reviewed RAPs will then be sent to World Bank for concurrence. The Specialist will guide the EA/IAs in incorporating safeguards planning in bidding documents. The Specialist will monitor safeguards implementation ensuring compliance with the safeguards plans and frameworks, loan agreement,

and national laws and regulations. The Specialist will guide EAs/IAs in conducting monitoring, conduct verification of monitoring reports—and provide reviewed reports to World Bank.

Detailed Tasks and/or Expected Output:The Specialist will carry out the following tasks for fast track implementation of social safeguards measures:

Development of Resettlement Action Plan (RAP)

The consultant, together with the executing and implementing agencies, will prepare a Resettlement Action Plan (RAP) following the guidelines of RPF. Expected outputs include

- filled in social screening checklists for involuntary resettlement
- RAP, as required;
- summary RAP;
- social safeguards due diligence report; and

The consultant will:

- (i) assess national and regional laws and regulations on land acquisition and resettlement; present comparison and gap analysis; and provide measures to address gaps;
- (ii) orient the executing and implementing agencies on WB's safeguard policy requirements and procedures, and assess the national policy and legal framework for resettlement if any, and propose measures to bridge any gap between World Bank and the national policies;
- (iii) conduct consultations with project affected households; carry out census of potentially affected households and inventory of their assets; record impacts on government, private, and communal structures and facilities; carry out sample socio-economic survey of affected households; undertake replacement cost survey; and conduct workshops to present draft and final RP to the local authorities and affected households. The RAP must include host communities social impact assessment of the affected people, land, assets, and occupations. Identify potential impoverishment risks and vulnerable groups, including those severely affected through loss of land, those with low income, and others (e.g., disabled, elderly, ethnic minorities, unemployed, illiterate, women, and children);
- (iv) determine and document in the RP the extent to which the project design has avoided or minimized land acquisition and displacement of people and businesses;
- (v) define categories for impact and compensation eligibility of affected people (registered and unregistered) losing land, housing, and businesses; and prepare an entitlements matrix based on national laws and regulations, and WB's safeguard policies covering compensation and other assistance for all types of impacts to achieve full replacement for lost assets, income, and livelihoods (direct and indirect);
- (vi) identify compensation and rehabilitation options; develop livelihood economic rehabilitation and improvement programs in consultation with affected people; identify options for agricultural improvement and benefit sharing arrangements; identify training needs of the affected people based on age group and existing skills, and develop skill training programs to help them secure jobs; make an assessment of the employment opportunities available and ensure the affected people get access to these job opportunities; and make an assessment of the social security benefits and support that will be made available to the affected people;
- (vii) recommend a GRM to handle complaints in an effective manner, and disclose the social safeguard documents and the GRM, in coordination with the environmental safeguard;
- (viii) help the executing and implementing agencies develop an internal and external monitoring and evaluation plan, specifying key indicators of progress, mechanisms for reporting,

- resource requirements, and database maintenance; prepare terms of reference for independent resettlement monitoring and evaluation; and provide training to the executing and implementing agencies on WB's safeguard policies.
- (ix) ensure adequate investigations (conduct field visits as appropriate) and consultations with affected persons;
 - (x) incorporate all mitigation measures into the cost estimates of the proposed components.

Vulnerable Community Development Framework (VCDF)

- I. Conduct free, prior and informed consultation with any likely to be affected small ethnic communities (having characteristics of indigenous peoples) that leads to broad community support. The Bank will review the process, documentation and the outcome of such consultation; and shall proceed further with project processing only if it is able to ascertain that the process.
- II. Conduct separate consultation meetings with DRP and vulnerable people within host communities followed is acceptable and that such support exists for the project being prepared. In addition, a detailed consultation plan shall be prepared covering the sub-project preparation, implementation and monitoring activities – to be shared with the Bank as part of the VCDP (review and clearance).
- III. Develop entitlement matrix including for women and other vulnerable groups as mentioned above - in line with ESMF, RAP, GAP and World Bank Policies.
- IV. Specific to vulnerable communities if applicable based on camp-specific findings, the VCDP should have a dedicated Chapter including but not limited to: summary of the social assessment and results of the free, prior, and informed consultation with the affected vulnerable communities that was carried out during project preparation and that led to broad community support for the project; a framework for ensuring free, prior, and informed consultation with the affected small ethnic communities of indigenous status during project implementation; an action plan of measures to ensure that the vulnerable communities receive social and economic benefits that are culturally appropriate, including, if necessary, measures to enhance the capacity of the project implementing agencies; an appropriate action plan of measures to avoid, minimize, mitigate, or compensate for any adverse effects with required cost estimates and financing plan, inter alia.
- V. Definition of vulnerable persons and criteria for determining their eligibility for various assistance offered under the VCDP.
- VI. Description of the program of support agreed on with communities and project team. All activities should be costed and time bound, with clearly identified responsible institutions and/or people. The schedule should indicate how the VCDP activities are linked to the implementation of the overall project.
- VII. Develop monitoring indicators and formats for monitoring implementation progress and impacts of the agreed activities. Ensure accessible grievance redress mechanisms available to communities involved

Gender Action Plan (GAP)

The consultant, together with the executing and implementing agencies, will prepare the Gender Action Plan (GAP). The consultant will:

- (i) conduct a socioeconomic survey guided by the particular poverty, social, and gender issues including Gender-Based Violence (GBV) identified in the ESMF and RPF to confirm

beneficiary needs, demands, capacities, constraints, willingness to participate in the project, time spent in collecting and/or purchasing and/or managing drinking water, sanitation and solid waste management by sex, and suitability of the sites; and prepare socioeconomic and poverty profiles to include population, income, occupation, education, and health conditions, to be disaggregated by income group, ethnic group, and sex, including willingness to pay (demand) and affordability (social inclusion) for proposed improved services.

