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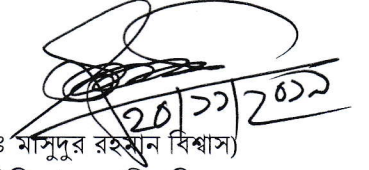
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বিষয়: Safty Net System for the Poorest (SNSP) প্রকল্পের সমন্বিত Environmental ও Social Management Framework (ESMF) অনুমোদন প্রসংগে।

সূত্র: দুর্যোগ ব্যবস্থাপনা অধিদপ্তর হতে প্রাপ্ত পত্র নং-৫১.০১.০০০০.০১৯.১৬.৬৮৯.১৯-৫৮০; তারিখ: ০৩-১১-২০১৯ খ্রি.

উপর্যুক্ত বিষয় ও সূত্রের পরিপ্রেক্ষিতে, কক্সবাজার জেলায় স্থানীয় ক্ষতিগ্রস্ত জনগোষ্ঠীকে সহায়তা প্রদানে Additional Financing (AF) প্রাপ্তির জন্য বিশ্বব্যাংকের চাহিদার প্রেক্ষিতে Safty Net System for the Poorest (SNSP) প্রকল্পের Component-4 এর জন্য প্রস্তুতকৃত সমন্বিত Environmental ও Social Management Framework (ESMF) দুর্যোগ ব্যবস্থাপনা অধিদপ্তরের Website-এ প্রকাশের জন্য নির্দেশক্রমে এ মন্ত্রণালয়ের অনুমোদন প্রদান করা হলো।



(মোঃ মাসুদুর রহমান বিশ্বাস)

সিনিয়র সহকারী সচিব

ফোন: +৮৮-০২-৯৫১৪২২১

ই-মেইলঃ sacplan3@modmr.gov.bd

মহাপরিচালক
দুর্যোগ ব্যবস্থাপনা অধিদপ্তর
৯২-৯৩ মহাখালী, বা/এ
ঢাকা-১২১২।

সদয় অবগতি ও কার্যার্থে:

- ০১। প্রকল্প পরিচালক, “Strengthening of the Ministry of Disaster Management and Relief Program Administration (2nd Revised)” প্রকল্প, ভেঞ্চার টাওয়ার, ৯২-৯৩ মহাখালী, বা/এ, ঢাকা-১২১২।
- ০২। সিনিয়র সচিব মহোদয়ের একান্ত সচিব, দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ০৩। প্রতিমন্ত্রী মহোদয়ের একান্ত সচিব, দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ০৪। অতিরিক্ত সচিব (পরিকল্পনা ও উন্নয়ন) মহোদয়ের ব্যক্তিগত কর্মকর্তা, দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ০৫। যুগ্ম-সচিব (পরিকল্পনা ও উন্নয়ন) মহোদয়ের ব্যক্তিগত কর্মকর্তা, দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ০৬। উপপ্রধান (পরিকল্পনা ও উন্নয়ন) মহোদয়ের ব্যক্তিগত কর্মকর্তা, দুর্যোগ ব্যবস্থাপনা ও ত্রাণ মন্ত্রণালয়, বাংলাদেশ সচিবালয়, ঢাকা।
- ০৭। সংশ্লিষ্ট নথি।

Safety Net Systems for the Poorest (SNSP)

Additional Financing

ENVIRONMENTAL & SOCIAL MANAGEMENT FRAMEWORK

November 2019

**Department of Disaster Management
Ministry of Disaster Management & Relief
Government of the People's Republic of Bangladesh**

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LIST OF ABBREVIATIONS

AF	Additional Financing
BBS	Bangladesh Bureau of Statistics
BDT	Bangladesh Taka (Currency)
BP	Bank Procedures
BCCSAP	Bangladesh Climate Change Strategy & Action Plan
BWDB	Bangladesh Water Development Board
CIC	Camp in Charge
DC	Deputy Commissioner
DG	Director General
DDM	Department of Disaster Management
DOE	Department of Environment
DPD	Deputy Project Director
DRP	Displaced Rohingya Population
EA	Environmental Assessment
EIA	Environmental Impact Assessment
ECA	Environmental Conservation Act
ECC	Environmental Clearance Certificate
ECOPs	Environmental Code of Practices
ECR	Environment Conservation Rules
EGPP	Employment Generation Program for the Poorest
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMP	Environmental Management Plan
EMRCRP	Emergency Multi-Sector Rohingya Crisis Response Project
EMRP	Environmental Management Regulatory Procedure
EMS	Environmental Management System
EH&S	Environmental Health & Safety
ERT	Elephant Response Team
ESMF	Environmental & Social Management Framework
FFW	Food for Works
FGDs	Focus Group Discussions
FY	Fiscal Year
GBV	Gender Based Violence
GOB	Government of Bangladesh
GR	Gratuitous Relief
GRC	Grievances Redress Committee
GRO	Grievance Redress Officer
H&S	Health & Safety
HEC	Human Elephant Conflict
HWC	Human Wildlife Conflict
ICT	Information and Communication Technology
IDA	International Development Association
IEE	Initial Environmental Examination
IFC	International Finance Corporation
INGO	International Non-Governmental Organization
IOM	International Organization for Migration
IRC	Independent Review Committee

ISCG	Inter Sector Coordination Group
JRP	Joint Response Plan
LFPR	Labor Force Participation Rate
LGI	Local Government Institution
LPG	Liquefied Petroleum Gas
M&E	Monitoring and Evaluation
MODMR	Ministry of Disaster Management and Relief
MOEFCC	Ministry of Environment, Forest & Climate Change
MIS	Management Information System
NBSAP	National Biodiversity Strategy and Action Plan
NEMAP	National Environmental Management Action Plan
NEQS	National Environmental Quality Standards
NGOs	Non-Government Organizations
NOC	No Objection Certificate
NCS	National Conservation Strategy
NWP	National Water Policy
NWMP	National Water Management Plan
NEAP	National Environmental Action Plan
O&M	Operation and Maintenance
OP	Operational Policy
PAPs	Project Affected Persons
PDO	Project Development Objective
PD	Project Director
PIA	Project Influence Area
PIC	Project Implementation Committee
PIO	Project Implementation Officer
PPE	Personnel Protective Equipment
RRRC	Refugee Relief and Repatriation Commission
SNSP	Safety Net Systems for the Poorest
SWM	Solid Waste Management
TR	Test Relief
TOR	Terms of Reference
TWS	Teknaf Wildlife Sanctuary
UC	Upazila Committee
UN	United Nations
UNDP	United Nations Development Program
UNHCR	United Nations High Commissioner for Refugees
UNO	Upazila Nirbahi Officer
UP	Union Parishad
UZ	Upazila
UP-PIC	Union Parishad- Project Implementation Committee
USD	United States Dollars
VGf	Vulnerable Group Feeding
WARPO	Water Resources Planning Organization
WASH	Water, Sanitation and Hygiene
WB	World Bank
WHO	World Health Organization
WFP	World Food Programme

GLOSSARY

Adverse impact	Adverse impact is an environmental impact that is harmful to human interest over either the short or long term.
Beneficial impact	Beneficial impact is an impact that improves the resources, economy, and/or quality of life.
Biodiversity	Biodiversity (biological diversity) is the variety of species within a given area or region.
Cumulative impacts	Cumulative impacts are environmental impacts that result from actions that are added to others of the past, present and the foreseeable future, caused by multiple human activities and/or natural events that are either repeated or occur in combination.
Drainage	The removal of excess surface water or groundwater from land by means of surface or subsurface drains.
Ecosystem	Ecosystem (ecological system) is a marine, freshwater or terrestrial linkage of dynamic and interactive components normally divided into two major categories – biotic (living) and abiotic (non-living).
Effect	Something produced either positive or negative by a cause or agent
Embankment	Fill constructed with soil materials to contain water.
Endangered species	Animals, plants, birds, fish, or other living organisms threatened with extinction by manmade or natural changes in the environment.
Enhancement	Enhancement is increasing the benefits of the positive impacts of a project.
Environment	Environment is the totality of the natural and human surroundings and includes biophysical components of the natural environment of land, water and air, including all layers of the atmosphere, all inorganic and organic matter both living and dead; and socio-economic components of the human environment including social, economic, administrative, cultural, historical, archeological, land and associated resources, structures, sites, human health, nutrition and safety.
Environmental Audit	Systematic, documented verification process of objectively obtaining and evaluating evidence to determine whether specified environmental activities, events, conditions, management systems, or information about these matters conform with audit criteria.
Environmental Impact	Environmental impact is a change in the state or functioning of an environmental resource or component caused by action(s) of a project. It should be distinguished from the impact to resources or components caused by natural factor, e.g., floods.

Environmental Impact Assessment (EIA)	Environmental impact assessment (EIA) is the systematic study, assessment and reporting of the impacts of a proposed program, plan or project, including a plan to deal with the negative impacts.
Environmental Management Plan (EMP)	Environmental management plan (EMP) is a plan to undertake an array of follow-up activities to provide for the mitigation of adverse environmental impacts and enhancement of beneficial impacts.
Environmental Performance	Measurable results of the environmental management system, related to an organization's control of its environmental aspects, based on environmental policy, objectives and targets.
Environmental Sensitive Areas	"Areas that are of significant value in their natural state" or areas that are of socio-cultural significance or sensitivity.
Habitat	Habitat is the division of the environment having a certain combination of physical (e.g., slope, drainage, soil type) and biological (e.g., food) factors necessary for sustained animal, plant or human use and survival.
Important Environmental Components (IECs)	Important environmental components (IECs) are components which by virtue of their importance to ecosystem functioning, production of food and/or maintenance of livelihoods and quality of life are considered essential and worthy of sustaining at existing or enhanced levels under the proposed new project.
Initial Environmental Examination (IEE)	Initial environmental examination (IEE) is environmental assessments undertaken for a regional or pre-feasibility level study for identifying and assessing possible environmental impacts.
Intervention	Intervention is the specific action caused by a project that creates an environmental impact, e.g., obstruction of a drainage canal by embankment.
Mitigation	Mitigation is any action taken to reduce unacceptable negative impacts. It includes both design changes to the project or operational strategies.
Monitoring	Activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends).
Reversible Impact	Reversible impact is an environmental impact that recovers either through natural process or with human assistance.
Public Participation	open, transparent, gender-sensitive, and community-based public involvement in the EA process, aimed at ensuring the social acceptability of a project or undertaking, involving the broad estrange of stakeholders, commencing at the earliest possible stage of project design and development and continuing until post-assessment monitoring.
Protected Area	Identified portions of land and water set aside by reasons of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation.

Project Affected Persons (PAPs)	refers to any person or persons who would be identified, during the project identification stage within the EA process and/or preparation of detailed proposal - a baseline census information collected for each of the inventories implemented in relation to a particular infrastructure project.
Screening	The process by which a decision is taken on whether or not EA is required for a particular project
Scoping	Scoping is a process whereby the important environmental components, project development issues and concerns of local communities are determined.
Significant Impacts	Impact which damage the environment to the point that the environmental resource loses its capacity to sustain life or to continue functioning within baseline levels and efficiency; impacts which need action through prevention, (e.g. change in project siting or design) or mitigation (reduce, repair, rehabilitate) or other interventions to protect the environment from being harmed at levels that reduce its functionality for its users or dependent biota.
Stakeholders	entities who may be directly and significantly affected by the project or undertaking, including the proponent, government agencies who have mandates over the project, local government units who have jurisdiction over the project, local communities who may be affected by project impacts, locally-based or locally-active NGOs within the impact areas and other public sectors who may be potentially affected by the project as defined by the findings of the environmental impact assessment of the project.
Sustainable Development	Sustainable development is development that ensures preservation and enhancement of environmental quality and resource abundance to meet the needs of the present without compromising the ability of future generations to meet their own needs.
Union	administrative division – subdivision of an upazila
Upazila	administrative division – subdivision of a district

EXECUTIVE SUMMARY

Introduction

The Department of Disaster Management (DDM), under the Ministry of Disaster Management and Relief (MODMR), implements the country's flagship public workfare program – Employment Generation Program for the Poorest (EGPP). Since FY 2014 to date, the World Bank supported Safety Net Systems for the Poorest (SNSP) Project (IDA 5281-BD & IDA 6137-BD) has co-financed small-scale community level basic infrastructure (subprojects) to create rural employment during lean periods under EGPP throughout the country.

The Government of Bangladesh (GOB) has requested Additional Financing of US\$100 million to the SNSP Project on grant terms to support (1) scale-up of the EGPP in Cox's Bazar district (under a new Component 4, tentatively titled "Strengthening Host Community Resilience using EGPP+), and (2) scale-up of the "Strengthening Community Resilience" program also implemented by MoDMR under the Emergency Multi-Sector Rohingya Crisis Response (EMRCR) Project (D419-BD) which will operate community services/works for the displaced Rohingya population (DRP) (under a new Component 5, tentatively titled "Strengthening Rohingya Community Resilience). **These interventions would be carried out only in Cox's Bazar district.**

Projects and programs financed with IDA resources need to comply with the World Bank safeguard policies, in addition to conformity with related legislations of the Government of Bangladesh. In preparing this document, relevant environmental social safeguard practices were reviewed. The review included field visits; various levels of consultations; qualitative and quantitative assessment towards understanding implementation processes of environmental and social safeguard compliance, and assessment of capacity to comply with safeguard policies. **This Environmental and Social Management Framework (ESMF) for the additional financing is limited for application only for the new Component 4 (Strengthening Host Community Resilience using EGPP+) which pertains to the host community in Cox's Bazar. Activities under the new Component 5 (Strengthening Rohingya Community Resilience) which pertains to the Rohingya community in Cox's Bazar, shall follow the ESMF of the EMRCR Project (D419-BD) which has been disclosed through the MoDMR website.**¹

The EMRCR Project is a Category A project. Component 2 of EMRCR Project (which supports the strengthening community resilience of the DRP) which will be referenced in this ESMF, does not have any Category A type activity. The category A was provided due to other components of the EMRCR Project which are not implemented by MoDMR. The SNSP parent project is Category B. Considering the nature and magnitude of potential social and environmental impacts and scale of community level infrastructure development, the proposed SNSP Project Additional Financing is classified as category 'Orange B' under the Department of Environment guidelines and Category B as per World Bank OP 4.01 on Environmental Assessment. Therefore there is no change in the Project safeguards category.

¹ <https://modmr.gov.bd/site/download/a75752c0-fcec-4187-bfea-2fef8d956e91/EMCRP:-ESMF-in-Bangla>

The EMRCR Project triggers World Bank OP 4.12 on Involuntary Resettlement. However, the SNSP Additional Financing ESMF will not trigger OP 4.12 because acquisition of land, resettlement, and relocation will not be allowed, and there will not be any negative impacts on livelihoods, as is the case for the parent SNSP Project. Therefore, any clauses in the ESMF of EMRCR Project which relate to involuntary resettlement will not be permissible in case of this SNSP Additional Financing.

Project Objective and Description

The original SNSP Project has three Components. Component 1 (Support to MoDMR Safety Net Programs) supports the Department of Disaster Management (DDM) under the Ministry of Disaster Management & Relief (MoDMR) to incrementally improve the performance of several safety net programs via results-based financing relating to (i) household targeting, (ii) administrative systems, and (iii) payment systems. In doing so, this Component co-finances a portion of the EGPP. Component 2 (Strengthening MoDMR Program Administration and Transparency) provides technical assistance to DDM to (i) utilize poverty data from the forthcoming National Household Database (NHD) to identify potential recipients of social assistance, (ii) establish a common safety net program management information system (MIS) for more efficient administration, and (iii) scale-up digital payments of program benefits. Component 3 (Development of the NHD), implemented by the Bangladesh Bureau of Statistics (BBS) under the Statistics & Informatics Division (SID), supports the establishment and implementation of the NHD – the country’s first universal social registry.

The proposed Additional Financing will include Component 4 (Strengthening Host Community Resilience using EGPP+), which would finance benefits to poor households in the host community in Cox’s Bazar. It would support the scale up of EGPP for host communities in Cox’s Bazar through a wider range of community schemes to enable vulnerable groups like women, older persons and those with disabilities to also participate. This shock-responsive use of the EGPP with flexible features such as an increased number of working days, work on demand, etc. is being referred to as “EGPP+”, and would operate within a specifically stipulated timeframe within a defined geographic region (i.e. in this case, Cox’s Bazar district). EGPP currently supports a wide range of community works² which are small scale and close to rural residential localities to facilitate the participation of women. The program requires that at least one-third of the beneficiaries are women. Under this shock-responsive EGPP+ approach (to be co-financed by the proposed Additional Financing), the range of activities will be expanded to include “community services” that are unlikely to include intensive manual labor e.g. awareness generation on health and social issues, garbage collection, promoting social cohesion, etc. Eligibility for regular labor-intensive

² i) construction and maintenance to rural roads (mainly earthen roads); (ii) construction and maintenance of river embankments; (iii) excavation or re-excavation of irrigation canals and drains; (iv) land-fill for community institutions like schools, mosque, pagoda, temple, graveyards, prayer grounds etc.; (v) earthen shelters to protect animals against cyclones; (vi) re-excavation of public ponds or fish farms; (vii) organic fertilizer production; (viii) further development of rural markets or (temporary) helipad; (ix) excavation or re-excavation of small water reservoirs; and (x) cleaning ponds and bushes. Expansion of the range of activities would include rehabilitation of community infrastructure (sidewalks, public spaces, public offices, community centers, drainage, WASH infrastructure, schools, clinics, etc.) and Community Services.

community works would include men and women aged 18 and up to 60 years based on economic criteria such as: land ownership of less than 0.1 acre and being a manual laborer; not owning a significant number of poultry or livestock; earning less than BDT 4,000 per month; not participating in any other social safety net provided by the Government (as per the EGPP Guidelines (FY 2014)). For the newly introduced “community services”, specific criteria to enhance participation would be elaborated in the shock-responsive EGPP+ Implementation Guidelines.

The proposed Additional Financing will also include Component 5 (Strengthening Rohingya Community Resilience) which would finance benefits to poor households in the Rohingya camps in Cox’s Bazar under the same arrangements as Component 2 (Strengthening Community Resilience) of the EMRCR Project (D419-BD) also implemented by MoDMR. Rohingya households would be engaged in community services and works, and benefits would now widen beneficiaries’ purchasing options. In particular, the ability to use benefits at pre-established community marketplaces, where local farmers and retailers from the host community would supply fresh products, is expected to encourage a commercial interaction between the communities and contribute to addressing social tensions. As mentioned earlier, Component 5 (Strengthening Rohingya Community Resilience) activities shall follow the ESMF of the EMRCR Project (D419-BD).

Policy and Legal Framework

The Government of Bangladesh has promulgated a wide range of policies, acts and guidelines³ governing environmental management. 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. Cascading from this, the regulatory framework now emphasizes conservation of the environment, preservation of wild life, climate change mitigation and the management of water, fisheries, agriculture, embankment and drainage, etc.

Regulatory requirements toward protection and conservation of environment have been enunciated by the GOB and World Bank pertinent policies and regulations among these requirements are summarized below:

The World Bank’s relevant Environmental and Social Safeguard Policies include the following (1) Operational Policies / Business Procedures (OP/BP) 4.01 Environmental Assessment; (2) OP/BP 4.04 Natural Habitats; (3) OP/BP 4.11 Physical Cultural Resources; (4) OP/BP 4.36 Forestry; (5) OP/BP 4.12

³(1) Environmental Conservation Act (ECA), 1995 and Amendments; (2) Environment Conservation Rules (ECR), 1997 and Amendments; (3) Environmental Policy, 1992; (4) Environmental Action Plan, 1992; (5) National Environmental Management Plan (NEMAP), 1995; (6) Bangladesh Wildlife (Preservation) Order, 1973 (Amended in 1994) ; (7) National Water Policy, 1999; (8) National Water Management Plan, 2001 (Approved in 2004) ; (9) The National Fisheries Policy, 1999; (10) The Protection and Conservation of Fish Rules, 1985 (11) National Agricultural Policy, 1999; (12) The Embankment and Drainage Act, 1952; (13) Bangladesh Climate Change Strategy and Action Plan; (14) DOE’s IEE/EIA including EMP Guidelines for Industry, 1997; (15) LGED’s Strategy, Guidelines and Environmental Code of Practices; (16) Bangladesh Water Act (2013); (17) Ecological Critical Area Rules (2016); & Bangladesh Biodiversity Act (2017)

Involuntary Resettlement; and (6) OP/BP 4.10 Indigenous People. Relevant World Bank guidelines include the Environmental, Health and Safety (EHS) Guidelines,

Baseline

Physical Environment: The climate of the Cox's Bazar region is tropical, with heavy rain in the monsoon during March to November including pre and post-monsoon showers. The project area is highly susceptible to tropical cyclone and tidal surges typically during April – May and October- November, occasionally coming to shore and causing severe damage to human settlements and vegetation. Hydrology of the project area is complicated by the varying terrain and topography with interaction between fresh water flowing from the upstream hilly areas and the tides flowing from the Bay of Bengal. In general, the air quality in the project area is not susceptible to intense pollution due to lack of industries or intense vehicular movement except some temporary and localized dust pollution near construction sites and brick kilns in the dry season (November to May). 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.

