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Accelerating and Strengthening Skills for Economic Transformation (ASSET)

Project ID no: P167506

Technical and Madrasah Education Division (TMED)
Ministry of Education (MoE)

Environmental and Social Management Framework (ESMF)

November 2020

List of Acronyms

ADB	Asian Development Bank
AIDB	Asian Infrastructure Development Bank
AIIB	Asian Infrastructure Investment Bank
AP	Affected Person
ARAP	Abbreviated Resettlement Action Plan
ARIPA	Acquisition and Requisition of Immovable Property Act
ASA	Advisory Services and Analytics
ASSET	Accelerating and Strengthening Skills for Economic Transformation
BBS	Bangladesh Bureau of Statistics
BDT	Bangladeshi Taka
BEF	Bangladesh Employers Federation
BEPZA	Bangladesh Export Processing Zones Authority
BEZA	Bangladesh Economic Zones Authority
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BHTPA	Bangladesh Hi-Tech Park Authority
BMET	Bureau of Manpower, Employment and Training
BMP's	Best Management Practices
BN	Bangladesh Navy
BOD	Biological Oxygen Demand
BP	Bank Policy
BP	Bank Procedures
BSEC	Bangladesh Steel & Engineering Corporation
BSMSN	Bangabandhu Sheikh Mujib Shilpa Nagar
BTEB	Bangladesh Technical Education Board
BWDB	Bangladesh Water Development Board
CBO	Community Based Organization
CC	Climate Change
CCB	Climate Co-Benefits
CCL	Cash Compensation under Law
CE	Citizen Engagement
CEAP	Construction Environmental Action Plan
CG	Coast Guard
CHT	Chittagong Hill Tract
CIIA	Cumulative and Induced Impact Assessment
COD	Chemical Oxygen Demand
CPF	Country Partnership Framework
CPR	Common Property Resources
CPR	Common Property Resources
CSO	Civil Society Organizations
DA	Designated Account
DAE	Department of Agriculture Extension
DCRO	Deputy Chief Resettlement Officer
DDR	Due Diligence Report
DIA	Designated Implementing Agency

DIFE	Department of Inspection for Factories and Establishments
DoE	Directorate of Employment
DoF	Department of Fisheries
DoYD	Department of Youth Development
DPCC	District Project Coordination Committee
DPD	Deputy Project Director
DPs	Development Partners
DTE	Directorate of Technical Education
EA	Environmental Assessment
EC4J	Export Competitiveness for Jobs
ECA	Ecological Critical Area
ECA	Environmental Conservation Act
ECC	Environmental Clearance Certificate
ECoP's	Environmental Code of Practices
ECR	Environment Conservation Rules
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMF	Environmental Management Framework
EMIS	Environmental Management Information System
EMP	Environmental Management Plan
EMU	Environment Management Unit
EP	Entitled Person
ERP	Emergency Response Plan
ES	Environmental Screening
ESA	Environmental and Social Assessment
ESCP	Environmental and Social Commitment Plan
ESDU	Environmental Social Development Unit
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESR	Environmental Screening Report
ESS	Environmental and Social Standards
ETP	Effluent Treatment Plant
EU	European Union
EZs	Economic Zones
FAA	Flood affected area
FAO	Food and Agriculture Organization
FAP	Flood Action Plan
FGAP	Framework for Gender Action Plan
FGD	Focus Group Discussion
FLFP	Female Labor Force Participation
FM	Financial Management
FPIC	Free, Prior and Informed Consent
FSECDP	Framework for Small Ethnic Community Development Plan
FYP	Five Year Plan
GAP	Gender Action Plan
GBV	Gender Based Violence

GDP	Gross Domestic Products
GDR	General Department of Resettlement
GHAB	Galda Hatchery Association of Bangladesh
GHG	Greenhouse Gas
GMB	Ganges, Brahmaputra and Meghna
GoB	Government of Bangladesh
GPN	Good Practice Note
GRC	Grievance Redress Committee
GM	Grievance Mechanism
GRS	Grievance Redress Service
GTS	Graduate Tracer Survey
ha	Hectare
HH	House Hold
HIES	Household Income and Expenditure Survey
HTP	Hi-Tech Parks
IA	Information Access
ICT	Information & Communication Technology
ID	Identity
IDA	International Development Association
IDG	Institutional Development Grant
IDP	Institutional Development Plan
IE	Impact Evaluation
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IHT	Institute of Health Technology
ILO	International Labor Organization
IoL	Inventory of Loss
IP	Indigenous Peoples
IPDP	Indigenous Peoples Development Plan
IPF	Investment Project Financing
IPP	Indigenous Peoples' Plan
IPPF	Indigenous Peoples Planning Framework
IPVDCF	Indigenous/Tribal Peoples and other Vulnerable Community Development Framework
IRR	Internal Rate of Return
ISC	Industry Skills Councils
ITLOS	International Tribunal for Law of the Sea
IUU	Illegal, Unreported and Unregulated
IVC	Inventory Verification Committee
JCC	Joint Coordination Centre
JVC	Joint Verification Committee
L.O.A	Length Over All
LAO	Land Acquisition Officer
LAP	Land Acquisition Plan
LFS	Labor Force Survey
LGED	Local Government Engineering Department
LGI	Local Government Institution
LMIC	Lower-Middle Income Country
LMP	Labour Management Procedures

LMS	Land Market Survey
LRSP	Livelihood Restoration Support Plan
M	Motorized
M&E	Monitoring and Evaluation
MA	Medical Assistants
MATS	Medical Assistant Training School
MCS	Monitoring, Control and Surveillance
MEF	Ministry of Economy and Finance
MEFWD	Medical Education and Family Welfare Division
MIS	Management Information System
MoEFCC	Ministry of Environment, Forest and Climate Change
MoEWOE	Ministry of Expatriate Welfare and Overseas Employment
MoF	Ministry of Finance
MoFL	Ministry of Fisheries and Livestock
MoHA	Ministry of Home Affairs
MoHFW	Ministry of Health and Family Welfare
MoI	Ministry of Industry
MoLE	Ministry of Labor and Employment
MoLGRD&C	Ministry of Local Government, Rural Development and Co-operatives
MoRTB	Ministry of Road Transport and Bridges
MoU	Memorandum of Understanding
MPA	Multi-Phased Approach
MPO	Monthly Pay Order
MSME	Micro, Small and Medium-sized Enterprises
MT	Medical Technicians
MT	Metric Tonne
MWB	Minimum Wages Board
NARI	Northern Areas Reduction of Poverty Initiative
NATP	National Agricultural Technology Project
NEET	Not in Employment, Education or Training
NEP	National Education Policy
NGO	Non-Government Organization
NM	Non-Motorized
NOC	No Objection Certificate
NRS	National Resettlement Specialist
NSDA	National Skills Development Authority
NSDP	National Skills Development Policy
NTVQF	National Technical and Vocational Qualification Framework
O&M	Operation and maintenance
OFC	Optical Fiber Cable
OHS	Occupational Health and Safety
OHSC	Occupational health and Safety Circle/Cell
OHSM	Occupational health and safety management
OP	Operational Policy
PA	Protected Area
PAD	Project Appraisal Document
PAH	Project Affected Households
PAP’s	Project Affected Persons

PAU	Project Affected Unit
PAVC	Property Assessment and Valuation Committee
PBPA	Performance-Based Partnership Agreements
PCU	Program Coordination Unit
PD	Project Director
PDO	Project Development Objective
PIB	Public Information Brochure
PIC	Project Implementation Committee
PIU	Project Implementation Unit
PMIS	Project Management Information System
PMU	Project Management Unit
PPE	Personnel Protective Equipment
PPP	Public and Private Partnership
PPR	Project Progress Report
PPSD	Project Procurement Strategy for Development
PRA	Participatory Rural Appraisal
PRIDE	Private Investment and Digital Entrepreneurship
PSC	Project Steering committee
PTF	Per-Trainee Fee
PVAC	Property Valuation Advisory Committee
PWD	People with Disabilities
R&D	Research and Development
RAC	Resettlement Advisory Committee
RAP	Resettlement Action Plan
RCS	Replacement Cost Study
RCT	Randomized Control Trial
RHD	Roads and Highways Department
RMG	Ready-Made Garments
RPF	Resettlement Policy Framework
RPL	Recognition of Prior Learning
RTIP	Rural Transport Improvement Project
RTO	Registered Training Organization
RV	Replacement Value
SA	Social Assessment
SAE	Sub Assistant Engineer
SDE	Sub Divisional Engineer
SDG	Sustainable Development Goals
SDP	Skills Development Plans
SEA	Strategic Environmental Assessment
SEC	Small Ethnic Community
SECDP	Small Ethnic Community Development Plan
SECI	Social and Environmental Circle
SEMVPP	Small and Ethnic Minorities, Vulnerable Peoples Plan
SEP	Stakeholders Engagement Plan
SES	Socio-economic survey
SIA	Social Impact Assessment
SIMP	Social Impact Management Plan
SMF	Social Management Framework

SMP	Social Management Plan
STEP	Skills and Training Enhancement Project
TBD	To Be Determined
TDP	Tribal People Development Plan
TIG	Technical Implementation Group
TMED	Technical and Madrasah Education Division
TMIS	Training Management Information System
ToC	Table of Contents
ToR	Terms of Reference
TPDR	Technical Publication Deficiency Report
TPP	Tribal People Planning
TTC	Technical Training Center
TTTC	Technical Teacher Training College
TVET	Technical and Vocational Education and Training
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Conference on Law of the Sea
UPCC	Upazila Project Coordination Committee
USD	United States Dollar
VLD	Voluntary Land Donation
VTTTI	Vocational Technical Teacher Training Institute
WB	World Bank
WBG	World Bank Group
YC	Youth Center

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Executive Summary

Introduction

The Government of Bangladesh (GoB) through the Ministry of Finance (MoF) has requested the World Bank (WB) to support the preparation and implementation of the Accelerating and Strengthening Skills for Economic Transformation (ASSET) project with the Directorate of Technical Education (DTE) of Technical and Madrasah Education Division (TMED), Ministry of Education (MoE) as the lead implementing agency along with other partner implementing agencies (PIAs), as following: Bureau of Manpower, Employment and Training (BMET) of Ministry of Expatriate Welfare and Oversea Employment (MoEWOE); Directorate General of Medical Education (DGME) of Medical Education and Family Welfare Division (MEFWD), Ministry of Health and Family Welfare (MoHFW); and Ministry of Industry (MoI). The lead implementing agency (LIA), DTE, will be overall responsible for the implementation of the project activities, fiduciary management and safeguard compliance for all the sub-components. The PIAs will be implementing the sub-component/activities that are relevant to their respective areas/institutions under the overall management by the lead agency. The ASSET project will promote employment-oriented job market relevant high-quality skills development for a range of social and productive sectors and at long-term and short-term training institutions to produce high-level skills for greater economic modernization and labor productivity. It also supports expanding equitable access to skills development opportunities for vulnerable population especially marginalized women, poor and people with disability, and enhance skills development and recognition of workers in the informal sector. The project also supports capacity development for quality assurance and coordination at key agencies at the central level.

The project will be implementing during the fiscal year 2020-2021 to the 2025-26 for five years with the co-financing from International Development Association (IDA), World Bank and Govt. of Bangladesh. The project would also mobilize financial and technical resources from other Development Partners (DP). The project would leverage contributions from private sector partners both in terms of finance and expertise. Some of the industry associations have previous experience of working with the World Bank-funded projects.

This Environmental and Social Management Framework (ESMF) is needed to screen the environmental and social risks and impacts of the ASSET project activities and provide guidance to the implementing agencies in the preparation of specific assessments and plans for the subprojects during implementation, including implementation of any plans.

Description of the ASSET Project

The ASSET project will help Bangladesh build a highly skilled labor force in priority sectors, aligned to the future of work, and inclusive of women and disadvantaged groups. The project will contribute to achieving this goal by addressing the demand and supply sides of the skills eco-system together: (i) equipping youth and workers with skills that fit the future of work and better employment, and connecting them with the labor market more efficiently, (ii) shifting skills system to be responsive, agile, and demand-driven, and (iii) lifting the skills and labor market outcomes for women and the most disadvantaged groups.

The project will adopt a multi-sectoral program approach with an integrated implementation mechanism to address the critical issues of the skills eco-system holistically. The project will aim to address a range of critical development challenges of the skills development eco-system both from supply and demand sides and in different priority sectors. This will require the project to adopt a comprehensive systematic approach to encompass the whole skills eco-system. To this end, the project will utilize a project design and implementation mechanism that covers different relevant actors and partners from multiple sectors and on both supply and demand sides of the eco-system under one umbrella with an integrated implementing entity.

Project Components

The ASSET project has following components:

Component 0 [CERC] – Contingent Emergency Response Component
Component 1 [Fit] - Transforming Formal Skills Development for Future of Work, Inclusiveness, and Resilience
Sub-component 1.0: COVID-19 response actions to build resilience in the TVET sector
Sub-component 1.1: Strengthening graduate employability and inclusiveness of diploma courses for priority sectors
Sub-component 1.2: Expanding Market-Demanded and Inclusive Formal Short-Courses for Priority Sectors
Sub-component 1.3: Establishing an international standard model polytechnic institute
Component 2 [Shift] – Innovative Skills Development Programs for Employment and Empowerment
Sub-component 2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness
Sub-component 2.2: Recognizing the skills of informal sector workers
Component 3 [Lift] - Capacity Development, Project Management, Social Marketing and Monitoring & Evaluation
Sub-component 3.1: Enhancing the institutional capacity of central government agencies of the skills development system
Sub-component 3.2: Project Management, Social Marketing, M&E

Project Beneficiaries

The project will directly benefit more than one million students and workers, including women and the disadvantaged, and skills agencies and institutions at central and local levels. The primary direct beneficiaries of the project include (a) students in post-secondary TVET institutions, (b) unemployed youth (aged between 16 to 39 years) in the labor market, (c) employed and self-employed workers and professionals in priority sectors, and (d) disadvantaged groups such as vulnerable women, informal sector workers, low-income youths, ethnic minorities, and PWDs, in Bangladesh. These individuals will be trained with market-demanded skills through long-term and short-term training programs and will benefit from an increased chance of employment, improved quality of jobs, and social empowerment. The project will also benefit (e) public and private skills training institutions and teachers through capacity enhancement activities, including teacher professional development, better teaching & learning environment, more market-relevant curriculum, greater industry partnership, etc., and (f) central skills agencies through institutional capacity development. The project will indirectly benefit (g) firms and employers in priority sectors with the increased availability of better-skilled workers and employees who

will contribute to enhanced productivity. Inclusiveness will be ensured across all the beneficiary groups with a special focus on population most affected by COVID-19 impacts, women and other advantaged groups. The total number of direct beneficiaries of trainees and workers is estimated to be at least around 1.1 million over the project period.

Project Development Objectives (PDO)

The Project Development Objective (PDO) is **'to equip Bangladeshi youth and workers, including women and the disadvantaged, with skills demanded for the future of work and improved employment prospects'**.

Skills demanded for the future of work here refer to (i) skill areas for emerging occupations in priority areas identified by training providers; and (ii) skill areas identified by partner agencies in their sectors.

Equip refers to improving the quantity and quality of skills that individuals possess.

The disadvantaged refers to people who face significant social or economic vulnerabilities, including low-income workers, unemployed youths, people with disabilities, ethnic minorities, and microenterprise owners and workers.

The PDOs will be measured by the following outcome level indicators, and will be aheived over a 5-year period through a multi-stakeholders coordination approach:

1. Employment rates of graduates from project-supported short courses (% for female)
2. Employers' satisfaction level with the skills of graduates from project-supported diploma programs
3. Total number of vulnerable women and disadvantaged employed (trained, as a sub-indicator) (% of female)
4. Total number of trainees trained for skills needed for future of work (% of female)

Corporate results indicators to be included are (i) teachers trained and (ii) students benefiting from direct interventions to enhance learning. Both will be included as intermediate results indicators.

Project Location

The location of the ASSET project would be spread over all the districts and most of the sub-districts and would be located within the existing premises of the different training and skill development institutions of the implementing partners. The type of institutions are Polytechnics, other technical institutes, Technical School & Colleges (TSCs), Institutes of Marine Technology (IMT), Textile Institutes, Technical Training Centers (TTCs), Textile Vocational Institutes (TVIs), Bangladesh Industrial and Technical Assistance Center (BITAC), Small Cottage Industries Training Institute (SCITI), Industry Skills Councils (ISCs), Institute of Health Technology, Medical Assistant Training School and some local NGOs to be associated through Competitive Institutional Grant (CIG).

Application of GoB Policies, Acts and Rules on ASSET components and their Classification

The legislations relevant for environmental assessment for ASSET components are the Environmental Conservation Act 1995 (ECA'95) and the Environmental Conservation Rules 1997 (ECR'97). As per

ECR'97, most the components/sub-components and associated activities are likely to fall ranging under either Orange A or Orange B as has significant impact on the surrounding environmental and social components, likely to have negative environmental and social impacts demands both IEE and/or EIA. Overall, the proposed project is targeting to intervene a wide range of environmental and social elements covering a vast area of rural environment, with rehabilitation/construction of a number of small scale infrastructures and expansion/construction/rehabilitation of clinical/chemical/engineering labs may fall under the schedule 'Orange-A or Orange-B' based on ECR '97 of DoE. It is suggested that the project should conduct IEE for specified activities at the initial stage and based on IEE's recommendation, ESIA should be carried out for that activities (if recommended by DoE).

It is the responsibility of the PIU/DTE to conduct IEE and ESIA (if required) of the project activities, the responsibility to review IEE and ESIA for the purpose of issuing Environmental Clearance Certificate rests on DoE. The Department of Environment (DoE), the technical arm of the Ministry of Environment, Forests and Climate Change (MoEFCC) is the regulatory body and the enforcement agency of all environmental related activities. Like all other projects, this project also needs to meet the requirement of the DoE. ***The procedures for "Orange A and Orange B" Category include submission of:***

- An Initial Environmental Examination (IEE), and
- An Environmental and Social Impact Assessment (EIA), if prescribed by DoE, and
- An Environmental and Social Management Plan (EMP)

Environment clearance has to be obtained by the respective implementing agency or project proponent (private sector) from Department of Environment (DoE). The environmental clearance procedure for Orange-A and Orange-B Category projects can be summarized as follows:

Application to DoE→Obtaining Site Clearance→Applying for Environmental Clearance→Obtaining Environmental Clearance→Clearance Subject to Annual Renewal.

Application of WB ESSs

All ESSs will be applicable in the ASSET program, except the limited implication of ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, and irrelevancy of ESS 9: Financial Intermediaries, and WB's legal policies for Projects on International Waterways (OP 7.50); and Project Disputed Areas (OP 7.60). Considering the associated environmental and social risk, ASSET project has been classified as 'Moderate', as most of the impacts are localized and reversible in nature with or without mitigation.

Impact Assessment Methodology

The assessment of effects and identification of residual impacts takes account of any incorporated mitigation measures adopted due to any anticipated potential impact of Project activities, and will be largely dependent on the extent and duration of change, the number of people or size of the resource affected and their sensitivity to the change. Potential impacts can be both negative and positive (beneficial), and the methodology defined below will be applied to define both beneficial and adverse potential impacts. The criteria for determining significance are generally specific for each environmental and social aspect but generally the magnitude of each potential impact is defined along with the sensitivity of the receptor.

Potential Key Environmental and Social Impacts

Environmental and Social Risk Classification (ESRC) of the ASSET project has been rated as 'Moderate', as most of the impacts are negligible, short term, site specific and mitigatable. Environmental assessment study i.e. IEE/ESIA should modify and further detail out this analysis as applicable, based on professional judgment and public consultations.

Major tasks with environmental risks and impacts mainly during construction include (i) establishing an international-level model diploma training programs (ii) vertical extension of Department of Technical Education office (iii) rehabilitation/renovation/refurbishment of existing building, classrooms, workshops, and library, (iv) updating and enhancement of workshop and laboratory facilities of public Technical Training Centers (TTCs), (v) construction of female dormitories and /or sanitation facilities at the polytechnics and (vi) Establishment of an automotive research institute under BSEC.

In operation phase, solid and liquid waste will be generated from regular operation and maintenance activities of the constructed/ renovated infrastructures. Hazardous waste will also be generated from different laboratories/ workshops/training labs. Besides, medical waste would also be generated from the established medical training institutions. This waste, if not appropriately disposed, has a potential to contaminate soil and water resources, thus negatively affecting community's health as well as natural habitat. Standard lab and workshop safety protocol should be followed (e.g. WHO's Laboratory Safety Guideline) during operation period.

Potential Environmental and Social Impacts Related to Project Siting

- Site Specific Land Cover and Land Use Changes (ESS 1, 3, 6)
- Loss of trees (ESS 6)
- Loss of aquatic habitat (ESS 1, 3, 6)
- Drainage congestion and water logging (ESS 1, 3, 4)
- Impacts on Vulnerable and disadvantage groups/communities/individuals (ESS1)

Potential Environmental and Social Impacts during Project Implementation

- Air Pollution (ESS 1, 3, 4, 6)
- Noise Pollution (ESS 1, 3, 4)
- Water Pollution (ESS 1, 3, 4, 6)
- Impacts of Land Filling (at new construction site) (ESS 1, 3, 4, 6)
- Soil Contamination (ESS 1, 3, 4, 6)
- Generation of Solid Waste and Hazardous Waste (Including Medical Wastes) (ESS 1, 3, 4, 6, 8)
- Impacts on Homestead Biodiversity (ESS 1, 3, 6)
- Site Clearance and Restoration (ESS 1, 2, 4, 6)
- Occupational Health (ESS 1, 2, 4)
- Occupational Safety (ESS 1, 2, 4)
- Impacts on Livelihoods and Income (ESS1)
- Impact on labor, working Conditions and labor risks, including risks of child labor and forced labor, human trafficking (ESS 2)

- Impact Associated with on Campus Living Condition (GVB, Social Security, Sanitation and Health-Hygiene)
- Impact on creating social discrimination for the most disadvantaged groups, vulnerable women/youth/disabled persons
- Involuntary Resettlement Impacts (ESS 5)
- Impacts on Small Ethnic Communities (Impacts on Indigenous People) (ESS 7)
- Impact on Cultural Heritage (ESS8)

Environmental and Social Impacts during Post Project operational Period

- Loss of Homestead Vegetation and Wildlife Biodiversity (ESS 1, 6)
- Generation of Medical Waste, Solid Waste and Hazardous Waste (ESS 1, 3, 4)
- Noise Generation (ESS 1, 3, 4, 8)
- Water Pollution and Drainage (ESS 1, 3, 6)
- Impacts on Local Livelihoods (ESS 1, 2)
- Increased Risk of Accidents (ESS1, 3, 4)
- Impact Associated with on Campus Living Condition (GVB, Social Security, Sanitation and Health-Hygiene) at Post Project Period

General Principle for Environmental and Social Management (ESS 1-10)

Due to the nature of some of the proposed project activities under ASSET and their potential environmental and social impacts, the project falls under 'Orange A or Orange B' category according to ECR, 1997 and also rated as 'Moderate' as per the World Bank ESS1 risk category. Which requires proper IEE, and in some cases a detail ESIA and execution of environmental and social management plan. Therefore, the ESMF is prepared based on the following principles that can lead the planning and implementation of the project activities.

- The PIU of ASSET is responsible for the compliance with national policies, regulations and World Bank ESSs and Guidelines, as mentioned in this ESMF report. The ESMF will serve as the basis for ensuring the safeguards compliance.
- PIU/ASSET is responsible for obtaining environmental clearance from DoE, local government agencies and World Bank as required.
- IEE, ESIA and ESMP need to be prepared for activities as determined by DoE. In case, requirements of DoE's ESIA guideline differ from those of WB ESF, the more stringent standards and requirements will apply.
- If any sub-projects with impacts identified in IEE/ESIA which may categorize the project to substantial or high risk (according to ESF) will not be eligible for WB's financing.
- Planning and design of the any additional activities should ensure minimal assessment of cumulative impacts.
- Environmentally Sensitive areas, cultural sites, restricted or disputed lands (of identified during project implementation) should be taken care of with appropriate mitigation or compensation measures during implementation.
- Participation of stakeholders (especially local communities) should be ensured by PIU/ASSET in planning, implementation and monitoring of each sub-components and associated activities.

- PIU/ASSET and PIAs will ensure appropriate institutional set up for implementing environmental and social management plan and inter-agency coordination. PIU also ensure that bidding documents for construction contractors have specific clauses to ensure implementation of ESMP, as required.
- Contractors to be engaged for construction/renovation/expansion/repair and maintenance and equipment installation under the project will ensure provision of First Aid Kit at camp/work site with proper drinking water and sanitation facilities. Worker‘s/crew’s health and safety measures shall be ensured and use of personal protective equipment shall be at place.
- PIU/ASSET will ensure safety provision has been provided for the resettlement sites (if any).
- PIU/ASSET will undertake public disclosure about the project interventions and potential impacts.
- In case of triggering the contingent emergency support Component 0 (CERC), PIU will prepare additional ESMF according to the requirements of project restructuring by the World Bank. A list of Positive and Negative activities for CERC component is given in Annex 10.
- In case co-financing of ASSET project by other development partners, apply ESF to all activities throughout the project cycle. All E&S assessments, instruments and documents will be prepared in accordance with the ESF and the Bank will conduct its due diligence of these instruments and documents. During implementation, the GoB will supervise and monitor E&S risks and impacts of the entire project activities, in accordance with the E&S instruments and documents and will ensure all supervision records and project sites are accessible to both WB and DPs. WB and DPs may also conduct joint supervision missions. However, there will be a single Grievance Redress Mechanism (GRM) covering the ASSET project.

Screening

Environmental and Social screening is essential to gather information on existing baseline status and to assess potential environmental impacts of the ASSET activities. Screening identifies the consequence of the proposed project in broader sense based on similar project experiences, stakeholder’s perceptions and expert judgment, without having very much detailed investigation. Critical issues are also identified through the screening which needs detailed investigation. Based on the extent of environmental and social impacts obtained from the screening, the decision for further environment and social impact assessment will be taken.

Environmental and Social Impact Assessment

Initial Environmental Examination (IEE)

The IEE study will be conducted under PIU/ASSET. However, according to the project planning, the activities those need IEE will be implemented at initial period and must be carried out prior to the actual interventions start.

Environmental and Social Impact Assessment (ESIA)

The purpose of ESIA is to give the environment and people its due importance in the decision-making process by clearly evaluating the environmental and social consequences of the proposed study before action is taken. Early identification and characterization of critical environmental and social impacts

allows the public and the government to form a view about the environmental viability and social acceptability of a proposed development project and what conditions should apply to mitigate or minimize those risks and impacts.

Preparation of Environmental and Social Management Plan

The ESMP will be prepared suggesting mitigation measures for minimizing the effect of the negative impacts, compensation measures for the negative impacts which cannot be mitigated, enhancement measures for increasing the benefits of the positive impacts, emergency plan for taking care of natural hazards and accidental events. An environmental monitoring plan will also be suggested in the ESMP. Each component of the ESMP will be divided into pre-project, during project, post project and operation and maintenance phases. Responsibilities of the institutions in the implementation of the EMP will be suggested to ensure efficient utilization of all the parties involved. The ESMP should also include institutional capacity assessment and capacity building plan. The ESMP will also include measures for health and safety measures in response to COVID-19, and special arrangement for community engagement, management of risks of GBV and grievance resolution in the context of social distancing for curbing community transmission of COVID-19 infections.

Contingency Plan for COVID-19

ASSET will develop a contingency plan following the WHO guidelines and the World Bank requirements for each district to put in place procedures in the event of COVID-19 reaching the area or already there. The contingency plan will be developed in consultation with national and local healthcare facilities, to ensure that arrangements are in place for the effective containment, care and treatment of workers who have contracted COVID-19. The contingency plan will also consider the response at the events of infections among the workforce, community transmission is taking place and when it is likely that access to and from a target area will be restricted to avoid spread of COVID-19.