- (ii) The survey results will serve as the baseline for poverty and social performance measures which promote social inclusion, gender equity, and women's empowerment; and the monitoring indicators which track the distribution of project benefits, particularly for vulnerable and marginalized groups;
- (iii) review local government policies, strategies, and programs for poverty reduction and regional economic development; and discuss the poverty and social dimensions of the proposed project with the executing and implementing agencies and relevant development partners to identify scope for complementary activities and leverage of existing social development assistance and approaches;
- (iv) conduct a stakeholder analysis to identify relevant stakeholders; explore stakeholders' interests and priorities, and perception of problems including satisfaction with the level and quality of urban services and efficiency of local administration;
- (v) conduct a gender analysis and confirm project gender categorization in context of project interventions and project beneficiary group(s), prepare a gender action plan to mainstream gender and to ensure adequate women's representation and participation in decision-making processes and prevent benefit capture of project interventions meant for women, collect sex-disaggregated data to inform gender specific measures used in the project and gender targets, and develop mitigation measures to address potential constraints in access to benefits from project interventions and enhancement measures to support gender equity and empowerment;

Safeguard Training to the Contractor:

Consultant will provide regular training to all contractors about social safeguards screening and implementation. They must be trained on voluntary land donation procedures, land acquisition procedures, stakeholders consultation, working conditions of the labors etc.

Disclosure of safeguard document

All the documents have to be translated in Bangla and in the language of the DRPs, e.g. Myanmar.

All the translated and original (English) version will be disclosed to websites and to the stakeholders.

Deliverables

This assignment is expected to be completed within [12] weeks. The draft ESMF report, should be submitted including comments/suggestion from stakeholders and the World Bank. The consultants will be required to document and present detailed proceedings of all the stakeholders' consultations including the list of participants and photographs as evidence. An Executive Summary should be included summarizing the key elements of the ESMF. A summary of the final ESMF should be prepared in Bangali, English and Myanmar languages. A Power Point Presentation of the report to be made to the client and the Bank upon delivery of the draft report and also at the delivery of the final report.

SN	Milestones	Timeline (cumulative no. of weeks)
1	Draft RAP and GAP	10
2	Final RAP and GAP	12
3	VCDP	12

Social Development Specialist qualification requirement

- a. Advanced university degree (Master's) in social sciences (sociology/social work/ Rural Development/Development Studies, or relevant disciplines),
- b. At least 7 years of experience in social development sector.
- c. Experience in carrying out and preparing social impact assessments, development of social action plans such as ESMF, RAP, IPP/VCDP, Health and safety experiences, stakeholder engagement plan
- d. Knowledge and proven expertise in land acquisition, involuntary resettlement and community development areas (conducting studies, plan preparations, etc.).
- e. Experience in preparing labor related documents.
- f. Knowledge and proven expertise working with Tribal communities and other vulnerable groups and in development activities involving them (conducting studies, plan preparations, etc.)
- g. Experience in gender mainstreaming in projects and in preparing Gender Action Plans.
- h. Experience in data analysis, both quantitative and qualitative analysis essential.
- i. Full knowledge of the World Bank's operational policies/directives, guidelines, and procedures related to social assessment and management is essential.
- j. International experience of working in other countries in South Asia and elsewhere internationally on similar issues is strongly desired.

Terms of the Contract

The consultants will be responsible for the following:

1. Field visits and public consultation: Visit to potential project implementation sites, as identified by the client, for understanding the key environmental and social issues. The consultancy will be required to undertake field-visits as per the project requirements.
2. The Consultants will assist implementing agencies in disclosure and consultation process of ESMF in compliance with the safeguard policies of the World Bank.
3. All information gathered, including raw and refined data as well as interviews transcripts, images, among others, belongs to the Government of Bangladesh and the World Bank, and will be handed over during and upon the completion of the assignment, as requested.

4. The consultancy will work under the overall supervision the Project Director; who will facilitate the consultants in contacting the relevant agencies, local administration in the areas and accessing information and data needed to carry out the assessment. The PD will submit the ESMF reports to the Bank to determine their acceptability. The Consultant shall be able to communicate with the Bank to request clarifications, etc. if necessary.
5. The consultancy will report to the Project Director. The work and performance of the consultancy shall be reviewed by the PD and the World Bank on a periodic basis.

Appendix 15: ToR for Rubber Dam ESIA and RAP

TERMS OF REFERENCE FOR ESIA AND RAP FOR

CONSTRUCTION OF RUBBER DAMS IN COX'S BAZAR DISTRICT UNDER

EMERGENCY MULTI-SECTOR ROHINGYA CRISIS RESPONSE PROJECT

A. Background

Since 25 August 2017, extreme violence in Rakhine State, Myanmar, has driven an estimated 702,160 people from Rohingya community across the border into Cox's Bazar District of Bangladesh. This exodus brings the total number of Displaced Rohingya Population (DRP) in the district to about 914,678 in what is one of the fastest developing forced displacement crises in the world. In Ukhia and Teknaf, the two Upazilas where most of the DRP have settled, they outnumber the host community by almost a factor of four, with 87% settled in unplanned camps and the remaining 13% living among host communities.

The influx is having a disproportionate impact on the local economy and increasing tensions between the DRP and hosts. More than 90 percent of the DRP populations have no sources of income. At least 80 percent of the overall DRP is highly or entirely dependent on external assistance while the remaining 20 percent can only partially meet their needs through coping strategies. Although not strictly permitted to leave the camp or work, some members of the DRP, mostly men are taking up jobs in construction, farming, fishing and restaurants, often accepting wages below half the normal rates. This decline in wages, price rise and strained access to services has increased tensions between host communities and the DRP. Host communities that live in the immediate vicinity of the camps, estimated at about 336,000, initially welcomed the fleeing people but their prolonged stay has strained relations between the two.

In line with the Joint Response Plan (JRP), the World Bank's assessment has identified a number of key needs to be addressed in the medium term (3 years). They include access to drinking water and adequate sanitation, access to health and nutrition services and response to potential disease outbreaks, response to weather-related hazards, access to fuel and mitigation of associated environmental degradation, inclusion in productive activities to yield basic services and to address needs and vulnerability of women and children as well as respond to psychosocial issues. Most of these challenges are inter-related, and the strain on resources, gaps in service delivery, and the exposure to shocks directly influence the relationship between host communities and the DRP.