Biological Environment: The forest land in Cox's Bazar is covered by tropical evergreen and semi-evergreen forests. In Ukhiya and Teknaf, the forests are dominated by Garjan (*Dipterocarpus* spp.) occurring in deep valleys and shaded slopes. Within the last two decades, human activities have caused the forest areas in Ukhiya and Teknaf to become degraded. 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. However, the shrub type of forests was increased by 25% from 6,263 ha to 7,824 ha⁴. The most attractive feature of the influx area is the picturesque longest unbroken beach. It supports five species of sea turtles. Mudflats and sand dunes across the sea beach are the other two environmental assets of the project area which contain vegetation in the shore line of Cox's Bazar through Teknaf to protect the beach from soil erosion and recruit sands for increasing elevation of the beach. Himchari National Park and Inani forest area are important protected areas. According to IUCN (2016), there are 50-78 elephants in the Cox's Bazar District South region (which consists 5 forest ranges in Ukhiya and 4 in Teknaf)⁵. Around 40 of these are trapped in and around the camps due to the sudden influx of DRP⁶.

Socio-economic Environment: A wide range of socio-economic activities occur in the Cox's Bazar area including traditional farming, fishing and tourism: hotels, restaurants, transportation, etc. The influx of the DRP has also led to a proliferation of NGOs and INGOs working in the area which have added to the demand for services leading to increased socio-economic activities.

Environmental Management Framework

Objectives

⁴ Arannyak Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edition. The Arannyak Foundation, Dhaka.

⁵ IUCN (2016) Status of Asian Elephants in Bangladesh.

⁶ Personal communication with Mr. Motaleb of IUCN.

The Environmental Management Framework (EMF) is applicable for “Strengthening Host Community Resilience using EGPP+” in Cox’s Bazar. The EMF provides general policies, guidelines, and procedures to be integrated into the implementation of all sub-projects implemented by DDM under the EGPP to minimize adverse environmental impacts and maximize positive environmental impacts.

Potential Environmental Impacts

Although most of the EGPP subproject impacts are temporary, minor & localized due to small scale nature of the activities, there are some issues of concern that cut across the range of proposed interventions. Based on the findings of site visits, and lessons from similar public works programs show that issues such as community involvement, community ownership and selection of appropriate sites are some of the key concerns that influence program success and sustainability (details in the main report). The anticipated common negative impacts due to subprojects are: (1) Loss of top soil of agricultural land; (2) Losses of trees/vegetation; (3) Disturbance to wildlife; (4) Air/dust pollution; (5) Noise pollution; (6) Surface water pollution; (7) Waste disposal; (8) Public & workers H&S and (9) Increased Human Wildlife Conflict (HWC) such as Human Elephant Conflict (HEC).

Environmental Management Process

Specific sub-projects under the EGPP are determined by the local communities on an annual basis. This ESMF has been prepared to establish a mechanism to determine and assess potential environmental impacts of sub-projects identified and cleared based on a community demand driven process and to set out mitigation, monitoring and institutional measures to be taken during implementation of the sub-projects. In addition to complying with the regulatory requirements of GOB and the safeguard policies of the World Bank, the principles provide a framework to (i) identify, predict, and evaluate beneficial and negative environmental impacts of sub-project activities, (ii) design enhancement measures for beneficial impacts, and (iii) suitable institutional arrangements to implement the environment management measures. In the view of EMF objectives, the planning and implementation of sub-project activities will be based on the principles, most of which are incorporated in the proposed SNSP Project Additional Financing design and implementation arrangements.

The community level environmental screening will be an integral part of the sub-project planning. Environmental screening (using the format provided in Annex C) would help identify concerns addressed early on and to ensure that actions to mitigate environmental impacts or enhance environmental opportunities will be carried out at the community level to understand the possible environmental impacts at subproject planning stage. A community meeting shall be held to discuss the subproject, identify the community priority and identify the environmental and social impacts. The community under the guidance of the Project Implementation Officer (PIO) and/or Sub-Assistant Engineer (SAE) (both under DDM/MoDMR) and Project Implementation Committee (PIC) (formed by local representatives of the Union Parishads) will carry out the environmental screening. In addition, the community will review the subproject specific environmental code of practices ECoP to avoid/address environmental concerns through modifications (if required) in subproject design and incorporation of mitigation measures.

The PIO/SAE will review the environmental screening and suggest appropriate mitigation measures for the impacts and will also estimate the cost for the environmental mitigation of the sub-projects.

Design and implementation of the selected sub-projects shall be aligned to the Environmental Codes of Practice (ECoP)⁷ mentioned in this ESMF. The ECoPs have been developed to guide the planning, design, construction and maintenance stages of EGPP activities in terms of avoidance or mitigation of the negative environmental impacts that may result from the sub-projects. The codes define methods and procedures to be followed by the executing agencies, contractors and other agencies involved. The implementation of ECoPs shall be monitored as part of the safeguards monitoring arrangements of the SNSP Project Additional Financing.

Social Management Framework

Objective

The Social Management Framework (SMF) is applicable for “Strengthening Host Community Resilience using EGPP+” in Cox’s Bazar. The SMF provides general policies, guidelines, and procedures to be integrated into the implementation of all sub-projects implemented by DDM under the EGPP to minimize adverse social impacts and maximize positive social impacts.

Principles Governing Resettlement

The SNSP Additional Financing ESMF will not trigger OP 4.12 because acquisition of land, resettlement, and relocation will not be allowed, and there will not be any negative impacts on livelihoods, as is the case for the parent SNSP Project. Therefore, any clauses in the ESMF of EMRCR Project which relate to involuntary resettlement will not be permissible in case of this SNSP Additional Financing. However, World Bank safeguard policy OP 4.10 Indigenous People is triggered, as it is applicable in the parent SNSP Project.

Voluntary Land Donation

During screening, the PIC will try to avoid any kind of land use for EGPP subprojects. However, in case land is required, private land can be temporarily used through voluntary land donation. The decision to donate land or temporary use must be taken based on a full understanding of the sub-projects and the consequences of agreeing to donate the land, and thus, consultation should be held. Informed consent of the land owner/s must be verified in coordination with the local Government. Finally, written agreement to donate the land should be in place and relevant documents and records conserved.

Screening and documentation

Each subproject planning stage will need to include a social screening (Annex D) to identify any potential social effects the project might have. The Project Implementation Committee (PIC) will need to undertake

⁷ (a) Project Planning & Design Stage; (b) Site Preparation: Borrow Areas; (c) Top-soil Salvage; (d) Storage and Replacement; (e) Slope Stability and Erosion Control; (f) Waste Management; (g) Water Bodies; (h) Drainage; (i) Worker’s Health and Safety; (j) Environmental Monitoring; (k) Tree Plantation; (l) Fertilizer Production; (m) Natural Habitats; (n) Consultations for Environmental Aspects; and (o) Minimizing Human Elephant Conflicts.

the screening with assistance from the Project Implementation Officer (PIO), to ensure that the subproject does not result in or include any of the ineligible activities or effects. If the screening reveals the risks of land acquisition and/or resettlement, or any other social ramifications, the PIC and PIO shall prepare a report on the risks and submit it to the PIU who will then determine how the ramifications can be avoided.

Small and Ethnic Communities planning framework (SECPF)

There is presence of tribal people in Cox's Bazar and therefore this ESMF includes a Small Ethnic Communities planning framework (SECPF). If there are any tribal people (TP) in the sub-project area, a Tribal Peoples Plan (TPP) will be prepared based on free, prior, informed consent. This will serve as the basis for subproject implementation and monitoring. In addition, the TP will need to be identified and consulted to make sure that the sub-project causes no economic, cultural or settlement related effects. Together with the TPs, community elders and local community-based-organizations that are familiar to TP issues, the PIC and PIO would need to screen the sub-project/s and explore alternatives to minimize any adverse impacts on TPs.

Consultation and Citizen Engagement

During preparation of the safeguard documents, MODMR has conducted 08 meetings with the local government, different UN agencies, donors, host communities and DRP. All stakeholders were found to be in favor of the proposed SNSP Project Additional Financing, which would use a shock-responsive approach to the EGPP to respond to needs of poor and vulnerable households. In addition, the following were highlighted: voluntary donation of land was deemed possible for works under EGPP, though the use of the top soil was discouraged; the possibility of livelihood opportunities were welcomed in the form of an expanded works range of EGPP e.g. afforestation and grass plantation on earthen road, land filling if community institutions, garbage collection, pond/canal digging, dry fish processing and guide wall construction; in addition, the need for a wage rate higher than the current rate provided by EGPP, and pro-poor beneficiary selection processes were emphasized.

A well-defined grievance redress mechanism (GRM), as defined in the EGPP Guidelines (approved in FY 2014), is already established to resolve grievances and complaints in a timely and satisfactory manner for existing EGPP which will be followed for "Strengthening Resilience of Host Communities using EGPP+" activities. The GRM operates at national, district and upazila levels according to the Implementation Guidelines of EGPP. At the Upazila level, the Upazila Nirbahi Officer (UNO) is the Grievance Redress Officer (GRO), while at the district level the Deputy Commissioner (DC) is the GRO. At each level, there is a Grievance Redress Register, where complaints are entered, and petitioners given receipts. The DC of respective district is the appellate authority for the upazila level complaints, while the National Steering Committee (NSC) headed by the Secretary, MODMR, will act as the final appellate authority for grievance redress.

The ESMF will be made available for public consultation by the executing agency, with key portions translated in Bengali, on their official website as well as at places accessible to the people impacted/benefited by the EGPP+ (i.e. supported by the proposed SNSP Project Additional Financing) and members of civil society (Schools, Libraries, Union Parishad Offices etc.). Advertisements will be published

in both English and Bengali Dailies announcing the disclosure of the documents and the appropriate websites and localities where they can be found for public comments.

Once all comments have been addressed, the Bank will disclose the document publicly. After the Bank finally approves the document the executing agency will once again make the final version publicly available with key portions translated in Bengali, electronically on their respective websites and place hard-copies in easily accessible places. Information about these locations will be advertised in local newspapers (English and Bengali).

Implementation Arrangements

The proposed Additional Financing activities (i.e. Component 4) will be implemented by DDM (as mentioned above, Component 5 would follow the procedures of the EMRCR Project (D419-BD) mentioned in its respective ESMF, and the Project Operational Manual. At DDM, the Director EGPP and the Project Director, SNSP Project (Components 1, 2 and 4) would coordinate overall aspects of the proposed intervention. At the local level, EGPP+ will use existing implementation mechanisms e.g. PICs, Union Committees, Upazila Committees, and District Committees. In addition, DDM may provide any other support to strengthen implementation at the local level. At the national level, the abovementioned NSC will be responsible for the overall implementation and monitoring of EGPP+ activities, to be co-financed by the proposed Additional Financing.

Union Parishads which are the main vehicles of implementation in case of EGPP, have limitations in capacity and that is likely to affect the implementation of the ESMF. In addition, DDM's field level capacity only includes one PIO and/or one SNSP Project-supported SAE at the upazila level to support the implementation of all DDM programs and activities at the upazila and union levels. It is therefore recommended that the capacity building activities under Component 2 (Strengthening MoDMR Program Administration and Transparency) of the SNSP Project continue to include safeguards training for the Union Parishads and field officials of DDM in the following practices: screening and understanding and working with screening impacts, scoping assessments, planning mitigation options, public consultation to assess feasibility and acceptability options; site selection and route alignment to minimize environmental impacts and social disruption; restoration of drainage patterns, land use, etc.; including mitigation measures in contracts, management of impacts during construction, monitoring of effectiveness of measures; monitoring and grievance redress, transparency and public administration in planning, reporting and supervision responsibilities and formats during implementation, documenting land transactions, complaint response record keeping and procedures.

PICs and PIOs will take on the role of monitoring implementation at the field level. They will be complemented by any other implementation, monitoring support and spot-checks deployed by DDM.

1 INTRODUCTION

1.1 Background

1. This Additional Financing (AF) of USD 100 million to the Safety Net Systems for the Poorest (SNSP) Project (the original Project) aims to support communities affected by the Rohingya crisis. The AF will add two new components to SNSP i.e. Component 4: Enhancing Host Community Resilience with Employment Generation Program for the Poorest+ (EGPP+); and Component 5: Enhancing Rohingya Community Resilience to SNSP Project. In addition, a restructuring would enable investments under the original Project (existing Component 2) to support implementation of activities focused on addressing the negative economic and social impacts of the crisis on host and Displaced Rohingya People (DRP). The proposed AF would complement the ongoing Emergency Multi-Sector Rohingya Crisis Response (EMRCR) Project (D419-BD) while introducing interventions to foster positive interaction between the two communities.

2. Since August 2017, over 870,000 people have crossed into Bangladesh from Myanmar, most taking shelter in congested camps, with some living amongst host communities. They join over 213,000 people displaced from Myanmar in previous years, for a total displaced population of over 1,000,000 in Cox's Bazar district in Bangladesh. The DRP is particularly concentrated in the Teknaf and Ukhia upazilas – the poorest two of eight upazilas in the district – where it exceeds the host community population. Both host and DRP communities have enormous needs for social assistance and other services which places a significant strain on an already resource-constrained delivery system.

3. The original Project has three Components. Component 1 supports the Department of Disaster Management (DDM) under the Ministry of Disaster Management & Relief (MoDMR) to incrementally improve the performance of several safety net programs via results-based financing relating to (i) household targeting, (ii) administrative systems, and (iii) payment systems. In doing so, this Component co-finances a portion of the EGPP. Component 2 provides technical assistance to DDM to (i) utilize poverty data from the forthcoming National Household Database (NHD) to identify potential recipients of social assistance, (ii) establish a common safety net program management information system (MIS) for more efficient administration, and (iii) scale-up digital payments of program benefits. Component 3, implemented by the Bangladesh Bureau of Statistics (BBS) under the Statistics & Informatics Division (SID), supports the establishment and implementation of the NHD – the country's first universal social registry.

1.2 Objectives of the ESMF

4. **This Environmental and Social Management Framework (ESMF) is limited for application only on Strengthening Host Community Resilience. Strengthening Rohingya Community Resilience activities shall follow the ESMF of the EMRCR Project which has been disclosed through the MoDMR website.¹**



Figure 1.1: Map of Cox's Bazar District (Source, Banglapedia)

2 PROJECT OBJECTIVES AND DESCRIPTION

2.1 Project Objective

5. The Objective of the Project is to improve the equity, efficiency and transparency of major Safety Net Programs to benefit the poorest households.

2.2 Project description

6. By introducing income support for host and Rohingya communities using a cash-for-work⁸ approach, the proposed Additional Financing will cluster its activities into two new Components. This will entail changes to the (i) components and costs, (ii) results framework, (iii) closing date(s), (iv) disbursement arrangements, (v) implementing agency, and (vi) institutional arrangements.

7. Components and Costs: 95% of the proposed Additional Financing will go towards the interventions for the host and Rohingya communities under the newly added Components 4 and 5, while 5% would finance Component 2 for implementation support to Component 4.

- (a) Component 2 (Strengthening MoDMR Program Administration and Shock-Responsiveness): This Component would continue its implementation support for Component 1, to ensure achievement of outstanding DLI Targets, and support implementation of the newly added Component 4. It is being renamed to incorporate the new shock-responsive focus of the EGPP.
- (b) Component 4 (Strengthening Community Resilience with EGPP+): This Component would finance benefits to poor households in the host community in Cox's Bazar. It would support the EGPP by taking an approach whereby the program operates with modified procedures to provide work opportunities to eligible households for a longer term on a wider range of community schemes (referred to as "EGPP+" to distinguish this shock-responsive "window" from the regular program) to enable vulnerable groups like women, older persons and those with disabilities to also participate. This shock-responsive use of the EGPP with flexible features such as an increased number of working days, work on demand, etc. is being referred to as "EGPP+" and would operate within a specifically stipulated timeframe within a defined geographic region (i.e. in this case, Cox's Bazar district). EGPP currently supports a wide range of community works which are small scale and close to rural residential localities to facilitate the participation of women. The program requires that at least one-third of the beneficiaries are women. Under this shock-responsive EGPP+ approach (to be co-financed by the proposed Additional Financing), the range of activities will be expanded to include "community services" that are unlikely to include intensive manual labor e.g. awareness generation on health and social issues, garbage collection, promoting social cohesion, etc. Eligibility for regular labor-intensive community works would include men and women aged 18 and up to 60 years based on economic criteria such as : land ownership of less than 0.1 acre and being a manual laborer; not owning a significant number of poultry or livestock; earning less than BDT 4,000 per month; not participating in any other social safety net provided by the Government (as per the EGPP Guidelines (FY 2014)). For the newly introduced "community services",

⁸ The term "cash" in "cash-for-works" in this context does not necessarily imply the exchange of currency but more broadly applies to the remuneration provided to beneficiaries. This remuneration may be in the form of monetary benefits provided to a financial account, quasi-cash points on an electronic instrument allowing purchase for predefined goods, etc. and consistent with Government policy on what form of transfer may be provided to defined communities.

specific criteria to enhance participation would be elaborated in the shock-responsive EGPP+ Implementation Guidelines. Details that are available now are elaborated in Table below.

Table 2.1: Project Activities and Eligibility

<p>Component 4: Enhancing Host Community Resilience <i>To scale up existing EGPP for host communities in Cox's Bazar</i></p>
<p><u>Eligible beneficiaries:</u></p> <p><u>Community workfare:</u></p> <ul style="list-style-type: none"> • Aged 18-60yrs (at least 33% women) <p>Able bodied;</p> <ul style="list-style-type: none"> • Owning < 0.1 acre of land, or not a significant number of poultry or livestock; • Maximum monthly earnings: as determined by the implementation guidelines of EGPP; and, • Not receiving benefits from any other safety net programs of the government. <p><u>Community services:</u></p> <ul style="list-style-type: none"> • Aged 18-60yrs (at least 33% women) (this age restriction may be relaxed for sub-projects not involving labor intensive efforts) • Women and female-headed households to be prioritized • People with disability (14yrs+ prioritized) • Child-headed households • Elderly (unconditional assistance if unable to work) • Owning < 0.1 acre of land, or not a significant number of poultry or livestock; • Maximum Monthly earnings: as determined by the implementation guidelines of EGPP; and, • Not receiving benefits from any other safety net programs of the government.
<p><u>Eligible activities</u></p> <p><u>Community workfare:</u></p> <ul style="list-style-type: none"> • Pond/canal digging/re-digging for irrigation and/or prevention of waterlogging • Construction/reconstruction of ridges (as requested by the Water Development Board) • Digging/re-digging of Government or institution-owned ponds for public use • Landfilling and construction of latrines in the compounds of different educational, social and religious institutions • Bamboo footbridge construction • Construction/re-construction of earthen shelters for animals in proximity of disaster shelters during times of cyclone and tidal surge • Arranging garbage dumps for compost creation • Development of (temporary) helipads • Development of open spaces and drainage within livestock markets • Construction of small reservoirs for rainwater harvesting • Repair of rural roads and other rural infrastructure • Afforestation along roads and ponds • Plot demarcation • Improvement of natural disaster tolerant houses for extreme poor households • Rehabilitation of community infrastructure (sidewalks, public spaces, public offices, community centers, drainage, WASH infrastructure, schools, clinics etc.) • Any other project requested by the Ministry of Disaster Management and Relief <p><u>Community Services:</u></p> <ul style="list-style-type: none"> • Community engagement in awareness/ community meetings • Community engagement in volunteer network activities • Community engagement in spending time/supporting vulnerable children and elderly • Urban and community cleaning • Garbage collection • Messaging on uptake of basic services • Messaging to improve disaster preparation • Social cohesion promotion/sensitization

- (c) Component 5 (Strengthening Community Resilience for the DRP): This Component would finance benefits to poor households in the Rohingya community in Cox's Bazar under the same arrangements as Component 2 (Strengthening Community Resilience) of the EMRCR Project (D419-BD). Rohingya households would be engaged in community services and works, and benefits would now widen beneficiaries' purchasing options to include liquified petroleum gas (LPG) and at pre-established community marketplaces, where local farmers and retailers from the host community would supply fresh products, both of which are expected to contribute towards addressing social tensions. This Component would be implemented by DDM's parent ministry, MoDMR, under a contract with a specialized agency, and will follow the approved ESMF of EMRCR as mentioned earlier.¹

3 POLICY AND LEGAL FRAMEWORK

3.1 Relevant Environmental Government Policies, Acts, Rules, Strategies and Guidelines

8. 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.