Environmental Codes of Practice (ECoPs)

The environmental codes of practice (ECoPs) are generic, non-site-specific guidelines. The ECoPs consist of environmental management guidelines and practices to be followed by the contractors/ implementation organizations for sustainable management of all environmental issues. The contractor will be required to follow them and also use them to prepare site-specific management plans.

Required Site Specific Management Plans (ESS 1-10)

Site Specific Management Plans will be prepared by the contractors of the sub-projects. Selection of the management plans required by the sub-components/activities will be determined by the ESS requirements, applicable ECoPs and recommendation of ESMP. WB will review and clear plans for moderate risk interventions. Those lower than moderate risk will be reviewed and cleared by PIU/ASSET or SECC Consultant (if any).

COVID-19 Health and Safety of the Workforce

The PIU/ASSET should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project activities: the location, existing resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing

circumstances, will help the project put in place the best measures possible to address the situation. PIU should refer to guidance issued by relevant authorities, both national and international (e.g. WHO). Addressing COVID-19 at a project site goes beyond occupational health and safety and is a broader project issue which will require the involvement of different members of a project management team.

Monitoring Program

As one of the key elements of the ESMP, a two-tier monitoring program is proposed comprising compliance monitoring and effects monitoring. The main purpose of this monitoring program is to ensure that the various tasks detailed in the ESMP particularly the mitigation measures are implemented in an effective manner, and also to evaluate program impacts on the key environment parameters. Various types of ESMP monitoring are discussed below.

Performance Indicators

For evaluating the performance of the environmental management and monitoring plan, performance indicators are identified to for efficient and timely implementation of measures/actions proposed in ESMP. The indicators are defined both for implementation phase and for post project period. SECC will be responsible for compiling the information on these indicators and report to PIU/ASSET. Separate performance indicators for each environmental issue will be specified in the mitigation plans for the PIU/ASSET and included in the associated ESIA.

ESMP Implementation Cost

Cost estimates will need to be prepared for all the mitigation and monitoring measures to be proposed in the specific ESIA in accordance with the ESMF. The cost estimates for some of the mitigation measures to be identified in the ESMP will be part of civil works contract. Some of suggestive activities from ESIA will be implemented by hiring NGO (if required). The Development Project Proposal (DPP)/Technical Assistance Project Proposal (TAPP) of PIU/ASSET for the proposed project should reflect the ESMP activities with budget for successful environmental management of the program. Total US$ 2.25 million is estimated for implementation of ESMF which should be embedded in the proposed total project budget from IDA.

Capacity Assessment of the Partner Organizations of the ASSET Project

This assessment is mainly addressing the existing and potential capacity of the principal implementing agencies, DTE, BMET, DGME, MoLE, DoYD and MoIND, and other relevant external agencies like Deputy Commissioners' (DC) offices, Department of Environment (DoE) etc. in managing environmental and social, labor, Environment, Health and Safety (EHS) issues related to ASSET project. More particularly, this exercise highlights the requirements related to the 10 Environment and Social Safeguard (ESSs) of the World Bank Environmental and Social Framework (ESF) and assesses the alignment of the borrower's system, its capacity and readiness to implement the program adhering to those standards.

Roles and Capacities of Agencies Involved in ES Risk Management

The management of E&S risk for skill development projects are the main responsibility of the proponent agencies, in this case: DTE and its co-implementing agencies i.e. BMET, DGME, DoYD and MoI. Regulatory agencies could be involved to provide review and monitor the process such as during the conduct of the ESIA. However, currently only Department of Environment (DOE) and Forest Department

(FD) are actively involved in the project's vetting process. Other regulatory agencies which have clear mandates on certain issues (such as DOL on labor and DIFE on OHS) operate independently of the ESIA process and hence not involved in project review, approval and rarely in monitoring and audit. Other agencies have programs that could be tapped to help address particular risk areas, such as the Ministry of Health and Family Welfare (MHFW) on health aspects of the project, the Department of Archaeology on cultural heritage, the BRTA for road safety, etc.

Capacity Building Plan

Capacity building for effective implementation of the ESSs requirements is a key element of the ESMP. Capacity building for environmental and social safeguard management will need to be carried out at all tiers of the ASSET project, including DTE, other IAs, Institutions and contractors. At the construction site, Social, Environmental and Communication Cell (SECC) of PIU/ASSET will take the lead in implementing the capacity building plan, though the contractors will also be responsible to conduct trainings for their own staff and workers. The various aspects that are covered under the capacity building will include general environmental and social awareness, key environmental and social sensitivities of the area, key environmental and social impacts of the project, ESMP requirements, OHS aspects, and waste disposal. Hence, a separate Capacity Building Plan (CBP) for the ASSET has been prepared under the Capacity Assessment of the Implementing Partners which will be the main guiding document to build capacity of DTE and other IAs for implementing this ESMF.

Institutional Arrangements for ESMF implementation in ASSET

The ASSET implementation will be led by the Project Implementation Unit (PIU) that will be established within DTE. The PIU will be headed by the assigned Project Director (PD) from DTE, supported by Deputy Project Directors (DPDs), one each from Co-implementing Agencies (CIAs) along with Environmental Safeguards Expert and Social Safeguards Expert. Further details of the institutional arrangement for the overall ASSET management should be available in the ESMP of specific IEE/ESIA report for ASSET under the Institutional Arrangement volume.

The ESMF for ASSET project includes a comprehensive assessment of the Borrower’s capacity on E&S risk management as per the requirements of the Bank’s ESF. The assessment informs the requirement of E&S staff in the PIU, capacity development program for the project on E&S and the overall procedure of E&S risk management, including resettlement issues by the project management. A Deputy Director will head the project’s Social, Environmental and Communication Cell (SECC) under the Project Director. The cell will be supported by an Environmental Specialist, Social Development Specialist, Labor Management and Community Health Specialist, GBV Management/Gender Specialist and Stakeholder Engagement and Communications Specialist.

The overall responsibility of environmental performance including ESMP implementation of the ASSET will rest with the PIU. Aside from their in-house environmental and social specialists, the PIU will engage SECC to supervise the contractors including environmental and social management requirements and measures on their execution of construction-related, infrastructural development and other activities that have significant negative environmental and social impacts identified in the ESMF/IEE/ESIA. The SECC will ensure adherence to the monitoring parameters including quality requirements, as well as all ESMP measures.

Stakeholder Consultations and Disclosure

During preparation of ESMF, ASSET has conducted 2 consultations with different stakeholders. Among those, the first was held before the COVID-19 pandemic situation in Bangladesh, while the later was organized during COVID-19 pandemic using virtual web-based platform. The discussion and the concerns and responses are extensively documented in SEP. As this was the first effort of organizing web-based stakeholders consultation, due to time limitation several of the above important RPF issues could not be discussed. So, it is suggested that PIU/ASSET will organize multiple stakeholders' consultation at each construction/renovation sites during IEE/ESIA preparation engaging different stakeholders including land and different structure owners, squatters, CPR management and wage earners etc.

Gender Analysis Procedures and Guidelines

ASSET would address gender issues through approaches that are participatory and responsive to the needs of the poor, particularly when it involves management of fisheries resources. However, a separate standalone Gender Based Violence (GBV) report will be prepared and disclose by ASSET, to address the ESS requirement.

Gender Action Plan

A gender action plan has been proposed for the project for review and updating by the ASSET before implementation based on social screening, social impacts assessment and designing the activities for implementation. However, a separate GBV document has been prepared and disclosed by ASSET.

Grievance Mechanism (ESS10)

There will be two-tier grievance mechanism; 1st at local level (site/union/upazila/district) and 2nd at PIU level (PD). All the local level complaints will be received at the Project Office at Upazila/district/site. All cases at the local level will be heard within two weeks of their receipt. PIU with the support of SECC will inform all affected stakeholders and interested group about the project GM and different committees at local, project, ministry level. However, anybody can complain to World Bank through its Grievance Redress Services (GRS) at any stages of the project.

World Bank Grievance Redress Service (GRS)

Communities and individuals who believe that they are adversely affected by Sub-project interventions may submit complaints to existing project-level GM or the WB Grievance Redress Service (GRS). Project affected communities and individuals may also submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, because of non-compliance with WB ESF requirements. Details of the procedures to submit complaints to the WB's corporate GRS, is available in the GRS website: *http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.* For information on how to submit complaints to the WB Inspection Panel, please visit www.inspectionpanel.org. Any disclosure instrument on GM will provide addresses of the GRS and the Inspection Panel.

Communication and Consultation Strategy

As required for informed consultation, ASSET will provide communities and affected persons with all activity-related information, including that on potential adverse impacts in a language familiar to and understandable by the target communities.

Information Disclosure

The mechanism of information dissemination should be simple and be accessible to all. Two of the important means that have been followed until now include briefing material and organization of community consultation sessions. The briefing material (all to be prepared in local language) can be in the form of (a) brochures (including project information, details of entitlements including compensation and assistance to be given to the PAPs; grievance mechanism) that can be kept in the offices of local self-government (gram parishad office) and project office; (b) posters to be displayed at prominent locations and (c) leaflets that can be distributed in the project areas. Consultation meetings should also be organized at regular intervals by the project to acquaint the communities, target group beneficiaries and affected persons.

Access to Information

The draft ESMF of ASSET will be disclosed to the local and national level stakeholders through different methods as described below.

Workshop. A national workshop will be held at Dhaka to present the detailed project including safeguard aspects of ASSET to the key stakeholders. In addition, stakeholders' meetings will be held at some selected upazilas/districts to disclose the ToR and results of the IEE and ESIA.

Publication in electronic and print media: The information on program interventions and the findings of environmental assessment would also be disclosed through newspapers and electronic media (e.g. internet, TV, radio, etc.). The report would be disclosed in Bengali language.

Availability of the Document: Summary of the IEE, ESIA and ESMF report along with ESMP will be translated into Bengali language and disseminated locally. The full report (in English) and the summary (in Bengali) will also be uploaded in the website of ASSET and World Bank. Hard copy of the IEE, ESIA and ESMF will also be available at ASSET District and Upazila offices of the program area.

Chapter 1: Introduction

1.1 Introduction

The Government of Bangladesh (GoB) through the Ministry of Finance (MoF) has requested the World Bank (WB) to support the preparation and implementation of the Accelerating and Strengthening Skills for Economic Transformation (ASSET) project with the Directorate of Technical Education (DTE) of Technical and Madrasah Education Division (TMED), Ministry of Education (MoE) as the lead implementing agency along with other partner implementing agencies (PIAs), as following: Bureau of Manpower, Employment and Training (BMET) of Ministry of Expatriate Welfare and Oversea Employment (MoEWOE); Directorate General of Health Service (DGME) of Medical Education and Family Welfare Division (MEFWD), Ministry of Health and Family Welfare (MoHFW); and Ministry of Industry. The lead implementing agency (LIA), DTE, will be overall responsible for the implementation of the project activities, fiduciary management and safeguard compliance for all the sub-components. The PIAs will be implementing the sub-component/activities that are relevant to their respective areas/institutions under the overall management by the lead agency. The ASSET project will promote employment-oriented job market relevant high-quality skills development for a range of social and productive sectors and at long-term and short-term training institutions to produce high-level skills for greater economic modernization and labor productivity. It also supports expanding equitable access to skills development opportunities for vulnerable population especially marginalized women, poor and people with disability, and enhance skills development and recognition of workers in the informal sector. The project also supports capacity development for quality assurance and coordination at key agencies at the central level.

The project is expected to be implemented nationwide but the exact project locations will be determined during the implementation stage only. However, some of the establishments and facilities under the previous phase of Northern Areas Reduction-of-Poverty Initiative (NARI) Project under MoLE and Skills and Training Enhancement Project (STEP) under MoE under ASSET and as well as Special Economic Zones (SEZs) under Bangladesh Economic Zone Authority (BEZA) are expected to be included. But the specific locations will be decided, as mentioned above, during implementation phase. The project will help Bangladesh build a highly skilled labor force in priority sectors, aligned to the future of work, and inclusive of women and disadvantaged groups. The project interventions aim to ensure catering to the needs of both present and future workforce through a robust private sector integration approach and holistic capacity development and filling the crucial access gaps in skills development for most disadvantaged population and informal sector workers through innovative partnerships. The project will be implementing during the fiscal year 2020-2021 to the 2025-26 for five years with the co-financing from International Development Association (IDA), World Bank and Govt. of Bangladesh. The project would also mobilize financial and technical resources from other Development Partners (DP). The project would leverage contributions from private sector partners both in terms of finance and expertise. Key potential partner agencies will be the private industry sector including industry associations with previous experience of working with the World Bank-funded projects.

The project will contribute to achieving this goal by addressing the demand and supply sides of the skills eco-system together: (i) equipping youth and workers with skills that fit the future of work and better employment, and connecting them with the labor market more efficiently, (ii) shifting skills system to be responsive, agile, and demand-driven, and (iii) lifting the skills and labor market outcomes for women

and the most disadvantaged groups. The project will embrace a range of new and innovative approaches, building on experience of the two previous projects (STEP and NARI), to enhance the skills development in Bangladesh to be market-driven and inclusiveness of women and the disadvantaged across all the components to ensure inclusive skills development programs. The beneficiaries of the proposed project would include: (i) students and teachers in Technical and Vocational Education and Training (TVET); (ii) workers and professionals in formal and informal sectors; (iii) disadvantaged women and youth; and (iv) employers.

This Environmental and Social Management Framework (ESMF) is needed to screen the environmental and social risks and impacts of the ASSET project activities and provide guidance to the implementing agencies in the preparation of specific assessments and plans for the subprojects during implementation, including implementation of any plans.

1.2 Purpose of the ESMF

The ESMF is intended to be used as a practical tool during formulation, design, implementation, and monitoring of components and sub-components of this project. This document will be followed during project preparation and implementation for ensuring environmental and social integration in planning, implementation, and monitoring of project supported activities. For ensuring good environmental and social management in the proposed ASEET project, the ESMF will provide guidance on pre-investment works/studies (such as environmental and social screening, environmental and social assessment, environmental and social management plans, etc.), provide set of steps, process, procedure, and mechanism for ensuring adequate level of environmental and social consideration and integration in each investment in the project-cycle; and describes the principles, objectives and approach to be followed to avoid or minimize or mitigate impacts. The ESMF will facilitate compliance with the Government of Bangladesh's policies, acts and rules as well as with the World Bank's environmental and social standards (ESSs) of the newly adopted Environmental and Social Framework (ESF), and guide to prepare and conduct the detailed ESA/IEE/ESIAs/ESMPs of the later stages of the ASSET as appropriate to the project components/sub-components. While this ESMF document has been prepared to identify the potentially negative impacts of the ASSET, the specific objectives are to:

- integrate the environmental and social concerns into the identification, design and implementation of all project interventions in order to ensure that those are environmentally sustainable and socially feasible;
- ensure that all relevant environmental and social issues are mainstreamed into the design and implementation of the project activities;
- consider in an integrated manner, the potential environmental and social risks, benefits and impacts of the program and identify measures to avoid, minimize and manage risks and impacts while enhancing benefits;
- ensure compliance with national laws and regulations, and World Bank requirements. The ESMF presents potential impacts of the ASSET, mitigation, enhancement, contingency and compensation measures, environmental and social management and monitoring plan, and institutional framework including inter-agency cooperation for implementing ESMP.

1.3 Sectoral Background (a brief)

The Government of Bangladesh (GoB) has made skills development, including for women and the disadvantaged, a top national priority. The past decade witnessed an impressive pace of expansion of the formal technical and vocational education institutions across different sectors, while demand for technical skills is also growing. Government's demand-stimulating instruments such as poverty-targeted scholarships and tuition support have increased the participation of disadvantaged groups and reduced the gender gap. Despite the recent expansion, the capacity of the skills development sector remains inadequate due to many years of underinvestment in the past and the need for catching up with new technologies and maintaining the quality in the face of rapid expansion. Skills development in Bangladesh faces serious challenges both on the demand and supply sides; integrating the two sides would present a promising avenue of opportunity to develop market-relevant training programs, adaptable skills eco-system, and inclusive system for women and the disadvantaged.

The World Bank supported the government's effort through Skills and Training Enhancement Project (STEP) (2010-2019) and Northern Areas Reduction of Poverty Initiative (NARI) (2012-2018). STEP was implemented under the Ministry of Education (MoE) with the aim to enhance teaching and learning environments in TVET institutions and improve market relevance of TVET through partnerships with ministries, industries, and global TVET leaders and to improve access and equity in TVET for female students and students from disadvantaged households, with a total of around 600,000 beneficiaries. NARI aimed to facilitate access to employment for women from lagging areas in the Ready-made Garments (RMG) sector, focusing on a particularly vulnerable group of impoverished and marginalized women with little to no education. It was implemented under the Ministry of Labor and Employment (MoLE) and the Bangladesh Export Processing Zones Authority (BEPZA). The project provided technical training, life skills training, and job placement services for around 9,000 women.

The ASSET project also complements the government priorities in the skills development sector as higher investment in skills development to support the adoption of new technologies is placed at the top of national development agenda in the 7th Five-Year Plan (FY2016-FY2020) and integration of SDGs in 7FYP to improve labor productivity, promote gender and income equality, and boost job creation. The 7th five-year plan also recognizes the need for increased private sector participation in the skills development and training with a focus on economic zones in addition to other priority sectors. National Education Policy (NEP) 2010 recognizes the current constraints of the TVET system in ensuring relevant skills to meet the demand of the workplace and envisages to increase the share of students, emphasizing on females, in the TVET system through an expansion of access to quality TVET. Based on the NEP, Ministry of Education has set out a National Skills Development Policy (2011) as an overall guiding framework for the skills development sector in Bangladesh. This policy is aligned with the GoB's Vision 2021 agenda and promotes inclusion of all left out population groups in skills development programs. To achieve long term goals, GoB has formulated Vision 2041 which emphasizes on labor force development as a critical factor to reach upper-middle income country status. Other future looking plans such as Draft 8th Five-year plan, SDG action plan and Delta plan 2100 also reflects on this with alignment. The government is also preparing new skills policies with the revision of the National Skills Development Policy (NSDP) and preparation of the National Jobs Strategy and Small and Medium Size Enterprise Policy.

1.3.1 Impact of COVID-19 and its Response

COVID-19 pandemic has severely disrupted economic activity and created an unprecedented crisis that is likely to worsen poverty in the short term. As the pandemic intensified globally, Bangladesh exports to Europe and the United States declined precipitously. Growth in GDP is projected to range in FY20 between 1.6 and 1.0 percent and in FY21 between 1.0 and –3.0 percent. The country's achievement in reducing poverty between 2000 and 2016—the national poverty rate fell from 48.9 to 24.5 percent and extreme poverty from 34.3 to 13.0 percent—will likely be reversed. Slower GDP growth, the income losses of informal workers throughout the economy, and lower international remittances may add 8 to 12 percentage points to what the 2020 poverty rate would have been without COVID-19.

Bangladesh's labor force struggles with low-productivity and skill-gaps and suffered significant disruptions from the COVID-19. The pandemic has disrupted millions of works, and the damage has been particularly severe for female workers and informal sector workers. The COVID-19 lockdown wiped out labor market gains made over the past decade. Garment factories laid off more than one million garment factory workers – many of them are female workers from rural low-income families and now risking falling back into poverty. The pandemic imparts a disproportionately negative impact on women as many female workers are in low skilled jobs in the informal sector. Informal employment, usually a safety net to cushion the impact of economic crises, is also not spared as people's mobility was restricted. The effects of the lockdown and economic disruptions have hit low-income youths particularly hard in the current wave of job losses and collapse of small businesses, especially in sectors such as hospitality, retails, and transport. Many migrant workers in the Middle East, where the COVID-19 hit hard, will be laid off and returning to the country as unemployed.

Growth and job creation scenarios are changing in priority industry and service sectors due to the pandemic, creating huge demands for skilling and re-skilling of workers. Adapting to new technologies is imperative for workers and enterprises in priority sectors to remain competitive, even more so in the post-COVID-19 era, and the costs of not preparing the labor force for the future are high. It is widely expected that the COVID-19 pandemic will only accelerate such technology adoption as technologies would reduce the risks of infection and other business management complexities. Workers who lack skills for new technologies will be significantly more vulnerable. The COVID-19 crisis also led to the closure of all TVET institutions that lack infrastructure and capacity for online teaching and where students tend to come from a low-income background.

Along with its health care response to the pandemic, the government has also adopted an emergency economic program. Its goals are to (1) increase public spending to generate employment; (2) provide a stimulus package offering firms credit at low interest rates to retain workers in the manufacturing sector, maintain competitiveness of the enterprises especially in the export-oriented manufacturing sector and to revitalize economic activities; (3) expand social safety nets to meet the basic needs of the poor, day laborers, and other informal sector workers; and (4) increase the money supply to maintain liquidity in the economy while containing inflation.

1.4 Rationale of the ESMF

As stated before, the project is expected to be implemented nationwide but the exact project locations will be determined during the implementation stage only. It is expected that some of the project districts are likely to have a significant indigenous population, besides other marginalized and vulnerable

communities. In any case, a considerable percentage of the students seeking admission in the various establishments, facilities and institutions supported by the project, are expected to be from indigenous and other marginalized and vulnerable communities. Besides, the number, type and locations of the component interventions will be decided over the project implementation stage. Beneficiary groups and sites for any small infrastructure development will be known in the implementation level and therefore, environmental and social issues and those impacts could not be identified and specified for mitigation at this preparation stage. Hence, there is a need for procedural guidance for environmental and social appraisal and management. ASSET project has therefore prepared this Environmental and Social Management Framework (ESMF) as a constituent part for guidance in the implementation stage. The rationale for developing the framework is based on the consideration that all activities under the project components and sub-components will only be identified and prepared during the implementation of ASSET. Therefore, detailed site investigations will be carried out as part of identifying specific project activities and related designs at the selected locations to ascertain the precise nature of the environmental and social impacts. The ESMF will provide the necessary background for environmental and social considerations, a checklist of potential issues of the project activities to be considered and built into the design of the project so that socially sustainable implementation can take place, including environmental and social screening of subprojects and guidance on the preparation of specific assessments and plans. This ESMF will also serve as the guideline for the staff designated by the implementing agencies - the PIU/DTE to oversee and monitor the environmental and social safeguards compliance of the project components coming under their implementation responsibility. The ESMF will be a living document and will be reviewed and updated periodically as needed.

1.5 Approach and Methodology of the ESMF

The ESMF has been prepared following the standard methodology consisting of the steps listed below. The methodology for the preparation of the ESMF is presented in Figure 1.2.

- Review of the program details and meeting/discussions with the LIA and PIAs team
- Review of the policy and regulatory requirements
- Conduct reconnaissance field visit by group of experts of WB and ASSET team and initial scoping and screening to determine the key environmental and social parameters and aspects that are likely to be impacted by the program activities
- Collect and analyze of baseline environmental and social data with the help of secondary literature review and field data collection
- Consult with the stakeholders including beneficiary/affected communities and developing the consultation process
- Assess the potential and likely impacts of the program activities
- Prepare an outline environmental and social management issues according the requirements of the newly adopted 10 ESSs of the ESF
- Compile of the individual thematic reports into ESMF

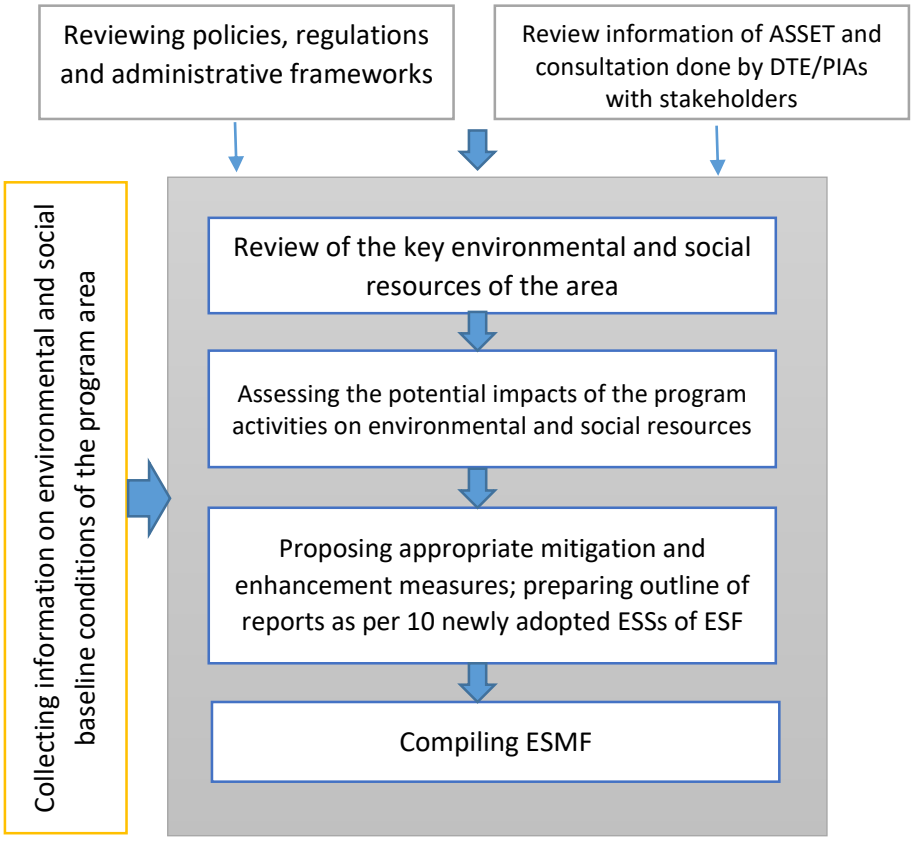

Figure 1.2: ESMF Preparation Approach

1.6 Structure of this ESMF

Chapter 2 presents a simplified description of the ASSET project, its various components and other salient information relevant for environmental and social assessment. Chapter 3 reviews the prevailing WB and national regulatory requirements relevant to environmental and social assessment. Description of the baseline environmental and social conditions is presented in Chapter 4. Environmental and Social management steps to be followed during the program and also Screening, assessment and prediction of potentially negative environmental and social impacts have been discussed under Chapter 5, the chapter has also presents the outline of the environmental and social management plan (ESMP) and as well as the appropriate mitigation measures to address these negative impacts. Chapter 6 describes burrowers' capacity assessment, institutional framework and capacity building plan to implement the ESMF. Finally, Chapter 7 elaborates the requirements of Stakeholder Engagement, Grievance Mechanism and Disclosure along with describing the consultations that have been carried out with the stakeholders and also the requirements of similar consultations to be carried out while preparing the IEE/EIAs/SIAs/ESMPs.

1.7 Composition of ESMF Team

The ASSET team to prepare the ESMF consists with 2 Environmental and Social Safeguards Experts, namely Mr. Mohammad Shahad Mahabub Chowdhury (responsible for preparing ESMF, RPF and ESCP)

along with Mr. Fayaz Uddin Ahmed (responsible for preparing LMF, SEP and SECDP. This ESMF report is consisted with five additional thematic frameworks/plans on LMF, GAP, RPF, SECDP and SEP to meet requirements of the new WB ESF those prepared by the above individual experts.