B. Project Overview

The overall Bank response focuses on seven priority areas, identified during consultations with affected communities, DRP, host communities and local government and various needs assessments by development partners. These areas are (i) health and nutrition; (ii) water, sanitation and hygiene; (iii) social protection; (iv) disaster risk management; (v) environment; (vi) gender and (vii) education. The proposed program aims to support the GoB in addressing these priority areas of intervention through a combination of restructuring/additional financing of existing projects in Health, Nutrition and population services and Education, as well as a multi-sector program addressing needs in rest of the priority areas.

In parallel, the World Bank is supporting host communities in the Cox's Bazar district through existing IDA operations in the Bangladesh country program. Support to the host communities through World Bank IDA investments are as follows; US\$375 million Multi-Purpose Disaster Shelter Project (MDSP) is supporting disaster preparedness, US\$410 million Municipal Governance and Services Project (MGSP) is improving municipal governance and basic urban services in participating Urban Local Bodies (ULBs), US\$300 million Local Governance Support Project (LGSP) is institutionalizing the Union Parishad (UP) fiscal transfer system, and introducing a fiscal transfer system for Pourashavas on a pilot basis, and the new IDA US\$175 million Sustainable Forests and Livelihood Project (SUFAL) is supporting host communities to improve collaborative forest management and increase benefits for forest-dependent communities in targeted sites. The proposed stand-alone Emergency Multi-Sector Rohingya Crisis Response Project will complement the above projects and will target DRPs.

The proposed additional financing for EMCRP will support the GoB in enhancing the displaced Rohingya population's and host communities' resilience to extreme events and increasing access to energy, water, and sanitation. Due to the urgency of the situation, the activities under Additional Financing will focus on mitigating the mid-term impact of the situation on refugees and host communities. As the situation evolves, the Bank's support will adapt to remain flexible and responsive to the situation. The proposed additional financing will contribute to the objectives the IDA-18 Regional Sub-Window for Refugees and Host Communities. The IDA-18 Regional Sub-Window's purpose is to help refugee-hosting countries to: (a) mitigate the shocks caused by an influx of refugees, and create social and economic development opportunities for refugees and host communities; (b) facilitate sustainable solutions to protracted refugee situations, including through the socioeconomic inclusion of refugees in the host country and/or their return to their country of origin; and (c) strengthen preparedness for increased or potential new refugee flows. The proposed additional financing will contribute to a suite of interventions across several priority sectors that will complement humanitarian efforts and support the government in developing a broader strategic response to the socioeconomic dimensions of the

ongoing crisis. This will support a response that is rooted in government leadership and country systems, building on short-term humanitarian programs with a medium- to long term perspective.

The proposed rubber dam(s) will hold water temporarily, during the dry season. It is expected the dam height will be approx. 3-5m. There will also be a small office building near the dam site. It is expected that environmental clearance for the rubber dams will not be required from DoE. . However, as the proposed interventions may be in the ECAs of Cox's Bazar District, these sub-projects need to be vetted by the District Committee.

C. ESIA and RAP Studies

The proposed study is being commissioned to assess environmental and social consequences of proposed rubber dams including their pre-construction, construction, and operation and maintenance phases, and to ensure that land acquisition and involuntary resettlement required for the project are carried out in line with the World Bank's Operational Policies (OP) as well as compliance with applicable national regulations on environment and social aspects. The proposed study is aimed at screening and assessing the proposed developments against adverse environmental and social impacts and recommending, where necessary, appropriate mitigation and enhancement measures, and course of action for implementation. The study will also provide recommendations on gender and disability sensitive design. These include but are not limited to issues of safety, lighting, drinking water facilities, separate toilets, etc.

The ESIA and RAP will need to follow the framework provided in the ESMF prepared for the Emergency Multisector Rohingya Crisis Project; comply with the World Bank safeguards requirements given in different operational policies. The ESIA will also comply with the national environmental requirements defined through Bangladesh Environmental Conservation Act, 1995 and subsequent regulations and guidelines.

The ESIA will take into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, physical cultural resources and gender aspects and for physically disabled people); climate change and its implications, and also induced impacts as well as the cumulative impacts of other development projects in the area. The ESIA will consider natural and social aspects in an integrated way. It will also take into account the country's overall policy framework, national legislation, and institutional capabilities related to the environment and social aspects; and obligations of the country, pertaining to project activities, under relevant international environmental treaties and agreements.

D. Specific Tasks for the Consultant - ESIA

To complete the ESIA study or studies, the consultant will carry out the following tasks:

1. Review the Project details

Review the proposed development and their geographic, ecological, social, and temporal context, including any offsite investments that may be required. Work closely with LGED and its design consultants to identify the need for any additional land requirements for proposed developments, including associated facilities or other directly related investments. Define ‘project influence area’ on the basis of the project scope and extent. Review the shapes of river channels within the influence area and how they change over time.

2. Review of the Legislative and Regulatory Framework

Review the policy, legal, and administrative framework within which the ESIA is carried out. Review the national environmental requirements, including updated version of ECR 1997 (expected to be gazetted by in 2019). Identify relevant international environmental agreements to which the country is a party. Review the country’s resettlement and rehabilitation policies. Also review the WB OPs and their triggering status for the Project. Also state the policy requirements as applicable to the proposed investments, and actions taken / planned in response to each OP triggered.

Review existing systems on grievance management and citizen’s feedback within LGED, and suggest measures for strengthening to ensure access to community and timely response during both construction and operation phases of the proposed project.

3. Scoping

Scoping is the first step of the ESIA and is essentially the process of identifying the significant issues relating to the proposed action and of determining the issues to be addressed in the ESIA. The key tasks include: i) carry out reconnaissance field visits; ii) carry out stakeholder mapping, hold initial stakeholder consultations, and develop a stakeholder participation plan for the completion of the studies; iii) identify the key aspects to be studied during the detailed ESIA, iv) finalize ESIA ToRs in consultation with the stakeholders for approval of DOE if required; v) prepare work plan for the subsequent ESIA tasks; and vi) prepare the Scoping Statement compiling the process and outcome of

the scoping tasks described above. Review the definition of project influence area and revise if necessary. Facilitate, on behalf of LGED, the obtaining of DOE's approval of the final TORs for ESIA, if required.