9. Regulatory requirements toward protection and conservation of environment have been enunciated by the GOB and these requirements are listed below:

- (1) Environmental Conservation Act (ECA), 1995 and Amendments;
- (2) Environment Conservation Rules (ECR), 1997 and Amendments;
- (3) Environmental Policy, 1992;
- (4) Environmental Action Plan, 1992;
- (5) National Environmental Management Plan (NEMAP), 1995;
- (6) Bangladesh Wildlife (Preservation) Order, 1973 (Amended in 1994);
- (7) National Water Policy, 1999;
- (8) National Water Management Plan, 2001 (Approved in 2004);
- (9) The National Fisheries Policy, 1999;
- (10) The Protection and Conservation of Fish Rules, 1985;
- (11) National Agricultural Policy, 1999;
- (12) The Embankment and Drainage Act, 1952;
- (13) Bangladesh Climate Change Strategy and Action Plan;
- (14) DOE's IEE/EIA including EMP Guidelines for Industry, 1997;
- (15) LGED's Strategy, Guidelines and Environmental Code of Practices;
- (16) Bangladesh Water Act (2013);
- (17) Ecological Critical Area Rules (2016); & Bangladesh Biodiversity Act (2017)

10. Descriptions of the above regulations are provided in Annex F.

3.2 Social Policies, Acts and Guidelines

11. Important social policies, acts and guidelines include:

- Acquisition and Requisition of immovable Property Act 2017
- Bangladesh Labor Act 2006

3.3 World Bank's Relevant Environmental Safeguard Policy

3.3.1 Background

12. The Bank requires environmental assessment (EA) of projects proposed for Bank financing to ensure that they are environmentally sound and sustainable, and thus to improve decision making. The World Bank's environmental assessment policy and recommended processing are described in Operational Policy (OP)/Business Procedure (BP) 4.01: Environmental Assessment. This policy is considered to be the umbrella policy for the Bank's environmental "safeguard policies" which among

others include: Natural Habitats (OP 4.04), Forests (OP 4.36), Pest Management (OP 4.09), Physical Cultural Resources (OP 4.11)), and Safety of Dams (OP 4.37). Operational Policies (OP) are the statement of policy objectives and operational principles, including the roles and obligations of the Borrower and the Bank, while as Business Procedures (BP) are the mandatory procedures to be followed by the Borrower and the Bank. OP/BP 4.01 issued in January 1999 is the central document defining the Bank's environmental assessment requirements. The following are the WB's environmental policy guidelines:

- OP 4.01 Environmental Assessment
- OP 4.04 Conservation of Natural Habitats
- OP 4.36 Forestry
- OP 4.37 Safety of Dams

13. The relevant World Bank policy for DDM activities under this Additional Financing is OP 4.01 Environmental Assessment. Environmental Assessments are used by the World Bank to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank lending operations.

3.3.2 OP/BP 4.01 Environmental Assessment

14. The Bank requires Environmental Assessment (EA) of projects proposed for Bank support to ensure that they are environmentally sound and sustainable, and thus to improve decision making. The EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. The EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. The EA takes into account the natural environment (air, water and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples and physical cultural resources); and transboundary and global environmental aspects. The borrower is responsible for carrying out the EA and the Bank advises the borrower on the Bank's EA requirements.

15. The Bank classifies the proposed project into three major categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

- *Category A:* The proposed project is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.
- *Category B:* The proposed project's potential adverse environmental impacts on human population or environmentally important areas-including wetlands, forests, grasslands, or other natural habitats- are less adverse than those of Category A projects. These impacts are site specific; few if any of them are irreversible; and in most cases mitigatory measures can be designed more readily than Category A projects.
- *Category C:* The proposed project is likely to have minimal or no adverse environmental impacts.

Other policies that exist but not applicable to this Additional Financing are described below for reference.

3.3.3 OP/BP 4.04 Natural Habitats

16. The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue. The Bank supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development. The Bank promotes and supports natural habitat conservation and improved land use by financing projects designed to integrate into national and regional development the conservation of natural habitats and the maintenance of ecological functions. Furthermore, the Bank promotes the rehabilitation of degraded natural habitats. The Bank does not support projects that involve the significant conversion or degradation of critical natural habitats.

3.3.4 OP/BP 4.11 Physical Cultural Resources

17. Physical cultural resources are defined as 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. Their cultural interest may be at the local, provincial or national level, or within the international community. Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements. The borrower addresses impacts on physical cultural resources in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. The following projects are classified during the environmental screening process as Category A or B, and are subject to the provisions of this policy: (a) any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes; and (b) any project located in, or in the vicinity of, a physical cultural resources site recognized by the borrower. Projects specifically designed to support the management or conservation of physical cultural resources are individually reviewed, and are normally classified as Category A or B. When the project is likely to have adverse impacts on physical cultural resources, the borrower identifies appropriate measures for avoiding or mitigating these impacts as part of the EA process. These 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.

3.3.5 OP/BP 4.36 Forestry

18. The Policy envisages the protection of forests through consideration of forest-related impact of all investment operations, ensuring restrictions for operations affecting critical forest conservation areas, and improving commercial forest practice through the use of modern certification systems. In the process of forest conservation interventions, especially the local people, the private sector and other pertinent stakeholders should be consulted. In general, the Policy aims at reducing deforestation and enhancing the environmental and social contribution of forested areas. Experience with the Bank reveals that the Bank does not support commercial logging in primary tropical moist forest.

3.3.6 OP/BP 4.12 Involuntary Resettlement

19. This Policy is based on assisting the displaced persons in their efforts to improve or at least restore their standards of living. The impetus of this Policy is that development undertakings should not cause the impoverishment of the people who are within the area of influence of the undertakings. In cases where resettlement of people is inevitable, or in cases where loss of assets and impacts on the livelihood of the PAPs is experienced, a proper action plan should be undertaken to at least restore, as stated above, their standard of life prior to the undertakings.

20. Concerning public consultation, resettlers as well as the host communities should be consulted for the successful implementation of the resettlement process. The views of the consulted resettles and the host communities should be incorporated into the Resettlement Action Plan (RAP) including the list of their choices.

3.3.7 WB Group Environmental, Health and Safety Guidelines

21. The Environmental, Health and Safety (EHS) Guidelines of the WB Group, 2008 is the safeguard guidelines for environment, health and safety for the development of the industrial and other projects. They contain performance levels and measures that are considered to be achievable in new facilities at reasonable costs using existing technologies.

3.4 Implication of Policies and Legislations with DDM Activities

22. The relevant policy and legislation documents underscore the importance of environmental consideration in project planning and implementation to promote sustainable development. These provide the general guidelines to integrate environmental issues with different sector projects and programs. The ECR 1997 (including later amendments) is the main legislation in Bangladesh. ECR 1997 defines different sectors (industries and projects) as 'Green', 'Orange-A', 'Orange-B' and 'Red' categories, without considering the extent and types of interventions. For example, construction/ reconstruction/ expansion of flood control embankment, polders, dikes etc. are classified as the 'Red' category project. However, it does not explicitly mention the environmental category for earthen embankments/polders, small-scale repairing or rehabilitation projects having minor environmental impacts. Again, environmental clearance is mandatory for projects (3 years for Green category and 1 year for other categories). Considering the numbers of small-scale sub-projects, SNSP requires a flexible approach on environmental categorization and clearance.

23. The EGPP being scaled up in a shock-responsive manner (under Component 4 of the Project) involves earthworks including road construction/repairs, landfill for community institutions, etc. and the nature of these the sub-projects may lead to negative environmental impacts. Sub-projects may also have adverse environmental impacts if they are not properly designed or executed, or mitigation measures are not implemented. However, most of the environmental impacts are expected to be insignificant, localized and reversible. In order to address the potential environmental impacts and improve existing environmental conditions, the World Bank Policy on Environmental Assessment (OP/BP 4.01) has been triggered for this project.

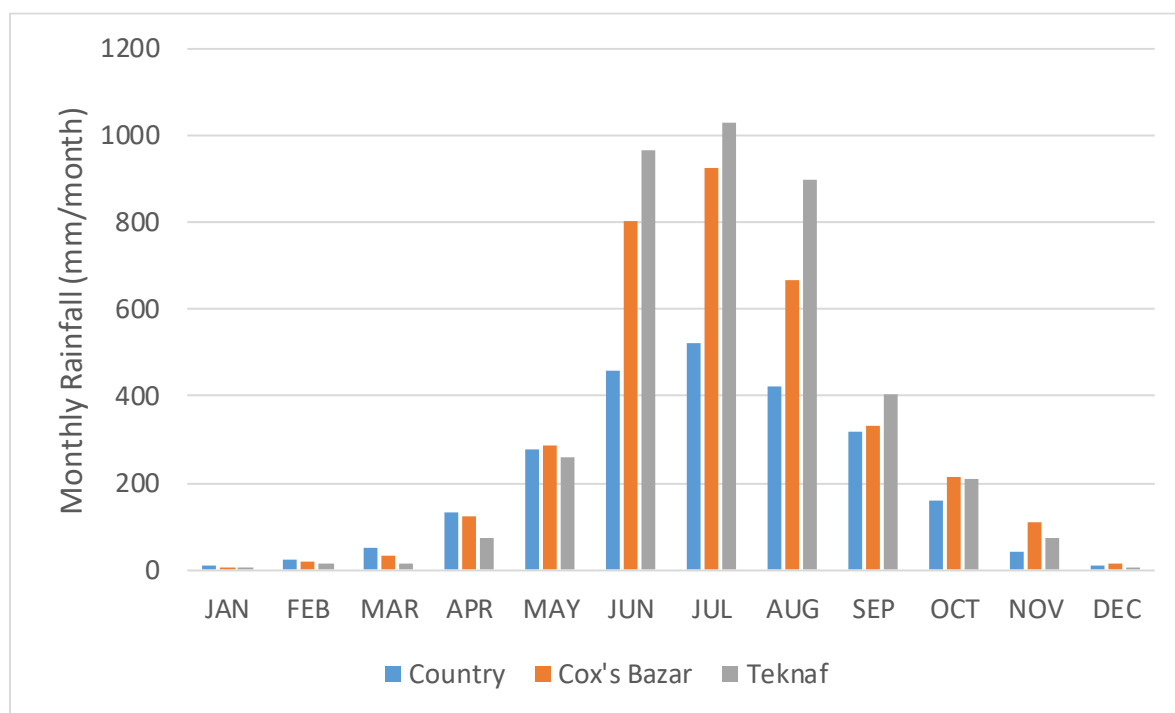
24. Under Component 5 of the Project, Rohingya Community Services/Works are proposed. Safeguards for these activities will be follow the framework produced for the EMRCRP.

4 ENVIRONMENTAL AND SOCIO-ECONOMIC BASELINE

4.1 Physical Environment Baseline

4.1.1 Climate

25. 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

4.1.2 Hydrology and Hydrogeology

26. 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 River⁹.

⁹ Arannyak Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edn. The Arannyak Foundation, Dhaka.

67. 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.

68. 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.

69. 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 sources ¹⁰. 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 area ¹¹.

4.1.3 Air Quality

70. 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.

4.1.4 Soils and Topography

71. 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, 2018¹².

72. 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,

¹⁰ 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.

¹¹ 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

¹² UNHCR (2018) Operational Update, 16-31 October 2018.

while those occurring on hills from consolidated rocks tend to be formed in weathered sandstones, shales, and siltstones¹³. 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.

73. 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.

4.1.5 Natural Disasters

74. The project area has record of the following natural hazards: river floods, flash floods, landslides storm surges, earthquakes and salinity intrusion¹⁴. 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 station¹⁵.

4.2 Biological Environment Baseline

4.2.1 Terrestrial Flora and Fauna

75. 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 slopes¹⁶. 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).

76. 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 ha¹⁷.

77. 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 including olive ridley turtle (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*), hawksbill turtle (*Eretmochelys imbricate*), loggerhead turtle (*Caretta caretta*), and leather back turtle (*Dermochelys*

¹³ Canonizado, J.A. (1999) Integrated forest management plan, Noakhali C/A Division (1999-2008), FRMP TA Component. Mandala Agril. Dev. Crop/FD/MOEF.

¹⁴ UNDP (2014) Comprehensive Disaster Management Plan -Final Report, United Nations Development Programme, Bangladesh.

¹⁵ BBS (2013) District Statistics 2011 – Cox's Bazar, Bangladesh Bureau of Statistics, Ministry of Planning, Government of the Peoples' Republic of Bangladesh.

¹⁶ IUCN (2002) Bio-Ecological Zones of Bangladesh. IUCN Bangladesh Country Office, Dhaka

¹⁷ Arannyak Foundation (2013) Biodiversity of Protected Areas of Bangladesh, First edition. The Arannyak Foundation, Dhaka.

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 observed¹⁸.

78. 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.

79. 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 Ukhiya 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 decades¹⁹. 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 these 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.

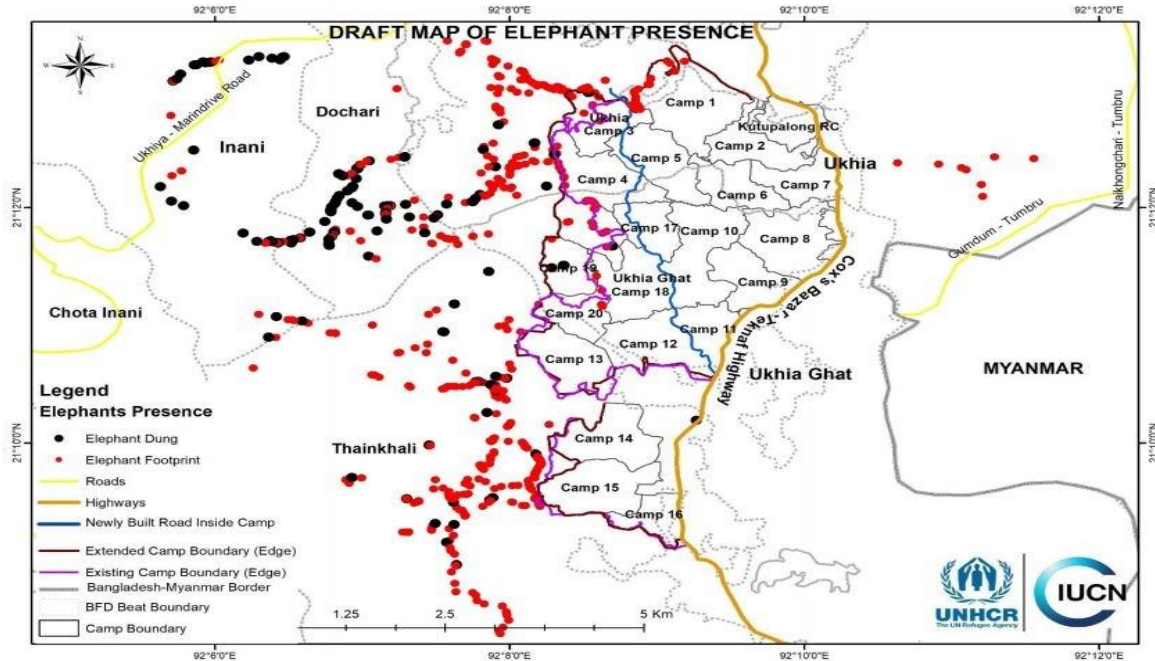
80. According to IUCN (2016), there are 50-78 elephants in the Cox's Bazar District South region (which consists 5 forest ranges in Ukhiya and 4 in Teknaf)²⁰. Around 40 of these are trapped in and around the camps due to the sudden influx of DRP²¹. Recently, IUCN have conducted extensive surveys of elephant presence in and around the camps (see Figure 4.2 and Figure 4.3).

¹⁸ UNDP (2017) Report on Environmental Impact of DRP Influx.

¹⁹ Arannyak Foundation (2016) Biodiversity of Inani Protected Forest. The Arannyak Foundation, Dhaka.

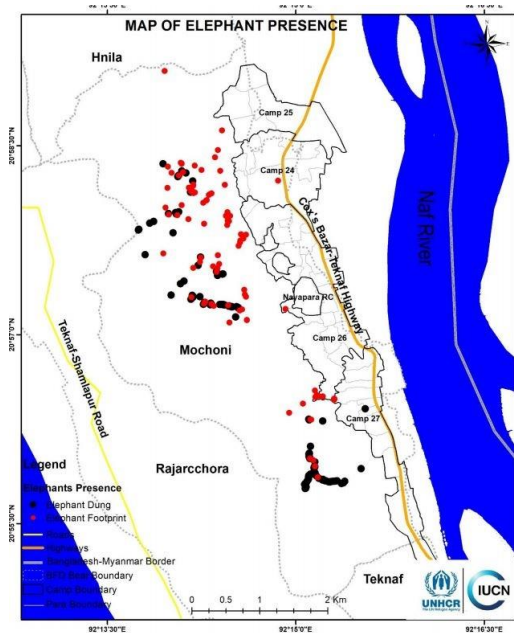
²⁰ IUCN (2016) Status of Asian Elephants in Bangladesh.

²¹ Personal communication with Mr. Motaleb of IUCN.



Source: IUCN (2018)²²

Figure 4.2: Locations of Elephant Presence near Camps in Ukhiya Area



Source: IUCN (2018)²³

Figure 4.3: Locations of Elephant Presence near Camps in Teknaf Area

²² IUCN (2018) Field survey <https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar>

²³ IUCN (2018) Field survey <https://www.iucn.org/asia/countries/bangladesh/human-elephant-conflict-mitigation-around-refugee-camp-coxs-bazar>

4.2.2 Aquatic Flora and Fauna

81. 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 lobster²⁴. 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

82. 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

²⁴ Islam, M.S. (1993) Fisheries fauna of the Naf river estuary, Bangladesh Journal of Fish.

Statistic	Ukhiya	Teknaf
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
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.

83. 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 education²⁵. Of the respondents, 52% 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

²⁵ 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.

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).

84. 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 old²⁶. 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 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.

85. Just below half a 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.

4.3.2 Physical and Cultural Resources

86. The project area has rich archaeology and is a popular tourist location. In Ukhiya Upazila, there is the Zadimura Buddhist Vihara (in Raja Palong union); Painyasia Jami Mosque, Ukhiya 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.

4.3.3 Infrastructure

87. 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.

²⁶ 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.

88. The dependence on firewood for cooking fuel is very high in Cox's Bazar and the rate has increased significantly after the DRP 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 DRP²⁷.

89. 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.

90. 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.

4.3.4 Labor Market

91. 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.

92. 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-

²⁷ UNHCR (2018) Operational Update, 16-31 October 2018.

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.

93. 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.

94. 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 DRP have occupied their agricultural land for residential purposes which causing impact on their income from agriculture. Moreover, agricultural land is losing its productivity.

4.3.5 Health, Water and Sanitation

95. 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 groundwater 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.

96. At the initial stage, local health services came under intense pressure. However, the situation improved as support from UN agencies/ 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.

5 ENVIRONMENTAL MANAGEMENT FRAMEWORK

5.1 Objectives of the Environmental Management Framework

97. This chapter deals with the environmental management framework to be applied to the various sub-project interventions proposed under SNSP AF. Although the project is designed to support employment generation of the poorest people through small scale interventions, its implementation must be designed to be environmentally sensitive so as to avoid any undesirable consequences of the given interventions.

98. Although most of the project impacts are temporary and less significant due to small scale nature of the activities, there are some issues of concern that cut across the range of proposed interventions. Based on the findings of site visits, PIOs' judgment and lessons from similar programs show that issues such as community involvement, community ownership and selection of appropriate sites are some of the key concerns that influence project success and sustainability. However, the exact type of the subproject will be chosen by the communities.

5.2 Potential Environmental Impacts for each Sub-project

99. As described earlier the possible sub projects are (i) construction and maintenance to rural roads (mainly earthen roads); (ii) construction and maintenance of river embankments; and (iii) excavation or re-excavation of irrigation canals and drains; (iv) land-fill for community institutions like school, mosque, pagoda, temple, graveyard, prayer ground (eidgah) etc.; (v) earthen shelters to protect animals against cyclones; (vi) re-excavation of public ponds or fish farms; (vii) organic fertilizer production; (viii) further development of rural markets or (temporary) helipad; (ix) excavation or re-excavation of small water reservoirs; (x) cleaning ponds and bushes etc.

100. Depending on the work activities and the nature of infrastructure, two or three subprojects are grouped for identifying the anticipated impacts and the possible impacts, those may arise from the subprojects are given below.

5.2.1 Specific Impacts for the sub projects

(i) Construction and maintenance to rural roads (mainly earthen roads) and

(ii) Construction and maintenance of river embankments

101. The anticipated impacts due to subprojects for construction and maintenance of rural roads (mainly earthen roads) or the river embankments are given below:

- Damage of agricultural land due to excavation of fertile top soil (about 0.3m) for the road construction
- Erosion of lands, landslides, slips or slumps from roadbed or in borrow areas
- Stagnant water in left borrow pits
- Increased sediments into streams, ponds and rivers due to erosion from road sides during high flood.

- Increased flooding conditions/drainage congestion at one side of the road or embankment due to improper drainage structure
- Disruption of wildlife (specially birds)
- Loss of natural vegetation during construction
- Disturbance of culturally important sites e.g. graveyards, mosques, prayer grounds.

5.2.2 Specific Impacts for the sub projects

(iii) excavation or re-excavation of irrigation canals and drains

(vi) re-excavation of public ponds or fish farms

(ix) excavation or re-excavation of small water reservoirs and

(x) cleaning ponds and bushes

102. The anticipated impacts due to subprojects for excavation or re-excavation of irrigation canals and drains; re-excavation of public ponds or fish farms; re-excavation of small water reservoirs and cleaning ponds and bushes etc. are given below

- Increase in soil erosion
- Soil water logging due to improper proper design of canals or ponds
- Clogging of canals from weeds
- Inefficient water flows due to siltation during high flood
- Disturbance to flow regimes if proper drainage measures not provided
- Disturbance of natural habitats
- Risk of waterborne diseases from artificial water flows

5.2.3 Specific Impacts for the sub-project

(vii) organic fertilizer production

103. The anticipated impacts due to subprojects for the organic fertilizer production and uses are given below

- Generation of odor from fertilizer production
- Under fertilization, results in soil nutrient depletion
- Over application, increases levels of nitrate in ground and high ammonia emissions from agriculture,
- Leaching due to the choice of fertilizer type, increases the optimum rate, improper timing and method of application.