Chapter 2: Project Description

1.1 Description of the ASSET Project

The ASSET project will help Bangladesh build a highly skilled labor force in priority sectors, aligned to the future of work, and inclusive of women and disadvantaged groups. The project will contribute to achieving this goal by addressing the demand and supply sides of the skills eco-system together: (i) equipping youth and workers with skills that fit the future of work and better employment, and connecting them with the labor market more efficiently, (ii) shifting skills system to be responsive, agile, and demand-driven, and (iii) lifting the skills and labor market outcomes for women and the most disadvantaged groups. The project will embrace a range of new and innovative approaches, building on experience of the two previous projects (STEP and NARI), to enhance the skills development in Bangladesh to be market-driven and inclusive:

a. **Mainstreaming private sector integration**: Strong private sector participation through innovative multi-sectoral partnerships (including enterprise-based training) and innovative strategies for matching job-seekers to jobs;

b. **Tailored skills for targeted sectors:** Focus on priority sectors and economic zones;

c. **Targeting the informal sector**: Skills generation and entrepreneurship for the informal sector;

d. **Cutting-edge evidence and partnerships for inclusion**: Use the latest insights from behavioral economics and leverage NGO/GO networks to improve outcomes for women and disadvantaged groups; and

e. **Harnessing disruptive technology throughout:** to meet the emerging skill demands, for employment generation, for job matching, and to deliver training.

Moreover, the project will prioritize the inclusiveness of women and the disadvantaged across all the components to ensure inclusive skills development programs. The project interventions aim to ensure catering to the needs of both present and future workforce through a robust private sector integration approach and holistic capacity development and filling the crucial access gaps in skills development for most disadvantaged population and informal sector workers through innovative partnerships. The implementation arrangement shows a combination of government entities and private sector integration to maximize the development outcomes. To ensure adequate technical support to the multi-sectoral approach, the project is a collaboration of multiple GPs and will cover multiple ministries. The project will leverage and complement other Bank-supported ongoing interventions that focus on the demand side of the skills development ecosystem – private sector enterprise development.

The project is designed to address the key issues affecting the skills development sector derived from extensive analytical research, stakeholder consultation, and the Bank's local and global experience. The project interventions are driven by three conceptual pillars: Fit-Shift-Lift. These three pillars are reflected in the component design, and each pillar targets different priority areas of the skills development sector, while the implementation mechanism of these interventions is carefully tailored to ensure the maximum outcome, to achieve the PDOs.

In anticipation of growing risks from climate change, the country needs to take steps to enhance the capacity of a vulnerable population to mitigate the damage and adapt to the changes to their livelihoods and build the ability of industries to reduce greenhouse gas emissions. The project will help develop the skills of vulnerable populations, mitigate the negative consequences of climate change, including displacement and loss of livelihood. The project will also support skills training programs for enterprise workers and managers with a focus on more efficient use of resources and better environmental management to improve the resource efficiency and management of industrial production centers.

The project will adopt a multi-sectoral program approach with an integrated implementation mechanism to address the critical issues of the skills eco-system holistically. The project will aim to address a range of critical development challenges of the skills development eco-system both from supply and demand sides and in different priority sectors. This will require the project to adopt a comprehensive systematic approach to encompass the whole skills eco-system. To this end, the project will utilize a project design and implementation mechanism that covers different relevant actors and partners from multiple sectors and on both supply and demand sides of the eco-system under one umbrella with an integrated implementing entity.

All project activities will prioritize on: (i) vulnerable groups that are most severely affected by COVID-19; and (ii) priority sectors/industries/trades that are pivotal for the post-pandemic economic recovery of the country. The project will also incorporate support for climate resilience and climate vulnerability through capacity building activities.

1.2 Project Components

The ASSET project has following components:

Component 0 [CERC] – Contingent Emergency Response Component

Component 1 [Fit] - Transforming Formal Skills Development for Future of Work, Inclusiveness, and Resilience

Sub-component 1.0: COVID-19 response actions to build resilience in the TVET sector

Sub-component 1.1: Strengthening graduate employability and inclusiveness of diploma courses for priority sectors

Sub-component 1.2: Expanding Market-Demanded and Inclusive Formal Short-Courses for Priority Sectors

Sub-component 1.3: Establishing an international standard model polytechnic institute

Component 2 [Shift] – Innovative Skills Development Programs for Employment and Empowerment

Sub-component 2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness

Sub-component 2.2: Recognizing the skills of informal sector workers

Component 3 [Lift] - Capacity Development, Project Management, Social Marketing and Monitoring & Evaluation

Sub-component 3.1: Enhancing the institutional capacity of central government agencies of the skills development system

Sub-component 3.2: Project Management, Social Marketing, M&E

A brief of the components and associated sub-components is furnished below-

Component 0: [CERC] – Contingent Emergency Response Component (IDA: US$0 million; GoB: US$0 million; Total: US$0 million)

This contingent emergency response component is included under the project for situations of urgent need of assistance. In the event of an eligible crisis or emergency, the project will contribute to providing immediate and effective response to said crisis or emergency. This will allow for rapid reallocation of project proceeds in the event of future natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact during the life of the project. A zero-value component has been included to ensure funds can be deployed through the project depending on the specific needs that may arise. In the event of such emergency, this component would allow the Government to request the Bank to re-categorize and reallocate financing from other project components to cover emergency response and recovery costs, if approved by the Bank.

Component 1: [Fit] - Transforming Formal Skills Development for Future of Work, Inclusiveness, and Resilience (IDA: US$170 million; GoB: US$150 million; Total: US$320 million)

This component will aim to substantially increase and improve market-relevant skills needed for technology adoption and productivity enhancement for the priority sectors. It will strengthen the provision of skills training programs, both for short-term and long-term programs that fit the emerging skills demands and critical skills gaps of priority sectors in Bangladesh. It will also enhance inclusion and outreach to women and the disadvantaged[1]. This component will also implement a dedicated COVID19 response activity to strengthen the online class readiness and support student retention of the TVET sector.

Sub-component 1.0: COVID-19 response actions to build resilience in the TVET Sector (IDA: US$10 million; GoB: US$10 million; Total: US$20 million)

The prolonged discontinuation of learning activities due to the pandemic is severely affecting the TVET sector. This sub-component will support diploma-offering institutions and DTE to enhance the resilience of TVET sector in the COVID-19 environment to ensure continuity of learning and prepare for re-opening. The prolonged discontinuation of learning activities due to the pandemic is severely affecting the TVET sector as this sector has a significant share of students from disadvantaged groups. This sub-component will support: (a) connectivity and contents development for rolling out online/blended classes of diploma courses; (b) provision of digital devices for students without devices; and (c) campaign to prevent pandemic-induced dropouts. This activity will be completed on a fast-track basis to ensure timely response to the COVID-19 crisis. Enhanced capacity for online/blended teaching is expected to have long-lasting transformational impacts on the teaching and learning practices of polytechnics and build preparedness for future shocks, such as climate induce disasters. The COVID-19 response actions to be supported would include the following.

[1] people with disabilities (PWD); population exposed to climate vulnerability; socio-economic cluster most susceptible to the adverse impact on economy due to COVID-19, specially female; and other vulnerable groups

Table 2.1: Areas of Support to Build Resilience in TVET in Bangladesh

	COVID-19 Response Actions	Target	Note
A. Rolling out online teaching			
1	Provision of Digital Devices	Institutions	
2	Teacher Training for Online Teaching & Counseling	Institutions	
3	Broadband Connectivity Grants	Institutions	
4	Digital Lecture Contents Development	BTEB/DTE	
B. Preventing COVID drop-out			
1	Back-to-school Communication Campaign	Students	To be implemented by DTE

Sub-component 1.1: Strengthening graduate employability and inclusiveness of diploma courses for priority sectors (IDA: US$95 million; GoB: US$50 million; Total: US$145 million)

This sub-component aims at raising the graduate employability and inclusiveness of long-term diploma-level training programs for priority sectors. A variety of ministries offer diploma courses that supply the cadres of technical professionals for the priority sectors. Building on the institutional grant system operationalized under the STEP project , the project will provide Institutional Development Grants (IDGs) to support the capacity development of public and private diploma-program institutions focusing on courses for the priority sectors, including the Institutes of Health Technology (IHT) and Medical Assistant Training Schools (MATS). The skills training for medical technicians (MTs) and medical assistants (MAs) will strengthen the health sector's ability to better handle medical procedures to combat the COVID-19 outbreak and improve the overall quality of medical services in Bangladesh. The IDG program is expected to support around 210 diploma institutions (see Table 2.2 for the expected beneficiary institutions).

Table 2.2: Estimated Number of Supported Diploma-program Institutions under the ASSET

Type of Diploma Institutions	Relevant Ministries	No. of Institutions (Tentative)		
		Public	Private	Total
Polytechnics, other technical institutes	TMED, MoE	54	46	100
Technical School & Colleges (TSCs)	TMED, MoE	20	20	40
Institutes of Marine Technology (IMT)	MoEWOE	5	0	5
Institute of Health Technology (IHT)	MoHFW	10	15	25
Medical Assistant Training School (MATS)	MoHFW	8	22	30
Nursing College/Institute (Diploma-level)	MoHFW	10	0	10
	Total	107	103	210

Note: (1) 'other technical institutes' include Glass & Ceramic Institute, Survey Institute, Graphic Arts Institute, and Textile Institute

The IDGs will finance a range of activities to upgrade quality and market-relevance and improve inclusiveness for selected courses. IDG activities would include (a) enhancement of teaching and learning environment; (b) refurbishment of classrooms, libraries, and student hostels ; (c) expanding industry linkages; (d) professional development for teachers and managers; (e) digital content development; (f) broadband connectivity ; (g) strengthening employment support services; (h) enhancing employer feedbacks and graduate tracking; (i) student financial support ; (j) conducive training environment for female and disabled students ; (k) equipment for ensuring safe training environment; and (l) equipment for climate sensitive "Green Practice" . The project will also centrally

arrange advanced professional development programs for teachers and managers by leveraging international partnerships and other technical assistance projects. The project will prepare an IDG Operations Manual.

IDG recipients will be selected competitively based on Institutional Development Plans (IDPs) prepared by eligible institutions that outline proposed capacity development programs and implementation strategies. IDG recipient institutions will be responsible for ensuring proper procurement and financial management for the IDG funded activities under the guidance and extensive technical support from the project. The project may also procure some of the common items and high-value items centrally on behalf of the institutions.

Sub-component 1.2: Expanding Market-Demanded and Inclusive Formal Short-Courses for Priority Sectors (IDA: US$60 million; US$30 million; Total: US$90 million)

This sub-component aims to increase the supply of market-relevant technical skills for priority sectors and create equitable training opportunities for female, PWD, and the disadvantaged through formal short-courses. Formal short-courses last typically 360 hours. Bangladesh Technical Education Board (BTEB) and National Skills Development Authority (NSDA) certifies the short-courses to ensure quality and market relevance. The project will support investments for (a) the quality improvement, (b) market-linkage enhancement, and (c) equitable access of the selected BTEB/NSDA/ministry certified formal short-courses (see Table 2.3 for the list of short-course training institutes). This sub-component is expected to train around 200,000 individuals.

Table 2.3: Estimated Number of Targeted Short-course Institutions under the ASSET

Type of Institutions	Relevant Ministries	No. of Institutions (Tentative)		
		Public	Private	Total
Technical Training Centers (TTCs)	MoEWOE	34	19	53
Technical Schools and Colleges	TMED	32	22	54
Industry oriented training institutes*	MoI	4	0	4
Total		70	41	111

Note: Industry oriented training institutes of MoI include Bangladesh Industrial and Technical Assistance Center (BITAC), Small Cottage Industries Training Institute (SCITI), Training Institute for Chemical Industries (TICI), National Productivity Organization (NPO)

The project will provide performance-based Per-Trainee Fees (PTFs) to support institution-level improvement activities. This PTF modality for formal short-course providers has been successfully operationalized under the STEP project. The PTFs will cover (i) tuition, (ii) financial assistance for trainees, (iii) investment in training capacity development (including facility and equipment modernization, curriculum upgrading, teacher training, job placement service, industry partnership, digitization, language labs, safe training environment, etc.); (iv) investment in enhancing inclusiveness (facilities for PWDs, female trainees, child care, better sanitation, female counselors, etc.); and (v) investment in resilience (connectivity, digital contents development, etc.). The rate of PTFs will be set higher for female, ethnic minorities and PWD trainees to incentivize equitable intake. The payment of PTFs will be released in three tranches at (i) trainee registration, (ii) training completion, and (iii) reporting of employment outcomes six months later. Eligible institutions will prepare Skills Development Proposals and competitively selected based on the quality of their proposals. The project will develop a

Short-Course Operations Manual (SCOM) to describe detailed operational mechanisms. The project will also centrally arrange innovative teacher training programs for short-course institutions.

Sub-component 1.3: Establishing an international standard model polytechnic institute (IDA: US$5 million; GoB: US$60million; Total: US$65 million)

This sub-component will support the establishment of a model diploma institution to transform the quality standards of TVET in Bangladesh. This model diploma institute will create a paradigm shift in the engineering diploma and TVET system by showcasing an international-level high-quality, fully industry-integrated, and inclusive institution, modeled after the diploma and skills training system of Singapore. Internationally reputed institutions of Singapore TVET system will provide technical and management support to develop necessary training delivery capacity, management know-how, and regulatory framework. The institute will be established in a suitable location secured by the government. The facility development or construction under this activity will follow Buildings Act and regulations to ensure climate resilient features that can withstand the impacts of climate change-induced disasters and impacts. The facility will have: (i) architectural features that enable energy efficiency improvement in lighting, appliances and equipment, (ii) Solar power usage, and (iii) Universal Access for PWDs.

Component 2: Innovative Skills Development Programs for Employment and Empowerment (IDA: US$105 million; GoB: US$30 million; Total: US$135 million)

This component aims to substantially enhance the job-relevance and inclusiveness of the skills development of Bangladesh through scaling up innovative skills development approaches. Moreover, the interventions under this component will support the industries to regrow their business with supply of skilled labor while creating decent employment opportunities for the vulnerable groups.

Sub-component 2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness (IDA: US$100 million; GoB: US$0 million; Total: US$100 million)

This sub-component aims to substantially scale up enterprise-based skills program in priority sectors in partnership with industry groups. The project will enter into the Public and Private Partnership (PPP) arrangement with selected industry groups. The STEP project has successfully piloted this PPP modality with industry associations with high employment outcomes. It alleviates the market failure that causes the undersupply of skills training by employers. The project categorizes industry partners into two types: (a) formal sector-based competitiveness oriented partners and (b) informal sector-based inclusiveness oriented partners. Informal sector oriented industry partners would focus on training that target vulnerable women, PWD, informal sector workers, and other disadvantaged groups. Industry partners will be responsible for designing and implementing skills training programs according to their needs under the overall guidance of the project. Industry partners will also be expected to develop competency standards in collaboration with central accrediting agencies of the sector.

Supported enterprise-based training programs will provide (a) technical training for the unemployed; (b) apprenticeship program for unemployed youths, women, PWDs and other disadvantaged groups; (c) upskilling technical training for existing employees; and (d) management training for mid-level managers and supervisors (see Table below). Modules on energy efficiency and environmental compliance will be included for relevant industries. The project will prepare an Enterprise-based Training Operations

Manual (ETOM) to ensure accountable implementation. This sub-component is expected to train around 220,000 workers in total.

Table 2.4: Types of Skills Training Programs under Enterprise-based Training of the ASSET

	Areas of training programs	Description of training programs
1	Technical training for the unemployed;	A range of technical skills, soft skills, digital skills, foundational skills through classroom-based, firm-based, and dual training with job placement support services
2	Apprenticeship training programs	Informal apprenticeship to provide hands-on skills to informal workers, micor-workers and vulnerable groups in partnership with micro-enterprises and local groups
3	Upskilling technical training for existing workers	Advanced technical skills for workers to adapt to new technologies to enhance their productivity and value addition
4	Management training for micro-enterprise/SME owners/workers	Business management skills, decent and safe work environment, gender-based violence, employment for PWDs, linkage with MFIs, master craftsman training

The project will set up two windows for the PPP: (a) Competitiveness Window and (b) Informal sector Window. Identified partners will submit detailed Skills Development Proposals (SDPs) to the project, which describe the details of proposed training programs. The trainee selection will include specific inclusiveness criteria and actions for women and the disadvantaged group. Many industries/employers are adopting Green Economy initiatives, and climate/environment sensitive business models. This will also be an evaluating criterion for SDPs. The project will verify and approve the SDPs and enter into the Performance-based Partnership Agreements (PBPAs) based on the approved SDPs. The project will provide PTFs to the selected partners. PTFs will finance expenditures for (a) direct costs of training provision, (b) trainees allowance for disadvantaged workers, (d) outreach programs, (c) competency standards and training contents development, (d) training capacity development (trainer training, training equipment, etc.), (e) researches, (f) monitoring, (g) project management, and (h) COVID-19 responses . The PTF payments will be released in two or three tranches based on agreed performance milestones. The industry partners will report employment status of graduates three months after the training. Furthermore, the project will set up independent evaluation teams to validate the compliance and effectiveness of these enterprise-based training programs to ensure the integrity and accountability and to obtain trainee feedbacks.

Sub-component 2.2: Recognizing the skills of informal sector workers (IDA: US$5 million; GoB: US$30 million; Total: US$35 million)

This sub-component will aim to enhance the employment/self-employment outcomes and earning levels of informal sector workers through Recognition of Prior Learning (RPL). RPL offers experienced informal sector workers a chance to gain formal recognition and certification on their hard-earned practical skills according to the skills levels in the National Technical and Vocational Qualification Framework (NTVQF). The pilot RPL implementation under the STEP has demonstrated a significant positive impact on workers' confidence and improving employment outcomes. The project will scale up

the RPL program and assessment capacity across the country. The project will support (a) the expansion of RPL assessment centers , (b) certification of institutions as Registered Training Organizations (RTOs), (c) development of industry assessors, (d) direct costs of the assessments, and (e) awareness-raising for employers about RPL and NTVQF qualifications. Cost-sharing schemes will be tested to strengthen the sustainability of the program. The project will also explore partnerships with ISCs to outsource part of the RPL implementation.

Component 3: Capacity Development, Project Management, Social Marketing and Monitoring & Evaluation (IDA: US$25 million; GoB: US$20 million; Total: US$45 million)

This component will aim to upgrade the skills development ecosystem in Bangladesh to be adaptable to the changing needs of the economy and more inclusive of women and disadvantaged populations through institutional capacity strengthening of key central agencies. This component will also support project management and fiduciary management for implementation of the project interventions, monitoring and evaluation (M&E) activities, and social marketing interventions, specially focusing on women and disadvantaged group, to enhance social image of TVET education and ensure effective communication and mobilization activities.

Sub-component 3.1: Enhancing the institutional capacity of central government agencies of the skills development system (IDA: US$10 million; GoB: US$10 million; Total: US$20 million)

This sub-component will strengthen the institutional capacity of key central government agencies for skills to enhance the adaptability of the skills development system, focusing on enhancing essential functions of the skills development system (see Table 2.5 below for focus areas). The project will support the capacity development of Directorate of Technical Education (DTE); Bangladesh Technical Education Board (BTEB); Bureau of Manpower, Employment and Training (BMET); the industry-oriented agencies of MoI; Directorate General of Medical Education (DGME) and State Medical Faculty (SMF) of MoHFW; and National Skills Development Authority (NSDA). The participating agencies will prepare IDPs to layout their capacity development activities. The project will develop a Capacity Development Operations Manual (CDOM) to describe operational details.

Table 2.5: Focus areas of capacity development for central skills agencies

Focus Areas	Possible activities to be supported
1. Knowledge generation and management	Management Information System (MIS); labor market assessments with special focus on gender dimensions; graduate/employer surveys; industry researches; industry intellectual property; etc.
2. Market relevance and quality of training	Private sector engagement; industry linkages, curriculum development & upgrading; competency standard development & upgrading; competency assessment; NTVQF implementation; Quality Assurance system; course development for new trades; strengthening of private training providers with salary subventions, etc.
3. Market efficiency and coordination of training and employment	Employment & job placement services; awareness-raising and communication strategy that are culturally sensitive; skills sector-wide coordination; standardization of certificates & curriculum; monitoring and evaluation; etc.

Focus Areas	Possible activities to be supported
4. Inclusiveness of training	Policy and training content review on inclusiveness of vulnerable groups and hard to reach populations; situation assessment for inclusiveness; sensitization campaign; gender policies; gender based violence prevention; etc.
5. Digitization of training and employment services	Online platform for training programs; online skills matching platform; data center upgrading; Digital platform and resources for training programs; learning management system (LMS); connectivity enhancement for institutions; etc.
6. COVID-19 responses	Impact assessments; communication campaign

Industry Skills Councils (ISCs): The project will also support capacity development and operation of the Industry Skills Councils (ISCs). Currently, 13 ISCs have been formally established under the private sector-led structure as a platform to bridge the gap between industries demand and skills development system. The project will support selected ISCs for (a) labor market research and forecasting, (b) competency standards development, (c) information system development, (d) industry assessor development, and (e) operational facilities/equipment and technical assistance. The project will enter into partnership agreements with participating ISCs. Sub-component 3.2: Project Management, Social Marketing, M&E (IDA: US$15 million; GoB: US$10 million; Total: US$25 million)

Project Management: This component will support project management and fiduciary management for implementation of the project interventions, monitoring and evaluation (M&E) activities, capacity development activities for PIU and key policymakers, social and environmental safeguard supervision, and operational and policy coordination across implementing agencies and partner agencies. The component will also support the communication and mobilization activities to inform beneficiaries and communities about the project activities and receive feedback from the project stakeholders to ensure grievance redress and citizen engagement. A Project Implementation Unit (PIU) will be established in DTE, under the leadership of TMED with the deputation of the staff from the partner implementing agencies.

Social marketing: Mass communication and promotion campaigns will be essential to improve the social perspective of technical education, especially to women and disadvantaged groups, about the importance, necessity, facilities, opportunities for skills development and future job prospects. Communication and social marketing contents will also include climate risk adaptability knowledge and awareness raising. It will leverage multiple channels of communication, both digital and traditional ones, to reach the critical mass and hard-to-reach groups of the target population. Communication strategies would include conferences, workshops, cultural programs in communities and schools, broadcasting on TVs and radio stations, and dissemination through social media such as Social Networking Service (SNS) and video sharing services. Skills competition, national and regional job fairs, and placement seminars will be organized by the project in partnership with employer organizations, where institutions will be supported to promote the job matching for technical graduates. Innovative campaigns to promote excellence such as best students, teachers, institutions awards will also be piloted.

M&E: The project will implement robust M&E activities and M&E capacity development for PIU, key implementing agencies, and institutions. The project will undertake a continuous data collection from all the project implementing entities for the monitoring of implementation progress to inform evidence-

based project management. A Project Management Information System (PMIS) will be established to ensure timely data collection from participating institutions. Data will be gender segregated where possible. Beneficiary feedback surveys will be undertaken to ensure regular feedback and monitoring of satisfaction among project beneficiaries. Other evaluation studies will be supported to assess the effectiveness and challenges of key interventions. Third-party verifications will be commissioned to verify the result achievements of industry partners. Graduate Tracer Surveys (GTSs) will be implemented centrally to assess the graduate employability of short-term and long-term training programs and to triangulate the self-reporting of the employment outcomes by participating institutions.

1.3 Project Beneficiaries

The project will directly benefit more than one million students and workers, including women and the disadvantaged, and skills agencies and institutions at central and local levels. The primary direct beneficiaries of the project include (a) students in post-secondary TVET institutions, (b) unemployed youth (aged between 16 to 39 years) in the labor market, (c) employed and self-employed workers and professionals in priority sectors, and (d) disadvantaged groups such as vulnerable women, informal sector workers, low-income youths, ethnic minorities, and PWDs, in Bangladesh. These individuals will be trained with market-demanded skills through long-term and short-term training programs and will benefit from an increased chance of employment, improved quality of jobs, and social empowerment. The project will also benefit (e) public and private skills training institutions and teachers through capacity enhancement activities, including teacher professional development, better teaching & learning environment, more market-relevant curriculum, greater industry partnership, etc., and (f) central skills agencies through institutional capacity development. The project will indirectly benefit (g) firms and employers in priority sectors with the increased availability of better-skilled workers and employees who will contribute to enhanced productivity. A summary of the expected beneficiaries of the ASSET project is provided in Table 2.6 below. Inclusiveness will be ensured across all the beneficiary groups with a special focus on population most affected by COVID-19 impacts, women and other advantaged groups. The total number of direct beneficiaries of trainees and workers is estimated to be at least around 1.1 million over the project period.

Table 1.6: Composition of Project Beneficiaries

Component	**Activity**	**Beneficiary Individuals**	**Beneficiary Institutions**	**Estimated approximate numbers of direct trainee beneficiaries (indicative share of female)**
Component 1	Activity 1.1: Strengthening employability and inclusiveness of diploma courses for	- Students/graduates from supported diploma level institutions in TVET - Teachers from supported	Public and private diploma level institutions in	500,000 (20% female)

Component	Activity	Beneficiary Individuals	Beneficiary Institutions	Estimated approximate numbers of direct trainee beneficiaries (indicative share of female)
	priority sectors	diploma level institutions in TVET - Students/graduates from MT and MATS institutions - Teachers from MT and MATS institutions	TVET Public and private MT and MATS institutions under MoHFW	
	Activity 1.2: Expanding Market-Demanded and Inclusive Formal Short-Courses for Priority Sectors	- Trainees in supported short-courses - Trainers of supported formal short courses	- Public and private short-course offering technical training institutes affiliated to BTEB, NSDA, and other public entities	200,000 (30% female)
	Activity 1.3: Establishing an international standard model polytechnic institute		-DTE	n/a
Component 2	Activity 2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness	- New entrants, existing workers, and mid-level managers in priority industry sectors - Informal sector workers - Workers in small and medium-sized enterprises	- Industry group partners	220,000 (40% female)
	Activity 2.2: Recognizing the skills of informal sector	- Informal sector workers - Returnee migrant workers	- RPL assessment	120,000 (30% female)

Component	Activity	Beneficiary Individuals	Beneficiary Institutions	Estimated approximate numbers of direct trainee beneficiaries (indicative share of female)
	workers		centers	
Component 3	Activity 3.1: Enhancing the institutional capacity of central government agencies of the skills development system		- Central agencies - NSDA - ISCs	n/a
	Activity 3.2: Social marketing	- Community members - Students at diploma level institutions and short-courses	- Diploma institutions	n/a

1.4 Involvement of other International Funding Agencies

The project will leverage technical resources from other Development Partners (DP). The technical assistance project supported by the Department for International Development (DFID) will provide technical assistance to the MoHFW to develop competency standards for MT/MA training programs, which will be utilized under the relevant ASSET project activity. The technical assistance project by the Japan International Cooperation Agency (JICA) is supporting DTE and polytechnics to develop master trainers for student-centered pedagogical skills. The project will leverage the improved resources for expanding teacher professional development. Future partnership opportunities are explored with potential partners such as the European Union and CANADA. Furthermore, the project will nurture important partnerships with industry organizations. These partners will provide the project with essential expertise and capabilities to achieve development objectives in terms of ensuring market relevance and reaching out to the most disadvantaged.

1.5 Project Development Objectives (PDO)

The Project Development Objective (PDO) is **'to equip Bangladeshi youth and workers, including women and the disadvantaged, with skills demanded for the future of work and improved employment prospects'**.

Skills demanded for the future of work here refer to (i) skill areas for emerging occupations in priority areas identified by training providers; and (ii) skill areas identified by partner agencies in their sectors.

Equip refers to improving the quantity and quality of skills that individuals possess.

The disadvantaged refers to people who face significant social or economic vulnerabilities, including low-income workers, unemployed youths, people with disabilities, ethnic minorities, and microenterprise owners and workers.