4. Project Planning and Analysis of Alternatives

Provide input to LGED and its design consultants for inclusion environmental issues, land use planning, climate change adaptation and resilience, female and physically disabled friendly facilities (such as adequate lighting and safety features, etc.) to be incorporated in the project planning and design.

In close collaboration with the Design Consultants, systematically compare feasible alternatives to the proposed project location, design, and operation - including the "without project" situation - in terms of their potential environmental and social impacts; and state the basis for selecting the particular project design.

5. Detailed Baselines Studies and Analysis

Review relevant physical, biological, and socioeconomic conditions of the study area, including any changes anticipated before the project commences. Also identify current and proposed development activities within the project area but not directly connected to the project. Also analyze the trends in the key environmental and social parameters of the area. Data should be relevant to decisions about project location, design, operation, or mitigation measures.

Physical Environment. The data on physical environment should cover, inter alia:

- physiography,
- climate,
- geology and seismology,
- soils,
- hydrology and river dynamics, including annual and seasonal peak discharges, recurrence intervals and flood levels for various peak discharges (including at minimum for 5, 10, and 100-year flood events as well as historic maximum discharge), annual and seasonal low-flow discharges and recurrence intervals including historic minimum discharge, etc.
- groundwater,
- vulnerability of area to flooding,

- river morphology, including erosion and sedimentation / sediment deposition patterns, currents and bathymetry
- soil quality,
- river bed sediment quality, in areas where dredging may be required and/or construction activities may disturb sediments, such as piling works (including the presence of contaminants, pollutants or heavy metals such as PCBs, POPs, hydrocarbons, and heavy metals such as arsenic, cadmium, mercury, etc.).
- water quality, in particular including major ions, TSS, TDS, DO, BOD, NO₃, pH, etc.,
- ambient air quality and noise.

Characterize the baseline status of each parameter, and discuss trends underway independent of the project which could change baseline conditions over the life of the project, including trends in land use changes and climate change.

Biological Environment. The data on biological environment (upstream and downstream of the proposed site) should cover, inter alia:

- natural habitats and ecosystems;
- flora - trees, grasses, others;
- fauna - mammals, birds including migratory birds, reptiles, amphibians, insects, fish and red-listed species;
- biodiversity including carrying capacity;
- protected and non-protected areas including hunting, poaching, illegal fishing;
- wetlands;
- fish;
- benthic flora and fauna; and
- others as identified by the consultant.

The trends underway independent of the project which could change baseline conditions over the life of the project, including trends in land use changes and climate change, should also be covered.

Socio-Economic Baseline. The socioeconomic baseline should identify and characterize all affected households as well as general socioeconomic aspects of the area of influence of each project investment location. This shall include using mobile application to geo-tag all affected households with photographs of household members and the asset(s) affected, prepare maps of affected households and communities, and describe their present socioeconomic conditions, mobility, livelihoods, gender and

vulnerability based on household surveys of all directly and indirectly affected households, and consultations with communities and key stakeholders. The data will also cover:

- population and demography;
- use of land, river and natural resources in the project area including for agriculture, fishing, livestock, grazing;
- other economic activities e.g. sand quarrying / extraction, trade, services;
- existing river traffic (both commercial and recreational) and navigation routes, etc; existing traffic patterns on access routes;
- social infrastructure and services including education, health, communications, others;
- economic activities;
- identification of direct and indirect beneficiaries;
- access and security;
- community organizations;
- vulnerable groups and poverty situation;
- Impact on the livelihood, income etc on the downstream fishermen and farmers
- Condition of farmers likely to be at the tail end of the irrigation system
- gender aspects;
- physically disabled;
- recreation areas;
- cultural heritage and cultural property;
- objects of special interest, e.g. cultural practices, graveyards and monuments; and
- others as identified by the consultant.

6. Stakeholder Consultations

The consultants need to identify all the stakeholders; both direct and indirect, and carry out a detailed stakeholder analysis and identify key stakeholders at each site. Continued consultations are required during the project preparation with the affected communities and relevant stakeholders. In addition, at least two major consultation meetings are to be held at the project sites (the first one during the initial stages of ESIA study and the second one after preparation of draft ESIA report) with the affected communities and businesses as well as other relevant stakeholders including farmers, fishers, women, institutional stakeholders and local nongovernmental organizations, etc. Consultation has to be conducted with downstream fishermen and farmers in order to identify the potential impact on their income and livelihood. Consultation methodologies should also include focus group discussions (FGD) and key informant interviews, which shall be briefly documented using mobile application and geo-tagged, to complement larger consultation events and ensure social inclusion of the consultation process. FGD should include in particular different user groups of the proposed facilities, including specific

FDGs with women only, as well as with stakeholders with physical disabilities. All consultations shall be fully documented, including with photolog, and included in an annex to the final ESIA report. Documentation should include dates and locations of consultation events, stakeholder groups consulted, information shared and issues raised, and how feedback received will be taken into account in the analysis and design of the project.

7. Environmental Impact Assessment

Predict and assess the project's likely positive and negative impacts, in quantitative terms to the extent possible, associated with Project siting, design, construction, and operation. This analysis will require in depth interpretation, particularly on impacts related with instream construction activities such as piling, bank protection works and possible dredging (on aquatic ecology and river erosion); disposal of dredge spoils; management of solid and liquid wastes; water and sanitation; air and noise quality; site remediation and disposal of contaminated soils (if any); occupational health and safety issues; traffic impacts and emergency management. Analyze the morphology of river channels within the influence area and how they change over time due to construction of proposed facilities.

In order to determine minimum environmental flows to be released from the dam, prediction methods can include: expert/professional judgement, simulation modelling (where sufficient data is available) and case study.

Opportunities for environmental enhancement need to be explored. Identify and estimate the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specify topics that do not require further attention.