5.2.4 Specific Impacts for the sub project

(iv) land-fill for community institutions like school, mosque, pagoda, temple, graveyard, prayer ground (eidgah) etc ,

(v) earthen shelters to protect animals against cyclones and

(viii) further development of rural markets or (temporary) helipad

104. The anticipated impacts due to subprojects for land-fill for community institutions, earthen shelters to protect animals against and further development of rural markets or (temporary) helipad are given below

- Erosion of lands, landslides, slips or slumps in borrow areas
- Loss of natural vegetation
- Risk for generation of dust during operation period, mainly at land-filling area and the (temporary) helipad area.
- Vulnerable (causes cracking, rutting) to weather conditions for improper selection of soil and compaction

5.2.5 Common Impacts for all Subprojects

105. In addition to the above specific impact, the subprojects will generate some other impacts on environment and these are identical for all subprojects activities. These impacts are described below:

- **Air/Dust Pollution**

106. A considerable amount of air borne particulate matter (dust) will be generated by the construction activities during improving of any subproject site and this will happen mainly due to lack of watering of dry earth surface and uncovered storage of materials. The impact of dusting is short-term, lasting for the duration of the construction activity, but it may be severe if it causes significant health problems.

- **Noise Pollution**

107. The construction activities will generate noise due mass workers, vehicles and truck movement can affect the quietness of the communities.

- **Surface Water Pollution**

108. Surface Water Pollution may be occurred due to disposal of waste (mainly vegetation, food etc) in to the nearby the water bodies generated during preconstruction & construction stages.

- **Waste Disposal**

109. Solid waste mainly vegetation during preconstruction, & construction needs to be remove from the sites. This waste would negatively impact the site and surrounding environment if not properly managed and disposed of at an approved dumpsite. Cleared vegetation burnt onsite would generate smoke, possibly impacting negatively on ambient air quality and human health. Vegetation and solid

waste, if allowed to accumulate in drainage ways, could cause flooding & Pooling. Pooling of water, in turn, would create conditions conducive to the breeding of nuisance and health-threatening pests such as mosquitoes. Poor construction waste management constitutes a short-term negative impact.

- **Occupational Health and Safety (H&S)**

110. Once the sub-project activities do not include any large construction and risky activities, no major occupational health and safety (H&S) issues are anticipated. However, the safety of the local population should be considered during construction activities. The movement of trucks to and from the site and the actual construction activities will expose the workers to work-related accidents and injuries. Pollutants such as dust and noise could also have negative implications for the workers' H&S as well as nearby communities.

5.3 Environmental Screening and Implementation of ECoP

111. Sub projects will be identified by the Project Implementation Committee (UP), formed out of members of the Union Parishad and the targeted beneficiaries. After selection of a subproject, the community level environmental screening will be integral part of the sub-project planning. A community meeting has been suggested to discuss the subproject, identify the community priority and identify the environmental and social impacts. The community under the guidance of the PIO and PIC will carry out the environmental screening process. In general, the environmental screening process identifies what impacts will be generated and what type of mitigation measures will be required for sub-projects. The participation and consultations with local communities are important to identify the potential impacts of the project interventions. In the case of SNSP, screening will be used for taking decision about the inclusion or exclusion of the sub-projects to be funded under the project. A sample screening format for all subprojects is attached in **Annex C**. The Bangla form will be used for the screening purposes at field level. The proposed screening format has been developed from the public consultation during the base line survey of sample sub-project, experience of other project and the typical environmental impacts of the proposed project interventions.

112. The screening will help in determining whether a proposed subproject should be subjected to follow the Environmental Code of Practices (ECoP) to mitigate or avoid the impacts or need further review with preparation of separate environmental management plan for that subproject with appropriate mitigation measures in consultation with the PIO. In addition, the community will review the impact related ECoP to avoid/address environmental concerns through modifications (if required) in subproject design and incorporation of mitigation measures.

113. In general, the environmental screening process identifies what level of EA will be required for sub-projects. The participation of and consultations with local communities are important to identify the potential impacts of the project interventions. In the case of SNSP, screening will be used for taking decision about the inclusion or exclusion of the sub-projects to be funded under the project. The proposed screening criteria have been selected from the experience of other project and typical environmental impacts of the proposed project interventions.

5.4 Environmental Codes of Practice

114. The ECoPs have been developed to guide the planning, design, construction and maintenance stages of SNSP in terms of avoidance or mitigation of the negative environmental impacts that may result from the projects. The codes (provided in Annex G) define methods and procedures to be followed by the executing agencies, contractors and other agencies involved in the three project states.

115. The ECOPs include:

- (a) Project Planning & Design Stage,
- (b) Site Preparation: Borrow Areas;
- (c) Top-soil Salvage;
- (d) Storage and Replacement;
- (e) Slope Stability and Erosion Control;
- (f) Waste Management;
- (g) Water Bodies;
- (h) Drainage;

- (i) Worker's Health and Safety;
- (j) Environmental Monitoring;
- (k) Tree Plantation;
- (l) Fertilizer Production;
- (m) Natural Habitats;
- (n) Consultations for Environmental Aspects; and
- (o) Minimizing Human Elephant Conflicts.

116. The implementation of environmental measures shall be monitored through the environmental audit procedures provided in ECoPs. This includes format for reporting the addresses of issues in various stages of the project.

117. Once impacts are identified, the necessary mitigation measure will then be recommended and the sub-project will be designed to implement these mitigation measures. The PIO will review the environmental screening and suggest appropriate mitigation measures. If required, PIO will prepare a simple EMP for the subproject. A typical environmental mitigation measures for sample subproject have been suggested in **Annex D**.

118. The PIO will estimate the cost for the environmental mitigation of the sub-projects. For example, if the sub-project requires plantation to compensate the trees lost due to construction/extension of roads/embankments, the cost of plantation of local suitable species must be considered in subproject design.

5.5 Public Consultations

119. Public consultations form a very crucial part of all development projects, including infrastructure and are usually carried out as a continuous process through the project cycle. Public and stakeholder consultations and workshops during the design and project planning stages provide the medium for sharing information about the project objectives and scope, alternative design options, and stakeholder perceptions regarding proposed investment plans. Ensuring an open and transparent information exchange about the project at this stage, lays a good foundation for an inclusive and participatory implementation process.

120. Conforming to the GoB Environment Conservation Rules (ECR), 1997 and the World Bank Consultation and Disclosure Policy, and to meet the project's needs for an inclusive participatory process during project planning, design, implementation, supervision and monitoring, SNSP with guidance and assistance from the World Bank will facilitate (public and focused group) consultations/workshop plan for each subproject that covers the following key stages:

- Preliminary consultative session at the very early stages of the project design when the first set of planning and designs are developed
- Public consultations on the environmental potential issues with the respective stakeholders

121. Overall, the consultations would:

- Learn about the community needs and preferences with respect to the project objective

- Discuss the environmental and social safeguard implications/impacts that might be associated with the suggested subproject along with the impact mitigation guidelines and measures adopted in the EMF
- Have the community identify grievance and redress mechanisms for resolving project design and implementation concerns
- Determine the main pillars of a consultation strategy that will be adopted throughout the project phases

5.6 Environmental Monitoring

122. The supervision and monitoring of sub-project implementation in SNSP will be carried out at different levels. The primary responsibility of the supervision of implementation including environmental mitigation measures is assigned to the PIC. They will ensure the proper implementation of EMP (if required) and maintain all necessary records in this regard. The UC will be responsible for sub-project monitoring. On behalf of the UC, the PIO of each Upazila will monitor the environmental compliance issue.

123. The purpose of the environmental monitoring is to ensure that envisaged purpose of the project is achieved and results in desired benefits to the target population without adversely affecting environmental resources. The monitoring activities of SNSP will include the compliance of the EMP implementation. In general, the PIO will monitor the following indicators during field visit as 'spot check' and the related mitigation measures (i) top soil degradation and erosion; (ii) drainage congestion by blocking natural drainage; (iii) inappropriate waste disposal; (iv) cutting and/or trimming of trees; (v) temporary noise and air/dust pollution; (vi) loss of biodiversity (loss of habitat for any fauna and flora); (vii) temporary decline in surface water quality; and (viii) potential public health concerns (spread of communicable disease by any community worker). Details of monitoring indicators have been presented in the Table 5.1.

Table 5.1: Sample Monitoring Plan for Subprojects

Phase for the Proposed Mitigation Measure	Parameters to be Monitored	Location	Measurements (incl. Methods & equipment)	Frequency of Measurement	Responsibilities (incl. review and reporting)	Cost (equipment & individuals)
Pre-Construction Phase	Surface Water Quality	Surrounding areas and at the site	Visual, Consultation. Sample testing at laboratory if needed	Once in dry season and another in wet season	Field Officer/ Upazila Level officer	
	Water Supply and Sanitation	Surrounding areas and at the site	Photo Survey, Visual and Consultation	Once in dry season and another in wet season	Field Officer/ Upazila Level officer	
	Agricultural Land and Crop	Surrounding areas and at the site	Visual and Consultation	Once in dry season and another in wet season	Field Officer/ Upazila Level officer	
	Plantation of Trees and Grass	Surrounding	Visual and Consultation	Once in dry season and	Field Officer/ Upazila Level	

Phase for the Proposed Mitigation Measure	Parameters to be Monitored	Location	Measurements (incl. Methods & equipment)	Frequency of Measurement	Responsibilities (incl. review and reporting)	Cost (equipment & individuals)
		areas and at the site		another in wet season	officer	
Construction Phase	Damage to vegetation	Surrounding areas and at the site	Visual and by comparison with pre-construction photo survey	Monthly throughout construction period;	Field Officer/ Upazila Level officer	
	Loss of fertile topsoil and soil erosion	Soil storage sites	Visual	Weekly during site preparation and construction period	Field Officer/ Upazila Level officer	
	Waste disposal	All active construction sites	Visual	During construction	Field Officer/ Upazila Level officer	
	Air pollution by dust	All active construction sites	Visual	During construction	Field Officer/ Upazila Level officer	
	Noise from construction works	All active construction sites	Measurements by a licensed organization using certified measurement devices	During construction	Field Officer/ Upazila Level officer	
	Health & safety	All active construction sites	Visual	During construction	Field Officer/ Upazila Level officer	
Operation and Maintenance Phase	Dust Pollution	Surrounding area of the site	Visual	During dry season	Upazila Level officer	
	Soil erosion	The site area	Visual	Annually	Upazila Level officer	
	Drainage Congestion	Surrounding area	Visual and Consultation	During rainy season	Upazila Level officer	
	Availability of fish	Surrounding area	Consultation	Annually	Upazila Level officer	
Total Cost for all Phases						Estimated Cost

124. In addition, the Project will support an independent assessment for SNSP, which would aim to provide information on program implementation including environmental safeguards, the effectiveness of targeting and the impact of the program on household net incomes and coping strategies in response to shocks. This monitoring will take place on a 'spot check' basis as it will be impossible to monitor all the sub-projects to be financed under the Project. The spot checks consist of controlling the establishment of mitigation measures. The annual review will be carried out instead of participation in the 2 regular implementation support missions of the WB. This will be mainly due to potential environmental impacts are likely to be insignificant, local and in most cases temporary; and carried out in one District.

6 SOCIAL MANAGEMENT FRAMEWORK

6.1 Objectives of the Social Management Framework

125. The Social Management Framework (SMF) is applicable for “Strengthening Host Community Resilience using EGPP+” in Cox’s Bazar. The SMF provides general policies, guidelines, and procedures to be integrated into the implementation of all sub-projects implemented by DDM under the EGPP to minimize adverse social impacts and maximize positive social impacts.

6.2 Principles Governing Resettlement

126. Land acquisition under any circumstances is not allowed under EGPP. However, local people may prefer to construct or reconstruct earthen (kutcha) road by donating land voluntarily. As there is no specific law or ordinance for temporary land taking or voluntary land donation, Acquisition and Requisition of immovable Property Act 2017 will not trigger in this project.

127. The objectives of OP 4.12 with regard to involuntary resettlement are: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups. The OP 4.12 covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers displaced persons whether such losses and involuntary restrictions are full or partial, permanent or temporary.

128. For any WB operation requiring involuntary resettlement, resettlement planning is an integral part of project design, from the early stages of the project cycle, taking into account the following basic principles:

- Involuntary resettlement (IR) will be avoided or minimized as much as possible and where IR is unavoidable, displaced persons (DPs) will be compensated full replacement close for their losses;
- Improve, or at least restore, the livelihoods of all DPs and provide physically and economically displaced persons with needed assistance.
- Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- Prepare and disclose a resettlement plan elaborating on displaced persons’ entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
- Consider and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project’s costs and benefits. Pay compensation and provide other resettlement entitlements before physical or economic

displacement. Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring.

6.3 Voluntary Land Donation Procedure

129. During implementation, EGPP may require using private land temporarily or voluntary land donation may require. However, during screening the project implementation unit (PIU) will try to avoid any kind of land acquisition, donation etc. If voluntary land donation is required, the following steps will be followed.

130. PIU and local government will ensure that the land study will include specific surveys to understand the type of land rights that exist in the sub-project area, and to identify any particular issue relating to land ownership and use. The specific surveys must be conducted on each parcel of land proposed for donation to identify:

- The owner or owners of the land;
- The users of the land, or any parties that occupy the land (either physically or through ownership of an asset or conduct of livelihood or business activities on the land);
- Any competing claims of ownership or use;
- Structures and assets on the land; and
- Any encumbrances on the land.

131. Owners can donate the land for temporary use during construction and operation.

132. It is important to: (i) identify the right that is being transferred (an ownership right, a use right, a right of way, etc.); and (ii) check whether the transferee actually has the right s/he claims to have. In many circumstances where careful due diligence has not been carried out, significant conflict has arisen at a later stage when another party claims that they have the same or a competing right. In some circumstances – but not all – the transferee will have documentary evidence of such right. Where no such evidence exists, the due diligence can establish rights by speaking with local community officials and neighbors.

6.3.1 Public consultations and disclosure

133. The decision to donate land must be taken based on a full understanding of the sub-projects and the consequences of agreeing to donate the land. Accordingly, the parties that will be affected by the donation (the owners and users of the land) must be provided with accurate and accessible information regarding what the land will be used for, for how long, and the impact the donation will have on them and their families. It is important that prior written notification indicating the location and amount of land that is sought be provided and that its intended use for the sub-project is disclosed.

134. Where the intention is to deprive the parties affected by the donation of the land permanently, or for a significant length of time, this must be made clear. It should be noted that in many communities the concept of alienation of land is uncommon and difficult to understand, and care needs to be taken to ensure that the implications of this are fully understood. It is also important to decide who else should be consulted about the proposed donation; for example, spouses and older children.

135. All the measurement costs, documentation and notarial fees, transfer taxes, registration fees etc. must be paid by project authority. It should also include the costs of re-measuring/re-titling the transferee's remaining land and any new documentation relating to it.

6.3.2 Establishing Informed Consent

136. The PIU, in coordination with local government, would verify the informed consent or power of choice by the people who would donate land or an asset. The following will be verified and documented in the voluntary donation report:

- What the land is going to be used for, by whom and for how long;
- That they will be deprived of the ownership or right to use the land, and what this really means;
- That they have a right to refuse to donate the land;
- Whether there are alternatives to using this land;
- What they will need to do to donate the land (e.g., execute documents, get spousal consents, pay taxes);
- The effect of the donation on their family, and what they can do if they (or their family or heirs) want the land back; and
- The right to refuse must be a legitimate right, unconditional, and the potential transferee can exercise it in the local community and political context. For this reason, it is important to be sure that the decision to donate is undertaken without coercion, manipulation, or any form of pressure on the part of public or traditional authorities. For collective or communal land, donation must be based upon the informed consent of all individuals using or occupying the land.

6.3.3 Proper Documentation

137. During the voluntary land donation process for sub-project investments, it is important to distinguish between: (a) the agreement to donate the land; and (b) the document that carries out and evidences the legal transfer of the land. While it is important to have evidence of an intention and agreement to donate the land, it is equally important to ensure, where required and appropriate, that the land is legally transferred. While the process relating to the legal transfer of the land is frequently complicated and time consuming, it must be addressed. In specific circumstances, for example where the land is being transferred to the community, it may not be necessary to legally transfer the land. However, experience indicates that lack of formal transfer can create significant uncertainty in the future, which impacts on the sustainability of the infrastructure and services and can have a negative effect on community relations.

138. PIU will ensure that the documentation:

- Refers to the consultation that has taken place;
- Sets out the terms of the transfer;
- Confirms that the decision to transfer was freely made, and was not subject to coercion, manipulation, or any form of pressure;
- Includes an accurate map of the land being transferred (boundaries, coordinates);

- Sets out who will bear the costs of the transfer (e.g., notarial fees, taxes, title issues) and documenting the residual land rights;

139. In addition, the PIO will also:

- Ensure that all necessary parties sign the documents, including obtaining consent from spouses and children over a certain age;
- Ensure that the transfer and title is registered or recorded; and
- Ensure that the land remaining after the donated land is excised, is properly titled, registered or recorded.

6.4 Screening and Documentation

6.4.1 Preliminary Screening

140. During the identification and preliminary stages of any sub-project preparation, the PIO along with the Project Implementation Committee (hereafter called Implementing Agency) will fill up social screening check-lists designed for the project. A list of some criteria that will need to be filled up for eligibility (called Negative List) is attached in Annex-A. A preliminary assessment to identify the types, degree and scale of potential social impacts of the sub-project will be undertaken via the check-lists (attached in Annex-B). If the sub-project eventually requires land acquisition and/or physical displacement of households/people, the project authority will take initiative to avoid land acquisition and displacement by introducing alternative design options or changing the location/alignment of the subproject by consulting the local people and key stakeholders. Usually it is seen that the sub-projects do not require land acquisition and displacement due to its nature.

6.4.2 Project Preparation

141. It is understood that given the short time allowed between the identification of schemes and the actual implementation of those, the preparation time for sub-projects will be minimal. Given the above time constraints, there will not be enough time to conduct a full-scale Social Impact Assessment (SIA) for each sub-project. However, where the check-lists demonstrate that land acquisition is required and/or displacement of squatters is expected (on public lands, or on private lands) the implementation agency will prepare a brief report on potential impacts and submit it to the Project Director. The project authority will try to avoid land acquisition and displacement considering nature and allocated time line for each of the sub-projects as the land acquisition is a cumbersome process and will take long time to implement the Resettlement Action Plan (RAP).

6.5 Small Ethnic Communities Planning Framework

142. Since the AF will be implemented in Cox's Bazar, and since the exact locations of all of the sub-project schemes are not determined as yet, the possibility that the project impact on the Tribal Peoples (TPs) cannot be discounted. The AF will ensure that the activities funded under SNSP do not adversely affect TPs, and that they receive culturally compatible social and economic benefits. This will require the institutes to carefully screen all proposed activities to determine presence of TPs in the locality and ensure informed direct participation of the TPs in the activities. It is expected that the project will not affect any tribal people and will not conduct any activities that will impact tribal groups. Although the TPs of

Bangladesh are well recognized locally, the PIO will examine the following characteristics to make formal identification:

- Self-identification as members of a distinct Tribal cultural group and recognition of this identity by others;
- Collective attachment to geographical distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- Customary cultural, economic, social or political institutions that are separate from those of dominant society and culture; and
- A Tribal language, often different from the official language of the country or region.

6.5.1 Basic Principles

143. To avoid or minimize adverse impacts and, at the same time, ensure benefits for TPs, the PIOs will apply the following basic principles in selection and design of particular activities:

- Ensure that TP communities in general and their organizations are not excluded by any means in activities selection, design and implementation processes.
- Together with TPs, carefully screen the activities for a preliminary understanding of the nature and magnitude of potential impacts, and explore alternatives to avoid or minimize any adverse impacts.
- Where alternatives are infeasible and adverse impacts on TPs are unavoidable, the PIOs together with TPs and others knowledgeable of TP culture and concerns, will immediately make an assessment of the key impact issues.

144. The PIOs will undertake the necessary tasks in order to adopt appropriate mitigation measures. The most important in this respect is intensive consultation with the TP communities, community elders/leaders, formal and informal TP organizations, civil society organizations and others who are interested in and have knowledge of TP issues.

6.5.2 Identifying TP Social Concerns

145. Impacts on TPs will vary in terms of activities and their scopes, presence and size of TP population in the institution locales, as well as the magnitude of potential adverse impacts and social risks. To the extent applicable for a particular activity, information on the cultural and socioeconomic characteristics and potential vulnerability will be used to identify the TP social concerns and adopt alternative mitigation measures.

6.5.3 Impact Mitigation & Development Measures

146. The PIOs will explore, together with the TP communities, the possibilities of reinforcing any existing and promoting new culturally compatible development activities/measures that will benefit the TPs. Such measures may include providing credits where TPs are found to engage in production of marketable goods; small-scale horticulture and orchards; basic water supply and sanitation facilities; and those, such as schools, that could also be used by the communities as a whole.