The PDOs will be measured by the following outcome level indicators, and will be aheived over a 5-year period through a multi-stakeholders coordination approach:

1. Employment rates of graduates from project-supported short courses (% for female)
2. Employers' satisfaction level with the skills of graduates from project-supported diploma programs
3. Total number of vulnerable women and disadvantaged employed (trained, as a sub-indicator) (% of female)
4. Total number of trainees trained for skills needed for future of work (% of female)

Corporate results indicators to be included are (i) teachers trained and (ii) students benefiting from direct interventions to enhance learning. Both will be included as intermediate results indicators.

1.6 Project Location

The location of the ASSET project would be spread over all the districts and most of the sub-districts and would be located within the existing premises of the different training and skill development institutions of the implementing partners. The type of institutions are Polytechnics, other technical institutes, Technical School & Colleges (TSCs), Institutes of Marine Technology (IMT), Textile Institutes, Technical Training Centers (TTCs), Textile Vocational Institutes (TVIs), Bangladesh Industrial and Technical Assistance Center (BITAC), Small Cottage Industries Training Institute (SCITI), Industry Skills Councils (ISCs), Institute of Health Technology, Medical Assistant Training School and some local NGOs to be associated through Competitive Institutional Grant (CIG). District wise location map of the ASSET institutes is furnished in Figure 2.1.

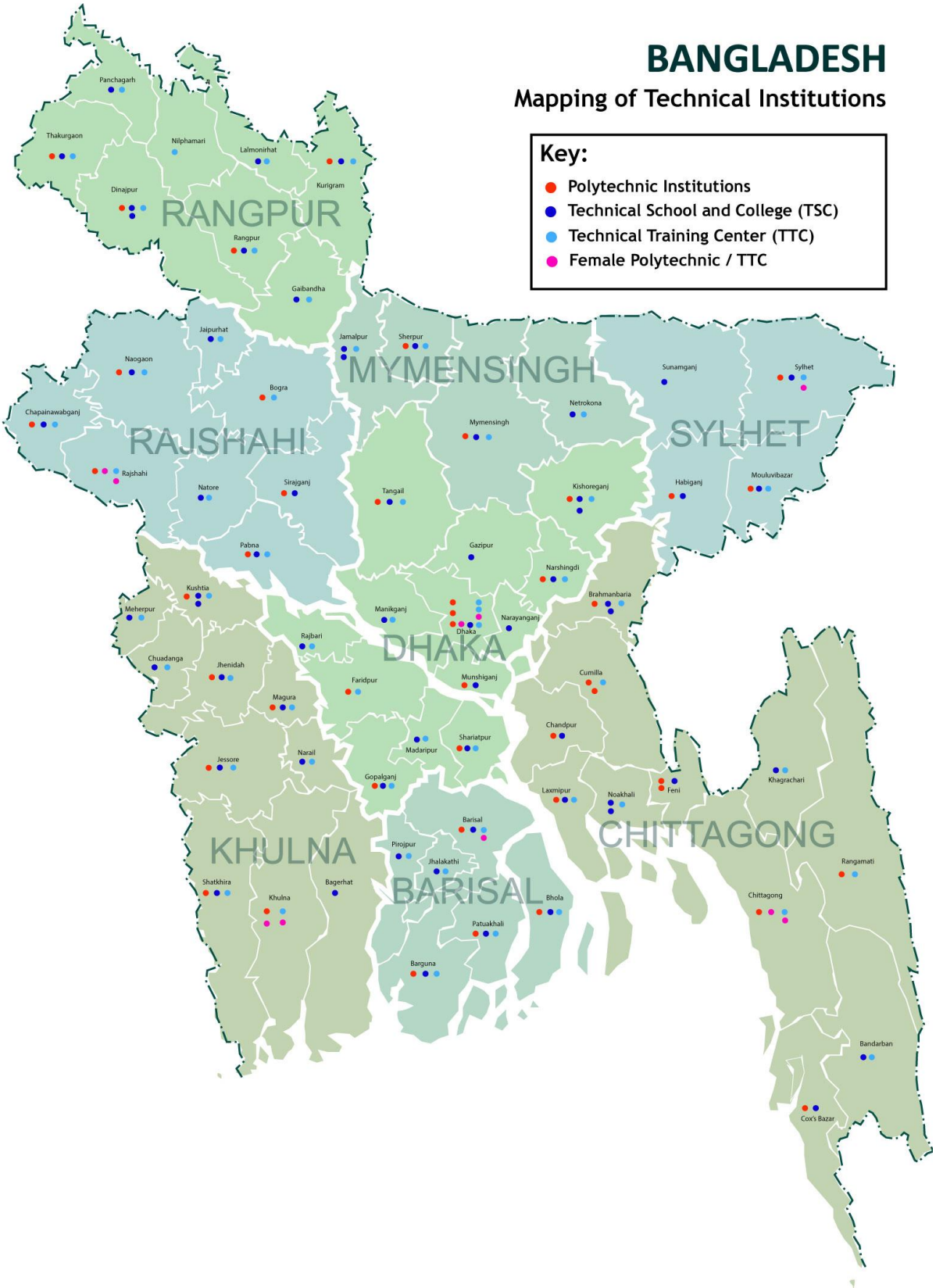

Figure 2.1: Location of the technical institutions of the ASSET Project

Chapter 3: Overview of Policy, Legal and Regulatory Framework

This Chapter presents a review of the national policy, legal, and regulatory framework relevant to the environmental and social aspects of the ASSET Project. In addition to the national environmental and social FW, WB ESF are also been discussed.

3.1 Review of National Environmental and Social Policy, Legal and Regulatory Framework

Key applicable national policies, strategies, plans, acts, rules and regulations laid out by the Government of Bangladesh in the following list. However, their key provisions, purpose and relevance to the ASSET Project pertaining to the environment and social aspects are briefly discussed in Annex 8.

- Bangladesh Environmental Conservation Act (ECA), 1995
- Bangladesh Environmental Conservation Rules (ECR), 1997
- Bangladesh Environment Court Act, 2010
- The Protection and Conservation of Fish Act (1950)
- Protection and Conservation of Fish Rules (1985)
- Bangladesh Wildlife (Protection and Preservation) Act 2012
- Bangladesh Labour Act, 2006, (as amended 2018); Bangladesh Labour Rules, 2015; and Bangladesh Child Labour Mitigation Policy, 2010
- Bangladesh National Building Code, 2006
- The Noise Pollution Control Rules, 2006
- Road Transport Act, 2018
- The Water Supply and Sanitation Act (1996)
- The Ground Water Management Ordinance (1985)
- The Antiquities Act (1968)
- Acquisition and Requisition of Immovable Property Act, 2017
- Bangladesh Medical Waste Management and Processing Rules 2008
- Bangladesh Biosafety Guideline 2007
- The East Bengal State Acquisition and Tenancy Act 1950 (Act XV of 1951)
- CHT (Land Acquisition) Regulation, 1958 (as amended 2019)

3.2 Applicable International Treaties Signed by the GoB

Bangladesh has signed most international treaties, conventions and protocols on environment, pollution control, bio-diversity conservation and climate change, including the RAMSAR Convention, the Bonn Convention on Migratory Birds, the Rio de Janeiro Convention on Biodiversity Conservation, and the Kyoto Protocol on Climate Change. A list of the relevant international treaties signed by GoB is furnished below, while a detail overview of the international treaties listed below is shown in Annex 9.

- Protection of birds (Paris)
- Ramsar Convention
- Protocol on Waterfowl Habitat
- World Cultural and Natural Heritage (Paris)
- Bonn Convention

- Prevention and Control of Occupational hazards
- Occupational hazards due to air pollution, noise & vibration (Geneva)
- Occupational safety and health in working environment (Geneva)
- Occupational Health services
- Convention on oil pollution damage (Brussels)
- Civil liability on transport of dangerous goods (Geneva)
- Safety in use of chemicals during work
- Convention on oil pollution
- UN framework convention on climate change (Rio de Janeiro)
- Convention on Biological Diversity (Rio de Janeiro)
- International Convention on Climate Changes (Kyoto Protocol)
- Indigenous and Tribal Populations Convention
- ILO Convention No 29 on Forced Labour
- ILO Convention no. 182 on Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour
- Migrant Workers (Supplementary Provisions) Convention
- Convention on the Elimination of All Forms of Discrimination Against Women

3.3 World Bank's Environmental and Social Framework

Since October 2018, all World Bank funded Investment Project Financing (IPF) are required to follow the **Environmental and Social Framework (ESF) consisting of ten (10) Environment and Social Standards (ESSs).** These ESSs set out their requirement for the ASSET implementing agencies relating to the identification and assessment of environmental and social risks and impacts associated with any project. The ESSs support the IAs in achieving good international practice relating to environmental and social sustainability, assist them in fulfilling their national and international environmental and social obligations, enhance transparency and accountability and ensure sustainable development outcome through ongoing stakeholder engagement.

The ESF sets out its commitment to sustainable development, through Bank Policy and a set of Environmental and Social Standards that are designed to support ASSET project, with the aim of ending extreme poverty and promoting shared prosperity. The part of Bank's Environmental and Social Policy for investment project financing sets out the requirement that the Bank must follow regarding projects it supports through Investment Project Financing that include:

- Environmental and social risk classification
- Use and strengthening of ASSET's environmental and social framework
- Environmental and social due diligence
- Special project types.

- Environmental and Social Commitment Plan (ESCP)
- Information disclosure
- Consultation and participation
- Monitoring and implementation support.
- Grievance mechanism and accountability

On the other hand, following set of standards are required for ASSET partner's to abide by:

1. Environmental and Social Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
2. Environmental and Social Standard 2: Labor and Working Conditions;
3. Environmental and Social Standard 3: Resource Efficiency and Pollution Prevention and Management;
4. Environmental and Social Standard 4: Community Health and Safety;
5. Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
6. Environmental and Social Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
7. Environmental and Social Standard 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
8. Environmental and Social Standard 8: Cultural Heritage;
9. Environmental and Social Standard 9: Financial Intermediaries; and
10. Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure.

OP/BP7.50, Projects on International Waterways; and OP/BP7.60, Projects in Disputed Territories.

Table 3.3 summarizes the ESS requirements and their relevance to the ASSET components:

Table 3.3 WB ESS requirements and relevance to the ASSET project

World Bank ESS Policy, Standards, Directive	**Objectives**	**Requirements**	**Relevance & Extent of Relevance to the sub-project/project**
World Bank Environment and Social Policy for Investment Project Financing	It sets out the mandatory requirements of the Bank in relation to the projects it supports through Investment	The types of E&S risk and impacts that should be considered in the environmental and social assessment. The use and strengthening of the	Applicable to the ASSET project and it's all activities

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	Project Financing.	Borrower's environmental and social framework for the assessment, development and implementation of World Bank financed projects where appropriate.	
ESS-1 Assessment and Management of Environmental and Social Risks and Impacts	Identify, assess, evaluate, and manage environment and social risks and impacts in a manner consistent with the ESF. Adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities	The types of E&S risk and impacts that should be considered in the environmental and social assessment. The use and strengthening of the Borrower's environmental and social framework for the assessment, development and implementation of World Bank financed projects where appropriate.	E&S risks and Impacts have been preliminary identified based on consultations with primary stakeholders including communities and implementing agency. Detailed IEE/ESIA and ESMP will be prepared in addition to this ESMF, where required.
ESS-2 Labor-and-Working-Conditions	Promote safety and health at work. Promote the fair treatment, non-discrimination, and equal opportunity of project workers. Protect project workers, with particular emphasis on vulnerable workers. Prevent the use of all forms of forced labor and child labor. Support the principles of freedom of association and	Requirements for the Borrower to prepare and adopt labor management procedures. Provisions on the treatment of direct, contracted, community, and primary supply workers, and government civil servants. Requirements on terms and conditions of work, non-discrimination and equal opportunity and workers organizations. Provisions on child labor and forced labor. Requirements on occupational health and safety, in keeping with the	A separate LMF has been prepared, besides other site specific management plans (e.g. OHS) will be prepared during construction phase, suggested by the ESMP to be prepared, which defines measures to be taken to address this ESS2.

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	collective bargaining of project workers in a manner consistent with national law. Provide project workers with accessible means to raise workplace concerns.	World Bank Group's Environmental, Health, and Safety Guidelines (EHSG).	
ESS-3 Resource-Efficiency-and-Pollution-Prevention-and-Management	Promote the sustainable use of resources, including energy, water, and raw materials. Avoid or minimize adverse impacts on human health and the environment caused by pollution from project activities. Avoid or minimize project-related emissions of short and long-lived climate pollutants. Avoid or minimize generation of hazardous and non-hazardous waste. Minimize and manage the risks and impacts associated with pesticide use. Requires technically and financially feasible measures to improve efficient consumption of energy, water, and raw materials, and introduces specific requirements for	Requires an estimate of gross greenhouse gas emissions resulting from project (unless minor), where technically and financially feasible. Requirements on management of wastes, chemical and hazardous materials, and contains provisions to address historical pollution. ESS-3 refers to national law and Good International Industry Practice, in the first instance the World Bank Groups' EHSGs.	With respect to Resource Efficiency, the project and the ESA process will identify feasible measures for efficient (a) energy use; (b) water usage and management to minimize water usage during construction/ renovation, conservation measures to offset total construction water demand and maintain balance for demand of water resources; and (c) raw materials use by exploring use of local materials, recycled aggregates, use of innovative technology so as to minimize project's foot prints on finite natural resources. With respect to Pollution Management, based on past STEP project experiences by DTE and others IAs, the project will develop, as part of the ESA process, prevention and management measures

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	water efficiency where a project has high water demand.		to offset risks and impacts of pollution from potential sources such as dust and emission from operation of hot-mix and batching plants, crushers, construction and haulage vehicles, material and spoil stockpile; effluents and wastewater from labor camps, construction camp; spillage or leakage during handling of chemical admixtures, hazardous materials like high strength diesel, used oil, battery wastes etc.; and disposal of non-hazardous wastes (municipal wastes) generated from laboratories, residential buildings (hostels) during project implementation period.
ESS-4 Community-Health-and-Safety	Anticipate or avoid adverse impacts on the health and safety of project-affected communities during project life-cycle from routine and non-routine circumstances. Promote quality, safety, and climate change considerations in infrastructure design and	Requirements on infrastructure, taking into account safety and climate change, and applying the concept of universal access, where technically and financially feasible. Requirements on traffic and road safety, including road safety assessments and monitoring. Addresses risks arising from impacts on provisioning and regulating ecosystem service.	In the ASSET project there is likely to be i) use of vibratory equipment, construction debris handling and disposal etc. during construction; ii) high likelihood of direct exposure to increased construction related traffic and equipment especially on campus traversing settlement area with limited

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	construction, including dams. Avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials. Have in place effective measures to address emergency events. Ensure that safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.	Measures to avoid or minimize the risk of water-related, communicable, and non-communicable diseases. Requirements to assess risks associated with security personnel, and review and report unlawful and abusive acts to relevant authorities.	carriageway/roadway width, and sensitive receptors such as schools, religious place, health center/hospitals; iii) high dust levels, high noise and emission level in construction sites; iv) expansion of lab and those operation may cause potential waste generation; and v) influx of migrant workers could potentially cause local discomfort or potential conflicts with local people. Site specific management plans will be developed following the guideline of ECoPs.
ESS-5 Land-Acquisition-Restrictions-on-Land-Use-and-Involuntary-Resettlement	Avoid or minimize involuntary resettlement by exploring project design alternatives. Avoid forced eviction. Mitigate unavoidable adverse impacts from land acquisition or restrictions on land use by providing compensation at replacement cost and assisting displaced persons in their efforts to improve, or at least restore, livelihoods and living standards to pre-displacement levels or	Applies to permanent or temporary physical and economic displacement resulting from different types of land acquisition and restrictions on access. Does not apply to voluntary market transactions, except where these affect third parties. Provides criteria for "voluntary" land donations, sale of community land, and parties obtaining income from illegal rentals. Prohibits forced eviction (removal against the will of affected people, without legal and other protection including all applicable procedures and principles in ESS5). Requires	**A separate RPF has been prepared to address ESS5.** Land will be required for widening, upgradation works in identified sites and possibly for rehabilitation works, and other infrastructures, etc. Hence impacts on land, private and community owned assets including structures, trees and crops within existing campus is likely. Physical and economic displacement too is very likely. Guideline provided in the RPF associated

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	to levels prevailing prior to the beginning of project implementation, whichever is higher. Improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure. Conceive and execute resettlement activities as sustainable development programs.	that acquisition of land and assets happens only after payment of compensation and resettlement has occurred. Requires community engagement and consultation, disclosure of information and a grievance mechanism.	with this ESMF will follow for each sub-projects.
ESS-6 Biodiversity-Conservation	Protect and conserve biodiversity and habitats. Apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity. To promote the sustainable management of living natural resources.	Requirements for projects affecting areas that are legally protected designated for protection or regionally/internationally recognized to be of high biodiversity value. Requirements on sustainable management of living natural resources, including primary production and harvesting, distinguishing between small-scale and commercial activities. Requirements relating to primary suppliers, where a project is purchasing natural resource commodities, including food, timber and fiber.	Not relevant. However, site clearance activities for building constructions/renovation may involve removal of vegetation and felling of trees on campus and temporary disturbance of homestead wild animals. If triggered in any intervention site during implementation phase, site specific plantation plan, and Biodiversity Management and Conservation Plan will be prepared in addition to the ESMP.
ESS-7 Indigenous-	Ensure that the development process	Applies when the Indigenous Peoples are present or have a	Highly Relevant to the ASSET project. Hence

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
Peoples	fosters full respect for affected parties' human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods. Promote sustainable development benefits and opportunities in a manner that is accessible, culturally appropriate and inclusive. Improve project design and promote local support by establishing and maintaining an ongoing relationship based on meaningful consultation with affected parties. Obtain the Free, Prior, and Informed Consent (FPIC) of affected parties in three circumstances. Recognize, respect and preserve the culture, knowledge, and practices of Indigenous Peoples, and to provide them with an opportunity to adapt to changing conditions in a manner and in a timeframe acceptable to them.	collective attachment to the land, whether they are affected positively or negatively and regardless of economic, political or social vulnerability. The option to use different terminologies for groups that meet the criteria set out in the Standard. The use of national screening processes, providing these meet World Bank criteria and requirements. Coverage of forest dwellers, hunter gatherers, and pastoralists and other nomadic groups. Requirements for meaningful consultation tailored to affected parties and a grievance mechanism. Requirements for a process of free, prior and informed consent in three circumstances.	substantial provisions will be required to address the impacts on these SEC households. **A separate SECDP has been prepared to address ESS7 requirements.**
ESS-8 Cultural-Heritage	Protect cultural heritage from the	Requires a chance finds procedure to be established.	Locations of the project are yet to define. So, it is

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	adverse impacts of project activities and support its preservation. Address cultural heritage as an integral aspect of sustainable development. Promote meaningful consultation with stakeholders regarding cultural heritage. Promote the equitable sharing of benefits from the use of cultural heritage.	Recognition of the need to ensure peoples' continued access to culturally important sites, as well as the need for confidentiality when revealing information about cultural heritage assets that would compromise or jeopardize their safety or integrity. Requirement for fair and equitable sharing of benefits from commercial use of cultural resources. Provisions of archaeological sites and material, built heritage, natural features with cultural significance, and moveable cultural heritage.	not sure to have any ancient monuments and/or archaeological site(s), protected, and religious structures/shrines of local importance. This ESMF has suggested a guideline to address the ESS8.
ESS-9 Financial-Intermediaries	Sets out how Financial Intermediaries (FI) will assess and manage environmental and social risks and impacts associated with the subprojects it finances. Promote good environmental and social management practices in the subprojects the FI finance. Promote good environmental and sound human resources management within the FI.	Financial Intermediaries (FIs) to have an Environmental and Social Management System (ESMS) - a system for identifying, assessing, managing, and monitoring the environmental and social risks and impacts of FI subprojects on an ongoing basis. FI to develop a categorization system for all subprojects; with special provisions for subprojects categorized as high or substantial risk. FI borrowers to conduct stakeholder engagement in a manner proportionate to the risks and impacts of the FI subprojects.	Not relevant as there is no financial intermediary involved.
ESS-10 Stakeholder-Engagement-and-	Establish a systematic approach to stakeholder	Requires stakeholder engagement throughout the project life cycle, and	**A separate SEP has been prepared to address ESS10.**

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
Information-Disclosure	engagement that helps Borrowers identify stakeholders and maintain a constructive relationship with them. Assess stakeholder interest and support for the project and enable stakeholders' views to be taken into account in project design. Promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life-cycle. Ensure that appropriate project information is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner.	preparation and implementation of a Stakeholder Engagement Plan (SEP). Requires early identification of stakeholders, both project-affected parties and other interested parties, and clarification on how effective engagement takes place. Stakeholder engagement to be conducted in a manner proportionate to the nature, scale, risks and impacts of the project, and appropriate to stakeholders' interests. Specifies what is required for information disclosure and to achieve meaningful consultation.	
Environmental and Social Directive for Investment Project Financing	This Directive applies to the Bank and sets out the mandatory requirements for the implementation of the Environmental and Social Policy for Investment Project Financing (IPF).	It lays down the following responsibilities of the Bank to manage ES risks and impacts as below: a) undertake its own due diligence of the ES risks and impacts related to the Project; b) support the Borrower to engage in meaningful consultation with stakeholders, in particular affected communities, and in providing Project-based	Applies to Bank in addressing E&S aspects of this project

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
		grievance mechanisms; c) assist the Borrower in identifying appropriate methods and tools to assess and manage the potential ES risks and impacts of the Project; d) agree with the Borrower on the conditions under which the Bank is prepared to provide support to the Project, as set out in the ESCP; and e) monitor the ES performance of a Project in accordance with the ESCP and the ESSs.	
Bank Directive Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups	This Directive establishes directions for Bank staff regarding due diligence obligations relating to the identification of, and mitigation of risks and impacts on, individuals or groups who, because of their particular circumstances, may be disadvantaged or vulnerable	It requires the Bank task team to support the borrower in establishing arrangements for the undertaking and preparation of the environmental and social assessment of the project as required by ESS1. It reviews the terms of reference for the environmental and social assessment to verify that (a) identifies (or requires the identification of) groups or individuals affected by the project that may be disadvantaged or vulnerable; and (b) requires an assessment of project risks and impacts, and identification of differentiated mitigation measures, as they pertain to the disadvantaged or vulnerable individuals or groups that are identified.	Applies to Bank in addressing E&S risks and impacts on disadvantaged and vulnerable persons or groups that are identified in this project area.
World Bank's	The document	Requires HPRIDC to prepare a	Applicable to all activities

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
Guidance note on managing the risks of adverse impacts on communities from temporary project induced labor influx, 2016	provides guidelines to address issues and risks arising from influx of migrant labor leading to gender-based violence, forced labor etc. especially focusing on Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) in civil works sites.	labor influx management and GBV risk mitigation plan	of project, as influx of migrant labor in construction works is a norm in many parts of the country. **A separate GBVF for ASSET has been prepared.**
ESF/Safeguards Interim Note: Covid-19 considerations in construction/civil works projects	This note was issued on April 7, 2020 and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued. This interim note is intended to provide guidance to teams on how to support Borrowers in addressing key issues associated with COVID-19 and consolidates the advice that has already been provided over the past month. As such, it should be used in	The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Contractor will be required: • to take all necessary precautions to maintain the health and safety of the Contractor's Personnel	Applicable to all activities of project during COVID-19 pandemic.

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	place of other guidance that has been provided to date.	• to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents • to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation • to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics	
World Bank Groups' EHSGs, IFC, 2007			
General EHS Guidelines, April, 2007, IFC	The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors	Requirements on environmental, health, and safety issues during construction of project road.	Yes
EHS Guidelines for Construction Materials Extraction, April 2007, IFC	The EHS Guidelines contain the performance levels and measures that are considered to construction materials extraction	Requirements on the resource management of construction materials extraction activities such as aggregates, limestone, slates, sand, gravel, clay, gypsum, feldspar, silica sands, and	Yes

World Bank ESS Policy, Standards, Directive	Objectives	Requirements	Relevance & Extent of Relevance to the sub-project/project
	activities such as aggregates, limestone, slates, sand, gravel, clay, gypsum, feldspar, silica sands, and quartzite	quartzite	

3.4 Gap Analysis of World Bank Requirements and National Laws

A gap analysis between WB's ESSs and GoB Regulations was conducted as part of the E&S capacity assessment of the ASSET LIA (DTE) and CIAs. The results of the gap analysis indicated that the ES risk assessment and management system for development projects in Bangladesh is open-ended but just like other country's EIA systems, does not cover all the World Bank ESF's ES Standards. The ECA/ECR does not even define the scope of the EIA study (or the IEE), leaving it to the EIA prepare to determine the scope through initial assessment/screening. The coverage of the EIA study therefore would depend on the expertise of the EIA team or the DOE reviewers. There is no assurance that each ES Standard (1-8 and 10) are considered in the EIA study and the formulation of the ESMP. Although the EIA is heavy towards the environmental aspects, more and more social issues are incorporated in the assessment. Moreover, the practice under normal circumstances does not include labor management issues. Another critical gap pertains to lack of provisions for requiring the preparation of project-specific ES management plans. The eminent domain land acquisition system for example does not require the preparation of RAP. The projects are also not required to formulate their own Labor Management Procedures/Plans. Given the gaps, this ESMF will follow the most stringent standards and requirement. Table 3.4 below has given an overview of the gaps between GoB laws and WB's ESSs and steps suggested to address those gaps.

Table 3.4: Gaps between GoB laws and World Bank ESSs

WB ESF Standard	Gaps	Gap Minimization
ESS1: Assessment and Management of Environmental and Social Impacts and Risks	(i) ESIA study screening and scoping do not guarantee coverage of all ESS standards in the assessment. (ii) The stakeholder engagement during the conduct of the ESIA is limited and the ESIA report is not disclosed. (iii) The ESIA system in Bangladesh does not require analysis of alternatives.	ESMF has suggested to follow the ESS1 requirements, given in the relevant sections of Environmental Management Procedures. In case, DoE rules/regulations do not cover the ESS requirements, relevant clauses should be added in the Financial Agreements and Project Appraisal Document to follow the more stringent safeguards requirements according to WB ESF.
ESS2: Labor and Working Conditions	(i) The Labor Act does not specifically require that development be assessed and reviewed in terms of labor and working conditions	A separate LMF has been prepared which will guide requirements for OHS plan. Guideline for developing Site Specific

WB ESF Standard	Gaps	Gap Minimization
	including OHS requirements before approval. (ii) The Labor Act does not require development projects to prepare Labor Management Plans/Procedure or OHS Plan.	Management plans including OHS has been included in this ESMF.
ESS3: Resource Efficiency and Pollution Prevention and Management	Existing energy and water conservation policies, laws and regulations do not require development projects to assess resource efficiency issues and incorporate resource efficiency measures in their ES risk management plans.	ESMP to be developed for ASSET components will address this issue, and incorporate mitigation measures for efficient use of water resources.
ESS4: Community Health and Safety	Covered under ESIA but the systems do not provide clear requirements for the development project and implementation. Health issues are within the purview of MoHFW, which is a co-implementing partner of the ASSET.	Guideline for Community Health Safety has been addressed in LMF and GBVF.
ESS5: Land Acquisition, Land Use Restriction and Involuntary Resettlement	Bangladesh: ARIPA (i) does not require the preparation of RAP; (ii) does not provide compensation or assistance to those who do not have formal legal claim to the land; (iii) does not provide transitional allowances for restoration of livelihoods for informal settlers; (iv) relies on cash compensation, no developmental objectives; (v) no provision to give special attention to the vulnerable groups (vi) valuation of lost asset is not based on "replacement cost' standard	A separate RPF has been prepared which on agreement will be followed as part of ESMF.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	No equivalent requirements on: (i) the application of hierarchy of measures; (ii) the preparation of Biodiversity Management Plan; (iii) differentiated measures on types of habitats; (iii) conduct of due diligence on primary suppliers.	Not so relevant for ASSET, as most of the activities will be undertaken in the existing premises. However, a detail guideline has been given in ESMP preparation section for protection of homestead plants and animal biodiversity. Besides, site specific management plans will be prepared for each construction/

WB ESF Standard	Gaps	Gap Minimization
		renovation sites.
ESS7: Indigenous People	No equivalent requirements on: (i) coverage of IP impacts in the ESIA; (ii) special treatment or differentiated approach to IPs and vulnerable groups; (iii) conduct of FPIC; (iv) development of IP Plan.	Highly relevant for ASSET as its activities address SEC skill development. A separate SECDP will has been prepared following the ESS7 requirements.
ESS8: Cultural Heritage	No equivalent requirements on: (i) the application of hierarchy of measures; (ii) the development of Cultural Heritage Management Plan; (iii) the development and adoption of project-specific Change Find Procedures; and (iv) the engagement of cultural heritage experts.	Detail guideline has been given in the ESMP section. A separate RPF has also been prepared addressing this ESS8, cultural heritage.
ESS9: Financial Intermediaries	Not applicable to country system. Project proponents regardless of funders are subject to the same country laws.	N/A
ESS10: Stakeholder Engagement and Information Disclosure	The ECA/ECR does not specifically require consultation but the ESIA guidelines issued by DOE and other agencies recommends public consultations during scoping and the preparation of the ESIA. There is also no provision for any stakeholder engagements during project implementation	A separate SEP has been prepared. Besides, guideline for stakeholders engagement has been provided in this ESMF will be followed.