8. Social Impact Assessment

Assess the impacts of land acquisition (if any) and land use change (even if it is government land) on the livelihoods of the affected people and their socioeconomic conditions through detailed census surveys, and identify the options for resettlement of affected people and restoration of their livelihoods through focused consultation with affected groups. Assess the impact of proposed developments on the access to public facilities, community health and safety, gender and employment.

The social research and census surveys should cover the squatters living in the proposed development areas. Common property resources need to be considered during the assessment. A robust socio-economic baseline of all affected people will form the backbone of this assessment. The assessment should not limit the surveys to the impacts cited here, but list all the direct and indirect impacts due to

the proposed project. All socio-economic surveys should be carried out using mobile device for real time data collection.

The social impact assessment will cover the directly affected people and affected communities to formulate development strategies in order to assist in determining project impacts on the social, economic, cultural, and livelihood activities of affected communities. This will establish a social baseline against which changes resulting from the intervention can be measured in the future. A socio-economic survey of the area to analyze the demographic, socio-economic, cultural and other social relations and stakeholder needs to be conducted. Local tenure and property rights arrangements, which may include usufruct or customary rights to the land or other resources taken for the project including common property resources needs to be assessed.

9. Cumulative and Induced Impacts

Consider and assess the cumulative impacts of other development projects in the area (on-going and planned). In particular, review the projects and facilities associated with irrigation and consider and assess any potential interaction of impacts of those projects with those of proposed facilities.

10. Environmental Management Plan (EMP)

Prepare EMP complete with mitigation plan, compliance monitoring plan, effects monitoring plan, institutional arrangements, training needs, documentation and communication protocol, grievance redress mechanism, cost of implementing EMP, and mechanism to integrate EMP with the Project (e.g., through design changes, contractual clauses, etc.). Prepare environmental code of practices (ECoPs) with standard mitigation measures and best management practices to address the impacts associated with both during construction and operation phases of the proposed facilities. Describe in details who will (a) implement the environmental mitigation activities; (b) carry out environmental monitoring; (c) supervise environmental mitigation and monitoring; (d) design, implement and apply the environmental management information system (EMIS); and (e) prepare monthly/ quarterly progress reports on environmental management. Include measures for emergency response to accidental events (such as entry of raw sewage or toxic wastes into the river, collision of boats, flooding of facilities, etc.). Provide an itemized budget for implementing the EMP, as well as descriptions of minimum qualifications for key personnel responsible for its implementation. Prepare a detailed plan, including schedule and necessary budget, to monitor the implementation of mitigating measures and the impacts of the project during construction and operation (e.g., emissions thresholds and ambient levels of pollutants where

these may be detrimental to human health, soil erosion, etc.). Provide guidance for reporting and enforcement and conducting environmental audits. The EMP should be divided into two sections: one encompassing the requirements of the civil works contractors (in a format that can be annexed easily to the bid packages), and one for all other aspects of environmental and social management during construction and operational phases.

11. Resettlement Action Plan (RAP)

A stand-alone Resettlement Action Plan shall also be prepared, in accordance with World Bank OP 4.12 on Involuntary Resettlement, as well as applicable Bangladeshi land acquisition, resettlement and rehabilitation laws, regulations and guidelines.

In preparation of the RAP, the tasks to be performed are as below:

- To photograph the affected / displaced family with the affected assets and number each asset; to prepare videography of the entire affected area including the affected land and assets.
- To conduct census survey of all PAPs residing / using the corridor of impact to collect an inventory of types and extent of losses of each affected household, family composition and details on age and sex of all the members of the household, income and expenditure levels and occupational patterns, vulnerability status, legal ownership status (private, traditional and customary ownership, lease), asset ownership status and skills possessed. Prepare a fact sheet and attach the photograph of each project-affected person/family.
- Assess in detail all the adverse impacts and categories each type of losses specific to the project area.
- To conduct focus group discussions on the preliminary designs options such on location, accessibility, facilities, safety and others and integrate the outputs in the technical design with that of the mitigation measures proposed.
- To carry out public consultations with different project affected social groups about their options and rights pertaining to resettlement and with other stakeholders like NGOs, District Administration, etc., and provide a plan for continuous public consultation during implementation.
- Identification of key formal and informal institutions operating at village, up-zilla and regional levels and assessment of their role in community decision making processes as these affect project activities.
- To carry out market survey and focus group discussion with different social groups

including women and vulnerable to prepare socially, technically and economically feasible income generations schemes including skill upgradation plans.

- To determine the legal framework of private land, customary and traditional laws governing land tenure, usufruct rights, leasehold and land acquisition, or transfer plans for the total project including for tree plantation, if any, according to the revenue records (including acquisition for temporary purposes).
- Based on draft detailed designs conduct field verification and consultation to identify locations for further minimization of social impacts if any, and integrate with final designs.
- To establish the legal status of the affected people and carry out joint verification with the revenue department and implementing agency, of the project affected area to prepare land acquisition plans and provide specific details on the gaps between physical ownership and revenue records; identify land allotted to affected people by government departments and other agencies, if any.
- Modify and update database of project affected persons on a user friendly platform.
- To finalize estimate of land required for resettlement and for economic rehabilitation.
- To identify the land and prepare a plan for relocation in consultation with the project displaced people with different social groups including women and local administration.
- To prepare a plan that ensures the host population will not be adversely impacted and plan for consultation on the impact on resources and infrastructure with increase in population of the host areas.
- Based on project RPF policy provide an appropriate action plan for additional support for the vulnerable, and other action plans if necessary.
- To determine the impact on community assets / cultural property and prepare a management plan for relocation and restoration in consultation.
- To develop terms of reference for NGOs, external evaluation consultants, and for any other study identified for impact evaluation.
- To assess institutional capacity and propose the institutional arrangement for implementation of RAP, addressing grievances, and ensuring gender equity, and identify the roles and responsibilities of each agency.
- To identify various formal and informal institutions that may provide support for the implementation of RAP.
- To develop a training program on R&R, based on the assessment of the capacity of the implementing agency.
- To develop monitoring indicators and formats for physical and financial progress, process monitoring and impact evaluation and indicators to for other stakeholders and finalize the same.
- To prepare an implementation schedule synchronized with time frame of civil works,

and ensure that no civil works will begin until people are fully compensated and adequately rehabilitated.