6.5.4 TP Consultation Strategy

147. As required for informed consultation, concerned institutes will provide TPs with all activity related information, including that on potential adverse impacts. To facilitate consultation, DDM will:

- Prepare a time-table for dialogues during sup-project selection, design and implementation processes, and consult them in manners so that they can express their views and preferences freely.
- In addition to the communities in general, consult TP organizations, community elders/leaders and others with adequate gender and generational representation; and civil society organizations and groups knowledgeable of TP issues.
- Consultation will include the activity objectives and scope; the likely key adverse impacts on (and benefits for) TPs; TPs' own perception of the impacts and feedback; and a preliminary assessment of economic opportunities which the DDM could promote – in addition to mitigation of the adverse impacts.
- Consultation will in general concentrate on the adverse impacts perceived by the TPs and the probable (and feasible) mitigation measures, as well as exploring additional development activities that could be promoted under the project. The PIO office will keep Minutes of these consultation meetings in the activity files and make them available for inspection by World Bank and senior GOB officials and other interested groups and persons.

148. If the presence of TP is identified in the sub-project area, then a Tribal Peoples Plan (TPP) will be prepared based on free, prior, informed consent. This will serve as the basis for subproject implementation and monitoring.

6.5.5 Major Impact Areas and Indicators

149. The following major impact areas and indicators are suggested for assessment of TP concerns and social risks.

a) Cultural Characteristics

- Relationships with areas where they live-relating to religious/cultural affinity with the ancestral lands, existence of livelihood opportunities, etc.
- Presence of customary social and political organizations – characteristics indicating internal organization and cohesion of the communities, and their interaction with those of the non- Tribal population.
- Interactions and relationships with other Tribal peoples' groups in the same and other areas.
- Presence of TP organizations, working with TP development issues, and their relationships with mainstream organizations engaged in community development activities.
- Identification of any cultural aspects that are likely to be affected or made vulnerable because of the proposed development works.

b) Settlement Pattern

- The extent to which the Tribal settlements are physically separated from those of the non-Tribal peoples, indicating interactions and mutual tolerance between the groups.

- Characteristics indicating physical organization of homesteads and the existing community facilities, such as schools, water supply, etc.
- Presents distance between the settlements and the participating institute.

c) Economic Characteristics

- Prevailing land tenure indicating legal ownership and other arrangements that allow them to reside in and/or cultivate the lands in their areas.
- Access to common property resources- prevailing conditions under which they may have been using natural resources like forests, water bodies, and others that are considered important sources of livelihood.
- Occupational structure - indicating relative importance of household's present economic activities, and the extent to which they might be affected or benefited because of the proposed activity.
- Level of market participation - engagement in activities that produce marketable goods and services, and how and to what extent market participation would be affected or enhanced.

7 CONSULTATIONS AND CITIZEN ENGAGEMENT

7.1 Public Consultations

150. During preparation of the safeguard documents, MODMR has conducted 08 meetings with the local government, different UN agencies, donors, host communities and DRP. All the stakeholders are in favor of the project.

151. Host communities are facing many problems due to the influx of the DRP. They have requested project financiers and implementers to involve them with the project, so that they can be benefitted from this project. Project authorities have also disclosed the tentative project interventions. Host communities have also requested to engage local community during the construction stage.

152. The Project financier has consulted with different UN agencies, as they are also involved in different development activities for the DRP. Through the project cycle, PIU will keep good coordination with the different development partners.

153. DRP have also been consulted during project preparatory stage. As their language is different from the local language, they have requested to engage Rohingya people with the project for the better communication with the project authority. Project authority has also informed that Rohingya people will be involved with GRC, so that they will be able to raise any issues to the authority. Moreover, Rohingya labors will be engaged during construction.

154. The implementing agency shall enlist the community leaders and other influential community people for encouraging the land owners in the selected sub-projects area to provide soil for road maintenance and other earthen work of the sub-project. The PIO, the UP Chairman and Member should ensure that the standing crops are not damaged due to collection of soil or any residential, commercial or common/community properties are not affected due to the project interventions. Tribal People are to be consulted about their social custom, occupational preference, social hierarchy, role of the Headman and Karbari in the society, etc. The Headman and Karbari of the Tribal community must be consulted regarding selection of the subproject and beneficiary from the Tribal community. The consultation meeting would be held with issuing prior notice to the community people by the PIO or UP Chairman. The community people will have to participate in the decision making process of the sub-project selection and implementation.

155. The implementing agency will carry out continued consultation with and information dissemination to the key stakeholders regarding:

- ✓ The relevant details of the project
- ✓ The various degrees of project impact
- ✓ Benefits of the project

156. Roles and responsibilities of the project authority, local government institutions and Community people in selection and implementation process of the sub-project Implementation schedule with a native timetable of the sub-project.

Table 7.1: Consultation Meetings Conducted to Date

Date	Meeting No	Meeting Venue	Type of Participants	Total Participants
July 19, 2019	1	Palongkhali Union, Ukhia, Cox's Bazar	UP Chairman, members, host Communities	13
	2	Whykong Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities	19
July 20, 2019	3	Hneela Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities	3
	4	Baharchhara Union, Teknaf, Cox's Bazar	UP Chairman, members, host Communities	26
July 21, 2019	5	Cox's Bazar	UNHCR Safeguards Specialists	05
July 22, 2019	6	DRRO Office, Cox's Bazar	DRRO and PIOs	07
September 18, 2019	7	District Commissioner's Office , Cox's Bazar	UNO, DRRO, PIO, local government, UP chairmen, and local communities etc.	29
September 29, 2019	8	Sayemon Beach Resort, Cox's Bazar	RRRC officials, DRRO, PIO, local government, UP chairmen, and local communities etc.	46

157. 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. Households in Teknaf and Ukhia reported that road congestions in their respective localities had increased, while more than two- thirds considered deteriorating road conditions.

Table 7.2: Outcomes of Consultation Meetings

Issues	Host Communities
Land	For construction/reconstruction of the rural roads and tree plantation, people are happy to donate land temporarily if required. For planting the trees, people will allow to use private land. People also suggest not to use top soil in any circumstances.
Livelihood	Labors in the host communities requested for the job opportunities through this project.
Wage Rate	Present wage rate is really low. Majority of the people requested to increase the rate up to Tk 500.
Types of Project	Tree plantation, grass plantation on earthen road, community properties land filling if required, garbage collection, pond/canal digging, dry fish processing and guide wall construction.

Issues	Host Communities
Beneficiary Selection	Landless people, people who own land less than 10 decimal and do not receive any support from the government, people who earn less than BDT 50,000/year. If beneficiary is more than expected, people suggested for the lottery option.

7.2 Grievance Redress Mechanism

158. A well-defined grievance redress mechanism (GRM), as defined in the implementation guidelines of EGPP, is already established to resolve grievances and complaints in a timely and satisfactory manner for existing EGPP which will be followed for Strengthening Resilience of Host Communities. A three tier GRM (upazila, district and national) is already approved by MoDMR and effective since the inception of the original EGPP program. The grievances are to be resolved, facilitated by Grievance Redress Officers i.e. UNO at the upazila level, Deputy Commissioner (DC) at the district level and the Project Director at the national level. Grievances resolution should be reached at the upazila level within 15 days of lodging a complaint. If the complainant is not satisfied with the outcome, she/he may appeal to the district level i.e. the DC. If the outcome at the district level is not satisfactory, the aggrieved may escalate the grievance to the National Steering Committee led by the Senior Secretary/Secretary, MoDMR. At the same time, the PIU can be contacted directly to file grievances at any time. In receiving and solving grievances in time, the upazila committee and district committee will perform the role of GRC at upazila and district level respectively.

159. At Upazila level GRC, UNO will be the GRO and PIO will be the member secretary. The GRO with the support of PIO will do screening of the grievances related to the project. If the case is under arbitration or court of law, the GRO will refer the case to the DC office for resolving the case as per law. The Grievance sessions will be held in presence of the aggrieved persons at GRO office or at the concerned UP office, as suggested by the upazila committee. The upazila committee will also inform the aggrieved persons about the decision of the GRC in preferred method. If the grievance is not resolved at Upazila level, the GRO will forward it to the DC (district level GRO) with observation and comments for resolution. DRRO and relevant members of the district committee will investigate the grievance and advise for regulation of the grievances to district GRO.

7.3 Disclosure

160. The ESMF will be made available for public consultation by the executing agency, with key portions translated in Bengali, on their official website as well as at places accessible to the people impacted/benefited by the project and members of civil society (Schools, Libraries, Union Parishad Offices etc.). Advertisements will be published in both English and Bengali Dailies announcing the disclosure of the documents and the appropriate websites and localities where they can be found for public comments.

161. Once all comments have been addressed, the Bank will disclose the document publicly. After the Bank finally approves the document the executing agency will once again make the final version publicly available with key portions translated in Bengali, electronically on their respective websites and place hard-copies in easily accessible places. Information about these locations will be advertised in local

newspapers (English and Bengali). Once the project locations are defined and the specific TPPs are in place, these too will be disclosed publicly following the same process.

8 IMPLEMENTATION ARRANGEMENTS

8.1 Institutional Responsibilities

162. The Project will be implemented by DDM under MoDRM with the support of a project implementation unit (PIU) led by a full-time Project Director (PD) who can hire additional support as required for project implementation. One full-time Deputy Project Director (DPD) will assist the PD in the implementation of the Project. The PD will be responsible for overall management of the Project, providing guidance in planning, implementation, operation, monitoring and supervision. He will be assisted by the DPD who will be responsible for field supervision and coordination, administration, finance and monitoring. A focal point, with experience in social management issues and in dealing with TP issues will be designated to provide training to PIOs and to help the PD's Office review and clear social and environmental screening report. In addition, the monitoring and evaluation (M&E) team will be staffed with project people/external staff with expertise in the above areas, to provide guidance during implementation and ensure compliance with the ESMF.

163. The institutional framework of the EGPP from the national to grassroots levels will be as under and details of the formation of each committee are included into the annex.

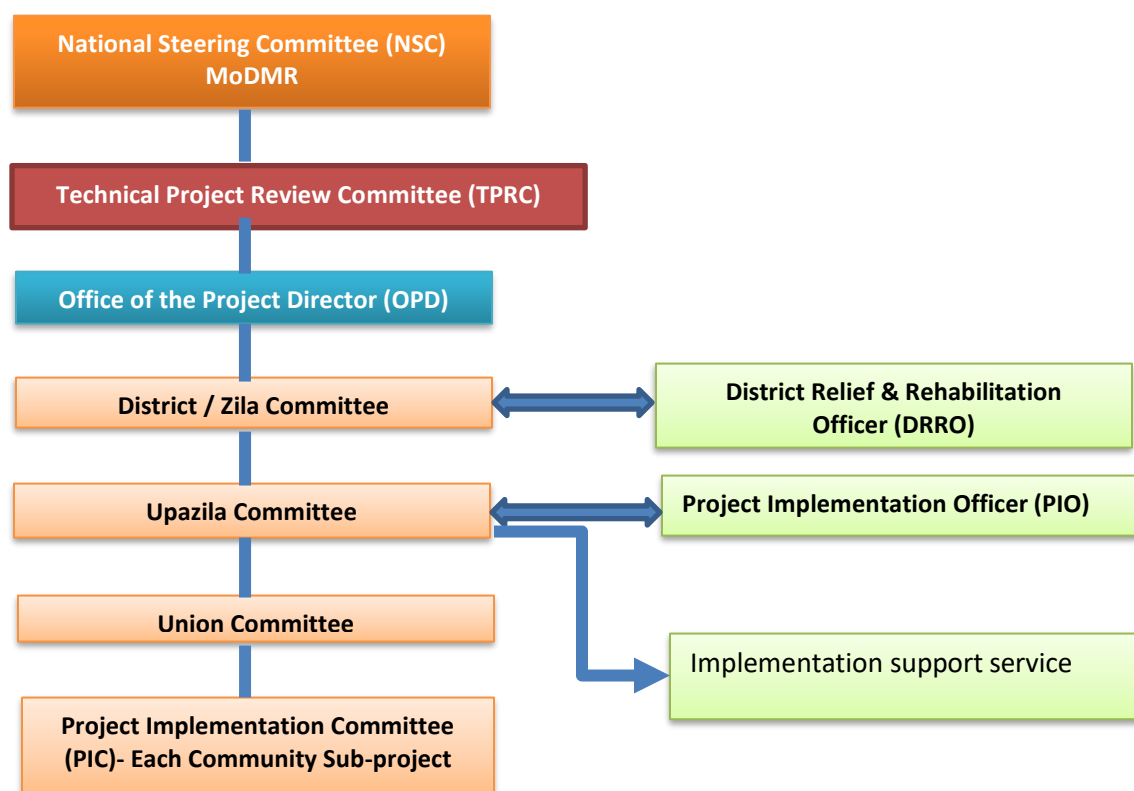


Figure 8.1: Institutional Framework

164. The PD will be advised, guided and supervised by a National Steering Committee (NSC) headed by the Secretary, MoDRM. The NSC will provide policy advice and oversight for the effective implementation of the Project. Implementation of the Project will be further assisted by a Technical Project Review (TPR) Committee headed by the Director General of DDM to oversee overall project implementation as per the GOB and World Bank rules and regulations. The Project Implementation Officer (PIO) of every Upazila will be the focal point for the implementation of the project at the Upazila level and s/he will be assisted by implementation support service.

8.2 Capacity Building

165. The implementing agency and other stakeholders of the project have limited experience on environmental assessment and management under the earlier project EGPP. The component 2 will help strengthening the DDM capacity building to monitor and evaluate its program. It was agreed that environmental management, climate change adaptation and disaster risk reduction will be included in the capacity building program for Sub-Assistant Engineers (SAEs) and PIOs. In addition, the project will organize several orientation programs on operations manual including screening and ECoPs.

166. Other stakeholders like the Local Government involved in the project also have limited or no experience on environmental management. Thus, to ensure their capacity, it is vital that SNSP allocates sufficient resources to training and capacity building especially in the early years. These efforts will not only benefit the SNSP but will also build local capacity to undertake other development initiatives funded locally or by other donors.

167. The SNSP will help improve the effectiveness of local proponents in the management of environmental and social impacts during planning, implementation and operation of proposed investments. Proposed criteria for capacity building are shown in Table 8.1, which will be used as modules in capacity building at all levels.

Table 8.1: Capacity Building Criteria for Managing Subprojects

Issue	Concern	Eligibility Criteria
1. Environmentally sound sub projects, complying with agreed ESMF policy	• Realistic environmental standards for planning and implementation.	• PICs effectively decide questions of what mitigation is needed to manage risks, who is eligible for what and determining how much is enough to achieve the standards, for environmental protection.
	• Effective monitoring of actual mitigation results.	• Accuracy and credibility of baseline data and reasonable certainty of detecting and correcting any errors or problems during planning and implementation. To be able to meet standards, the proponents must have sensitive monitoring systems

Issue	Concern	Eligibility Criteria
		& specific indicators for the adequacy of the mitigation delivered and actual results.
	• Clear incentives and accountability for all partners.	• PICs have clear statements of task assignments, reasonable corrective consequences for mistakes or failures and unambiguous responsibility and sources of financing to correct problems, and functioning grievance redress systems.
	• Common awareness and understanding of the above.	• Communication to ensure common awareness of standards, monitoring and accountability by those affected, organizations and individuals deployed for implementation support, PICs, government agencies and donors.
2. Participatory planning and implementation and inclusion of the poor in project benefits.	• Sub-project prioritization is based on adequate consultation.	• Resolution of the PICs in support of the sub – project after public meeting.
	• Effective accountability to citizens.	• Formal endorsement by the community through public hearings and documented periodic reporting of PICs performance to citizens;

168. Capacity building will enhance the subprojects' ESMF management capacity by allowing real application of the critical practices such as the following:

- **Basic practices:** screening impacts, scoping assessments, planning mitigation options, public consultation to assess feasibility and acceptability options;
- **Environment:** site selection and route alignment to minimize environmental impacts and social disruption; restoration of drainage patterns, land use, etc.; including mitigation measures in contracts; management of impacts during construction; monitoring of effectiveness of measures;
- **Monitoring and grievance redress:** transparency and public administration in planning, reporting and supervision responsibilities and formats during implementation, documenting land transactions, complaint response record keeping and procedures.

169. The training programs will be coordinated and anchored within the SNSP management. The local and national institutions and individuals experienced in environmental aspects will be called upon through a competitive process to develop and conduct courses on various modules.

170. The section describes the training needs and plan for the various participants involved in implementing the ESMF based, in part, on the institutional assessment described above. The training on ESMF may be integrated with social framework and other related training program for cost effectiveness. The objectives of the training under the ESMF are to:

- support representatives and leaders of **community groups and associations** to prioritize their needs, and to identify, prepare, implement and manage the environmental aspects of their subprojects;
- ensure that **local government officials** have the capacity to assist in preparing subproject proposals, and to appraise, approve and supervise the implementation of subprojects; and
- strengthen local **stakeholders** which may be involved in the public participation in preparing and implementation of subprojects.

171. Different groups involved in SNSP implementation have different training needs in terms of raised awareness, sensitization to the issues, and detailed technical training:

- **Awareness-raising** for participants who need to appreciate the significance or relevance of environmental issues;
- **Sensitization to the issues** for participants who need to be familiar enough with the issues that they can make informed and specific requests for technical support; and
- **Detailed technical training** for participants who will need to analyze potentially adverse environmental impacts, to prescribe mitigation approaches and measures, and to prepare and supervise the implementation of management plans. This training will address such matters as community participation methods; environmental analysis; using the ER checklist, reporting; and subproject supervision and monitoring.

172. The different training needs that are generally associated with the subprojects are given in Table 6.4. Based on these needs, a training plan has to be worked out for the life time of the project. The needs for various participants (e.g. government officials, community leaders etc.) have to be different of necessity. While some would require training on general awareness building and more specific training would be needed for others. The table shows the initial training needs as well as the needs for further or “refresher” training. It should include mechanisms for periodically bringing trainees together to examine the need for and design of additional training.

Table 8.2: Suggestive outline of Different Training Needs

Group	Participants	Resource persons	Duration	Frequency
Local government approval authorities	UNOs	Experts/ Consultants	2- day workshop	Year 1 of the Project
			1-day refresher workshop	After Year 1 as needed
UZ Resource Team	UZ Officials from Govt. Departments/ Line Ministries	Experts/ Consultants	6-day workshop	Year 1 of the Project
			2-day ESMF review workshop	Annually after Year 1 and Annual Reviews

Group	Participants	Resource persons	Duration	Frequency
Community Leaders/Workers	PIC/UP Chairmen, Members, Secretary	UZ resource Team Members	3-day workshop	As needed throughout the project
Stakeholders	NGO workers, Concerned individuals	UZ resource Team Members	3-day workshop per community	As needed throughout the

173. The detailed agenda and specification of resource needs (venue, trainers, materials, etc.) for each type of training activity should be worked out in detail before the training activities are undertaken. Wherever there is a wide-spread need for a particular form of training, especially at the community level, the training-of-trainers (TOT) approach may be undertaken. In the TOT approach, identified groups who have a special role or access to communities are given a combination of technical and pedagogical training, and are provided with manuals and other training aids, so that they can organize their own courses at local levels. In the present case Upazila level technical personnel could be such trainers for UP level subproject personnel and concerned people including those from community based organizations.

174. The capacity building and training constitute a separate component of SNSP and adequate resources from this component should be allocated to ensure effective implementation of the ESMF. The resources are needed to implement the following items.

- Institutional development activities
- The training program for communities, extension teams and local authorities to implement their ESMF responsibilities
- Allowances for the preparation of subproject LEAs etc. (The costs of implementing these plans are included in the subproject budgets.)
- Annual reviews and audits

8.3 Monitoring & Reporting

175. Projects will require no private land or only require temporary using of soil from nearby land plots for maintenance of the road or land filling in any social/educational/religious institutions. People generally willingly offer soil for project implementation. In some cases people give specific land plots with a view to digging a pond. In this case both parties will be benefited by the project. The project authority, especially PIO through the UP Chairman, Member and local elites will try to find out such land plots and encourage people to offer soil for sub-project implementation. PIOs will be responsible to ensure compliance with the Bank policies. A semi-annual random spot check will be performed on this batch of sub-projects to ensure compliance. The results of the spot checks will be shared with the Bank on a yearly basis. The Bank will sponsor a validation and verification study by a third-party monitoring agency via a random sample-based audit of sub projects to ensure compliance with the policies and procedures incorporated in the ESMF.

176. For sub-projects that may trigger land acquisition and/or physical displacement of the households or other entities, the PIOs along with the concerned-UP Chairman and Member will avoid or minimize the impacts by choosing alternative design options and or changing the alignment. Initially a social screening

would be carried out by PIOs and Upazila Project Implementation Committee to select each of the subprojects. Land acquisition and resettlement would be avoided during selection process of the subprojects. The screening reports would be cleared by the PD's Office. A third-party spot checks will be undertaken for a sample of such subprojects and those involving impacts on TPs, by a renowned national CBO/consulting firm/think-tank with the requisite expertise and experience in conducting such audits, to assess compliance with the requirements of the ESMF. These results will be shared with the Bank upon completion. The Bank will conduct independent validation and verification based on a random sample of projects whether triggering land acquisition and/or displacement, via a third-party monitoring agency.