3.5 Application of GoB Policies, Acts and Rules on ASSET components and their Classification

The legislations relevant for environmental assessment for ASSET components are the Environmental Conservation Act 1995 (ECA'95) and the Environmental Conservation Rules 1997 (ECR'97).

Article-12 of Environment Conservation Act ’1995, the key act governing environmental protection in Bangladesh, states that ‘No industrial unit or project shall be established or undertaken without obtaining, in the manner prescribed by rules, an Environmental Clearance Certificate from the Director General (of Department of Environment, DoE)’ and one of the key procedures to obtain the Environmental Clearance Certificate is to undertake an effective and expert environmental assessment. This assessment might simply be a screening and categorization or an IEE or a comprehensive EIA.

In order to set an illustrative directive for abiding by the act, Bangladesh Government through the Environmental Conservation Rules ’1997 and its subsequent amendments, as specified in rule 7(2), present a categorization of all the potential industrial interventions or projects into four distinct types- Green, Orange A, Orange B and Red, considering the site of the interventions and impact on the environment. The procedure and required documents for obtaining environmental clearance in favor of each category have also been presented by the DOE. As part of a government entity, DTE and other co-

implementing agencies is obliged to abide by all these acts and rules, in addition of other GOB acts, rules or guidelines.

As per ECR'97, most the components/sub-components and associated activities are likely to fall ranging under either Orange A or Orange B as has significant impact on the surrounding environmental and social components, likely to have negative environmental and social impacts demands both IEE and/or EIA. Overall, the proposed project is targeting to intervene a wide range of environmental and social elements covering a vast area of rural environment, with rehabilitation/construction of a number of small scale infrastructures and expansion/construction/rehabilitation of clinical/chemical/engineering labs **may fall under the schedule 'Orange-A or Orange-B' based on ECR '97 of DoE.** It is suggested that the project should conduct IEE for specified activities at the initial stage and based on IEE's recommendation, ESIA should be carried out for that activities (if recommended by DoE).

It is the responsibility of the PIU/DTE to conduct IEE and ESIA (if required) of the project activities, the responsibility to review IEE and ESIA for the purpose of issuing Environmental Clearance Certificate rests on DoE. The Department of Environment (DoE), the technical arm of the Ministry of Environment, Forests and Climate Change (MoEFCC) is the regulatory body and the enforcement agency of all environmental related activities. Like all other projects, this project also needs to meet the requirement of the DoE. ***The procedures for "Orange A and Orange B" Category include submission of:***

- An Initial Environmental Examination (IEE), and
- An Environmental and Social Impact Assessment (EIA), if prescribed by DoE, and
- An Environmental and Social Management Plan (EMP)

Environment clearance has to be obtained by the respective implementing agency or project proponent (private sector) from Department of Environment (DoE). The environmental clearance procedure for Orange-A and Orange-B Category projects can be summarized as follows:

Application to DoE→Obtaining Site Clearance→Applying for Environmental Clearance→Obtaining Environmental Clearance→Clearance Subject to Annual Renewal.

Steps to be followed for obtaining Environmental Clearance Certificate (ECC) in connection with the construction/ reconstruction from DoE are outlined in Figure 3.1. Public participation or consultation is not a condition in the ECR '97 and or IEE/EIA Guidelines, however, DoE prefers the proponent to engage in public participation and put conditions while providing site clearance or during the approval of the EIA ToR.

The proposed interventions of the ASSET will comply with all the policy directives of the National Environmental Policy, 1992 emphasizing reducing probable environmental impacts. The ASSET broadly contributes toward achieving the aims and objectives of the climate change adaptation strategies and will contribute towards achieving the objective of pillars of Bangladesh Climate Change Strategy & Action Plan, 2009, such as (i), (ii), (iii), (iv), and (vi). Most of the clauses of National Water Policy, 1999 will be applicable to the ASSET and ASSET interventions are so planned that they would abide all those clauses. The ASSET is designed in accordance with the Strategy of National Land Use Policy, 2001 and will comply with the requirements.

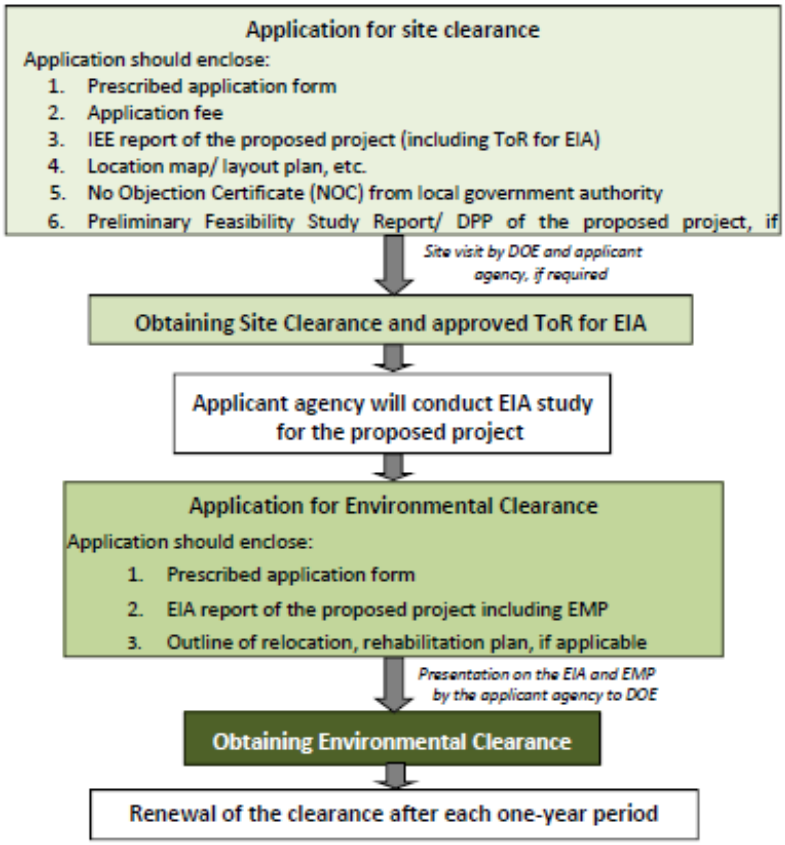

Figure 3.1: Process of obtaining Clearance certificate from DoE

The proposed ASSET is expected to adhere to all sub-sectoral clusters of National Water Management Plan, 2001, expected to contribute to achieve the objectives of the National Environment Policy, 1992, National Environmental Management Action Plan, 1995, National Agriculture Policy, National Adaptation Programme of Actions, 2005, all existing Fisheries policies, strategies, Acts & Rules.

ASSET's all intervention activities are planned and will be implemented abiding Bangladesh Wildlife (Protection and Preservation) Act 2012, Bangladesh Wildlife (Preservation) Order & and Act (1974), Forestry Acts & its amendments, Private Forest Act (PFA), 1959, Embankment and Drainage Act, 1952, Bangladesh Water Act, 2013, Bangladesh Labor Act, 2006, Bangladesh National Building Code, 2006.

3.6 Application of WB ESSs

Key environmental and social risks and impacts of the proposed program are anticipated to occur largely during implementation phase due to construction/renovation/expansion phase within existing footprints. Key impacts include: (i) poor labor and working environment; (ii) occupational health and safety of project workers including induced risks regarding workplace and community health and safety; (iii) noise, vibration, and dust pollution including waste generation and management during construction of civil works; (iv) displacement of squatters living within the premises, (iv) induced risk of gender-based violence from labor employed in the civil works sites; (v) hiring of child labor for civil works; (vi) adverse impacts on the squatters and/or encroachers living on some of the construction sites; and (vii) ensuring culturally appropriate benefits to the indigenous and other disadvantaged communities from the

project's various initiatives for skill development and other interventions following the Bank's directive on Disadvantaged or Vulnerable Individuals or Groups.

All ESSs will be applicable in the ASSET program, except the limited implication of ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources, and irrelevancy of ESS 9: Financial Intermediaries, and WB's legal policies for Projects on International Waterways (OP 7.50); and Project Disputed Areas (OP 7.60). Considering the associated environmental and social risk, ASSET project has been classified as '**Moderate**', as most of the impacts are localized and reversible in nature with or without mitigation.

Chapter 4: Potential Key Environmental and Social Impacts

4.1 Impact Assessment and Prediction (ESS 1-8)

This section discusses the guideline to predict the potential and mostly typical impacts on the key environmental and social parameters of the ASEET influence area based on the overall baseline, assessment of project components/sub-components and the primary assessment of the activities.

4.1.1 Impact Assessment Methodology

The assessment of effects and identification of residual impacts takes account of any incorporated mitigation measures adopted due to any anticipated potential impact of Project activities, and will be largely dependent on the extent and duration of change, the number of people or size of the resource affected and their sensitivity to the change. Potential impacts can be both negative and positive (beneficial), and the methodology defined below will be applied to define both beneficial and adverse potential impacts.

The criteria for determining significance are generally specific for each environmental and social aspect but generally the magnitude of each potential impact is defined along with the sensitivity of the receptor. Generic criteria for defining magnitude and sensitivity used for the Project are summarized below:

Impact Magnitude

The assessment of magnitude shall be undertaken in two steps. Firstly, the key issues associated with the ASSET project are categorized as beneficial or adverse. Secondly, potential impacts shall be categorized as Very High, High, Moderate and Low based on consideration of the parameters such as:

- Duration of the potential impact;
- Spatial extent of the potential impact;
- Reversibility;
- Likelihood; and
- Legal standards and established professional criteria.

The magnitude of potential impacts of the project shall be identified according to the categories outlined in Table 4.1.

Table 4.1: Parameters for Determining Magnitude

Parameter	Very High	High	Moderate	Low/Nil
Duration of potential impact	Long term (more than 20 years)	Medium Term Lifespan of the Project (5 to 10 years)	Less than project lifespan	Temporary with no detectable potential impact
Spatial extent of the potential impact	Widespread far beyond project boundaries	Beyond immediate Project components, site	Within project boundary	Specific location within project component or

Parameter	Very High	High	Moderate	Low/Nil
		boundaries or local area		site boundaries with no detectable potential impact
Reversibility of potential impacts	Potential impact is effectively permanent, requiring considerable intervention to return to baseline	Potential impact requires a year or so with some interventions to return to baseline	Baseline returns Naturally or with limited intervention within a few months	Baseline remains constant
Legal standards and established professional criteria	Breaches national standards and or international guidelines/obligations	Complies with limits given in national standards but breaches international lender guidelines in one or more parameters	Meets minimum national standard limits or international guidelines	Not applicable
Likelihood of potential impacts occurring	Occurs under typical operating or construction conditions (Certain)	Occurs under worst case (negative impact) or best case (positive impact) operating conditions (Likely)	Occurs under abnormal, exceptional or emergency conditions (occasional)	Unlikely to occur

Sensitivity of Receptor

The sensitivity of a receptor shall be determined based on review of the population (including proximity/numbers/vulnerability) and presence of features on the site or the surrounding area. Criteria for determining receptor sensitivity of the project's potential impacts are outlined in Table 4.2.

Table 4.2: Criteria for Determining Sensitivity

Sensitivity Determination	Definition
Very Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or minimal opportunities for mitigation.
Severe	Vulnerable receptor with little or no capacity to absorb proposed changes or limited opportunities for mitigation.
Mild	Vulnerable receptor with some capacity to absorb proposed changes or moderate opportunities for mitigation
Low/Negligible	Vulnerable receptor with good capacity to absorb proposed changes or/and good opportunities for mitigation

Risk Classification (ESS1)

Environmental and social risk classification takes into account relevant potential risks and impacts, such as:

a. the type, location, sensitivity and scale of the Project including the physical considerations of the Project; type of infrastructure (e.g., dams and reservoirs, power plants, airports, major roads); volume of hazardous waste management and disposal;
b. the nature and magnitude of the potential ES risks and impacts, including impacts on greenfield sites; impacts on brownfield sites including (e.g., rehabilitation, maintenance or upgrading activities); the nature of the potential risks and impacts (e.g. whether they are irreversible, unprecedented or complex); resettlement activities; presence of Indigenous Peoples; and possible mitigation measures considering the mitigation hierarchy;
c. the capacity and commitment of the Borrower to manage such risks and impacts in a manner consistent with the ESSs, including the country's policy, legal and institutional framework; laws, regulations, rules and procedures applicable to the Project sector, including regional and local requirements; the technical and institutional capacity of the Borrower; the Borrower's track record of past Project implementation; and the financial and human resources available for management of the Project;
d. other areas of risk that may be relevant to the delivery of ES mitigation measures and outcomes, depending on the specific Project and the context in which it is being developed, including the nature of the mitigation and technology being proposed, considerations relating to domestic and/or regional stability, conflict or security.

High Risk:

A Project is classified as ***High Risk*** after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable.

a. The Project is likely to generate a wide range of significant adverse risks and impacts on human populations or the environment. This could be because of the complex nature of the Project, the scale (large to very large) or the sensitivity of the location(s) of the Project. This would take into account whether the potential risks and impacts associated with the Project have the majority or all of the following characteristics:
    i. long term, permanent and/or irreversible (e.g., loss of major natural habitat or conversion of wetland), and impossible to avoid entirely due to the nature of the Project;
    ii. high in magnitude and/or in spatial extent (the geographical area or size of the population likely to be affected is large to very large);
    iii. significant adverse cumulative impacts;
    iv. significant adverse transboundary impacts; and
    v. a high probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.);
b. The area likely to be affected is of high value and sensitivity, for example sensitive and valuable ecosystems and habitats (legally protected and internationally recognized areas of high biodiversity value), lands or rights of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and other vulnerable minorities, intensive or complex involuntary resettlement or land acquisition, impacts on cultural heritage or densely populated urban areas.
c. Some of the significant adverse ES risk and impacts of the Project cannot be mitigated or specific mitigation measures require complex and/or unproven mitigation, compensatory measures or technology, or sophisticated social analysis and implementation.

d. There are significant concerns that the adverse social impacts of the Project, and the associated mitigation measures, may give rise to significant social conflict or harm or significant risks to human security.
e. There is a history of unrest in the area of the Project or the sector, and there may be significant concerns regarding the activities of security forces.
f. The Project is being developed in a legal or regulatory environment where there is significant uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or regulations do not adequately address the risks and impacts of complex Projects, or changes to applicable legislation are being made, or enforcement is weak.
g. The past experience of the Borrower and the implementing agencies in developing complex Projects is limited, their track record regarding ES issues would present significant challenges or concerns given the nature of the Project's potential risks and impacts.
h. There are significant concerns related to the capacity and commitment for, and track record of relevant Project parties, in relation to stakeholder engagement.
    i. There are a number of factors outside the control of the Project that could have a significant impact on the ES performance and outcomes of the Project.

Substantial Risk:

A Project is classified as ***Substantial Risk*** after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable.

a. the Project may not be as complex as High Risk Projects, its ES scale and impact may be smaller (large to medium) and the location may not be in such a highly sensitive area, and some risks and impacts may be significant. This would take into account whether the potential risks and impacts have the majority or all of the following characteristics:
    i. they are mostly temporary, predictable and/or reversible, and the nature of the Project does not preclude the possibility of avoiding or reversing them (although substantial investment and time may be required);
    ii. there are concerns that the adverse social impacts of the Project, and the associated mitigation measures, may give rise to a limited degree of social conflict, harm or risks to human security;
    iii. they are medium in magnitude and/or in spatial extent (the geographical area and size of the population likely to be affected are medium to large);
    iv. the potential for cumulative and/or transboundary impacts may exist, but they are less severe and more readily avoided or mitigated than for *High Risk* Projects; and
    v. there is medium to low probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.), and there are known and reliable mechanisms available to prevent or minimize such incidents;
b. The effects of the Project on areas of high value or sensitivity are expected to be lower than High Risk Projects.
c. Mitigatory and/or compensatory measures may be designed more readily and be more reliable than those of *High Risk* Projects.
d. The Project is being developed in a legal or regulatory environment where there is uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or regulations do not

adequately address the risks and impacts of complex Projects, or changes to applicable legislation are being made, or enforcement is weak.

e. The past experience of the Borrower and the implementing agencies in developing complex Projects is limited in some respects, and their track record regarding ES issues suggests some concerns which can be readily addressed through implementation support.
f. There are some concerns over capacity and experience in managing stakeholder engagement but these could be readily addressed through implementation support.

Moderate Risk:

A project is classified *as **Moderate Risk*** after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable:

a. the potential adverse risks and impacts on human populations and/or the environment are not likely to be significant. This is because the Project is not complex and/or large, does not involve activities that have a high potential for harming people or the environment, and is located away from environmentally or socially sensitive areas. As such, the potential risks and impacts and issues are likely to have the following characteristics:
    i. predictable and expected to be temporary and/or reversible;
    ii. low in magnitude;
    iii. site-specific, without likelihood of impacts beyond the actual footprint of the Project; and
    iv. low probability of serious adverse effects to human health and/or the environment (e.g., do not involve use or disposal of toxic materials, routine safety precautions are expected to be sufficient to prevent accidents, etc.).
b. The Project's risks and impacts can be easily mitigated in a predictable manner.

Low Risk:

A project is classified as ***Low Risk*** if its potential adverse risks to and impacts on human populations and/or the environment are likely to be minimal or negligible. These Projects, with few or no adverse risks and impacts and issues, do not require further ES assessment following the initial screening.

Assigning Significance (ESS1: High Risk, Substantial Risk, Moderate Risk and Low Risk)

Following the assessment of magnitude, the quality and sensitivity of the receiving environment receptor shall be determined and the significance of each potential impact established using the potential impact significance matrix shown in Table 4.3 and in accordance of the ESS1 standard of the potential **four risk categories viz. High, Substantial, Moderate and Low.**

Table 4.3: Assessment of Potential Impact Significance (ESS1)

Magnitude of Potential impact	Sensitivity of Receptors			
	Very Severe	Severe	Mild	Low / Negligible
Very High	High	High	Substantial	Moderate
High	High	Substantial	Substantial	Negligible
Moderate	Moderate	Moderate	Negligible	Negligible

Magnitude of Potential impact	Sensitivity of Receptors			
	Very Severe	Severe	Mild	Low / Negligible
Low/Nil	Negligible	Negligible	Negligible	Negligible

4.2 Potential Key Environmental and Social Impacts of the sub-projects (ESS1-10)

The overall impact assessment of the proposed ASSET project activities to be implemented reveals that most of the likely negative impacts could be minimized or eliminated by adopting standard mitigation measures; there is also scope to enhance some of the beneficial impacts to be generated from the proposed project.

The potential impacts of the ASSET project on the key environmental and social parameters that have been identified as part of the ESMF are listed in Table 4.5, which has also been analyzed in according to the ESS1 risk categories based on the significance of each impacts following the criteria defined in Sub-section 4.1.1 and Tables 4.1 to 4.3. In the subsequent sections, these impacts are discussed and guidelines for mitigation included for the ESMF of the ASSET project.

Environmental and Social Risk Classification (ESRC) of the ASSET project has been rated as 'Moderate', as most of the impacts are negligible, short term, site specific and mitigatable. Environmental assessment study i.e. IEE/ESIA should modify and further detail out this analysis as applicable, based on professional judgment and public consultations. A preliminary categorization of the project components/sub-components based on their environmental assessment requirement is given in Table 4.4 following the new WB ESF/10 ESSs.

Table 4.4: Categorization of ASSET project activities based on ESS requirements and Risk Classification

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
Component 0 [CERC] – Contingent Emergency Response Component		Activities will be identified if CERC triggered in case of emergency support subject to restructuring of the project by WB.	If CERC triggered, potential impacts should be measured through preparing separate ESMF.	N/A	Additional ESMF; A list of Positive and Negative List for CERC is given in Annex 10.
Component 1: [Fit] - Transforming Formal Skills Development for Future of Work, Inclusiveness, and Resilience	Sub-component 1.0: COVID-19 response actions to build resilience in the TVET Sector	This sub-component will support: (a) connectivity and contents development for rolling out online/blended classes of diploma courses; (b) provision of digital devices for students without devices; and (c) campaign to prevent pandemic-induced dropouts. This activity will be completed on a fast-track basis to ensure timely response to the COVID-	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Impacts on teachers and staff	Low	IEE, ESMP, SEP, GBVP, GM, SECDP, COVID-19 safety protocol

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
		19 crisis			
	Sub-component 1.1: Strengthening graduate employability and inclusiveness of diploma courses for priority sectors	Project will provide Institutional Development Grants (IDGs) to support the capacity development of public and private diploma-program institutions to support around 210 diploma institutions. - IDG activities would include (a) enhancement of teaching and learning environment; (b) refurbishment of classrooms, libraries, and student hostels ; (c) expanding industry linkages; (d) professional development for teachers and managers; (e) digital content development; (f) broadband connectivity ; (g) strengthening employment support services; (h) enhancing employer feedbacks and graduate tracking; (i) student financial support ; (j) conducive training environment for female and disabled students ; (k) equipment for ensuring safe training environment; and (l) equipment for climate sensitive "Green Practice" .	- Impact on land - Impact on air, water - Impact on homestead biodiversity - Temporary economic displacement - Impact on livelihoods - Impact on health and safety of the workers and communities - Impact on students, indigenous, women and disadvantaged groups - Impacts on women mobility - Risk of on and off campus GBV - Increase of vulnerability - Risk of force eviction of squatters - Climate risk including flooding, and drainage congestion, green house gages emission, - Impact on waste generation, management and disposal - Impact on disposing accidental chemical and hazardous material - Impact on lab safety and biosecurity	Moderate	IEE/ESIA, ESMP, RAP, LMP, SEP, GBVP, CHSP, OHSP, GM, SECDP, COVID-19 safety protocol
	Sub-component 1.2: Expanding Market-Demanded Formal Short-Courses for Priority Sectors	Expanding market-demanded formal short-courses. The project will support investments for (a) the quality improvement, (b) market-linkage enhancement, and (c) equitable access of the selected BTEB/NSDA/ministry certified	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV -	Low	IEE, ESMP, SEP, GBVP, GM, SECDP, COVID-19 safety protocol

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
		formal short-courses. This sub-component is expected to train around 200,000 individuals. This includes providing PTFs to selected short-courses for emerging trades and priority sectors to cover training costs for students and investment in training institute capacity development. The PTFs will cover (i) tuition, (ii) financial assistance for trainees, (iii) investment in training capacity development (including facility and equipment modernization, curriculum upgrading, teacher training, job placement service, industry partnership, digitization, language labs, safe training environment, etc.); (iv) investment in enhancing inclusiveness (facilities for PWDs, female trainees, child care, better sanitation, female counselors, etc.); and (v) investment in resilience (connectivity, digital contents development, etc.). -			
	Sub-component 1.3: Establishing an international standard model polytechnic institute	*Activity 1.1.B: Establishing an international-level model diploma training programs.* This activity includes: - Construction of the infrastructure for the model diploma institute - Prepare a ten-year master development plan - Establish hardware's of the model institute - Operation of the model institute at temporary premises.	- Impact on land - Impact on air, water - Impact on homestead biodiversity - Temporary economic displacement - Impact on livelihoods - Impact on health and safety of the workers and communities - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV - Risk of force eviction	Moderate	IEE/ESIA, ESMP, RAP, LMP, SEP, GBVP, CHSP, OHSP, GM, SECDP, COVID-19 safety protocol

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
			of squatters - Climate risk including flooding, and drainage congestion, green house gages emission, - Impact on waste generation, management and disposal - Impact on disposing accidental chemical and hazardous material		
		-	-		
Component 2: Shift - Innovative Skills Development Programs for Employment and Empowerment	Sub-component 2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness	This sub-component aims to substantially scale up enterprise-based skills program in priority sectors in partnership with industry groups. Informal sector oriented industry partners would focus on training that target vulnerable women, PWD, informal sector workers, and other disadvantaged groups. Supported enterprise-based training programs will provide (a) technical training for the unemployed; (b) apprenticeship program for unemployed youths, women, PWDs and other disadvantaged groups; (c) upskilling technical training for existing employees; and (d) management training for mid-level managers and supervisors, This sub-component is expected to train around 220,000 workers in total. Identified partners will submit detailed Skills Development Proposals (SDPs) to the project, which describe the details of proposed training programs. PTFs will finance expenditures	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV - Impact on waste generation, management and disposal - Impact on lab safety and biosecurity	Low	IEE, ESMP, SEP, GBVP, GM, SECDP, COVID-19 safety protocol

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
		for (a) direct costs of training provision, (b) trainees allowance for disadvantaged workers, (d) outreach programs, (c) competency standards and training contents development, (d) training capacity development (trainer training, training equipment, etc.), (e) researches, (f) monitoring, (g) project management, and (h) COVID-19 responses.			
	Sub-component 2.2: Recognizing the skills of informal sector workers	This sub-component will aim to enhance the employment/self-employment outcomes and earning levels of informal sector workers through Recognition of Prior Learning (RPL). The project will support (a) the expansion of RPL assessment centers , (b) certification of institutions as Registered Training Organizations (RTOs), (c) development of industry assessors, (d) direct costs of the assessments, and (e) awareness-raising for employers about RPL and NTVQF qualifications.	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV	Low	IEE, ESMP, SEP, GBVP, GM, SECDP

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
	Sub-component 2.3: Enhancing social marketing and skills competition for skills development	*Activity 2.3.A: Enhanced social marketing for skills development and job placement.* This activity includes: **Social marketing:** Mass communication and promotion campaigns will be essential to improve the social perspective of technical education, especially to women and disadvantaged groups, about the importance, necessity, facilities, opportunities for skills development and future job prospects. Communication and social marketing contents will also include climate risk adaptability knowledge and awareness raising. It will leverage multiple channels of communication, both digital and traditional ones, to reach the critical mass and hard-to-reach groups of the target population. Communication strategies would include conferences, workshops, cultural programs in communities and schools, broadcasting on TVs and radio stations, and dissemination through social media such as Social Networking Service (SNS) and video sharing services. Skills competition, national and regional job fairs, and placement seminars will be organized by the project in partnership with employer organizations, where institutions will be supported to promote the job matching for technical graduates. Innovative campaigns to promote excellence such as best students, teachers, institutions awards will also be piloted.	- Risk of on and off campus GBV	Low	SEP, GBVP, GM

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
		- Leverage multiple channels of communication, both digital and traditional ones, to reach the critical mass of the target population, including conferences, workshops, cultural programs in communities and schools, broadcasting on TVs and radios, and dissemination through social media such as SNS and video sharing services.			
		Activity 2.3.B: Skills competition for active learning and innovation. This activity includes: - Promoting project-based learning, practical skills, and innovation culture - Promote intellectual property rights and training - Participation in international skills competition.	- Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV	Low	SEP, GBVP, GM, SECDP
Component 3: Lift - Capacity Development, Project Management, Social Marketing and Monitoring & Evaluation	Sub-component 3.1: Enhancing the institutional capacity of central government agencies of the skills development system	This sub-component will strengthen the institutional capacity of key central government agencies for skills to enhance the adaptability of the skills development system, focusing on enhancing essential functions of the skills development system. The project will also support Industry Skills Councils (ISCs) for (a) labor market research and forecasting, (b) competency standards development, (c) information system development, (d) industry	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV - Impact on waste generation, management and disposal - Impact on disposing accidental chemical and hazardous material	Moderate	IEE/ESIA, ESMP, SEP, GBVP, GM, SECDP, COVID-19 safety protocol

Components	Sub-components	Activities/Specific tasks	Potential Impacts	Risk Category	ESSs Requirement
		assessor development, and (e) operational facilities/equipment and technical assistance. -			
		-	- Impact on livelihoods - Impact on students, indigenous, women and disadvantaged groups - Risk of on and off campus GBV -	Moderate	IEE/ESIA, ESMP, SEP, GBVP, GM, SECDP
	Sub-component 3.2: Project Management, Social Marketing, M&E	**Social marketing:** Leverage multiple channels of communication, both digital and traditional ones, to reach the critical mass of the target population, including conferences, workshops, cultural programs in communities and schools, broadcasting on TVs and radios, and dissemination through social media such as SNS and video sharing services.	- Risk of on and off campus GBV	Low	SEP, GBVP, GM
		Project Management	N/A	N/A	Excluded from E&S Assessment
		Monitoring and Evaluation (M&E)	N/A	N/A	Excluded from E&S Assessment

4.2.1 Potential Environmental and Social Impacts Related to Project Siting

Site Specific Land Cover and Land Use Changes (ESS 1, 3, 6)

Rehabilitation and refurbishment of facilities including civil works for renovation, rehabilitation, and refurbishment of existing facilities including hostels, sanitation facilities, workshops, and classrooms, Construction of the infrastructure for the model diploma institute, and vertical extension of DTE office may change existing land use and land cover at the local level, although potential negative impacts would be limited within the construction site and reversible.