- Conduct risk assessment for proposed mitigation measures.
- To develop detailed budget based on the based on the outcomes of study.
- Develop a mobile based web based interactive application for monitoring, grievance redress mechanism and feedback, which can be used by the community including PAPs, during preparation and implementation.

E. Deliverables

The deliverables to be submitted are:

- Inception report, including results of scoping, final outline for ESIA and RAP, and work plan.
- Executive Summary (a summary of the ESIA and RAP reports), written in a form that is understandable and accessible to a layman audience, in both English and Bengali.
- Draft and final ESIA Reports, including Environmental and Social Management Plans (e.g. for social plans: relocation of ghats, enhancement of ghat and terminal facilities, etc.).
- Draft and final Resettlement Action Plan, with adequate measures for compensation, relocation, livelihoods restoration, grievance redresses and budgetary provisions, in both English and Bengali.

F. Time Schedule

The assignment is expected to be completed within 10 months. The inception report should be submitted within 4 weeks. The draft ESIA and RAP reports along with management plans should be submitted at the end of the 6th month.

G. Study Team

The proposed core team for the ESIA and RAP studies is given below. The man months shown are initial estimates only for core skill areas, and may not be inclusive of all required skills and team members necessary to complete the studies. The consultant is responsible to make a determination on the required staffing to complete the assignment, and is free to employ whatever resources are required.

S.No.	Key Specialists	Man Months
1	Environmental Specialist and Team Leader – International experience on ESIA's, including one or more in accordance with World Bank or other international lender standards; previous	10 months

	experience on one or more ESIA's for ports or terminals is strongly preferred.	
2	Environmental Engineer – National with expertise on management and remediation of contaminated soils and sediments, preferably with relation to port or terminal development	7 months
3	Ecologist – National with expertise on river ecology, and preferably prior knowledge of the ecology of the relevant rivers under study.	6 months
4	Social Development and Resettlement Specialist – International experience with experience in SIA and preparation of RAPs	10 months
5	Community Engagement Expert – National with experience in engaging communities in preparation of RAPs	6 months
6	Gender Expert – National with experience in gender mainstreaming in the preparation of RAPs and the management of social issues in infrastructure projects generally; The gender expert will also assess the SEA/SH-risks and mitigation measures; preferably female	5 months

The roles and responsibilities outlined below are considered the core responsibilities. However, the consultant firm(s) is (are) still required to deliver all aspects of the scope of works.

1. Team Leader (Environmental Specialist) (International)

Education: Master's in Environmental Science / Engineering or related field (PhD preferred).

Experience: At least 15 years relevant professional experience. International experience on ESIA's, including one or more in accordance with World Bank or other international lender standards. Should have prior experience as team leader/manager of an ESIA study for at least one dam. His/Her role and responsibilities include, but not limited to:

- Lead and coordinate the activities of the team
- Coordinate activities with PIU and design consultants
- Has primary responsibility for all deliverables

2. Environmental Engineer (National)

Education: Master's in Environmental Science / Engineering (PhD preferred).

Experience: At least 10 years relevant professional experience. National with expertise in particular on environmental management of dams.

- Conduct environmental baseline surveys
- Provide key technical inputs on issues related to pollution, contamination of proposed project activities
- Review environmental requirements of designs
- Develop mitigation measures in consultative manner
- Identify potential enhancement measures such as energy efficiency measures, green technologies, etc.
- Develop EMP
- Provide cost estimates and BOQ items for the environmental management aspects for all relevant aspects
- Participate in stakeholder consultations
- Provide any other required necessary support to Team Leader and PIU

3. Ecologist (National)

Education: Master's in Biology, Zoology or similar field (PhD preferred),

Experience: At least 10 years relevant professional experience, with expertise on river ecology, and preferably prior knowledge of the ecology of the relevant rivers under study. His/Her role and responsibilities include, but not limited to:

- Screening of ecological issues as required for selected sites of the project
- Conduct flora and fauna survey and baseline analyses and identify ecological sensitive areas in and around project areas.
- Ecological impact analyses, including indirect and cumulative effects
- Develop alternative design options and mitigation measures in consultative manner
- Identify potential ecological enhancement measures
- Provide input to development of EMP
- As required, provide cost estimates and BOQ items for the environmental management aspects for all relevant aspects
- Participate in stakeholder consultations
- Provide any other required necessary support to Team Leader and PIU

4. Social Development and Resettlement Specialist (International)

Education: Master's in Sociology, Anthropology or similar field,

Experience: 12 years of professional experience with SIAs and involuntary resettlement issues, including in accordance with World Bank or other international lender standards. Previous experience in the implementation of water resource / river engineering and management project, in particular dam projects would be a plus.

The Sociologist / Social Expert will assist the study mainly by assessing the social impact risks and preparing social management plans (including Resettlement Action Plans) for the proposed intervention. Her/his major responsibilities shall include but not necessarily be limited to the following:

- Identifying both social risks including potential issues of labour influx, and opportunities in connection with project interventions.
- Identifying the views and interests of the local peoples, in connection with their present socio economic activities. Analysis of land requirements of different interventions in relation to the present land use patterns in the study areas, and determination of compliant solutions.
- Consultation with local people about the potential scenarios, in coordination with the Community Engagement and Gender Experts.
- Liaise with design consultants to ensure disabled and other vulnerable group aspects are included in the tender documents
- Participate focus group discussions with local people.
- Develop RAP in consultation with local administration and stakeholders
- Attend meeting as and when required by the designated representative of BIWTA.
- Assist in preparation and submission of deliverables of the study

5. Community Engagement Expert (National)

Education: Masters in Sociology, Anthropology or similar field

Experience: 10 years' experience with engaging communities in preparation of SIAs and RAPs. Previous experience with World Bank or ADB supported projects including other donor-supported projects of similar nature would be an asset. Preferably 1 female and 1 male. Her/his major responsibilities shall include but not necessarily be limited to the following:

- Develop a communication strategies and plans in the context of delivering the assignment
- Work with Social Development and Resettlement Specialist identifying both social risks and opportunities in connection with project interventions.
- Work closely with Social Development and Resettlement Specialist to identify socio-

economic and socio-cultural baseline

- Arrange and participate focus group discussions with local people and consultations with other stakeholders.
- Assist in preparation and submission of deliverables of the study

6. Gender Expert (National)

Education: Masters in Sociology, Economics, Gender Studies or similar field

Experience: 10 years' experience in gender mainstreaming in the preparation of RAPs and the management of social issues in infrastructure projects generally; preferably female. Previous experience with World Bank or ADB supported projects including other donor-supported projects of similar nature would be an asset. Her/his major responsibilities shall include but not necessarily be limited to the following:

- Develop strategies and plans for women's' engagement
- Develop gender sensitive measures and indicators for incorporation into management plans
- Liaise with design consultants to ensure gender sensitive aspects are included in tender documents
- Participate in focus group discussions with local people and consultations with other stakeholders.
- Assist in preparation and submission of deliverables of the study

H. Applicable World Bank Policies and Procedures

Operational Policies (OP) /Bank Procedures (BP) that are expected to be applicable to the proposed ESIA study are the following:

OP / BP 4.01	Environmental Assessment
OP / BP 4.04	Natural Habitats
OP 4.11	Physical Cultural Resources
OP / BP 4.12	Involuntary Resettlement
OP / BP 7.50	Projects on International Waterways
BP 17.50	Disclosure of Operational Information

The consultants will also make use of and follow applicable thresholds and standards outlined in the WBG Environmental, Health, and Safety (EHS) Guidelines.

I. Proposed/Indicative Structure of EIA Report

The suggested and indicative contents of the EIA report is given below. The consultant however will be required to confirm this structure with DoE during the scoping phase.

Executive Summary

Concisely discusses significant findings and recommended actions.

1. Introduction

1.1 Overview

1.2 Background of the project

1.3 Objective of EIA

1.4 Approach to work

1.5 Area/Corridor of Impact

1.6 Composition study team

2. Legal and administrative framework

2.1 GoB requirements (legislation; guidelines and rules; policies; international treaties signed by Pakistan; national and provincial authorities; environmental procedures), their applicability, and compliance status for the Project.

2.2 World Bank requirements (operational Policies and safeguard requirements; and WBG Environmental Health guidelines) and their triggering and compliance status for the Project.

3. Project description

3.1 Need and purpose of project

3.2 Project location

3.3 Salient features

3.4 Description of project components

3.5 Construction activities

3.6 Construction machinery, materials and other supplies (including estimated numbers/quantities)

3.7 Waste generation and disposal (including estimated quantities)

3.8 Manpower requirements

3.8 Operation and maintenance (supplies; waste generation and management; manpower requirements; others).

4. Baseline description/analysis

4.1 Study area

4.2 Physical environment

4.3 Biological environment

4.4 Social and economic environment

4.5 Cultural aspects (cultural heritage; archaeology; and other objects of special interest, e.g. graveyards, monuments).

5. Project alternatives

5.1 Without project alternative

5.2 Site Options

5.3 Design Options

5.6 Other temporary and permanent facilities

6. Climate Change

6.1 Climate Change

6.2 Risk of flooding

7. Public Consultation and Information Disclosure

7.1 Scoping sessions

7.2 Focused group discussions

7.3 Public consultations

7.4 Information disclosure

8. Potential Environmental Impacts and Mitigations

8.1 Impact assessment, prediction, and characterization method.

8.2 Impacts during construction phase

8.3 Impacts during operational phase

7.4 Impacts during decommissioning phase.

9. Potential Social Impacts and Mitigations

9.1 Resettlement and compensation

9.2 Impacts and their mitigations during construction phase

9.3 Impacts and their mitigations during operational phase.

10. Cumulative and Induced Impacts

10.1 Cumulative impacts of on-going and planned projects in the area

10.2 Induced impacts of the Project.

11. Environmental Management Plan (EMP)

11.1 Types of impacts and their mitigations

11.2 Mitigation measures

11.3 Environmental Code of Practices

11.4 Monitoring Plan

11.6 Communication and documentation

11.7 Cost of EMP

11.8 Integration with Project (contract clauses, others)

11.9 Grievance Redress Mechanism (GRM)

11.10. Institutional strengthening

REFERENCES

ANNEXES

- Flora and fauna list

- Documentation on public consultations

- Environmental Code of Practices, etc.

J. Proposed/Indicative Structure of SIA and RAP Report

The suggested and indicative contents of the SIA and RAP report are given below:

Executive Summary: Concisely discusses significant social findings and recommended mitigation measures and actions.

1. Introduction

- 1.1 Overview
- 1.2 Background of the project
- 1.3 Objective of SIA and key tasks
- 1.4 Approach and methodology
- 1.5 Area/Corridor of Impact
- 1.6 Composition study team

2. Legal and administrative framework

- 2.1 GoB requirements (legislation; guidelines and rules; policies; international treaties signed by Bangladesh; national and provincial authorities; social procedures), their applicability, and compliance status for the Project.
- 2.2 World Bank requirements (operational Policies and safeguard requirements; and WBG Environmental Health guidelines) and their triggering and compliance status for the Project.

3. Project description

- 3.1 Need and purpose of project
- 3.2 Project location
- 3.3 Salient features
- 3.4 Description of project components

3.5 Construction activities

3.6 Construction machinery, materials and other supplies (including estimated numbers/quantities)

3.7 Waste generation and disposal (including estimated quantities)

3.8 Manpower requirements (including temporary labor force)

3.8 Operation and maintenance (supplies; waste generation and management; manpower requirements; others).

4. Baseline description/analysis

4.1 Study area

4.2 Demographic Profile

4.3 Socio-economic profile

4.4 Socio-economic analysis based on primary data

4.4 Cultural aspects (cultural heritage; archaeology; and other areas or objects of special interest, e.g. graveyards, monuments).