ANNEX A: NEGATIVE LIST OF THE PROJECT

Negative List

Activities that involve the following characteristics will be ineligible for support under SNSP:

- Poses any direct or indirect discriminatory criteria for selection
- Affect private land, residential or commercial establishments
- Affect mosques, temples, graveyards, cremation grounds, and other places/objects that are of religious and cultural significance
- May significantly restrict access to common property resources and livelihood activities of groups and communities
- Leads to permanent flooding or water logging of water courses
- Leads to damage/removal of 15cm of topsoil
- Leads to permanent pollution of surface water or groundwater resources
- Leads to increased human-wildlife conflicts

Activities that affect Tribal peoples with long-term consequences will be ineligible for support. These activities are those that

- Poses possibility of exclusion
- Affect private land, residential or commercial establishments
- Threaten cultural tradition and way of life
- May severely restrict access to common property resources and livelihood activities
- May affect places/objects of cultural and religious significance (places of worship, ancestral burial grounds, etc.)

ANNEX B: IMPLEMENTATION ARRANGEMENTS

At the national level, the oversight and program management will be undertaken by the three major bodies including (i) National Steering Committee (NSC) headed by the Secretary, DDM – MODMR; (ii) Technical Project Review (TPR) Committee headed by the DG, DDM; and (iii) PIU led by the Project Director of SNSP.

Institutional & Management Structure at District Level

At the district level, the program oversight and management will be coordinated by the concerned Deputy Commissioner (DC) with the support of the District Relief & Rehabilitation Officer (DRRO). A District Committee will be set up in each district under the chairpersonship of the concerned DC and the DRRO of the district will act as the Member Secretary of the committee.

Institutional & Management Structure at Upazila Level

Upazila will be the focal point for the overall implementation and oversight for the SNSP. In every Upazila, the oversight and program management of SNSP will be undertaken by the Upazila Committee (UC). The Project Implementation Officer (PIO) of every Upazila will be the focal point for the implementation of the project at the Upazila level and s/he will be assisted by a community support organization/implementation hired on a contractual basis by the Project. The roles and responsibilities and composition of the upazila committee will be as follows:

Upazila Committee (UC):

The Upazila Committee (UC) in every Upazila will function under the chairmanship of the concerned Upazila Nirbahi Officer (UNO) and the PIO of the respective Upazila will act as the Member Secretary to the UC. The Upazila Committee will be responsible for:

Finalization and approval of the Union Plans containing projects and list of beneficiaries submitted by the Union Committees;

Selection of a Bank at Upazilla level to open Upazila “Mother Account” and Union level self-collection Bank Account “Child Account” for facilitating beneficiary payments;

- ✓ Supervise the process of beneficiary account opening in the selected Bank in accordance with the Bangladesh Bank;
- ✓ Overall program implementation and supervision & monitoring of all community subprojects within stipulated time;
- ✓ Review technical issues during the implementation of the program and ensure the proper utilization of fund;
- ✓ Liaison with the Office of the Project Director (OPD) and Union Committees;
- ✓ Liaison with line departments and other public institution and offices at the upazila / union levels for sending work proposal concerning their institutions / offices;
- ✓ Support PIO and Union Committee with necessary technical inputs;

- ✓ Timely transfer of funds from the Upazila level joint bank account “Mother Account” to the union level self-collection account “Child Account” for ensuring timely wage payments to the beneficiaries;
- ✓ Prepare and forward Upazila level monthly progress reports to DC and OPD, during the working seasons;
- ✓ Ensure public disclosure of adopted projects by taking steps to publish and disseminate a brief list of adopted projects at Zilla and Upazilla level;
- ✓ Review and examine recommendations of the Union Parishads / concerned government officers and take necessary action;
- ✓ Register and deal with all complaints / grievances within stipulated time;
- ✓ Any other tasks assigned by District Committee and OPD from time to time.

Broadly, the composition of the Upazila Committee (UC) will be as per the table given below. However, with the aim to facilitate regular meetings a decision making, a quorum of ten members will be mandatory including the Chairman and the Member-Secretary of the Committee. Besides, the UC will have powers to co-opt more members from the upazila, if necessary.

1.	Member of Parliament (MP) of respective parliamentary constituency	Chief Advisor
2.	Upazila Chairman	Advisor
3.	Upazila Nirbahi Officer (UNO)	Chairman
4.	Upazila Vice Chairman (all)	Member
5.	Chairmen of all Union Parishads (UPs) of the respective Upazila	Member
6.	Upazila Health and Family Planning Officer	Member
7.	Upazila Agricultural Officer	Member
8.	Upazila Engineer (LGED)	Member
9.	Upazila Food Controller	Member
10.	Upazila Education Officer	Member
11.	Upazila Youth Development Officer	Member
12.	Upazila Women Affairs Officer	Member
13.	Upazila Cooperative Officer	Member
14.	Upazila Livestock Officer	Member
15.	Upazila Fisheries Officer	Member
16.	Upazila Social Welfare Officer	Member
17.	Upazila Ansar and VDP officer	Member
18.	Upazila Rural Development Officer	Member
19.	SAE, SModMRPA Project	Member
20.	One teacher (Nominated by UNO)	Member
21.	One representative from the voluntary organization (Selected by UNO)	Member
22.	Upazila level Bank Manager related (all)	Member
23.	One Eminent person of the Upazila (Nominated by UNO)	Member
24.	Upazila Project Implementation Officer (PIO)	Member-Secretary

Roles & responsibilities of Upazila level key officials

The roles and responsibilities of the Upazila level key officials will be as under:

(i) Upazila Nirbahi Officer (UNO): The UNO of all concerned upazilas will be the nodal officer responsible for the overall implementation, supervision and monitoring of the programs under SNSP in their respective Upazila. Specifically, each UNO will be responsible for the following task with the assistance of the Project Implementation Officer (PIO) and implementation support service:

- ✓ Facilitate the overall implementation and supervision of the program at the upazila level;
- ✓ Act as the Chairman of the Upazila Committee;
- ✓ Ensure timely transfer of funds to the Union Committees through Upazila level Bank
- ✓ Account “Mother Account” jointly operated with the PIO;
- ✓ Act as Grievance Redress Officer at the Upazila level;
- ✓ Liaison with the Deputy Commissioner (DC) and the Office of the Project Director (OPD) on all relevant matters concerning SNSP;
- ✓ Facilitate inter-departmental coordination and convergence at the upazila level for efficient execution of program;
- ✓ Any other relevant tasks assigned by the DC and OPD.

(ii) Project Implementation Officer (PIO): On behalf of the DDM – MODMR, the PIO of every Upazila will be the focal point for the implementation of the project at the Upazila level and he will be assisted by implementation support service. In particular, the PIO will be responsible for:

- ✓ Facilitating the overall implementation of the program at the upazila level;
- ✓ Supporting upazila and union-level public administration in efficiently executing the program;
- ✓ Coordinating regularly with the head of local administration and relevant government officials at the Upazila and Union levels;
- ✓ Liaising with all the Union Committees under the respective Upazila for effective implementation of the program;
- ✓ Ensuring timely transfer of funds to the Union level “Child Account” from the Upazila level “Mother Account”;
- ✓ Participating in local-level meetings where program matters are discussed;
- ✓ Reviewing the environmental and social screening, suggest any required mitigation measures and prevent activities with significant negative impact from being included in the Union / Upazila Plan
- ✓ Pre and post work estimation / measurement of each community sub-project;
- ✓ Monitoring and supervising programs under SNSP and public workfare schemes implemented by DDM – MODMR at the Upazila level;
- ✓ Preparing and submitting all assigned reports from the local-level on a regular basis;
- ✓ Acting as the Member Secretary to the Upazila Committee as well as maintaining all
- ✓ records of proceedings of the Upazila Committee; and
- ✓ Assisting the Upazila Nirbahi Officer (UNO) with all tasks related to the program.

(iii) Implementation support service: A implementation support service team may be engaged to implement the project smoothly. The support team will work closely with the PIO of the respective Upazila and will be responsible for:

- ✓ Assisting in the overall implementation process of the program at the upazila level;
- ✓ Supporting in regularly coordination with the Chairperson / Member Secretary of the Union Committees and relevant government officials in every Union Parishad;
- ✓ Conducting and facilitating the targeting and enrolment processes in the assigned location;
- ✓ Facilitating environmental and social screening of community sub-projects by supporting the Union Committees of the Upazila;
- ✓ Assisting PIO in carrying out pre and post work estimation / measurement of selected community sub-projects;
- ✓ Assisting in regular monitoring and supervision of the programs under SNSP and other public workfare schemes at the Upazila level;
- ✓ Maintaining and updating Union – wise / Upazila level muster roll of all the selected beneficiaries on regular basis;
- ✓ Supporting compilation of reports from the local-level on a regular basis and support preparation of Union / Upazila level periodic reports; and
- ✓ Assisting the Program Implementation Officer (PIO) with other relevant tasks, as requested

In the Upazila where the post of PIO is vacant, the CBO/implementation team will be responsible for managing both sets of tasks until the regular PIO is appointed by the Government.

Institutional & Management Structure at Union and Project levels

At the Union Parishad level, the oversight and program management will be undertaken by the Union Committee headed by the Chairman of the respective Union Parishad. Every Union Committee will have powers to constitute project-specific Project Implementation Committees (PICs) for the effective implementation and supervision of the community sub-projects. The roles and responsibilities and composition of the Union committee and PICs will be as follows:

Union Committee

Each Union will have a Union Committee headed by the Chairman of the Union Parishad (UP) and the UP Secretary will act as its Member Secretary. The Union Committee will be responsible for:

- ✓ Selection of all projects and beneficiaries in consultation with the community and the ward members on the basis of the eligibility criteria and policy directions communicated by the Upazila Committee;
- ✓ Preparation of a Union Plan on the basis of final list of the selected community subprojects and beneficiaries and send the same to the Upazila Committee for the approval;
- ✓ Ensure opening of a beneficiary Bank Account for selected laborers in a scheduled government bank situated in union/Upazilla level and ensure wage payment to each beneficiaries through the bank accounts;
- ✓ Maintenance of the approved beneficiary list;
- ✓ Preparation and regular updating of the beneficiary muster roll;

- ✓ Conducting environmental and social assessment of projects;
- ✓ Undertake periodic supervision of projects;
- ✓ Liaison with the Upazila Committee and OPD;
- ✓ Maintenance of all necessary records including site registers, registration/ job cards, receipts & payment, etc. with the help of the PICs;
- ✓ Coordinate with the PICs for ensuring timely reporting including data collection and preparation of activity / progress reports; and
- ✓ Any other tasks assigned by the Upazilla / Zilla Committee from time to time.

The Union Committee will compile its Union Plan on the basis of list of projects and beneficiaries received from each ward and submit the same to the Upazila Committee (UC) for approval and necessary action. The Union Plan will contain ward-wise details of planned projects and beneficiaries for each phase of the project. A Union Committee will be formed in each UP in a community meeting in the presence of UP Chairman, UP members and with community participation from all wards organized by UP. In choosing Union Committee members, the following principles will be respected:

The members of the Union Committee should be residents of the Ward (or village) that benefits most directly from the proposed investment. Every effort should be made to ensure that the representatives (at least two in every Committee) of beneficiary communities are included in the Union Committees – as this maximizes local ownership and increases accountability; At least two members of the Union Committee shall be women.

Broadly, the composition of the Union Committee will be as per the table given below. Besides, the Union Committee will have powers to co-opt more members from the union parishad, if necessary.

Union Committee:

1.	UP Chairman	Chairman
2.	All members of the UP	Member
3.	Sub-assistant Agricultural Officer (Block Supervisor)	Member
4.	Concerned Bank Manager	Member
5.	Field Assistant (BRDB)	Member
6.	One eminent person from each ward of the union (Selected by UNO)	Member
7.	One teacher from the union (Selected by UNO)	Member
8.	One women representative from the union (Selected by UNO)	Member
9.	UP Secretary	Member-Secretary

Project Implementation Committee (PIC):

Every Union Committee may form Project Implementation Committees (PICs) consisting of 5-7 members for each project. Each PIC will be responsible for:

- ✓ Ensuring day to day implementation of the projects in close collaboration with the Union Committee;

- ✓ Ensuring timely payment to the beneficiaries in consultation with the Union Committee and concerned scheduled bank;
- ✓ Liaisoning with the Union Committee;
- ✓ Maintaining of all necessary records including site registers, registration/ job cards, receipts & payment, etc.;
- ✓ Ensuring day to day reporting including data collection; and
- ✓ Preparing activity/progress reports of the concerned project and submitting the same to the Union Committee.

A Project implementation Committee (PIC) will be formed in a community meeting in the presence of UP Chairman, UP members and with community participation from all wards organized by Union Parishad. The members of the PIC should be residents of the Ward (or village) that benefits most directly from the proposed project.

Project Implementation Committee:

1.	Member/Women Member of respective project ward	Chairman
2.	Other Members/Women Members of respective project ward	Member
3.	One School Teacher of respective project ward	Member
4.	Two Women of respective project ward	Member
5.	One Religious Leader of respective project ward	Member

The following principles will be respected in the process of selection and functioning:

- ✓ A person will not hold the position of the Chair in more than one PIC;
- ✓ Ideally, 30% of the members of PIC may be women.

A concerned ward member or women ward member will be selected as the Chairperson of PIC by majority vote during this meeting. Other members of the PIC will be nominated by the community at ward level open meeting organized by the ward members. One school teacher and an eminent person from the locality shall be the committee members in addition to the local ward members. One member nominated by the committee will act as the Member-Secretary.

The ESMF will be followed by the PIO and his team under the supervision of the safeguard focal point hired to assist the PD's Office as well as train the PIOs. The PIO's team will have to be staffed with implementation support services and project personnel who have requisite abilities to: apply the check-list and assess next steps required to comply with the ESMF, conduct surveys required for social screening, conduct effective consultations, write the report on social screening in cases of all subprojects irrespective of nature and location of the subprojects.

ANNEX C: ENVIRONMENTAL SCREENING FORMAT

1. Sub project Name:
2. Location (Village, Ward, District, Union):
3. Type of sub project:
4. Size of the subproject.....
5. Number of people benefiting the sub project:
6. Contact person.....
7. Telephone.....
8. General Description of the sub project:-

i. Sub project objectives:

.....
.....
.....

ii. Sub project components:

.....
.....
.....
.....

iii. Subproject activities

.....
.....
.....
.....
.....

9. Baseline Description of affected Environment

i. Description of physical chemical environment (soil, air, water, etc.)

.....
.....
.....
.....

ii. Description of Biological Environment (habitats and Communities, Flora, elephant citing, etc.):

.....
.....
.....
.....
.....

iii. Description of Socio-economic Environment e.g. historical sites, aesthetic aspects, public health, infrastructure

.....
.....

10. Identification of Negative Environmental Impacts

Aspects	Yes	No	Scale of Impact			Remarks ²⁸
			High	Medium	Low	
• loss of top soil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative effects on species of flora or fauna or their habitat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative effects on designated wetlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative effects on vegetation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• destruction of trees and vegetation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• impact on fish migration and navigation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• chance of human elephant conflict?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• drainage congestion in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• water logging in the project areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative effects on surface water quality, quantities or flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative impact on soil stability and compactness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• negative impacts on irrigation and canals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• increased noise due to day-to-day construction activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• increased wind-blown dust from material (e.g. fine aggregate) storage areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

11. Possible environmental impacts of the subproject

Environmental impacts	Mitigation measures (Identify the relevant ECOP)	Project Categorization (Low/Medium/High)

²⁸ Note: Please add any other screening questions relevant to the demonstration. Also provide additional comments and/or positive impacts in 'remarks' column.

12. The Environment Management Plan (EMP) to be taken during implementation of the subproject. (If impacts beyond the **ECoP**)

4. Recommendations:			
SIGNATURE OF UNION COMMITTEE MEMBERS INVOLVED:			
Chairperson Union Committee	Name:	Signature:	Date:
Field Supervisor / PIO	Name:	Signature:	Date:
Community members (add columns if required)	Name:	Signature:	Date:
Indigenous Community/ Groups (If required)	Name:	Signature:	Date:

ANNEX D: SOCIAL SCREENING FORMAT

Safety Net System for the Poorest (SNSP)-AF

This form will be filled up by the Upazila Project Implementation Committee along with the community members at Union Level and must be submitted to Project Implementation Officer (PIO) before being selected]

A. General Information

Title of the Subproject: Village/Mouza..... Upazila:
..... District: Screening Date:

B. Project Related Information

B1 Activities of Subproject includes: New construction/ Improvements/ Repair /Renovation (described in brief regarding subproject activities)

.....
.....

B2. Describe existing land use/occupancy of site and surroundings in brief and accordingly draw a free-hand map (Please use separate sheet)

.....
.....

C. Socio-economic Information

C1 What are the asset(s) that would be affected due to Subproject Interventions? Yes or No

Land.....

Physical Structure(dwelling or commercial).....

Trees/crops.....

Natural resources(water bodies/Forest/Public Pond).....

Community Resource Property.....

Others(please specify).....

C2 Land

C.2.1 Ownership of Land: Public/Private.....

C.2.2 Type of Land: Agricultural/ Homestead/ Low Land /Fallow/ Pond

Please specify.....

Does the subproject require additional land permanently or on a temporary basis?.....

Sometimes as part of road/canal/community resource property upgrading interventions, subprojects may require small parcels of land permanently to meet engineering design requirements. In such case what would be the land procurement policy?

Direct Purchase...Yes/no.....; voluntary donation.....yes/no...; acquisition
Yes/no.....?

To except voluntarily donated land what would be the legal procedure?.....

In case of land acquisition, will there be physical and / or economic displacement of people?

C2.3 Is there any squatter/ encroacher/ leaseholder residing on public lands? Yes/ No and specify type
.....

If yes.

What would be the total numbers of Affected Families?.....

Is there any possibility of physical displacement?.....

How will their livelihoods be affected? (example: due to loss of shelter and housing structure, loss of income source, loss of grazing field/ social network/ family bondage etc)
.....

Do the affected families have school going children? YES/No

If yes,.....how many such children are there?

Among the affected household, is there any person holding long term lease? Yes/no..... if yes, Land uses for what purpose?....., Till how many years remains out of total leasing period?.....

C3 Structure (Housing/Commercial)

C 3.1 Type and total number of Housing structure that would be affected: (Type : Kachcha temporary structure made by tin/bamboo/ straw etc, semi-pucca- brick made structure with tin at roof and pucca- permanent brick made structure)

.....

C 3.2 Is there any commercial/ business structure that would be affected?.....

C 3.3 Ownership types of the affected structures: Private/ Leaseholder/squatter/encroacher

Please specify.....

C 3.4 Is there any tenant identified using the affected structure? Yes/No

C 4. Trees and Crops

C 4.1 Is there any tree/plant that might be affected? Yes/no..... Total estimated number by size.....?

C 4.2 Is there any social forestry /plantation project that would be affected? Yes/no.....

C 4.3 Is there any common fruit bearing tree that would be affected? Yes/no..... Species.....

C 4.4 Any agricultural land included with in the subproject footprint? Yes/no.....

If yes, please provide necessary information regarding productivity of land, type and quantity of Crop that might be affected and market value

.....

.....

C 5. Is there any Community Resource Property that would be affected?

Yes/No..... Please Specify..... Who are the beneficiaries of the affected

Community Resource? What is their reaction- Positive/negative?.....

Did they support the project?. Yes/No.....What are the reasons to support/ stand against the project?

.....

.....

C6. Is there any Natural Resource that might be affected? Example: Social forest, Beel, Depression area, Grazing field, Wet-land, etc Yes/No.....

If yes, please describe regarding dependency on the Affected Resources

.....

.....

C7. Tribal Peoples

C 7.1 Is there any community of Tribal Peoples residing within or adjacent the project site? Yes/No.....For how long

C 7.2 Any Households of Tribal Peoples would be affected? Yes/No..... If yes, how many families would be affected?.....

C 8 Beneficiaries

C 8.1 Who are the Beneficiaries? How they would be benefited by the subproject?

Access to health facilities/services? Yes/No.....

Project activities would provide income generating source. Yes/No.....Please describe.....

Shall subproject promote marketing opportunities of the local products? Yes/No.....If yes, how would that happen? Please elaborate

Are people ready to co-operate with the project? Yes/No..... Please elaborate the reasons

C 9 How will the subproject create opportunities for Beneficiaries?

1. Prepared by (Name):

Signature:..... Date:

2. Upazila Project Implementation Committee

District: Upazila:

Name of the Committee Head (UNO):

01. Names of Committee Members participated in Screening

02.