Loss of trees (ESS 6)

Siting of proposed infrastructure for the model diploma institute may require cutting of trees and removal of natural vegetation, which could be significant in number.

Loss of aquatic habitat (ESS 1, 3, 6)

Loss of aquatic habitats could be happened due to siting of proposed infrastructure for the model diploma institute, especially the construction of approach road and pollution from unplanned waste disposal.

Drainage congestion and water logging (ESS 1, 3, 4)

Proposed infrastructure for the model diploma construction activities can cause drainage congestion and water logging at the local area, if not properly considered the local drainage of runoff.

Impacts on Vulnerable and disadvantage groups/communities/individuals (ESS1)

The ASSET project have been designed to provide a holistic support to improve skills and livelihoods of disadvantaged people, youth, women, small indigenous people, labours and unskilled workers, vulnerable communities, etc. It aims to increase contribution to the economy, poverty reduction, and environmental sustainability through a set of targeted capacity building activities through govt. and non-govt. institutions. Its activities targeting disadvantage groups, women, and youth will create employment, enhance job opportunity, and supply skilled labour and workers for various industrial sectors. However, these activities would also have risk of discrimination to the disadvantaged groups due to lack of friendly on campus training environment ensuring equal representation.

4.2.2 Potential Environmental and Social Impacts during Project Implementation

Air Pollution (ESS 1, 3, 4, 6)

Rehabilitation and refurbishment of facilities including civil works for renovation, rehabilitation, and refurbishment of existing facilities including hostels, sanitation facilities, workshops, and classrooms, Construction of the infrastructure for the model diploma institute, and vertical extension of DTE office may generate emissions from excavation equipment, other machinery and construction traffic. The emissions may also include greenhouse gases (GHGs) from engine fuel combustion (exhaust emissions) and evaporation and leaks from vehicles (fugitive emissions) and emissions. The emissions from construction activities will deteriorate the ambient air quality and affect the public health. The training campuses, existing centers and adjacent areas of the institutions are particularly vulnerable to these impacts. In addition, dust generated from the above activities will also have impacts on crops and livestock, if located in open rural area.

Noise Pollution (ESS 1, 3, 4)

Noise will be produced by vehicular movement, excavation machinery, concrete mixing, and other construction activities. The schools, religious places and crowded market areas adjacent to the construction sites are particularly vulnerable to the increased noise levels.

Water Pollution (ESS 1, 3, 4, 6)

During the construction/renovation activities ponds/canals/water streams-rivers can potentially cause some localized increase in water turbidity due to poor waste management. However, this increase in turbidity is not likely to have any significant impact on overall water quality and the aquatic fauna primarily because of its temporary and localized nature. The construction camps and other site facilities such as offices and warehouses will also generate considerable quantities of waste effluents. Other possible causes of land or water contamination include accidental leakage or spillage of fuels, oils, and other chemicals, and waste effluents released from construction sites, setting up laboratory and workshops equipment and testing, etc. These effluents can potentially contaminate the drinking water sources of the area and can also be harmful for the natural vegetation, cultivation fields, water bodies, and aquatic flora and fauna.

Impacts of Land Filling (at new construction site) (ESS 1, 3, 4, 6)

Significant adverse impacts that can arise from the proposed construction of model diploma institutes, if not very carefully planned and monitored the collection of land filling materials. Land filling activity must avoid collection of topsoil from crop fields, hills cuttings and illegal sand mining from river beds.

Soil Contamination (ESS 1, 3, 4, 6)

Much like water pollution discussed above, soils in the construction/refurbish/expansion area and nearby lands that are used for agriculture will be prone to pollution from the construction activities, construction yards, workers camps and other construction areas. Fuel and hazardous material storage sites and their handling are also the potential sources for soil and water pollution. Improper siting, storage and handling of fuels, lubricants, chemicals and hazardous materials, and potential spills from these will severely impact the soil and water quality and also cause safety and health hazards.

Generation of Solid Waste and Hazardous Waste (Including Medical Wastes) (ESS 1, 3, 4, 6, 8)

Solid waste generated during the construction phase will include excess construction material such as sand and soil, faulty/damaged parts, metal scraps, cardboard boxes and containers, and cotton swaths from workshops, and domestic solid waste from construction offices and camps. In addition to the above, small quantities of hazardous waste will also be generated mainly from the vehicle maintenance activities (liquid fuels; lubricants, hydraulic oils; chemicals, such as anti-freeze; contaminated soil; spillage control materials used to absorb oil and chemical spillages; machine/engine filter cartridges; oily rags, spent filters, contaminated soil, and others). Besides, operation of laboratories, training workshops and medical training institutes would also generate hazardous waste. It is imperative that such waste is responsibly disposed to avoid adverse environmental, human health and aesthetic impacts. Inappropriate disposal of these wastes can lead to soil and water contamination as well as health hazards for the local communities, livestock, and aquatic as well as terrestrial fauna.

Impacts on Homestead Biodiversity (ESS 1, 3, 6)

The locations of the ASSET activities are spread over districts and sub-districts level mostly in the existing premises of the formal and informal training and skill education development institutions run by different govt. agencies, private entities and NGOs. Some of those might have localized homestead habitats for threatened plants and wildlife. So, project activities especially construction, renovation and setting up different facilities might have negative impact on their habitats.

Site Clearance and Restoration (ESS 1, 2, 4, 6)

After the completion of the construction activities, the left-over construction material, debris, spoils, scraps and other wastes from workshops, and camp sites can potentially create hindrance and encumbrance for the local communities in addition to blocking natural drainage and or irrigation channels.

Occupational Health (ESS 1, 2, 4)

Generally, the construction/reconstruction activities may pose health hazards to the workers at site during use of hazardous substances, lifting and handling of heavy equipment, operating machinery and electrical equipment, working near water or at height and more. The project will need fuels, oils, and asphalt during the construction in new campus for model diploma institutes. Inappropriate handling or accidental spillage/leakage of these substances can potentially lead health hazards for the construction workers as well as the local community.

Occupational Safety (ESS 1, 2, 4)

Similar to the above, various construction/renovation/expansion of facilities and setting up equipment activities in laboratory/workshops/training lab may cause safety issues including physical injuries and accidental death. This may be increased in absence of proper training of unskilled workers to be engaged. Local community will also be vulnerable to accidental cases starting from minor injuries for careless disposal of hazardous materials to death for example movement of the heavy machineries and equipment.

Impacts on Livelihoods and Income (ESS1)

The ASSET project will have positive impacts on enhancing technical skills and livelihoods of disadvantaged people, youth, women, small indigenous people, labours and unskilled workers, vulnerable communities, etc. It will contribute to their income generation and poverty reduction. ASSET's activities targeting disadvantage groups, women, and youth will create employment, enhance job opportunity, and supply skilled labour and workers for various industrial sectors.

Impact on labor, working Conditions and labor risks, including risks of child labor and forced labor, human trafficking (ESS 2)

The proposed activities will entail employment of a significant number of labor especially during construction/reconstruction/expansion of facilities in existing institutions and setting up equipment in laboratory, workshops, and training labs. The majority of labor will be locally hired, with the exception of skilled workers who may not be found in the project areas. Potential risks engaged both for the hired skilled and non-skilled workers especially during construction period includes health hazards, poor living condition, accidental hazards risks, etc. Similarly, hiring labor from external area may cause social risk on the local communities includes gender-based violence, price hiking of daily used products/foods, etc.

Risks are also associated in-terms of hiring child labors or forced labors, and also due to presence of some proposed institutions in the border districts, considerable risk is associated to the labor trafficking. **However, a separate LMF has been prepared to minimize the risk associated with labor influx.**

Impact Associated with on Campus Living Condition (GVB, Social Security, Sanitation and Health-Hygiene)

ASSET project includes expansion and improvement of the on-campus facilities regarding security, sanitation, health-hygiene, green campus environment and practices both in academic building and hostels. Failure of maintaining those at appropriate level would increase on campus violence against women, social insecurity and poor hygienic condition.

Impact on creating social discrimination for the most disadvantaged groups, vulnerable women/youth/disabled persons

Project has included various activities targeted to uplift the capacity and skill of the disadvantaged groups of the society including vulnerable women, youth and disabled persons. As most of the activities will be in operation during implementation especially admission of students, offering scholarship, providing facilities, job placement and promotion of entrepreneurs might have negative impact if not designed considering socially inclusive policies and academic practices. As most of the IDPs/SDPs will be developed during project implementation period, there is likelihood of such impacts on most disadvantaged and vulnerable groups, if not actively monitored.

Involuntary Resettlement Impacts (ESS 5)

The project will not take any private land through involuntary acquisition and avoid any physical displacement of residents for activities under the project. All works will be carried out within the existing available lands. However, likelihood that infrastructures construction/renovation may involve displacement of formal and informal private users/squatters. For these reasons, and largely as a precautionary measure, the project triggers ESS5 on involuntary resettlement. A Resettlement Policy Framework (RPF) is prepared by the ASSET and approved by the World Bank. Site-specific RAPs will be developed - if and as necessary - during the project implementation. The RPF and any RAP will ensure the proper calculation and recording of the involuntary displacement impacts as well as identification of the affected people and mitigation of their loss and impacts. The purpose of the RPF and implementation of the RAPs is to ensure that there is no adverse effect on the living conditions and livelihoods of the affected people because of the project. *If there is only minor, temporary economic displacement affecting a small number of people, the ARAPs can be in the form of a specific section of the relevant ESMPs rather than free-standing documents.*

Impacts on Small Ethnic Communities (Impacts on Indigenous People) (ESS 7)

The project includes skill and capacity development activities involving Small Ethnic Communities (SECs), they can be characterized as indigenous peoples in view of their unique characteristics including language, culture, occupation, and traditions. Social risk associated with the ASSET project is ensuring culturally appropriate benefits to the indigenous and other disadvantaged communities from the project's various initiatives for skill development and other interventions following the Bank's directive on Disadvantaged or Vulnerable Individuals or Groups. ASSET has triggered ESS7 and developed a Small

Ethnic Community Development Framework (SECDF) to guide community participation and benefit sharing inclusive of the SECs.

Impact on Cultural Heritage (ESS8)

There are some mosques, temples and graves along the existing locations of training institutions, which may be affected by project works. If they are found by the IEE/ESIA to be affected, they will have to be relocated and will be included in the RAP to be prepared for the project. Chance Find Procedures will be included in the ESMP and chance find clause will be included in works contracts requiring contractors to stop construction, if any cultural heritage is encountered during construction. PIU/ASSET will also have to notify and closely coordinate with the relevant mandated country authority for the salvaging and restoration of such cultural heritage.

4.2.3 Environmental and Social Impacts during Post Project operational Period

Loss of Homestead Vegetation and Wildlife Biodiversity (ESS 1, 6)

Construction of buildings and expansion/renovation of other infrastructures/facilities would increase human access in the existing campuses, which may lead to loss of more vegetation (herbs, shrubs and trees) at the surroundings due to human footprint and have potential negative impact on homestead wildlife biodiversity. In such cases of potential impact on homestead plants and wildlife, demands detail baseline survey and implement appropriate homestead habitat management activities by the authority.

Generation of Medical Waste, Solid Waste and Hazardous Waste (ESS 1, 3, 4)

Solid waste will be generated from during regular operation and maintenance activities of the constructed/renovated infrastructures. Hazardous waste will also be generated from different laboratories/workshops/training labs. Besides, medical waste would also be generated from the established medical training institutions. This waste if not appropriately disposed has a potential to contaminate soil and water resources, thus negatively affecting community's health as well as natural habitat. Standard lab and workshop safety protocol should be followed (e.g. WHO's Laboratory Safety Guideline) during operation period.

Noise Generation (ESS 1, 3, 4, 8)

During operation, noise levels along the proposed institutes will be increased due to the higher traffic volume and mass people gathering. Traffic noise will be a significant nuisance to the sensitive receptors such as schools and religious places located vary close to the roads and also to the children and aged persons.

Water Pollution and Drainage (ESS 1, 3, 6)

Generally paved road increases the amount of impermeable surface area, which increases the rate of surface water runoff in the campus are. During the operation phase, some localized increase in turbidity may take place during any maintenance works of the constructed/renovated sites. Similarly, the maintenance works can also generate a limited quantity of waste effluents.

Impacts on Local Livelihoods (ESS 1, 2)

While effort will be exerted for livelihood improvement of the local targeted communities, yet some of the project activities may have reversible and mitigable impacts on them. The probable impacts on income and livelihoods are minor since project will have very lower scale involuntary displacement of squatters. If so, impacted persons will be compensated following the criteria in the ARAP/RAP.

Increased Risk of Accidents (ESS1, 3, 4)

One of the key potential risks associated with the ASSET operational activities at post project period is increased risk of accidents due to poor handling of chemicals and machineries in laboratories and training workshops. However, substantial lab safety measures and facilities will be installed under the ASSET project to minimize the accidents.

Impact Associated with on Campus Living Condition (GVB, Social Security, Sanitation and Health-Hygiene) at Post Project Period

ASSET project includes expansion and improvement of the on-campus facilities regarding security, sanitation, health-hygiene, green campus environment and practices both in academic building and hostels. Failure of maintaining those at appropriate level at post project period would increase on campus violence against women, social insecurity and poor hygienic condition.

Table 4.5: Summary of Potential Environmental and Social Impacts and their Significance (ESS Risk)

Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
Impacts related to project siting								
Land cover and land use changes	Long term	Local	No	Certain	Moderate	Moderate	Moderate negative	Low negative
Loss of trees	Long term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low negative
Loss of aquatic habitat	Long term	Local	No	Likely	Moderate	Mild	Moderate negative	Low negative
Drainage congestion and water logging	Long term	Local but beyond project footprint	Yes	Likely	High	Mild	Moderate negative	Low negative
Impacts on Vulnerable and disadvantage	Long term	Local	No	Likely	Moderate	Moderate	Moderate negative	Low negative
Impacts during project implementation phase								
Air pollution	Short term	Local	Yes	Certain	High	Moderate	Moderate negative	Low negative
Noise	Short term	Local	Yes	Likely	High	Moderate	Moderate negative	Negligible negative
Water pollution	Long term	Local but beyond project footprint	No	Certain	High	Moderate	Moderate negative	Low to moderate negative
Land Filling	Long term	Local but beyond project footprint	No	Certain	High	Moderate	Moderate negative	Low to moderate negative
Soil	Short term	Local	Yes	Certain	High	Mild	Moderate negative	Low negative

Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
contamination								
Solid wastes and hazardous wastes	Short term	Local	Yes	Certain	High	Mild	Moderate negative	Low negative
Impacts on homestead biodiversity	Long term	Local but beyond project footprint	No	Certain	Moderate	Moderate	Moderate negative	Low negative
Site clearance and restoration	Short term	Local	Yes	Certain	Moderate	Mild	Moderate negative	Low negative
Occupational health and safety	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Livelihoods and Income	Long term	Local but beyond project footprint	No	Certain	High	Moderate	Substantial Positive	Substantial Positive
Labor Impacts and risks of child labor, forced labor, human trafficking	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
On campus living condition	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Social discrimination	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Involuntary Resettlement	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Small Ethnic Communities	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate

Potential Impacts	Duration of Impact	Spatial Extent	Reversible or not	Likelihood	Magnitude	Sensitivity	Significance Prior to Mitigation	Significance after Mitigation
								negative
Impact on Cultural Heritage	Short term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Impacts during post project operational period								
Loss of Homestead Vegetation and Wildlife Biodiversity	Long term	Local	No	Certain	Moderate	Moderate	Moderate negative	Low negative
Generation of Medical Waste, Solid Waste and Hazardous Waste	Long term	Local	Yes	Certain	Moderate	Moderate	Moderate negative	Low negative
Noise generation	Long term	Local	Yes	Likely	Negligible	Mild	Moderate negative	Low negative
Water pollution and drainage	Long term	Local	No	Certain	Moderate	Moderate	Moderate negative	Low to moderate negative
Impacts on local livelihoods	Long term	Local	No	Certain	High	Moderate	Substantial Positive	Substantial Positive
Increased risk of accidents	Long term	Local	No	Likely	Negligible	Moderate	Low negative	Low negative
Campus Living Condition	Long term	Local	No	Likely	Negligible	Moderate	Low negative	Low negative

Chapter 5: Environmental and Social Management Procedures

ASSET project will take a structured approach to environmental and social management to allow project development process following 10 new Environmental and Social Standards of WB, follow the mitigation hierarchy of avoidance, minimization, mitigation and compensation/offset for negative impacts and enhancement of positive impacts where practically feasible. Following sections describe what needs to be done at each stage of the overall project life –implementation of sub-projects, project activities, and progress reporting.

6.1 General Principle (ESS 1-10)

Due to the nature of some of the proposed project activities under ASSET and their potential environmental and social impacts, the project falls under 'Orange A or Orange B' category according to ECR, 1997 and also rated as 'Moderate' as per the World Bank ESS1 risk category. Which requires proper IEE, and in some cases a detail ESIA and execution of environmental and social management plan. Therefore, the ESMF is prepared based on the following principles that can lead the planning and implementation of the project activities.

- The PIU of ASSET is responsible for the compliance with national policies, regulations and World Bank ESSs and Guidelines, as mentioned in this ESMF report. The ESMF will serve as the basis for ensuring the safeguards compliance.
- PIU/ASSET is responsible for obtaining environmental clearance from DoE, local government agencies and World Bank as required.
- IEE, ESIA and ESMP need to be prepared for activities as determined by DoE. In case, requirements of DoE's ESIA guideline differ from those of WB ESF, the more stringent standards and requirements will apply.
- If any sub-projects with impacts identified in IEE/ESIA which may categorize the project to substantial or high risk (according to ESF) will not be eligible for WB's financing.
- Planning and design of the any additional activities should ensure minimal assessment of cumulative impacts.
- Environmentally Sensitive areas, cultural sites, restricted or disputed lands (of identified during project implementation) should be taken care of with appropriate mitigation or compensation measures during implementation.
- Participation of stakeholders (especially local communities) should be ensured by PIU/ASSET in planning, implementation and monitoring of each sub-components and associated activities.
- PIU/ASSET and PIAs will ensure appropriate institutional set up for implementing environmental and social management plan and inter-agency coordination. PIU also ensure that bidding documents for construction contractors have specific clauses to ensure implementation of ESMP, as required.
- Contractors to be engaged for construction/renovation/expansion/repair and maintenance and equipment installation under the project will ensure provision of First Aid Kit at camp/work site with proper drinking water and sanitation facilities. Worker's/crew's health and safety measures shall be ensured and use of personal protective equipment shall be at place.
- PIU/ASSET will ensure safety provision has been provided for the resettlement sites (if any).

- PIU/ASSET will undertake public disclosure about the project interventions and potential impacts.
- In case of triggering the contingent emergency support Component 0 (CERC), PIU will prepare additional ESMF according to the requirements of project restructuring by the World Bank. A list of Positive and Negative activities for CERC component is given in Annex 10.
- In case co-financing of ASSET project by other development partners, apply ESF to all activities throughout the project cycle. All E&S assessments, instruments and documents will be prepared in accordance with the ESF and the Bank will conduct its due diligence of these instruments and documents. During implementation, the GoB will supervise and monitor E&S risks and impacts of the entire project activities, in accordance with the E&S instruments and documents and will ensure all supervision records and project sites are accessible to both WB and DPs. WB and DPs may also conduct joint supervision missions. However, there will be a single Grievance Redress Mechanism (GRM) covering the ASSET project.

5.2 Environmental and Social Assessment and Management Process (ESS 1)

- The environmental and social experts of the PIU/ASSET will perform the environmental and social screening. The relevant experts will start the task during the preparatory stage of the project.
- An independent IEE/ESIA consulting firm will generate a detail environmental and social baseline of the project, IEE and the ToR for ESIA (if recommended by DoE).
- PIU/ASSET will share the IEE report and the ESIA ToR with DoE for Clearance.
- PIU/ASSET will review and clear screening and environmental assessment reports made by Environmental consultant.
- PIU/ASSET will conduct verification of some screening and assessment through field visit.
- PIU/ASSET will ensure that environmental considerations are given sufficient attention, weight and influence over selection of construction sites and improvement of infrastructures all over the country.
- Bid documents will be prepared by the PIU/ASSET. Environmental and social consultants will make sure necessary environmental and social clauses are included in the bidding documents and ESMP implementation should be done by Contractors. SECC consultant/Engineering Division of the respective agencies will supervise ESMP implementation and safeguards compliance.
- All the activities of ASSET will follow existing Environmental Code of Practices (ECoPs) prepared under ESMF.
- The project will ensure that environmental and social impact assessment addresses all potential environmental and social direct and indirect impacts of the project throughout its life: pre-project, during project and operation stages; and also suggest appropriate mitigation measures. If any additional impacts are identified, IEE/ESIAs and ESMP should be reviewed and updated.

5.2.1 Screening

Environmental and Social screening is essential to gather information on existing baseline status and to assess potential environmental impacts of the ASSET activities. Screening identifies the consequence of the proposed project in broader sense based on similar project experiences, stakeholder's perceptions

and expert judgment, without having very much detailed investigation. Critical issues are also identified through the screening which needs detailed investigation. Based on the extent of environmental and social impacts obtained from the screening, the decision for further environment and social impact assessment will be taken.

Screening is usually carried out with the help of simple matrix that includes a set of check list to identify the baseline status and proposed potential impacts of the project intervention. Based on an extensive literature review and expert consultation, a screening matrix should be developed for ASSET, which will be attached to the Impact Assessment report of the project. Members of environmental assessment team will update and use this matrix for collecting information during site visit, interview/ consultation with stakeholders, focus group discussion in the project intervention sites at the later stages.

The screening matrix will help to decide the suitability of project activities in that particular site, and the level of Impact Assessment required. During screening, if it is found that the project may create major irreversible damage to the area or may violate an existing rules or regulations, the sub-components/activities under the project will be rejected for that specific site. For instance, any activities that may encroach into an ecologically critical area or a national/ global heritage site will be rejected. PIU/ASSET must confirm the findings of the screening carried out by the consultants. Moreover, alternative project activities/methods and/or operation will be considered and the impacts will be assessed to make the project more environment friendly and socially acceptable. A sample screening form has been attached at Annex 1, which will be further developed at the implementation stage.

Part of the screening process will also screen for any associated facilities[2] to the project. If any associated facility is identified, the requirements of this ESMF will apply to that facility.

5.3 Environmental and Social Impact Assessment

Initial Environmental Examination (IEE)

The IEE study will be conducted under PIU/ASSET. However, according to the project planning, the activities those need IEE will be implemented at initial period and must be carried out prior to the actual interventions start. The purpose of the IEE is three folds:

(i) to obtain Clearance from DoE and obtaining decision from DoE whether the particular project activities need further assessment such as detail ESIA or not;
(ii) provide/finalize the ToR for the ESIA study, if required; and
(iii) continue consultations with project stakeholders.

The Process of IEE is briefly outlined below:

Analysis of the Project Components: All the components of the PIU/ASSET, like construction/renovation works and resettlements, will be examined thoroughly which will in fact guide the development of checklist for reconnaissance survey.

[2] **Associated facilities means facilities or activities that are not funded as part of the project and are: a) directly and significantly related to the project, b) carried out, or planned to be carried out, contemporaneously with the project; and c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist.**

Preparation of Checklist: A comprehensive checklist of potential environmental components likely to be impacted need to be prepared based on the guidelines of different agencies such as DoE and World Bank.

Initial Screening/ Survey: Not all the parameters selected in previous step may be significant for the project; hence the first activity will be to shorten this list to concentrate on significant effects. Data should be collected from all possible secondary sources, if available, and conduct an environmental reconnaissance with the relevant checklist in hand to identify and delineate the significant effects of the project and eliminate the others from further considerations. Public consultation will play an important role in initial screening.

Analysis of alternatives: Alternative site and technological design should be analyzed for the proposed project interventions considering environmental, social, and technological criteria.

Identification and Scaling of Impacts: All the potential short and long term environmental impacts should be identified. The impacts can be graded qualitatively (e.g. high, substantial, moderate, and low) in order to identify major impacts and relevant components. In addition, cumulative and residual impacts of the project interventions need to be clearly addressed.

Identification of Enhancement and Mitigating Measures: From literature survey and applying expert judgment and based on assessed impacts, a list of possible enhancement and mitigating measures for beneficial and adverse effects respectively should be prepared.

Preparation Environmental Management and Monitoring Plan: Environmental and Management Plan for the proposed project should be prepared mentioning the impact mitigation/ enhancement measures with institutional responsibilities. Also, environmental monitoring plan should be prepared that will include monitoring parameters, frequency, method and responsible agencies.

Recommendations on the need of ESIA study: The IEE study should recommend the activities whether a full-scale ESIA study is needed or not.