5. Stakeholder Analysis

5.1 Stakeholders at different levels

5.2 Stakeholder expectations

5.3 Overall issues emerged during consultations

6. Public Consultation and Information Disclosure

6.1 Stakeholder consultations

6.2 Focused group discussions

6.3 Public consultations

6.4 Information disclosure

7. Potential Social Impacts and their Mitigations

7.1 Impacts

7.2 Risks and Assumptions

7.3 Issues of significance

7.4 Resettlement and compensation

7.5 Impacts and their mitigations during construction phase

7.6 Impacts and their mitigations during operational phase.

Resettlement Action Plan (RAP) as an annexure

1. Introduction

1. Brief Introduction of the sub-project
2. Description of Component(s) that cause land acquisition/alienation and resettlement
3. Overall Estimates of Land Acquisition and R&R

2. Measures to Minimize Resettlement

1. Description of Efforts Made for Minimizing Displacement
2. Description of the Results of these Efforts
3. Description of Mechanisms to Minimize Displacement and Loss of Livelihood/Income during Implementation

3. Census and Socio-Economic Surveys

1. Provide the results of the census and socio-economic surveys
2. Identify all categories of impacts and the extent of impact on each affected

4. Consultation and involvement of PAPs

1. Describe various Stakeholders
2. Summarize process of consultation on the results of socio-economic surveys
3. Describe the need and mechanisms to conduct updates to socio-economic surveys
4. Describe how this process of consultation would be continued through implementation and monitoring
5. Describe the plan for disseminating information to Project Affected Persons

5. Entitlement Framework

1. Provide a definition of PAFs and PAPs together with their categorization based on impacts
2. Describe R&R entitlements for each category of impact
3. Describe method of valuation used for affected land, structures and other assets
4. Using Entitlement Matrix, present a table of all PAFs/PAPs and their losses/ impacts and entitlements

6. Relocation (if applicable)

1. Does the Project need community relocation sites? If yes, have they been inspected and accepted by PAPs?
2. Have the Project Affected Persons agreed to the strategy for housing replacement? Will new housing be constructed/allocated? If PAPs are to construct houses, explain if compensation entitlement for housing is sufficient to help them construct houses.
3. List of proposed sites along with number of affected families to be relocated
4. Describe respective mechanisms for (i) procuring/acquiring/alienating ; (ii) developing and (iii) allotting resettlement sites
5. Provide detailed description of arrangements for development of resettlement sites including provision of social infrastructure
6. Describe the feasibility studies conducted to determine the suitability of the development of sites.

7. Income Restoration

1. Are the compensation entitlements sufficient to restore income streams for each category of impact? If not, what additional economic rehabilitation measures are necessary?
2. Briefly spell out the restoration strategies for each category of impacts, and describe institutional, financial and technical arrangements/aspects involved
3. Describe the process of consultation with PAPs to finalize strategies for income restoration
4. How do strategies for restoration vary with the area/locality of impact
5. If income restoration involves change in livelihoods or other economic activities allow substantial amount of time for capacity building, accessing institutional funds/credits/markets, preparation and implementation. Work out the rate of returns for each of the economic activities opted by the entitled person.
6. How are the risks of impoverishment proposed to be addressed?
7. Explain the main institutional and other risks for effective implementation of plans for restoration of livelihood
8. Describe the process for monitoring the effectiveness of income restoration activities

8. Institutional Arrangements

1. Describe institution(s) responsible for: (a) delivery of each item/activity in the entitlement policy; (b) implementation of resettlement and rehabilitation programs and (c) coordination of all other activities as described in the Rehabilitation Action Plan
2. State how coordination issues will be addressed in cases where resettlement and rehabilitation are spread over a number of institutional/departmental jurisdictions
3. Indicate the agency that will coordinate all implementing agencies – do they have the necessary mandate and the resources

4. Describe the external (non-Project) institutions/departments involved in the process of resettlement and restoration of income such as land development, land allocation, credit, training for capacity building and the mechanisms in place to ensure adequate cooperation and performance of these institutions/departments
5. Describe the results of the institutional capacity assessment and give the institutional development plans including staffing schedule and training requirements
6. Discuss institutional capacity for, and commitment to, resettlement and rehabilitation

9. Monitoring and Evaluation

1. Describe the internal monitoring process
2. Define key monitoring indicators for resettlement, rehabilitation and participation and provide a list of these indicators which would be used for internal monitoring
3. Describe institutional (including financial) arrangement
4. Describe frequency of reporting and contents of reports
5. Describe the process for integrating feedback from internal monitoring into implementation
6. Describe financial arrangements for external monitoring including process for awarding and maintenance of contracts for the entire duration of R&R
7. Describe the methodology for external monitoring
8. Describe frequency of external reporting and its contents

10. Redress of Grievances

1. Describe the structure and process of grievances mechanisms at various levels including step-by-step process for registering and addressing grievances and provide specific details regarding registering complaints, discussing them with PAPs, response time, communication modes etc.
2. Describe the mechanism for appeal
3. Describe the provision, if any, to enable PAPs to approach civil courts in case these provisions fail.

11. Implementation Schedule

1. List the chronological steps in implementation of R&R Action Plan including identification of agencies responsible for each activity along with a brief explanation of each activity
2. A month-wise implementation schedule (Gantt chart) of activities to be taken as part of R&R Action Plan
3. Description of the linkage between R&R implementation and initiation of civil works for each of the Project component

12. Costs and Budgets

1. Clear statement of financial responsibility and authority
2. List the sources of funds for R&R and describe the flow of funds

3. Indicate if costs of R&R are included in the overall Project costs
4. Identify R&R costs, if any, to be funded by the WB
5. Provide a cost-wise, item-wise budget estimate for the entire R&R costs including administrative expenses, monitoring and evaluation and contingencies
6. Describe the specific mechanisms to adjust cost estimates by *inflation* factor
7. Describe provisions to account for different types of contingencies

Annex: Documentation on public consultations