3. Union Project Implementation Committee

District: Upazila:

Name of the Committee Head (Chairman):

01. Names of Committee Members participated in Screening:

ANNEX E: TYPICAL ENVIRONMENTAL MANAGEMENT PLAN

Impact	Mitigation Measures	Project Stage	Implemented by	Monitoring /Supervising by
Loss of Fertile Top Soil of Agricultural Land	<ul style="list-style-type: none"> Try to avoid fertile top soil from agricultural land to use as fill materials for the subprojects. Strip off top soils (depth>0.3m) & stockpile them & reuse the top soils on the surface of the excavated agricultural land. 	Preconstruction /Construction	Contractor	DDM
Losses of Trees and Vegetation	<ul style="list-style-type: none"> Consider alternation options to reduce the loss of trees and vegetation Plant same species of local trees and vegetation on the slopes of the subprojects. 	Preconstruction /Postconstruction	PAPs/DDM	DDM
Noise pollution	<ul style="list-style-type: none"> Plan the work schedule of noise creating activities in consultation of local community Construction activities should be done only during daytime (7:00AM to 6:00PM). 	Construction	Contractor	DDM
Air/Dust Pollution	<ul style="list-style-type: none"> Spray of water during dry season and in windy conditions Immediate compaction after filling of earth Cover the stockpiles of fine materials in construction yard. 	Construction	Contractor	DDM
Waste Disposal	<ul style="list-style-type: none"> Waste should be separated at source & store in separate waste bin/basket. Inorganic waste can be sold & organic waste can be used for manufacturing of organic manure by composting. 	Construction	Contractor	DDM
Occupational H&S	<ul style="list-style-type: none"> Provision of first aid facility Arrangement of safe drinking water for the labors working in the subprojects 		Contractor	DDM

ANNEX F: DESCRIPTION OF ACTS, POLICIES AND REGULATIONS

Environmental Conservation Act (ECA), 1995

The ECA is currently the main legislation relating to environment protection in Bangladesh. This Act is promulgated for environment conservation, environmental standards development and environment pollution control and abatement.

The main objectives of ECA are:

- Conservation and improvement of the environment; and
- Control and mitigation of pollution of the environment.

The main focuses of the Act can be summarized as:

- Declaration of ecologically critical areas and restriction on the operations and processes, which can or cannot be carried out/ initiated in the ecologically critical areas (ECA);
- Regulations in respect of vehicles emitting smoke harmful for the environment;
- Environmental clearance;
- Regulation of industries and other development activities' discharge permits;
- Promulgation of standards for quality of air, water, noise and soil for different areas for different purposes;
- Promulgation of a standard limit for discharging and emitting waste; and
- Formulation and declaration of environmental guidelines.

Before any new project can go ahead, as stipulated under the ECA, the project promoter must obtain Environmental Clearance from the Director General (DG), DOE. An appeal procedure does exist for those promoters who fail to obtain clearance. Failure to comply with any part of this Act may result in punishment to a maximum of 5 years' imprisonment or a maximum fine of Tk.100, 000 or both. The DOE executes the Act under the leadership of the DG. The Project will be undertaken in line with the aims and objectives of the Act by conserving the environment and controlling and mitigating potential impacts throughout the drilling program.

Environmental Conservation Act (Amendment 2000)

The Bangladesh *Environment Conservation Act* Amendment 2000 focuses on ascertaining responsibility for compensation in cases of damage to ecosystems, increased provision of punitive measures both for fines and imprisonment and the authority to take cognizance of offences.

Environmental Conservation Act (Amendment 2002)

The 2002 Amendment of the ECA elaborates on the following parts of the Act:

- Restrictions on polluting automobiles;
- Restrictions on the sale, production of environmentally harmful items like polythene bags;
- Assistance from law enforcement agencies for environmental actions;

- Break up of punitive measures; and
- Authority to try environmental cases.

Environmental Conservation Act (Amendment 2010)

This amendment of the act introduces new rules & restriction on:

- No individual or institution (Gov. or Semi Gov, / Non Gov. / Self Governing) cannot cut any Hill and Hillock. In case of national interest; it can be done after getting clearance from respective the department
- Owner of the ship breaking yard will be bound to ensure proper management of their hazardous wastes to prevent environmental pollution and Health Risk
- No remarked water body cannot be filled up/changed; in case of national interest; it can be done after getting clearance from the respective department; and
- Emitter of any activities/incident will be bound to control emission of environmental pollutants that exceeds the existing emission standards.

Environment Conservation Rules (ECR), 1997 and Amendments

These are a set of rules, promulgated under the *ECA*, 1995 and its amendments. The Environment Conservation Rules provide categorization of industries and projects and identify types of environmental assessment required against respective categories of industries or projects. The Rules set:

- The National Environmental Quality Standards (NEQS) for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust etc.;
- The requirement for and procedures to obtain environmental clearance; and
- The requirement for IEE and EIA according to categories of industrial and other development interventions.

The Environment Conservation Rules, 1997 were issued by the GOB in exercise of the power conferred under the Environment Conservation Act (Section 20), 1995. Under these Rules, the following aspects, among others, are covered:

- Declaration of ecologically critical areas;
- Classification of industries and projects into 4 categories;
- Procedures for issuing the Environmental Clearance Certificate (ECC); and
- Determination of environmental standards.

Rule 3 defines the factors to be considered in declaring an 'ecologically critical area' as per Section 5 of the ECA (1995). It empowers the Government to declare the area as the Ecologically Critical Areas (ECA), if it is satisfied that the ecosystem of the area has reached or is threatened to reach a critical state or condition due to environmental degradation. The Government is also empowered to specify which of operations or processes may be carried out or may not be initiated in the ecologically critical area. Under this mandate, the Ministry of Environment and Forest (MOEF) has declared Sunderban, Cox's Bazar-

Tekhnaf Sea Shore, Saint Martin Island, Sonadia Island, Hakaluki Haor, Tanguar Haor, Marzat Baor and Gulshan-Baridhara Lake as ecologically critical areas and prohibited certain activities in those areas.

Rule 7 of the 1997 ECR provides a classification of industrial units and projects into four categories, depending on environmental impact and location. These categories are:

- Green;
- Orange A;
- Orange B; and
- Red.

The categorization of a project determines the procedure for issuance of an Environmental Clearance Certificate (ECC). All proposed industrial units and projects that are considered to be low polluting are categorized under "Green" and shall be granted Environmental Clearance. For proposed industrial units and projects falling in the Orange-A, Orange-B and Red Categories, firstly a site clearance certificate and thereafter an environmental clearance certificate will be required. A detailed description of those four categories of industry/project is in Schedule-1 of ECR (1997). The Rules were essentially developed for industrial developments, but under Schedule 1 of the Guidelines (Clauses 63 and 64) the following falls into the Orange B Category.

Environmental Policy, 1992

The concept of environmental protection through national efforts was first recognized and declared with the adoption of the Environmental Policy, 1992 and the Environmental Action Plan, 1992. The importance of policies in beefing up the environmental regime is recognized in a number of international instruments including the World Conservation Strategy in 1980 and the Brundtland Commission Report, 1987. Paragraph 14 of Chapter 8 of Agenda 21 underscored the necessity of formulation of national policies as well as laws for environmental protection and sustainable development. The major objectives of Environmental Policy are to:

- i) maintain ecological balance and overall development through protection and improvement of the environment;
- ii) protect country against natural disaster;
- iii) identify and regulate activities, which pollute and degrade the environment;
- iv) ensure environmentally sound development in all sectors; and
- v) ensure sustainable, long term and environmentally sound base of natural resources; and vi) actively remain associate with all international environmental initiatives to the maximum possible extent.

Environmental Action Plan, 1992

The National Environmental Action Plan, 1992 recommended sector specific action plan to achieve the objectives and implement the policy recommendations of the National Environment Policy. The followings are water resources key recommended actions:

- Environmental audit on an emergency basis will be conducted for water resources development, flood control and irrigation projects. Steps to mitigate the adverse impact on the environment identified in the audit will be taken through appropriate modification of these projects.
- Environmental Impact Assessment will be incorporated in all new projects. Adverse impacts will be prevented through proper steps and adequate investments.
- Operation and maintenance will be ensured subsequent to execution of projects related to water resources development and management. Regular monitoring will be conducted to evaluate the impact of all projects.

National Environmental Management Plan (NEMAP), 1995

The National Environment Management Action Plan (NEMAP, 1995), based on a nationwide consultation program identified the main national environmental issues, including those related to the water sector which EA practitioners should note. The main related national concerns included flood damage, river bank erosion, environmental degradation of water bodies, increased water pollution, shortage of irrigation water and drainage congestion; various specific regional concerns were also identified.

Bangladesh Wildlife (Preservation) Order, 1973 (Amended in 1994)

The Bangladesh Wildlife (Preservation) Order makes provisions for the safety of wildlife, particularly those vulnerable to extinction. It has provisions for the establishment of 'wild life sanctuaries', banning hunting of certain species, banning 'game reserves' and provision for special permits to keep and care for certain types of animals. Schedule III to the statute includes a list of animals that are declared as protected animals, which shall not be hunted, killed or captured. The maximum penalty for any offence committed under this statute is two years' imprisonment and a maximum fine of 10,000 taka.

The Government of Bangladesh under the provisions of the Act, has established three categories of protected areas being National Parks, Wildlife Sanctuaries and Game Reserves. In addition to these, the Government of Bangladesh has declared 14 protected areas and is considering declaring more. Further, the Government of Bangladesh has recently declared six areas as Ecologically Critical Areas under the Environmental Conservation Act 1995.

National Conservation Strategy (NCS), 1992 (updated 2016)

The National Conservation Strategy (NSC) was drafted in late 1991 and submitted to the Government in early 1992.

In 2016, the NCS was updated by Bangladesh Forest Department with support from International Union for Conservation of Nature.

Wetland Policy, 1998 (Draft)

The Policy is relevant to the Project because it seeks to:

- Conserve wetlands to sustain their ecological and socio-economic functions and further sustainable development;
- Establish key principles for wetland sustainability and unsustainable practices;
- Maintain existing levels of biodiversity;

- Maintain wetland functions and values; and
- Actively promote integration of wetland functions in resources management and economic development decision taking.

National Water Policy, 1999

The National Water Policy promulgated in 1999 with the intension of guiding both public and private actions in the future for ensuring optimal development and management of water that benefit both individuals and the society at large. The policy aims to ensure progress towards fulfilling national goals of economic developments, poverty alleviation, food security, public health and safety, decent standard of living for the people and protection of natural environment. According to the policy, all agencies and departments entrusted with water resource management responsibilities (regulation, planning, construction, operation, and maintenance) will have to enhance environmental amenities and ensure that environmental resources are protected and restored in executing their tasks. Environmental needs and objectives will be treated equally with the resources management needs.

The policy has several clauses related to the protection and prevention of the natural environment for ensuring sustainable development. Some of the relevant clauses are:

Clause 4.5b: Planning and feasibility studies of all projects will follow the Guidelines for Project Assessment, the Guidelines for People's Participation (GPP), the Guidelines for Environmental Impact Assessment, and all other instructions that may be issued from time to time by the Government.

Clause 4.9b: Measures will be taken to minimize disruption to the natural aquatic environment in streams and water channels.

Clause 4.9e: Water development plans will not interrupt fish movement and will make adequate provisions in control structures for allowing fish migration and breeding.

Clause 4.10a: Water development projects should cause minimal disruption to navigation and, where necessary, adequate mitigation measures should be taken.

Clause 4.12a: Give full consideration to environmental protection, restoration and enhancement measures consistent with National Environmental Management Action Plan (NEMAP) and the National Water Management Plan (NWMP).

Clause 4.12b: Adhere to a formal Environmental Impact Assessment process, as set out in the EIA guidelines and manuals for water sector projects, in each water resources development project or rehabilitation program of size and scope specified by the Government from time to time.

Clause 4.12c: Ensure adequate upland flow in water channels to preserve the coastal estuary ecosystem threatened by intrusion of salinity from the sea.

Clause 4.13b: Only those water related projects will be taken up for execution that will not interfere with aquatic characteristics of those water bodies.

National Safe Drinking Water Supply and Sanitation Policy 1998

National Safe Drinking Water Supply and Sanitation Policy (NSDWSSP 1998) sets out the basic framework for the improvement of public health quality and to ensure improved environment, together with a set of

broad sectoral action guidelines. The draft policy offered various objectives to achieve the goal and these are:

- To manage water supply and sanitation related basic needs for all.
- To bring the positive change of peoples' attitudes regarding water and sanitation.
- To reduce the outbreak of water borne diseases.
- To increase the efficiency of the Local Government and associated community for handling more effectively the problems related to water supply and sanitation.
- To improve sustainable water supply and sanitation system.
- To ascertain proper conservation, management and use of surface water and to control water pollution due to the scarcity of underground water.
- To take necessary steps to use and conserve rain water.

National Water Management Plan, 2001 (Approved in 2004)

The National Water Resources Council approved on March 31, 2004 a 25-year National Water Management Plan. The plan provides a framework within which all concerned with the development, management and use of water resources water services in Bangladesh can plan and implement their own activities in a coordinated and integrated manner. The planned activity programs have been presented in the eight sub-sectoral clusters: i) Institutional Development, ii) Enabling Environment, iii) Main River, iv) Towns and Rural Areas, v) Major Cities; vi) Disaster Management; vii) Agriculture and Water Management, and viii) Environment and Aquatic Resources. Each cluster comprises of a number of individual programs, with overall a total of 84 sub-sectoral programs identified and presented in the investment portfolio. It was planned to implement in three phases. It was approved at the seventh meeting of the National Water Resources Council. It calls for a coordinated approach of concerned ministries and departments to stop water-logging and to incorporate the issues of arsenic mitigation, river administration, and dredging and fisheries resources. To mitigate the environmental risks of water sector project development, the plan suggested for a holistic view, which includes the environment itself as an important water sector stakeholder with an entire cluster of programs devoted to it. Furthermore, programs within the environment cluster are strategically timed in order that public awareness raising, the establishment and enforcement of regulatory mechanisms and long term planning are addressed as priority. Water Resources Planning Organization (WARPO) was assigned to monitor the national water management plan.

The National Fisheries Policy, 1999

The National Fisheries Policy, 1999 was formulated following review and intent of the East-Bengal Protection and Conservation of Fish Act 1950, which was updated by the Protection and Conservation of Fish (Amendment) Ordinance 1982 and further refined by the Protection and Conservation of Fish (Amendment) Act 1995. These Acts and ordinance provide provisions for the protection and conservation of fish in fresh water and brackish water bodies.

The Fisheries Policy highlights the need to conserve fish breeding grounds and habitats, especially in the development of water management infrastructure. It intends to promote fisheries development and conservation in all water bodies.

The Project should consider these policies to protect the habitats, migration and connectivity of fish and fisheries resources around the Project area. Measures to reduce any potential negative impacts on local fish populations will be incorporated into all stages of the Project.

The Protection and Conservation of Fish Rules, 1985

The Protection and Conservation of Fish Rules 1985 are a set of rules in line with the overall objectives of the East-Bengal Protection and Fish Conservation Act. The Rules require that “no person shall destroy or make any attempt to destroy any fish by explosives, gun, bow and arrow in inland waters or within coastal waters”. Further, the Rules states “...no person shall destroy or make any attempt to destroy any fish by poisoning of water or the depletion of fisheries by pollution, by trade effluents or otherwise in inland waters”.

The Project will comply with these rules by enacting appropriate mitigation measures to reduce the potential for pollution of waterways, depletion of fisheries or disturbance of fish populations within the Project area.

National Agricultural Policy, 1999

The overall objective of the National Agriculture Policy is to make the nation self-sufficient in food through increasing production of all crops including cereals and ensure a dependable food security system for all. One of the specific objectives of National Agricultural Policy is to take necessary steps to ensure environmental protection as well as „environment-friendly sustainable agriculture. Through increased use of organic manure and strengthening of the integrated pest management program. The policy also suggests creating awareness so that the chemical fertilizers and pesticides used for increased crop production do not turn out to be responsible for environmental pollution. Water logging and salinity are identified as one of the serious problem in some parts of the country including the coastal areas for agricultural activities and environmental damage. The policy recommends for crop rotation and salt tolerant crop varieties.

The Embankment and Drainage Act, 1952

The *East Bangle Act No. 1, 1953* was amended in 1953 which has been adapted by the People Republic of Bangladesh, by the Bangladesh Order (adaptation of Existing Laws), 1972 (President’s Order No. 48 of 1972). The Act consolidates the laws relating to embankments and drainage providing provision for the construction, maintenance, management, removal and control of embankments and water courses for the better drainage of lands and for their protection from floods, erosion or other damage by water.

The specific Sections and Articles relevant to the Project are mentioned below:

- Section 4 (1) of the Act states that the embankment, water-course, and tow-path, earth, pathways, gates, berms and hedges of the embankments shall vest in the Government of the Authority (BWDB).
- Section 56 (1) states that, person will be subject to penalty (500 taka or imprisonment... if he erects, or causes or willfully permits to be erected, any new embankment, or any existing embankment, or obstructs or diverts, or causes or willfully permits to be obstructed or diverted, any water course.

- Section 15 allows for the engineer (engineer in charge of Divisional level BWDB) for constructing new embankment or enlarging, lengthening or repairing existing embankments.
- The other sections of the Act give powers and access to the Government or Authority or Engineers to commence necessary Project activities, for land acquisition (through the Deputy Commissioner), and site clearing activities including removal of trees or houses (if necessary).

Bangladesh Climate Change Strategy and Action Plan

The GOB also prepared the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2008 and revised in 2009. This is a comprehensive strategy to address climate change challenges in Bangladesh. Bangladesh Climate Change Strategy and Action Plan built on and expanded the NAPA. It is built around the following six themes:

- **Food security, social protection and health** to ensure that the poorest and most vulnerable in society, including women and children, are protected from climate change and that all programs focus on the needs of this group for food security, safe housing, employment and access to basic services, including health.
- **Comprehensive disaster management** to further strengthen the country's already proven disaster management systems to deal with increasingly frequent and severe natural calamities.
- **Infrastructure** to ensure that existing assets (e.g., coastal and river embankments) are well maintained and fit for purpose and that urgently needed infrastructure (cyclone shelters and urban drainage) is put in place to deal with the likely impacts of climate change.
- **Research and Knowledge management** to predict that the likely scale and timing of climate change impacts on different sectors of economy and socioeconomic groups; to underpin future investment strategies; and to ensure that Bangladesh is networked into the latest global thinking on climate change.
- **Mitigation and low carbon development** to evolve low carbon development options and implement these as the country's economy grows over the coming decades.
- **Capacity building and Institutional strengthening** to enhance the capacity government ministries, civil society and private sector to meet the challenge of climate change.

Bangladesh Water Act, 2013

The Act 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

The rules provide 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.

Bangladesh Biodiversity Act, 2017

The Act 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.

Standing Orders on Disaster 1999

The Standing Orders on Disaster is designed to enhance capacity at all tiers of government administrative and social structures for coping with and recovering from disasters. The document contains guidelines for construction, management, maintenance and use of cyclone shelter. Accordingly, to the guideline, geographical information system (GIS) technology will be applied at the planning stage to select the location of cyclone shelter considering habitation, communication facilities, distance from the nearest cyclone centre, etc. The advice of the concerned District Committee is to be obtained before final decision. The cyclone shelters should have easier communication facilities so that in times of distress delay does not occur to go there. For this reason, the road communication from the cyclone shelters should not only link up with city or main road but also with neighboring village areas. Provision of emergency water, food, sanitation and shelter space for livestock during period should also be kept in view for future construction of shelters.

ANNEX G: Environmental Code of Practices (ECOPs)

ECOP - 1.0: Project Planning & Design

General

This code of practice details the factors to be considered during project preparation to avoid/address environmental concerns through modifications in project design and incorporation of mitigation measures.

Finalization of Alignment/Project Location

- Adequate consultations with the communities to identify the concerns and preferences need to be taken up during selection of the alignment.
- Alignment shall conform to the natural topography as far as possible to avoid excessive cut and fill.
- Special care should be taken to align the roads along the hill side which is stable and where cutting on hill side causes least disturbance.
- Consultations with the local communities are to be conducted to obtain their suggestions and incorporate their concerns to address the potential environmental impacts.
- In case of flood prone areas and/or areas with very flat slopes, hydrological surveys have to be conducted before alignment finalization.

Environmental Considerations

Environmental considerations for various activities and sub-activities in the project are

- i. Trees
- ii. Forests
- iii. Natural Habitats/Bio-diversity
- iv. Top soil
- v. Borrow areas
- vi. Drainage lines/Rivers/water crossings
- vii. Agriculture lands
- viii. Flood prone areas
- ix. Irrigation water courses
- x. Water bodies
- xi. Grazing lands
- xii. Cultural properties
- xiii. Community facilities
- xiv. Dust pollution
- xv. Water pollution
- xvi. Waste pollution, etc.

Environmental concerns of the community shall be incorporated to the extent possible in the project preparation and in the subsequent stages of the project.

Compliance to Legal Requirements

The document shall include the various applicable clearances pertaining to environmental management and shall contain the necessary procedures for compliance of the same.

ECOP - 2.0: Site Preparation:

General

The preparation of site for construction involves:

- i. Marking and clearance of the required project area of all encroachments by the PIU prior to mobilization of Contractor;
- ii. Informing the local community about construction schedule and
- iii. Site preparation by the contractor prior to commencement of construction. Scope of this ECoP includes only the measures to address environmental concerns expected during the site preparation.

Site Preparation Activities by the PIO/SAE

- Informing the community and local village councils about the likely schedule of construction
- After obtaining the consent of the community the PIO/SAE shall be responsible to stake out the subproject locations.