Preparation of ToR for ESIA: Based on the IEE findings, a detailed ToR for subsequent ESIA study should be prepared. ToR will specially focus on the adverse impacts of high/moderate magnitude. Attention should also be given to cumulative and residual impacts. A tentative IEE report structure is suggested as follows in Table 5.1:

Table 5.1: Table of Contents of an IEE Report

Chapter	Sub-chapters required in IEE report
Chapter-1	Introduction
Chapter-2	Description of the project
Chapter-3	Description of the existing background environment in and around the project site (Generally this should cover an area of 1 km. Radius)
Chapter-4	Potential significant impacts (During Pre-construction, Construction and Operation Phases)
Chapter-5	Mitigative and abatement Measures
Chapter-6	Residual impacts if any (these may have to be studied at the detailed Assessment stage)
Chapter-7	Monitoring Program

Chapter	Sub-chapters required in IEE report
Chapter-8	Summary and Conclusions

Source: ESIA guidelines for industries, 1997, DoE, Bangladesh

Environmental and Social Impact Assessment (ESIA)

The purpose of ESIA is to give the environment and people its due importance in the decision-making process by clearly evaluating the environmental and social consequences of the proposed study before action is taken. Early identification and characterization of critical environmental and social impacts allows the public and the government to form a view about the environmental viability and social acceptability of a proposed development project and what conditions should apply to mitigate or minimize those risks and impacts.

The ESIAs will utilize a well-planned and all-inclusive communication and consultation strategy and include a baseline survey covering the prevailing status of income, employment, education, age, skills and other socio-economic aspects along with cultural and community aspects in the areas. The assessment will feed into the individual Resettlement Plans prepared for each site and will be incorporated, along with consultation feedback from those identified in the PAP census and all other relevant stakeholders, in the development of mitigation measures, especially livelihood strategies.

PIU/ASSET will undertake a survey for identification of the persons and their families likely to be affected by the project. Every survey shall contain the following information of, the project affected families:

- Members of families who are residing, practicing any trade, occupation or vocation in the project affected area;
- Project Affected Families who are likely to lose their immovable assets, commercial establishment, agricultural land, employment or are alienated wholly or substantially from the main source of their trade occupation or vocation.
- Families belonging to indigenous categories
- Vulnerable persons
- Families that are landless (not having homestead land, agriculture land or ether homestead or agriculture land) and are below poverty line, but residing in the affected area
- Losing access to private property or common property resources

PIU/ASSET on completion of the assessment will disseminate the results among the affected community. Based on the assessment, project will prepare an action plan to mitigate or minimize the adverse impacts as identified during the survey. The draft mitigation plan in form of resettlement action plan (RAP) will be again disseminated among the affected individuals/ community. The feedback received from the affected groups will be incorporated to the extent possible before finalization of the RAPs.

When ESIA identifies small ethnic communities with distinct characteristics different with the mainstream population of the country, a special approach will be followed as per the Bank ESS7 on indigenous peoples. A free, prior and informed consultation approach will be followed for meaningful

consultation with the small ethnic communities and identification of their priorities for additional measures for maximizing project benefits to them. Measures will be taken to avoid any adverse social effected to these communities following the and a small ethnic community development plan (SECDP) will be prepared for following implementation of the project activities in areas inhabited by small ethnic communities. Procedure of RAP has been discussed in the RPF and those for preparation of SECDP in the SECDF presented as stand-alone volumes of this ESMF.

In the preparation phase, the ESIA shall achieve the following objectives:

- To establish the environmental and social baseline in the study area, and to identify any significant environmental issue;
- To assess these impacts and provide for measures to address the adverse impacts by the provision of the requisite avoidance, mitigation and compensation measures;
- To integrate the environmental issues in the project planning and design;
- To develop appropriate management plans for implementing, monitoring and reporting of the environmental mitigation and enhancement measures suggested.

The impact assessment will be conducted using major stages as shown in the following diagram Figure 5.1:

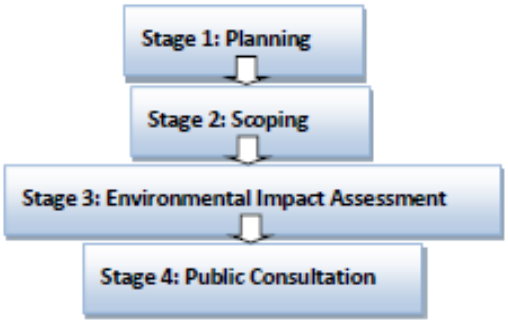

Figure 5.1: Diagram: Impact Assessment Process

Stage 1: Planning

Soon after the commencement of project, based on desk study, reconnaissance survey and experience of earlier similar projects, detailed methodology and schedule should be prepared for the effective and timely execution of the Environmental Assessment.

Desk Study: To collect the secondary information and checking out the methodology for carrying out the EA study and fixing of responsibilities of the EA team members for preparing a complete, addressing all issues, Environmental Management Plan.

Reconnaissance survey: To collect the first-hand information about the project area and develop a perspective of the entire team and revise the methodology and work program.

Experience from Earlier Project:

- **Focus on the main issues:** It is important that the EA does not try to cover too many topics in too much detail. Effective scoping can save both time and money by focusing the EA studies on the key issues.

- **EA requires the formation of a multidisciplinary team and the leadership of a strong EA coordinator.** The range of effects considered in the EA requires the skills of technical experts to be employed on an assessment team, lead by a Team Leader. It is important to involve the right people (e.g., scientists, engineers, policymakers, government representatives, representatives of public interest groups and the local community) and agencies (e.g., the developer, the aid agency, regulatory authorities and politicians) in the EA process. Selection will be made through consultation at different stages.
- **Make maximum use of existing information before engaging expensive field studies.**
- **Determination of Project influence Area.** Based on reconnaissance survey and desk study and technical assessment, project influence area will be finalized.
- **Present clear and appropriate options for mitigation of impacts and for sound environmental management.** Mitigation is an integral part of impacts assessment. Application of appropriate mitigation can eliminate or reduce negative impacts, and improve the net overall environmental performance of a project. Hence public consent, practical viability will be considered in proposing the mitigation measures.
- **Post-ESIA audits and monitoring programs are essential to ensuring that EA commitments are carried out and that future EA improve.** An effective monitoring plan will be proposed in consultation with the client and the World Bank. Proper budgeting will be ensured for smooth functioning of monitoring plan proposed.

Stage 2: Scoping

Scoping will identify which of the activities has a potential to interact with the environment. Scoping will be conducted early in the EA process so that a focus on the priority issues (i.e. those that have the greatest potential to affect the natural and/or environment) can be established for the rest of the EA process. Necessary consultation with stakeholders will be made after scoping to incorporate any unattended issues. Key elements/inputs to the scoping exercise will be as follows:

- Gathering and reviewing existing environmental data like atmosphere, climate, topography, congestion area, alternative requirement, land use pattern, hydrology and drainage pattern, major River and waterways, religious, cultural and archaeological sites and sensitive areas.
- Identifying project stakeholders; including PAPs, Government and nongovernment agencies (utilities), ASSET institutions, Department of Environment (DoE) etc.
- Assemble and review relevant legislative requirements, environmental standards and guidelines (national and international) associated with the proposed development as well as the World Bank‘s operational policies and standards.
- Gathering existing information sources and local knowledge;
- Informing stakeholders of the project and its objectives and get input on the EA;
- Identifying the key environmental concerns (community and scientific) related to a project and the relative importance of issues;
- Defining/preparing the EA work program, including a plan for public and stakeholder involvement;
- Carrying out monitoring of natural environment including air, water, soil, noise etc.

- Defining the range of project alternatives to be considered.
- Obtaining agreement/consensus on the methods and techniques to be used in EA studies and document preparation;
- Determining/freezing the spatial and temporal boundaries for the EA studies.

The following issues will be addressed through scoping, but will not be limited to.

- To improve the quality of EA information by focusing scientific efforts and EA analysis on truly significant issues;
- To ensure environmental concerns identified and incorporated early in the project planning process, at the same time as cost and design factors are considered;
- Reducing the likelihood of overlooking important environmental issues;
- Thinning the chance of prolonged delays and conflicts later in the EA process by engaging stakeholders in a constructive participatory process early in the EA process.

Stage 3: Environmental and Social Impact Assessment

After conducting IEE, if necessary, the ESIA should be conducted, as per ToR for ESIA suggested in IEE and cleared by DoE. The process of ESIA study is briefly described below:

- **Analysis of the Project Components:** All the components of the PIU/ASSET and design specifications will be analyzed to get insight of the project activities. This will guide detail environmental baseline survey and particular investigations.
- **Data collection on Environmental and social baseline:** Environmental and social baseline condition of the proposed PIU/ASSET will be collected through field visits, surveys and intensive consultation with local people. Intensive consultation with the stakeholders should be carried out for updating the baseline condition to obtain their perceptions on the proposed activities and the possible impacts.
- **Major Field investigations:** At this stage, detailed field survey (social and environmental) will be carried out to obtain information on the possible impact of the interventions on the environmental parameter.
- **Assessment of Impacts:** The impacts of the proposed PIU/ASSET on the environmental and social components will be identified through consultation with experts and local community. The impacts will be analyzed and graded qualitatively (e.g. high, medium, low) in order to identify the major impacts. The future-without-project (FWOP) condition will be generated through trend analysis using information collected. The future-with-project (FWIP) condition will be predicted using professional judgment of the multi-disciplinary team members based on information collected. Difference between the two (FWIP-FWOP) conditions will be taken as impact of the proposed interventions. The impact will also be monitored. Moreover, cumulative impacts of the project inside or outside the project area will be analyzed. Possible mitigation measures for alternatives of the project will be identified in this stage. For true impacts prediction following questionnaire will be attempted to answer:
    - How will a particular project activity give rise to an impact?
    - How likely is it that an impact will occur?
    - What will be the consequence of each impact?

- What will be the spatial and temporal extent of each impact?

- **Evaluation of impacts:** Impact assessed on different parameters will be evaluated for both positive (+) and negative (-) impacts considering magnitude, immediacy, reversibility and sustainability. Impacts can also be quantified for the infrastructure projects, a typical PIU/ASSET project can evaluate the impact using the formula described below:

  - **Impact Assessment of a Typical Project**

  The Method of Assessment. A simple methodology has been developed for Environmental Evaluation System (EES) developed by Battelle Columbus Laboratories in the United States. In Bangladesh, in absence of a database it is only possible to estimate the potential environmental changes from the existing situation. In this method, the existing environmental conditions will be the reference level and the positive and negative changes in environmental conditions resulting from the proposed project will be evaluated. The environmental impact will be assessed by Environmental Impact Values (EIVs), which may be defined mathematically as follows:

$$EIV = \sum_{i=1}^{n} (V_i)(W_i)$$

  where V_i is the relative change in the value of environmental quality of parameter i with respect to existing situation, W_i is the relative importance or weight of parameter i, and n is the total number of environmental parameters related to the project.

  The computation of Environmental Impact Value (EIV) of a project needs determination of V_i, the value representing the magnitude of alteration of the environmental parameters, and W_i the value representing relative weight or importance of the respective parameters.

  - **Magnitude of Environmental Alterations**

  Change of environmental parameters should not be measured with respect to existing condition. The standard practice is to compare the future-with-project condition against the future-without-project condition, difference between these two are taken as the change in environmental parameters. The future-without-project condition should be generated through trend analysis using historical data collected during the establishment of baseline condition.

  The beneficial and adverse changes in environmental parameters resulting from a project, usually expressed in qualitative terms have been plotted in a scale to quantify the environmental alterations. Figure 5.2 shows the correlation between qualitative statement and proposed quantitative values of environmental changes resulting from a project.

Very High (-)	-5
High (-)	-4
Medium (-)	-3
Low (-)	-2
Very Low (-)	-1

No Change	0
Very Low (+)	+1
Low (+)	+2
Medium (+)	+3
High (+)	+4
Very High (+)	+5

Figure 5.2 Quantification of Environmental Impact

Since the changes of environmental parameters are measured with respect to existing condition, no change has 0 values. Benefits or positive impacts are here graded from +1 to +5, and negative impacts scored from -1 to - 5. Impacts are assessed quantitatively wherever possible. For example, if a project will have a positive impact on agricultural productivity and the production will be increased by 50%, then a scoring of +3 is applied to agricultural productivity. Similarly if assessed that the fish production will be decreased by 30%, a negative scoring of –2 is applied for the respective fishery component. A value from the scale representing effect of the project on each parameter will be taken to compute the EIV of the project.

Where it is not possible to directly quantify the impact in terms of increase or decrease in production, or deterioration of water quality or degradation of environment, the impact has to be estimated. For the purpose of estimation, positive and negative impacts are divided into three different groups, as Low, Medium and High. A low numerical value ranges from 1 to 2, Medium 3 and High with a numerical value ranging from 4 to 5.

- **Relative Importance of Environmental Parameters**

All environmental parameters influenced by the project are not of equal importance or weight. The importance of a parameter varies from country to country depending on the environmental concerns of the country. Generally, in Bangladesh flood, employment, agriculture, fisheries etc. carry more importance than many others. The importance may also vary in different regions within the country. So the same parameter may have different values for different project activities located in different regions.

The parameters related to infrastructure/renovation projects have been given different values based on prevailing environmental concerns in Bangladesh and presented in Figure 5.3. These values have been arrived at after consideration of all probable impacts due to the project during its pre-construction, construction and post-construction stages. These are average values only based on normal conditions, which should be modified in case the projects are located in special locations having significant environmental concerns. The values representing importance or weight of the parameters can be used to compute the relative impacts of the parameters which are then summed up to obtain the total EIV of the project. In Table 5.2 a sample calculation for determination of EIV has been shown. Relative Importance Values of Environmental Parameters shown in Figure 5.3 has been assigned considering the infrastructure development/renovation or equipment installation projects. As in PIU/ASSET, the major projects are related to training and capacity development of human skill set development and a very few of infrastructure development and renovation only; the values shown in this Fig. can be utilized as appropriate.

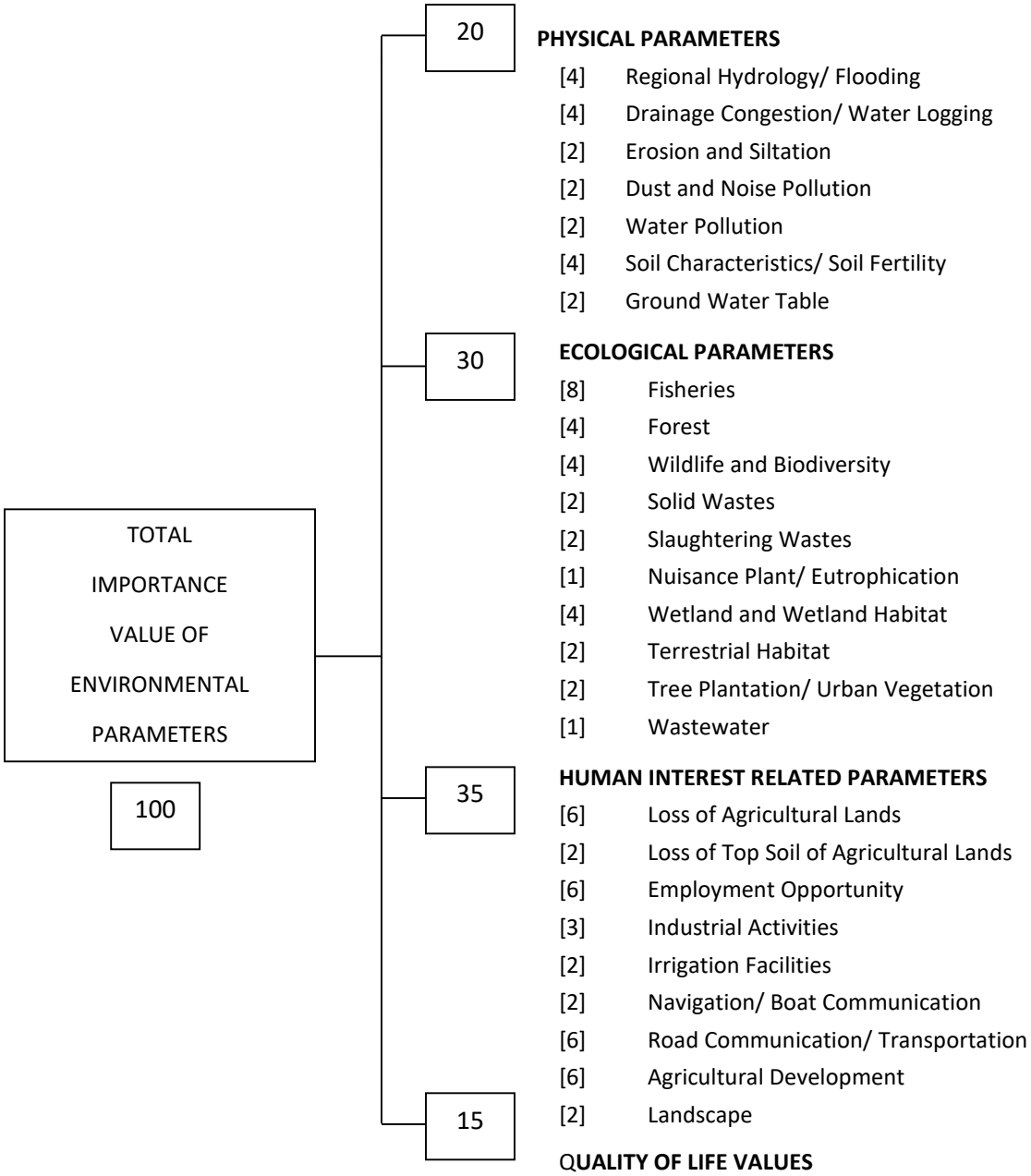

Figure 5.3 Typical Relative Importance Values of Environmental Parameters

A typical impact evaluation for PIU/ASSET project is furnished in the following Table 5.2:

Table 5.2: Impact Evaluation for ESIA of typical Project

Name of the Project_____

ENVIRONMENTAL PARAMETERS	Relative Importance Value	Degree of Impact	Relative Impact		EIV
			Positive	Negative	
I. PHYSICAL					-10
Regional Hydrology/ Flooding	4	-1		-4	
Drainage Congestion/Water logging	4	-1		-4	
Erosion and Siltation	2	-1		-2	
Dust Pollution/Noise Pollution	2	0			
					-15
II. ECOLOGICAL					
Fisheries	8	-2		-16	
Forest	4	0			
Tree Plantation	2	+1	+2		
Wetland/ Wetland Habitat	4	0			
Nuisance Plant/Eutrophication	1	-1		-1	
					+4
III. HUMAN INTEREST					
Loss of Agricultural Lands	6	-3		-18	
Employment Opportunities	6	+3	+18		
Navigation and Boat Communication	2	-3		-6	
Industrial Activities	3	+2	+6		
Irrigation Facilities	2	+3	+6		
Landscape	2	-1		-2	
IV. QUALITY OF LIFE VALUES					+15
Health and Nutrition	3	+2	+6		
Sanitation and Water Supply	3	0			
Education/ Literacy	3	+2	+6		
Road Safety	3	-1		-3	
Slum Improvement	3	+2	+6		
Total Environmental Impact Value (EIV)			**50**	**-56**	**-6**

- **Preparation of Environmental and Social Management Plan:** The ESMP will be prepared suggesting mitigation measures for minimizing the effect of the negative impacts, compensation measures for the negative impacts which cannot be mitigated, enhancement measures for increasing the benefits of the positive impacts, emergency plan for taking care of natural hazards and accidental events. An environmental monitoring plan will also be suggested in the ESMP. Each component of the ESMP will be divided into pre-project, during project, post project and operation and maintenance phases. Responsibilities of the institutions in the implementation of the EMP will be suggested to ensure efficient utilization of all the parties involved. The ESMP should also include institutional capacity assessment and capacity building plan. The ESMP will also include measures for health and safety measures in response to COVID-19, and special arrangement for community engagement, management of risks of GBV and

grievance resolution in the context of social distancing for curbing community transmission of COVID-19 infections.

- **Contingency Plan for COVID-19**

  ASSET will develop a contingency plan following the WHO guidelines and the World Bank requirements for each district to put in place procedures in the event of COVID-19 reaching the area or already there. The contingency plan will be developed in consultation with national and local healthcare facilities, to ensure that arrangements are in place for the effective containment, care and treatment of workers who have contracted COVID-19. The contingency plan will also consider the response at the events of infections among the workforce, community transmission is taking place and when it is likely that access to and from a target area will be restricted to avoid spread of COVID-19.

  The contingency plan will be lucid to GBV risks screening and putting in the corresponding measures to prevent and mitigate the SEA/SH risks. The contingent incidents will be duly registered with the GM with observations of anonymity protocol. The EAP will have contingency budget for any possible referral services available in the beneficiary areas. The Contingency Plan will be developed in consideration of the potential challenges with the project staff and workers in COVID-19 situations including health and safety of the workforce as well as the beneficiary communities.

- **ESIA Report Preparation:** All the findings would be presented in the ESIA reports as per ToR. A preliminary ToR for ESIA is given in Annex 2. Annex 3 is an indicative guideline on preparing ESIA report. A standalone guideline on ESMP is attached in Annex 4.

- **Environmental Assessment and Management for Resettlement Sites:** Environmental assessment and management principles and requirements described above will be equally applicable for the construction of the resettlement sites (if any). A generic guideline to conduct ESIA of resettlement site/s will be prepared during the detail ESIA, if necessary.

Stage 4: Public Consultation (ESS 10)

"Public consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All 'Moderate Risk' project activities shall undertake public consultation. The key points of public consultation are given below:

Stakeholder Consultation at all Stages of Project

- Identification of primary and secondary stakeholders.
  - Primary stakeholders include people having direct impact.
  - Secondary stakeholders include local representatives, women's group, voluntary organizations NGOs, field level officers and staff, other government officials.
- Structured Consultation
  - Consultation at Community/Village Level

- Consultation at Upazila and District Level
- Consultation at Divisional level

- Consultation at Community/Village Level
  - Along with preliminary inventory and survey information dissemination will be done along the existing training institutions and the affected communities/villages included in the project influence area canvassing about the project. Date and venue for detailed consultation will be fixed.
  - Pictorial method (Pamphlet) will be adopted to explain proposed improvements and possible environmental impact in the concerned villages.
  - Public consensus would try to be arrived for and mitigation proposed.
  - Public suggestion and graveness will be addressed at appropriate level.
- Consultation at Upazila and District Level
  - Consultation with officers of the PIAs, Department of Agricultural Extension, Forest Department, Soil Resources Department Institute, Department of Public Health Engineering (DPHE), etc.
  - Consultation with the local elected representatives and other stakeholders.
- Consultation at Divisional level
  - Consultation with, DoE office, Divisional Commissioner Office, etc. for good governance, and smooth implementation of project activities etc.

Communications Plan for COVID-19

ASSET project will ensure effective communications to reduce the risk of stigma or discrimination, and to ensure that individual's roles and responsibilities are clear. The preparation measures and contingency plans should be communicated widely. Workers, sub-contractors, suppliers, adjacent communities, nearby projects/workforces, and local healthcare authorities will be made aware of the preparations that have been made. When communicating to the workforce, their roles and responsibilities will be outlined clearly, and the importance for their colleagues, the local communities and their families that the workers follow the plans will be stressed. Workers will be reassured that there will be no retaliation or discrimination if they self-isolate as a result of feeling ill, and with respect to the compensation arrangements. Further guidance on preventing social stigma as a result of COVID-19 is available at https://www.who.int/docs/default-source/coronaviruse/covid19-stigma-guide.pdf.

After completion of the public consultation, the environmental concerns will be addressed and appropriate changes will be made in the draft ESIA and ESMP. The final ESIA report, so prepared, shall be submitted by the client to the concerned authority for appraisal.

5.4 Specific Activities and Responsibilities in the Environmental and Social Assessment process

In Bangladesh, the environmental assessment procedure will pass through three major tiers in order to optimize the resources required for conduction of environmental assessment studies, these three tiers are: A) Screening, B) Initial Environmental Examination (IEE), and C) Detailed Environmental and Social Impact Assessment (ESIA). Screening decides whether the ESIA process should be applied to a development project and if it is required, its type, that is, IEE or ESIA. The major activities and the relevant responsibilities for each activities are shown in Table 5.3:

Table 5.3: Major activities and responsibilities during different project stages for conducting environmental and social assessment studies in Bangladesh

Project Stage	Steps/ Activities	Description	Responsibility
Step-1: Screening			
Planning and Pre-feasibility	Undertake Screening	Prepare a document containing environmental information covering potential environmental impacts, mitigation measures, evidence of public consultation etc. Take no further action for projects, which do not require environmental assessment.	PIU/ASSET as proponent or qualified professionals/ Consultants
Step-2: Scoping to identify types of environmental and social assessment study			
Pre-feasibility/ planning	Scoping Exercise	Identify, by using checklists and based on preliminary field examination the necessity to conduct an IEE or an ESIA, as per ECR, 1997.	PIU/ASSET as proponent assisted by qualified professionals/ Consultants
		Produce environment related document to competent authority for approval.	
Step-3: Terms of Reference (ToR) for environmental and social assessment study			
Pre-feasibility/ planning	Preparation of ToR	Define the main environmental concerns and issues related to any infrastructure program, which must be addressed by environmental assessment.	PIU/ASSET assisted by professional environmental assessment team/consultant
	Approval of ToR	Review, comment and approve ToR	DoE, Bangladesh
Step-4: Preparatory work for environmental and social assessment study			
Pre-feasibility and planning	Assigning the work	Determine whether to conduct environment assessment using in-house staff or whether to outsource it.	PIU/ASSET assisted by professional environmental assessment team/consultant
	Environmental Assessment team formation	Form team as per approved ToR.	Environmental Assessment Team
	Prepare Work Plan	Establish a work plan that gives appropriate weight to all activities.	
Step-5: Undertake environmental and social assessment study			
Step-5.1: Desk Studies			
Planning and design	Secondary data	Collect and review relevant and appropriate published data, such as maps, reports etc.	Environmental Assessment Team
	Initiation, interaction and consultation	Discuss the proposed infrastructure and its potential environmental impacts with knowledgeable persons and concerned stakeholders.	
	Preparation of	Draft a summary of the information that is	

Project Stage	Steps/ Activities	Description	Responsibility
	information summary	relevant to the project and its possible environmental effects.	
	Methods and Techniques	Determine the methods by which the field work for Environmental Assessment will be conducted.	
	Work Plan	Revise the work plan on the basis of desk studies	
Step-5.2: Field Work			
Planning and design	Field equipment	Collect and arrange field equipment required for Environmental Assessment Studies	Environmental Assessment Team
	Field survey for collection of baseline information	Survey at project location, interaction with the local community and investigate the issues identified during desk study; collect baseline (physical, biological and socioeconomic aspects) information	
Step-5.3: Data Analysis and Interpretation			
Planning and design	Impacts Identification	Establish what environmental impacts will be taken place as result of interaction of environmental settings and infrastructure construction, rehabilitation and maintenance activities.	Environmental Assessment Team
	Impact Prediction	Establish the extent of environmental consequences of the proposed infrastructure construction and operation.	
	Impact assessment	Judge whether the consequences are significant enough to require action to be taken.	
	Mitigation Measures	Design mitigation measures to avoid, reduce, minimize & compensate for adverse impacts & maximize beneficial impacts.	
	Environmental Management Plan	Prepare ESMP covering monitoring and project management to ensure the implementation of mitigation measures.	
	Stakeholder/ Public Consultation	Carry out at various stages in the assessment process to ensure quality, comprehensiveness and effectiveness and make sure that stakeholders' views are adequately addressed.	Environmental Assessment Team/PIU/ASSET
Review and Approval	Review & approval of environmental assessment report	Check completeness, adequacy, credibility, facilitate the decision-making process; decide if project should proceed or if further alternatives must be examined.	PIU/ASSET will review and forward to DoE for approval of IEE/ESIA report
		Approval of environmental assessment report or rejection.	DoE, Bangladesh
Design Implementation	Implementation of ESMP, Monitoring	Determines compliance with ESMP.	PIU/ASSET or appointed professionals

Project Stage	Steps/ Activities	Description	Responsibility
Step-6: Undertake audit			
Environmental Audit	Auditing	Environmental audit: immediately after Construction and two years after project completion.	PIU/ASSET or appointed professionals

5.5 Environment and Social Management Plan (ESMP)

This section presents the outline environmental and social management plan (ESMP) of the PIU/ASSET. A more detailed version of ESMP must be included in the IEE and if required in ESIA of the PIU/ASSET; the

5.5.1 Scope and Objectives of ESMP

The basic objective of the ESMP is to manage adverse impacts of project interventions in a way that minimizes the possible adverse impact on the environment and people of the program influence area. The specific objectives of the ESMP are to:

- Identify the mitigation measures during ESMF and ESIA; and facilitate implementation of those during implementation of PIU/ASSET;
- Maximize and sustain potential program benefits and control negative impacts;
- Draw responsibilities for program proponent, contractors, consultants, and other members of the program team for the environmental and social management of the program;
- Define a monitoring mechanism and identify monitoring parameters in order to:
    - Ensure the complete implementation of all mitigation measures,
    - Ensure the effectiveness of the mitigation measures,
    - Maintain essential ecological process, preserving biodiversity and where possible restoring degraded natural resources and habitats; and
    - Assess environmental training requirements for different stakeholders at various levels.