Site Preparation Activities by the Contractor

- The contractor shall submit the schedules and methods of operations for various items during the construction operations to the PIO/SAE for approval.
- The clearance of site shall involve the removal of all materials such as trees, bushes, shrubs, stumps, roots, grass, weeds, part of topsoil and rubbish. Towards this end, the Contractor shall adopt the following measures:
 - i. Limiting the surface area of erodable earth material exposed by clearing and grubbing
 - ii. Conservation of top soil and stock piling as per the provisions of specifications or ECoP-4.0, "Topsoil Salvage, Storage and Replacement" and
 - iii. Carry out necessary backfilling of pits resulting from uprooting of trees and stumps with excavated or approved materials to the required compaction conforming to the surrounding area.
- To minimize the adverse impact on flora and vegetation, only ground cover/shrubs that impinge directly on the permanent works shall be removed.
- In locations where erosion or sedimentation is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion and sedimentation control features can follow immediately, if the project conditions permit.
- The disposal of wastes shall be in accordance with the provisions of ECoP-6.0, "Waste management". The following precautions shall be adopted:
 - i. The waste generated shall not be disposed off in watercourses, to avoid hindrance to the flow, and
 - ii. All necessary measures shall be taken while working close to cross drainage channels

- All regulatory clearances shall be obtained before actual start of work

ECoP - 3.0: Borrow Areas

General

Embankment or filling material is to be procured from borrow areas designated for the purpose. The scope of this ECoP extends to measures that need to be incorporated during borrow area identification, material extraction and rehabilitation with regard to environment management.

Pre-construction Stage

The contractor shall identify the borrow area locations in consultation with the owners, after assessing the suitability of the material. The suitable sites shall be selected and finalized in consultation with the PIO/SAE.

Construction Stage

The contractor should adopt the following precautionary measures to minimise any adverse impacts on the environment:

- Borrow pits situated less than 0.8 km (if unavoidable) from villages and settlements should not be dug for more than 30 cm after removing 15cm of topsoil and should be drained.
- The Contractor shall maintain erosion and drainage control in the vicinity of all borrow pits and make sure that surface drains do not affect the adjacent land or future reclamation.
- In case the borrow pit is on agricultural land, the depth of borrow pits shall not exceed 45 cm and may be dug out to a depth of not more than 30 cm after stripping the 15 cm top soil aside.
- In case of riverside, borrow pit should be located not less than 15m from the toe of the bank, distance depending on the magnitude and duration of flood to be withstood.

Post Construction Stage

It needs to be ensured that all reclamation has been carried out in accordance with the redevelopment plan. Certificate of Completion of Reclamation is to be obtained by the Contractor from the landowner that "the land is restored to his satisfaction". The final payment shall be made after the verification by PIO.

ECoP - 4.0: Top-soil Salvage, Storage and Replacement

General

Loss of topsoil is a long term impact along SNSP subprojects due to

- Site clearance and excavation for road, markets, embankment and other infrastructures
- Development of borrow areas
- Temporary construction activities as material storage locations, diversion routes etc.

Scope of this ECoP includes removal, conservation and replacement of topsoil.

Pre-construction Stage

The arrangements for temporary usage of land, borrowing of earth and materials by the Contractor with the land owner shall include the conservation/preservation of topsoil.

Construction Stage

- The stockpiles for storing the topsoil shall be designed such that the slope does not exceed 1:2 (vertical to horizontal), and the height of the pile is restricted to 2m.
- In cases where the topsoil has to be preserved for more than a month, the stockpile is to be stabilized within 7 days. The stabilization shall be carried out through temporary seeding. It consists of planting rapid-growing annual grasses or small grains, to provide initial, temporary cover for erosion control.
- After spreading the topsoil on disturbed areas, it must be ensured that topsoil is seeded, and mulched within 30 days of final grading.
- During construction, if erosion occurs from stockpiles due to their location in small drainage paths, the sediment-laden runoff should be prevented from entering nearby watercourses.
- The Contractor shall preserve the stockpile material for later use on slopes or shoulders

Post Construction Stage

- The topsoil shall be re-laid on the area after taking the borrow earth to maintain fertility of the agricultural field, finishing it to the required levels and satisfaction of the farmer.
- All temporary arrangements made for stockpile preservation and erosion control are to be removed after reusing the stockpile material.

ECOP - 5.0: Slope Stability and Erosion Control

General

- Stability of slopes is a major concern in hill areas and locations of high embankment.
- Soil erosion is consequent to high runoff on hill slopes, high wind velocities cause erosion of embankments made up of cohesion-less sandy soils.
- Embankments made up of silty and sandy soils are eroded, in the absence of vegetative cover, when the slopes are steep, say more than 20 degrees.
- Erosion control is provided to prevent soil damage done by moving water.
- The scope of this ECoP includes measures to minimize the adverse environmental impacts on slope stability and soil erosion due to the construction of embankments. The adverse environmental impact can be:
 - i. damage to adjacent land,
 - ii. silting of ponds and lakes disturbing the aquatic habitat
 - iii. erosion of rich and top fertile top layer of soil
 - iv. contamination of surface water bodies and
 - v. reduction in road formation width due to erosion of shoulders/berms.

Pre-construction Stage

- Interceptor ditches are constructed in hill areas to protect the road bench and hillside slope from erosion due to heavy rainfall and runoff.
- Interceptor ditches are very effective in the areas of high intensity rainfall and where the slopes are exposed.

Construction Stage

- The vegetative cover should be planted in the region where the soil has the capacity to support the plantation and at locations where meteorological conditions favours vegetative growth.
- On side slopes in hills, immediately after cutting is completed and debris is removed, vegetative growth has to be initiated by planting fast growing species of grass.
- In regions of intensive rainfall, locations of steep slopes, regions of high soil erosion potential and regions of short growing seasons, erosion control matting should be provided.
- Adequacy of drainage for erosion control

Post Construction Stage

All the exposed slopes shall preferably be covered with vegetation using grasses, brushes etc. Locally available species possessing the properties of (i) good growth (ii) dense ground cover and (iii) deep root shall be used for stabilization.

ECOP - 6.0: Waste Management

General

This code of practice describes procedures for handling, reuse and disposal of waste materials during construction. The waste materials generated can be classified into

- i. Construction Waste and
- ii. Domestic waste.

Pre-construction Stage

- The contractor shall identify the activities during construction that have the potential to generate waste and work out measures for the same in the construction schedule.
- The Contractor shall educate his workforce on issues related to disposal of waste, the location of disposal site as well as the specific requirement for the management of these sites.

Construction Stage

- The contractor shall either re-use or dispose the waste generated during construction depending upon the nature of waste.
- Wastes that could not be re-used shall be disposed safely by the contractor.
- The waste management practices adopted by the Contractor shall be reviewed by the PIO/SAE during the progress of construction.

Post Construction Stage

- After decommissioning of construction sites, the Contractor shall hand over the site after clearing the site of all debris/wastes to the PIO/SAE.
- In case of disposal of wastes on private land, certificate of Completion of Reclamation is to be obtained by the Contractor from the landowner that “the land is restored to his satisfaction”.

ECOP - 7.0: Water Bodies

General

Water bodies may be impacted when the subproject activities are adjacent to it or the runoff to the water body is affected by change of drainage pattern due to construction of embankment. The following activities are likely to have an adverse impact on the ecology of the area:

- i. Earth moving
- ii. Removal of vegetation
- iii. Waste disposal from construction works

Pre-Construction Stage

When there is interruption to regular activities of villagers near water body due to construction or rehabilitation work, following are the Contractor’s responsibilities:

- i. Restriction on use of water during construction, if any, should be intimated to the community in advance.
- ii. Alternate access to the water body is to be provided in case there is interruption to use of exiting access.
- iii. If the water body affected is a drinking water source for a habitation, alternate sources of water are to be provided to the users during the period for which its use is affected.

Construction Stage

- It should be ensured by the contractor that the runoff from construction site entering the water body is generally free from sediments.
- Silt/sediment should be collected and stockpiled for possible reuse as surfacing of slopes where they have to be re-vegetated.
- Cutting of embankment reduces the water retention capacity and also weakens it, hence:
 - i. The contractor should ensure that the decrease in water retention should not lead to flooding of the construction site and surroundings causing submergence and interruption to construction activities.
 - ii. Any perceived risks of embankment failure and consequent loss/damage to the property shall be assessed and the contractor should undertake necessary precautions as provision of toe protection, erosion protection, sealing of cracks in embankments. Failure to do so and consequences arising out of embankment failure shall be the responsibility of the contractor. The PIO/SAE shall monitor regularly whether safe construction practices near water bodies are being followed.
- Alternate drain inlets and outlets shall be provided in the event of closure of existing drainage channels of the water body.

- Movement of workforce shall be restricted around the water body, and no waste from construction sites shall be disposed into it.

Post Construction Stage

- The precincts of the water body have to be left clean and tidy with the completion of construction.
- PIO/SAE will check if drainage channels of adequate capacity have been provided for the impacted water body.

ECoP – 8.0: Water Quality

General

- Small-scale road construction, irrigation, small scale drainage, and small scale embankment construction may affect the aquatic environment, by lowering or raising water levels, and decreasing water quality.
- Deterioration of water quality and disturbance of aquatic environment by lowering or raising of water levels.

Pre-Construction Stage

Following measures are to be undertaken by the contractor prior to the commencement of construction:

- Base line data of the water quality is necessary.
- In addition, the availability of enough water during the lean season needs to be assessed as part of the baseline data collection.

Construction Phase

- Improper disposal of solid and liquid waste including excreta generate from sites will pollute the water quality and proper prevention measure should be taken.
- Waste water disposal, sanitation/latrines may have positive cumulative effects on human health, but if not improperly implemented may affect ground and surface and ground water quality; the contractor should give proper attention on it during construction stage.
- Protect water bodies from sediment loads by silt screen or bubble curtains or other barriers.

Post Construction

- Inspection of water quality shall be done regularly.

ECoP - 9.0: Drainage

General

- Drainage is designed for and installed on roads to direct surface or subsurface flow away to a safe outfall without damage to the structure, adjoining property or agricultural fields.
- A road with good drainage is a good road. Inadequate and faulty drainage arrangements result in obstruction to natural drainage pattern. Provision of cross-drainage and longitudinal drainage increases the life of the road and consequently reduces water logging and related environmental impacts.
- The present code seeks to address the environmental concerns related to drainage aspects during different stages of the project execution.

Pre-Construction Stage

- Following measures are to be undertaken by the contractor prior to the commencement of construction:
 - i. The downstream as well as upstream user shall be informed one month in advance
 - ii. The contractor shall schedule the activities based on the nature of flow in the stream.
 - iii. The contractor should inform the concerned departments about the scheduling of work. This shall form part of the overall scheduling of the civil works to be approved by PIO/SAE.
 - iv. Erosion and sediment control devices if site conditions so warrant, are to be installed prior to the start of the civil works.
 - v. All the safety/warning signs are to be installed by the contractor before start of construction
- In case of utilization of water from the stream, for the construction, the contractor has to take the consent from the concerned department.

Construction Phase

- Drainage structures at construction site shall be provided at the earliest to ensure proper compaction
- In hill areas sub-surface drains, if required, shall be provided immediately after cutting the slopes and forming the roadbed (sub grade).
- Safety devices and flood warning signs to be erected while working over streams and canals.

Post Construction

- Inspection and cleaning of drain shall be done regularly to remove any debris or vegetative growth that may interrupt the flow.
- Temporary structures constructed during construction shall be removed before handing over to ensure free flow through the channels.

ECoP - 10.0: Public and Worker's Health and Safety (H&S)

General

The safety and health of the workers and the public is impacted due to the hazards created during the construction period. This code of practice describes the measures that need to be taken to mitigate the impacts.

Pre-construction Stage

- In order to incorporate public health and safety concerns, the PIO/SAE and the Contractor shall disseminate the following information to the community:
 - i. Location of subproject activities,
 - ii. Burrow areas,
 - iii. Extent of work
 - iv. Time of construction
 - v. Involvement of local labours in the road construction
 - vi. Health issues - exposure to dust, communicable diseases etc.
- The Contractor must bring awareness to the workers to undertake the health and safety precautions. Through regular meetings, as may be necessary, contractor shall generate awareness amongst the workers.

Construction Stage

- The Contractor shall schedule the construction activities taking into consideration factors such as:
 - i. Sowing of crops
 - ii. Harvesting
 - iii. Local hindrances such as festivals etc.
 - iv. Availability of labour during particular periods
- The PIO/SAE shall carry out periodic inspections in order to ensure that all the measures are being undertaken as per this ECoP.

Post-construction Stage

The construction site shall be cleaned of all debris, scrap materials and machinery on completion of construction for the safety of public and users.

ECoP – 11.0: Fertilizer Production

General

In the past, pesticides were considered as the ‘panacea’ for the control of agricultural pests. Although pesticides may provide temporary relief, it is now widely accepted that indiscriminate and excessive use of pesticides and the long-term dependency on them threaten the sustainability of agricultural production. In this context Bangladesh Government has developed Integrated Pest management (IPM) which includes elements contributing to an effective, safe, sustainable and economically sound crop protection system. It is not limited to pest management system alone.

The objective of the IPM policy is:

‘To enable farmers to grow healthy crops in an increased manner and thereby increase their income on a sustainable basis while improving the environment and community health’.

To achieve the above mentioned objective, IPM Policy will pursue the following strategies:

- to expand IPM on a sustainable basis by establishing a national IPM programme; and
- to facilitate co-ordination of all IPM activities in Bangladesh.

In order to protect the environment from the adverse effects of fertilizers and to enhance the sensible use of pesticides the national IMP policy has the following components.

- Maintaining ecological balance
- Executing appropriate actions on pesticides
- Operating an effective system for implementing the national IPM programme
- Developing human resources as the core of IPM
- Conducting research on IPM

In particular, the code aims to ensure that such fertilizers are used according to the national IMP objectives/policy/components and safely, responsibly and effectively, while avoiding or minimizing adverse environmental effects.

The objectives are:

- to provide a simple yet effective process for nutrient management,
- to promote practices that ensure sustainable and economically viable use of fertiliser, and
- to provide users with information on sustainable nutrient management.
- to help support business owners (farmers and growers) to achieve their production and environmental goals for nutrient management.

Fertilizer Handling

Fertilizer handling, transport, or storage should aim for containment of the product until it is applied. This means that no fertilizer should be lost to the environment during transport, storage and any other handling operations, thus avoiding any possible adverse environmental effects. Contamination arising from handling, transport, or storage problems is a point source (i.e. highly localized) contamination, which can be effectively managed and contained if appropriate actions are taken immediately.

Fertilizer Storage

Storage conditions shall ensure that fertilizer is never contaminated with other chemicals or chemical products, and that fertilizer does not escape from the storage facility. Some stores may also need to provide appropriate signage. Fertilizer storage buildings shall be sited to minimise any risk of environmental contamination. In particular, storage sites must not present a risk of direct water contact with stored fertilizer. This includes the entry of storm water or runoff from surrounding areas.

Fertilizer buildings shall be constructed so that stored fertilizer remains in a useable condition. In particular, fertilizer should stay dry and free from contamination by other fertilizer types. The fertilizer shall be stored on an impermeable surface to prevent leaching to groundwater and to prevent the localized accumulation of contaminants in the soil.

Potential Impacts

The nutrients contained in fertilizers will not only promote the growth of crops but also of wild plants, weeds as well as algal and aquatic plants in rivers, lakes and the ponds. The general levels of nutrients in

excess of those normally present in natural ecosystems will result in considerable disturbance to plant and animal communities, and these may be undesirable from the viewpoint of conservation, aesthetics, or recreation. Damage usually results from nitrogen and phosphorus in excess.

The anticipated impacts due to subprojects for the organic fertilizer production and uses are given below

- Generation of odor from fertilizer production
- Under fertilization, results in soil nutrient depletion and soil erosion,
- Over application, increases levels of nitrate in ground and high ammonia emissions from agriculture,
- Leaching due to choice of fertilizer type, increases the optimum rate, improper timing and method of application

Mitigation Measures

There are a number of mitigation and management options that can be implemented. Some key considerations are given below.

- Requirement for fertilizer plans.
- Preventing the leaching of nutrients after the growing season by increasing the area under green cover, and by sowing crops with elevated nitrogen demand
- Promoting and subsidizing better application methods, developing new, environmentally sound fertilizers, and promoting soil testing.
- Severely limiting the use of fertilizers in for example, water extraction areas and nature protection areas.
- Take appropriate pollution prevention and control measures.
- Prediction evaluation, and monitoring of impacts
- Inclusion of appropriate engineering, monitoring and management controls.
- Sitting process
- Application of EMS
- Proper handling, management of hazardous material,
- Use of cleaner production.

ECOP - 12.0: Tree Plantation

General

Besides improving aesthetics and ecology of the area, the trees provide fuel wood, act as noise barriers, provide visual screen for sensitive areas and also generate revenue by sale of its produce.

This code of practice elaborates on the approach towards planting trees. Emphasis has been laid on a greater involvement of communities in planting and maintenance of trees.

Project Planning and Design Stage

- Tree felling, if unavoidable, shall be done only after compensatory plantation of at least three saplings for every tree cut is done.

- The species shall be identified in consultation with officials of forest department/local community, giving due importance to local flora. It is recommended to plant mixed species in case of both avenue or cluster plantation.
- The plantation strategy shall suggest the planting of fruit bearing trees and other suitable trees.

Post-construction Stage

- The project proponents would take up the planting of fruit bearing and other suitable trees, on both sides of the roads or other subprojects location from their own funds.
- Watering of trees during the initial period of two to three years shall be the responsibility of the Union Parishad (UP) or the agency designated by it.

ECoP - 13.0: Environmental Monitoring

General

Environmental Monitoring provides a systematic review of planning, designing, construction practice and operation activities that may have adverse impact on the surrounding environment. Environmental monitoring enables identification of:

- i. Degradation/improvement of surrounding ecology
- ii. Damage to surrounding habitation and
- iii. Extent of compliance with ECoPs and other regulatory provisions
- PIO/SAE should assess whether construction activities comply with environmental standards and other regulatory requirements, by monitoring and conducting an Environmental Audit. These need to be carried out on a periodic basis.

Monitoring Procedure

- PIO shall be responsible for conduct of the periodical environmental monitoring. It will be conducted in phases corresponding to the phases of the project such as
 - Pre-Construction
 - Construction and
 - Post Construction.
- Concurrent audit can be undertaken along with quality assurance checks that need to be conducted by the PIO.

ECoP - 14.0: Natural Habitats

General

This code of practice envisages measures to be undertaken during implementation of SNSP subprojects near natural habitats. These measures shall be undertaken in addition to the measures laid down in the other ECoPs.

As per the World Bank OP 4.04, the conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. A precautionary approach

to natural resource management to ensure opportunities for environmentally sustainable development has been adopted for the project.

Pre-construction Stage

Contractor in consultation with forest ranger or any other concerned authority shall prepare a schedule of construction within the natural habitat. Due consideration shall be given to the time of migration, time of crossing, breeding habits and any other special phenomena taking place in the area for the concerned flora or fauna.

Construction Stage

- Collection of any kind of construction material from within the natural habitat shall be strictly prohibited.
- Disposal of construction waste within the natural habitat shall be strictly prohibited.

Post Construction Stage

- The subprojects near the natural habitat shall be declared as a silence zone.
- Compensatory tree plantation within the project area shall be done.
- The PIO/SAE must ensure maintenance of drainage structure as per ECoP-9.0, "Drainage".

ECoP - 15.0: Consultations for Environmental Aspects

General

All stages of project planning, preparation and implementation will involve interaction with the community. Consultations with community or other stakeholders are an integral part of the project activities. This ECoP is intended to provide guidelines for the contractor for conducting the consultations.

Pre-Construction Stage

Consultations during this stage will be towards seeking consent of landowners for excavation.

Construction Stage

- The grievance committee will settle any grievances raised by the community during this stage. If grievances remain unaddressed, they shall be referred to the concerned authority and shall be addressed as per the Grievance Redressed Mechanism devised in Chapter-8.
- The PIU shall consult the community in identifying people working for subprojects.

Post-Construction Stage

The PIO/SAE shall conduct consultation with the community on induced development aspects within the subprojects. Awareness on impacts likely due to induced development will be generated during the consultations. Measures to be undertaken for its control and avoid encroachments shall be discussed and necessary arrangements shall be undertaken.

ECOP - 16.0: Minimizing Human Elephant Conflicts

General

Since the influx of DRP, the chances of Human Elephant Conflicts (HECs) have risen in the Cox's Bazar area. IUCN in conjunction with UNHCR have undertaken initiatives to minimize the risks of HEC²⁹. This ECoP is intended to provide guidelines for the contractor to minimize HEC at their work sites.

Pre-Construction Stage

Consultations should be held with the local communities during this stage to understand if there have been any HEC or elephant sightings in the past 30 days.

Construction Stage

- If an elephant has been sighted at or near (within 200m) of the work site, then IUCN representative in Cox's Bazar should be alerted.
- Local Elephant Response Team (ERT) should be alerted.
- Workers should be instructed not to approach or interact with the elephant(s).

Post-Construction Stage

Work areas should be cleared to ensure that there are no chances of equipment or waste materials that can harm elephants.

²⁹ <https://www.iucn.org/news/bangladesh/201803/unhcr-iucn-launch-plan-prevent-human-elephant-conflict-bangladesh-refugee-settlement>