The ESMP will be managed through a number of tasks and activities and site-specific management plans. One purpose of the ESMP is to record the procedure and methodology for management of mitigation identified for each negative impacts of the project. The management will clearly delineate the responsibility of various participants and stakeholders involved in planning, implementation and operation of the project.

5.5.2 Inclusion of Relevant Components of ESMP in Contract Documents

The specific IEE/ESIA should include a section on special environmental clauses (SECs) to be incorporated in the Tender Document under General/Particular Specification. These clauses are aimed at ensuring that the Contractor carries out his responsibility of implementing the environmental and social management plan (ESMP), monitoring plan as well as other environmental and safety measures. Such clauses may specify, for example, penalties for non-compliance as well as incentives to promote strong compliance. The various contractors must be made accountable to implement the plans and mitigation measures which pertain to them through contract documents and/or other agreements of the obligations and importance of the environmental and social components of the program. In addition, the specific ESIA will ask to submit an Environment Management Action Plan (EMAP) to encompass all of the detailed plans, measures and management systems they are required to develop and implement, to be based on the ESMF recommendation and ESIA findings, their work methodology, work force involvement, equipment's standard, and work scheduling.

5.5.3 Payment Milestones

Payments to contractors would be linked to environmental performance, measured by completion of the prescribed environmental and social mitigation measures. Contractors would be required to join forces with the executing agency, project management unit, supervising consultants and local population for the mitigation of adverse impacts of the program. For effective implementation of the proposed mitigation and monitoring measures they would attract trained and experienced environmental management staff.

5.5.4 Guideline to Incorporate Environmental Management in Bid Documents and Project's Operational Manuals

The main consultants of PIU/ASSET will be responsible to incorporate environmental management requirements in the bidding documents and the different operational manuals of the project, with the assistance of the environmental consultants. The generic guidelines to incorporate environmental and social aspects for this purpose are listed below. These are examples only and shall be further elaborated and expanded upon based on the findings and recommendations of the phase specific ESIAs.

- Prepare cost estimates, to be incorporated in Bid Documents.
- Contractor version of the Environmental Management Plan along with the ECoPs to be incorporated in the bid document's work requirements.
- Penalty clauses for not complying with ESMP requirements to be incorporated.
- Indicative penalty clauses are presented below (Addendum to Clause 17.2 Contractor's Care of the Works of FIDIC).
    - The contractor has to follow all traffic safety measures as defined in the technical specification. Damage shall be levied at the rate of up to BDT 10,000 per day per location for non–conformity of traffic safety measures as per the decision of the PIU/ASSET officials.
    - The contractor has to follow all environmental mitigation and management measures as defined in the technical specification read along with the Environmental Management Plan for the specific PIU/ASSET activities. Damage shall be levied at the rate of up to BDT 10,000 per day per location for nonconformity of ESMP measures as per the decision of the PIU/ASSET officials.
    - The contractor has to ensure that prior to every monsoon season, during the construction period; all the temporary and permanent cross drainage structures are free from debris as defined in the Technical Specifications read along with the ESMP. Damage shall be levied at the rate of BDT 3,000 per day per location for non-conformity as per the decision of the PIU/ASSET officials.
    - The contractor has to ensure that a comprehensive Health and Safety program is in place for the duration of construction. Implementation of the program will include, among other aspects, ensuring that sufficient numbers and good quality Personnel Protective Equipment (PPE), should be provide to staff and labor all time as defined in the labor codes read along with the ESMP. Damage shall be levied at the rate of up to BDT 5,000 per day for non-conformity as per the decision of the PIU/ASSET officials.
    - In addition, for any non-compliance causing damages or material harm to the natural environment, public or private property or resources, the contractor will be required to either remediate / rectify any such damages in a timeframe specified by and agreed with the

engineer, or pay PIU/ASSET for the cost (as assessed by PIU/ASSET) of contracting a third party to carry out the remediation work.

- Since many contractors do not have clear understanding the need of environmental management, some quote very low price for implementation of ESMP and eventually cannot implement ESMP as per specific requirement of ESMP and project design. To avoid this problem, fixed budget may be assigned for ESMP implementation. The contractors may need orientation on the requirement of the ESMP in the pre-bidding meeting.

5.5.5 Environmental Codes of Practice (ECoPs)

The environmental codes of practice (ECoPs) are generic, non-site-specific guidelines. The ECoPs consist of environmental management guidelines and practices to be followed by the contractors/ implementation organizations for sustainable management of all environmental issues. The contractor will be required to follow them and also use them to prepare site-specific management plans. Details of the ECoPs listed below are in Annex 5.

- ECoP 1: Waste Management
- ECoP 2: Fuels and Hazardous Substances Management
- ECoP 3: Water Resources Management
- ECoP 4: Drainage Management
- ECoP 5: Soil Quality Management
- ECoP 6: Erosion and Sediment Control
- ECoP 7: Top Soil Management
- ECoP 8: Topography and Landscaping
- ECoP 9: Borrow Areas Management
- ECoP 10: Air Quality Management
- ECoP 11: Noise and Vibration Management
- ECoP 12: Protection of Flora
- ECoP 13: Protection of Fauna
- ECoP 14: Protection of Fisheries
- ECoP 15: Road Transport and Road Traffic Management
- ECoP 16: River Transport management
- ECoP 17: Construction Camp Management
- ECoP 18: Cultural and Religious Issues
- ECoP 19: Workers Health and Safety.

5.6 Mitigation Measures to Address Environmental Impacts

During Pre-construction Phase

Possible environmental impacts during pre-construction phase from construction, rehabilitation and maintenance activities should be identified beforehand. Detail activities need to be identified first and thereafter set of actions or interventions are to be demarcated and any possible effect due to an action is to be determined. Best practice mitigation or enhancement measures should be explored accordingly and deployed in the field. For giving an instance, a set of mitigation measures against possible environmental and social impacts due to a typical improvement project at its pre-construction phase is proposed in the following Table 5.4.

Table 5.4: Mitigation/Enhancement measures during pre-construction phase of a typical construction, rehabilitation and maintenance of infrastructure project

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
Land Acquisition/ Requisition	• Encroachment of agricultural land, cultural sites, fish habitat etc. • Loss of agricultural production, fish resources; • Loss of income and livelihoods; • Social conflict.	– Avoid agricultural land, social/religious institutes, fish habitat during finalization of the alignment of the approach road and location of the bridge; – Prior to start construction adequate compensation should be given to the PAPs in-time according to RAP. – Adequate compensation should be given for standing crops; – Avoid agricultural land, if possible; – Create job opportunities for the PAPs.	PIU/ASSET	PIU/ASSET
Housing and Commercial Structures	• Loss of housing and commercial structures; • Dust pollution; • Loss of income and livelihoods.	– Avoid the housing and commercial structure during the finalization of the alignment and location of the bridge; – Proper compensation should be given before starting the removal or dismantling works; – Create job opportunities for the PAPs. – Water spraying on the bear surface or dust pollution source;	Contractor	PIU/ASSET
Loss of vegetation/ tree	• Accident risk during removal of trees/vegetation's in the project sites; • Birds and others species can migrate from the trees/vegetation's; • Impacts on the local climatic condition.	– Prior to start construction, all vegetation should be removed from the proposed construction sites with the consultation of the local relevant authorities; – Avoid disturbance and careful during construction vehicle and equipment movement; – Proper H&S measures (use of appropriate PPE such as hand gloves, safety shoes and helmet) for the workers should be taken during removal of trees, bushes & crops; – To mitigate the ecological impact, tree plantation plan can be considered in the design & accordingly tree plantation will be done in an appropriate location to be determined by the PIU/ASSET after consultation with the	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
		concerned authority; – Proper H&S measures (use of appropriate PPE such as hand gloves, safety shoes and helmet) for the workers should be taken during removal of trees, bushes & crops; – To mitigate the ecological impact, tree plantation plan can be considered in the design & accordingly tree plantation will be done in an appropriate location to be determined by the PIU/ASSET after consultation with the concerned authority; – The engineer shall approve such felling; only when the proponent secures receive a "clearance" for such felling from the PIU/ASSET, as applicable; – Tree felling, if unavoidable, shall be done only after compensatory plantation of at least two saplings for every tree cut is done; – During the tree removal from the bridges and approaches construction sites diameter at best height (DBH) of the trees is 6 inches, only such trees should be considered by the contractor for compensation and plantation; – Tree plantation at the suitable locations after completion of the construction activities.		
Removal of Utilities	• Vulnerable for workers health and safety; • During movement of heavy Construction machineries equipment's can damage the utility services if not previously removed; • Due to carelessness or incautiousness death from sudden electric shocks may	– Prior to start construction, the utility services (electrical cables, telephone line, water supply pipeline, gas supply pipeline and internet line) should be shifted with the consultation of the relevant organizations; – Inform the local community before starting removal or demolishing work; – Carefully remove the utilities that are connected to any structures; – Proper Health and safety measures for the workers should be taken during shifting of these lines to avoid any	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
	occur.	incidents.		
Dismantling	• Dust pollution in the construction site; • Health hazard for the workers and community during dismantling works; • Noise level increase; • Vibration effects on the structures on the surrounding of the project area; • Surface water contamination, blockage of navigation and drainage, impacts on aquatic animal;	– Notify the adjacent community before starting the demolishing work; – During the removal or demolition of existing structures if required will be fully removed by the contractor; – Spraying of water in the dry land or from where there is a possibility to generate dust; – Banned fishing, swimming, boat movement activities in the construction sites, if applicable; – Proper H&S measures for the workers such as using of appropriate PPE (helmet, Earplug, musk, safety shoes, hand gloves etc.) should be taken to avoid any accidents; – Construct noise barrier around the dismantling site; – Stop the engine when it is not required; – Monitor Noise level as per DoE guidelines; – Impact wise mitigation measures are given.	Contractor	PIU/ASSET
Archaeological/ Historical/ Social/ Cultural/ Religious Sites	• Encroachment of Archaeological/ Historical/ Social/ Cultural/ Religious sites • Air and dust pollution; • Noise level may create uncomfort for the local community; • Vibration can effect on social/ cultural/ religious site.	– Avoid Archaeological/Historical/Social/Cultural/ Religious sites during the site selection and improvement works; – Spraying water on the dry surface to reduce dust pollution; – Vehicles transporting construction material to be covered; – Create noise barrier around the construction sites; – Limit the speed of vehicles; – Stop the demolish work for short time like prayer time. – Realignment of bridge approach road (in case of bridge) if required.	Contractor	PIU/ASSET
Setting up labor camps	• Land encroachment; • Solid and liquid waste from the labor camp	– Labor camp should be constructed at a distance from the water bodies; – Avoid productive land and away from the settlement during the selection of land for the setup of labor camp;	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
		- No solid and liquid waste discharge into the water bodies; - Instruct workers to maintain clean environment in the camps.		

Note: Mitigation/enhancement measures cost will be determined during the environmental assessment of individual project based on its location, types of construction, implementation schedule, cost for project implementation and requirement of mitigation/enhancement activities.

During Construction Phase

Possible environmental impacts during construction phase from typical project construction, rehabilitation and maintenance activities should be identified. For mitigating the possible environmental impacts during construction phase mitigation measures are given in the following Table 6.8b.

Table 5.5: Mitigation/Enhancement measures during Construction phase of a typical project construction, rehabilitation and maintenance project

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
Air Pollution	• Construction vehicular traffic: Air quality can be affected by vehicle exhaust emissions and combustion of fuels • Construction equipment: Air quality can be adversely affected by emissions from construction machineries and combustion of fuels; • Construction activities: Dust generation from earth excavation, earth & sand stockpiles during dry period.	– Fit vehicles with appropriate exhaust systems and emission control devices; – Maintain vehicles and construction equipment in good working condition including regular servicing; – Operate the vehicles in a fuel-efficient manner; – Impose speed limits at 30 km/hour on vehicle movement at the worksite to reduce dust emissions; – Control the movement of construction traffic in the access road; – Focus special attention on containing the emissions from generators; – Construction equipment causing excess pollution (e.g. visible smoke) will be banned from construction sites immediately prior to usage; – Water spray to the dry earth/material stockpiles, access roads and bare soils as and when required to minimize the potential for environmental nuisance due to dust; – Increase the watering frequency during periods of high risk (e.g. high winds); – Stored materials such as: excavated earth, dredged soil, gravel and sand shall be covered and confined to avoid their wind drifted; – Restore disturbed areas as soon as possible by vegetation;	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		– Establish adequate locations for storage, mixing and loading of construction materials, in a way that dust dispersion is prevented because of such operations; – The Air quality monitoring should be carried out by the contractor following the National Air Quality Standard (Schedule-2: Standards for Air Quality, ECR, 1997 and Amendment in 2005).		
Noise Pollution	• Construction vehicular traffic: Vibration and Noise quality will be deteriorated due to vehicular traffic. • Construction equipment: Noise and vibration will have an impact on adjacent surrounding residents. • Construction activity: Noise will have an impact on adjacent residents.	– Strict measures for noise pollution control need to be undertaken during construction activities; – Create noise barrier and consider the minimum noise levels at sensitive receptor sites (e.g. dense residential area, schools, mosques, health centers etc.); – Stone breaking machine should be confined within a temporary shed so that noise pollution could be kept minimum; – Protection devices (ear plugs or ear muffs) shall be provided to the workers operating in the vicinity of high noise generating machines during construction; – Construction equipment and vehicles shall be fitted with silencers and maintained properly; – Instruction to the drivers to avoid unnecessary horn; – The Noise level monitoring should be carried out by the contractor following the National Noise Quality Standard (Schedule-4: Standards for Sound, ECR, 1997 and Noise Pollution (control) rules 2006). – Vibration monitoring should be carried out by the contractor.	Contractor	PIU/ASSET
Ground Water Pollution	• Contamination of groundwater due to Pollution lack of septic tanks or mobile toilets; • Accidental spillage of	– The contractor will make arrangement for water required for construction in such a way that the water availability and supply to nearby communities remain unaffected; – Handling and storage of the potential contaminants has to be organized under strict condition to avoid water pollution	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
	hazardous liquid from the construction camps.	during construction; - Handling of hazardous liquid should be done carefully by the designated experienced person; - Handling and storage of the potential contaminants should be done by the experienced workers. Proper monitoring should be done by the experienced person; - The Ground water quality monitoring should be carried out by the contractor following the National Water Quality Standard (Schedule-3: Standards for Water, ECR, 1997).		
Surface Water Pollution	• Construction & general wastes from the construction sites; • Oil spill from the construction vehicles and construction camp can effect on fishes and aquatic wildlife (such as snakes, frogs etc.)	- Contractor should prepare Waste Management Plan and follow it properly during the construction period; - Any wastes should not be throwing into the river/khal/canal other than dump into the designated waste dumping area; - Store the oil and petroleum product in a separate location cover by a concrete structure; - Handling of hazardous liquid should be done carefully by the designated experienced person; - Monitor the surface water by testing in designated laboratory should be done by the Contractor following the National Water Quality Standard (Schedule-3: Standards for Water, ECR, 1997).	Contractor	PIU/ASSET
Land/ Soil Pollution	• Decrease the production capacity of agricultural land; • Land or soil erosion from water or wind; • Sediment pollution and increase the turbidity; • Reduction the microorganism.	- Avoid the productive land, agricultural land, archaeological sites, protected area, forest area, natural habitat etc.; - Land/soil quality should be ensured by the contractor to fill the abutment area and approach road; - Soil from fallow land should be used in earthwork in approach road; - Re-vegetation the exposed area as early as possible to reduce the soil erosion; - Create barrier for reducing the sedimentation into the water bodies;	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		– The Land or soil quality test should be carried out by the contractor.		
Waste (Solid, Liquid and Hazardous) Pollution Organic waste: remaining foods, leafs, papers, straw, fruit cover etc. Inorganic waste: Polythene, Glasses, Synthetic paper, plastic etc. Hazardous waste: Paint, fuel, chemicals, oil, petroleum products, bitumen etc.	• Improper storage and handling of construction & general liquid waste such as fuels, lubricants, chemicals and hazardous liquid onsite, and potential spills from these liquid materials may harm the environment and health of construction workers. • Improper storage and handling of construction & general solid wastes.	– The contractor will minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes); – Any wastes should not be throwing into the river/khal/canal other than dump into the designated waste dumping area; – Handling of hazardous liquid should be done carefully by the designated experienced person; – Organic waste should be managed by composting method. A concrete chamber with 3 rooms is needed to be provided. In one room organic waste should be dumped and another room inorganic waste will be dumped. When the room will be filled then covered by earth. Then dump to the third room. After 6 month organic waste will be converted into fertilizer and will be used by the farmers; – Inorganic waste should be given to the authorized vendor for free of cost for recycling; – Accidental spillage of hazardous waste should be managed by spreading wood powder on the surface of the oil and this powder mixed with oil must store in a designated concrete room; – Provide appropriate PPE to the construction personnel for handle construction materials; – Make sure all containers, drums and tanks that are used for storage are in good condition; – Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution; – Wastewater monitoring should be carried out by the contractor, following the national standard (Schedule-10:	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		Standard for waste from Industrial units or Projects waste).		
Hydrological Regime	• Drainage congestion and flood at the site; • Erosion and siltation at the site.	– A detailed hydrological and morphological study of the site (in case of bridge or other water related structures) should be conducted; – Proper design and construction accordingly to accommodate design flows; – Provision of sufficient sizes of drains to take design flows; – Wastes should not be disposed near any water body. All waste depending on its characteristics, should be disposed of in a controlled manner.	Contractor	PIU/ASSET
Sand Extraction/River dredging/Canal Re-excavation	• Impact on river ecology • Changes in the river morphology including erosion of banks and loss of agricultural land, etc.	– Material sourcing will be thoroughly assessed in the proejct ESIA. – Contractors will be prohibited from opening new areas in local Rivers for extracting and/or sourcing sands, including areas in local rivers that remain in relatively good natural conditions and areas that support fish of conservation importance. – Community adjoining local rivers will be mobilized in the monitoring of contractors.	Contractor	PIU/ASSET
Drainage Congestion	• Construction of diversion road on the river/ Khal/canal create drainage congestion; • Stockpiling of construction materials in the river/khal/canal also create drainage congestion.	– Pier of the existing bridge structures and other construction waste should be clearly removed from the construction site during dismantling of existing structure; – Construct diversion road on the river/khal/canal by keeping provision of open space so that water flow cannot hamper by the construction activities; – Immediately remove all the construction debris from the construction site as well as from the water bodies in a planned way; – Duration of stockpiling should be minimized as much as possible; – Avoid the encroachment of the water bodies; – Protect water bodies from sediment loads by silt screen or	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		bubble curtains or other barrier; – Construction activity should be recommended during the dry season; – Construction workers shall be instructed to protect water resources;		
Road Traffic and Accidents	• Increased traffic use of narrow access road by construction vehicle will affect the movement of normal road traffics and the safety of the road users specially the students	– Proper Traffic Management Plan (TMP) should be prepared by the contractor during starting of construction & follow it strictly; – In this TMP, the road safety measures such as speed breakers, warning signs/lights, road safety signs, flagman etc. should be included to ensure uninterrupted traffic; – Movement specially at nearby the educational (Schools, colleges, Madrasha etc.), community infrastructure (mosques, graveyards, Prayer Ground etc.) and health complex; – In addition, BRTA traffic rules and regulations should be strictly followed; – Divert traffic to follow alternative routes to avoid traffic jams; – Avoid talking with mobile during driving.	Contractor	PIU/ASSET
Landscape and Aesthetics	• Excavation of borrow pits, stock piling of construction materials, placing of construction equipment and parking of construction vehicles; • Presence of construction camps, equipment and their activities; • Movement of construction vehicles on the existing road network and temporary haul	– Parking of construction vehicles and stockpiling of construction materials/excavated earth should be done in systematic way to avoid the damaging of aesthetics of the site; – Duration of stockpiling should be minimized as much as possible; – Vegetation plantation after completion of the construction work; – Completely remove the construction camp facilities, equipment's and their activities; – Limit the speed of the vehicles and cover the vehicles during the movement or transportation of materials on the existing road network and temporary haul road;	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
	roads; • Closure of existing bridges by construction of diversion road.	– Plantation of trees at the construction site after completion of the construction activities immediately.		
Occupational Health and Safety	• Campsites for construction workers and Safety are the important locations that have significant impacts such as health and safety hazards on local resources and infrastructure of nearby communities.	– Construction workers camp shall be located at least 500 m away from the nearest habitation; – Consider the location of construction camps away from communities in order to avoid social conflicts; – Create awareness among the camp users on health and safety requirements to be maintained and code of conduct.	Contractor	PIU/ASSET
	• Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards	– Adequate housing for all workers should be provided avoiding over crowing; – Safe and reliable water supply; – Hygienic sanitary facilities and sewerage system.	Contractor	PIU/ASSET
	• Management of wastes is crucial to minimize impacts on the environment.	– Ensure proper collection and disposal of solid wastes within the construction camps; – Insist waste separation by source; organic wastes in one container and inorganic wastes in another container at sources; – Dispose organic wastes in a designated safe place on daily basis;	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		– The organic wastes should be always covered with a thin layer of sand so that flies, mosquitoes, dogs, cats, rats, etc. are not attracted; – Locate the garbage pit/waste disposal site minimum 500m away from the resident area so that people are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places.		
	• There will be a potential for diseases to be transmitted including malaria, exacerbated by inadequate health and safety practices. • There will be an increased risk of work crews spreading sexually transmitted infections and HIV/ AIDS.	– Provide adequate health care and sanitation facilities within the construction sites; – Train all construction workers in basic sanitation and health care issues and safety matters and on the specific hazards of their work; – Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis; – Regular mosquito repellant spraying during monsoon periods.	Contractor	PIU/ASSET
	• Construction work may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths.	– Provide the workers a safe and healthy work environment; – Provide appropriate PPE for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields and ear protection; – Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones; – Appoint an environment, health and safety manager to look after the health and safety of the workers; – Inform the local authorities responsible for health, religious and security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		matters.		
	• Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victim.	– Provide health care facilities and first aid facilities are readily available; – Document and report occupational accidents, diseases, and incidents and actions taken; – Identify potential hazards to workers, particularly those that may be life threatening and provide necessary preventive and protective measures; – Provide awareness to the construction drivers to strictly follow the driving rules; – Provide adequate lighting in the construction area and along the roads in the construction site.	Contractor	PIU/ASSET
Community Health and Safety	• Accidents on the approach road and construction site; • Noise and dust pollution; • Communicable diseases can spread among the local community.	– Prior to start the construction activities contractor will be informed the local community; – Instruct the drivers and limit the speed of the vehicles; – Regular health checkup of the workers and awareness training about the communicable diseases; – Ban all swimming and fishing activities in the construction site, in case of a bridge site; – Proper lighting at the project site during the night time; – Avoid unnecessary noise pollution; – Spraying water in the dry surface to reduce the dust pollution – Provide proper access control to the project site and unauthorized entry to the project site will be controlled by deploying security personnel.	Contractor	PIU/ASSET
Impacts on Archaeological/ Historical/ Social/ Cultural/ Religious Sites	• Air and dust pollution; • Noise level may create uncomforted; • Vibration can effect social/ cultural/ religious sites.	– Create temporary barrier around the project site; – Regular spraying of water in the construction site and approach road to reduce the dust emission; – Control the speed limit about 30 km/hour in the construction site and approach road; – Construction activities should be continued during day time	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		only; – Carefully handling of construction machineries and equipment's near the sensitive receptors near the project site.		
Housing and Commercial Structures	• Air and dust pollution; • Noise level may create uncomforted; • Loss of income and employment; • Mental stress; • Resettlement or removal due to realignment of approach road; • Vibration can effect on structures.	– Spraying water on the dry surface to reduce dust pollution; – Create noise barrier around the construction sites; – Limit the speed of vehicles in the construction site; – Prior notice to the local inhabitants for resettlement issues if required; – Compensation should be given to the PAPs in-time according to RAP; – Realignment of approach road if required; – Job opportunities for the PAPS and priority should be given; – Plantation of trees in an appropriate location will be determined by the PIU/ASSET after consultation with the concern authority (Forest Department).	Contractor	PIU/ASSET
Flora and Fauna	• Dust will be generating during earthwork and deposited on the leaves of nearby trees, this will abduct the growth of trees. • Construction activities will increase sediment loading of streams and changes in turbidity will impact adversely upon fishes and aquatic animals. • Diversion at bridge site will act as barriers to the migration of fishes and	– Proper construction management plan should be introduced in the Contractor PIU/ASSET construction sites; – Regular water spraying in the dry area from where there is a possibility to dust pollution; – Proper management plan for the waste management in the construction sites; – Construction work should be preferred during dry season; – No disturbance for aquatic animal and keeps provision for the fish movement; – Diversion road should be removed properly as soon as possible; – Construction activities should be continued during day time only; – Create noise barrier and avoid unnecessary machineries and equipment's operation; – Vegetation plantation after compilation of the construction	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
	aquatic animals. • Noise generation from the construction vehicles and equipment's can create disturbance for the birds and wildlife;	work; – Construction workers shall be instructed to protect natural resources, flora and fauna, including wild animals and aquatic life, hunting and unauthorized fishing are prohibited; – Natural river/khal/canal will be reinstated after completion of construction works; – Fingerling (fish) can be released to the river/khal/canal near the bridge site to boost up the fish resources.		
Disturbance to Wildlife Movement	• Noise from construction machineries and vehicles, movement of workers likely to be disturb the movement of wildlife; • Permanent migration may occur from the area; • Increase of mortality due to collision with vehicles;	– Instruct workers and contractors to avoid harassment and Contractor PIU/ASSET disturbance of wildlife; – Schedule activities to avoid disturbance of wildlife during critical periods of the day (e.g., night) or year (e.g., periods of breeding, nesting); – Turn off all unnecessary lighting at night; – Maintain noise-reduction devices (e.g., mufflers) in good working order on vehicles and construction equipment; – Temporary fencing around the construction site during construction period; – Educate workers regarding the occurrence of important resources in the area and the importance of their protection, including the appropriate regulatory requirements; – Regular monitoring of the death and disturbance of wildlife in the construction site.	Contractor	PIU/ASSET
Influx of construction workers	• Availability on the resources like food, housing, water resources; • Communicable diseases may also spread; • Social Conflict.	– Contractor should be ensured the availability of water for the construction activities; – Provision of clean drinking water in the construction camp in accordance with Schedule 3(b) of ECR, 1997; – Trained the workers by providing health and safety training on communicable diseases; – Educating project personnel, and area residents on risks, prevention, and available treatment for vector-borne	Contractor	PIU/ASSET

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigate Measures	Responsibility	
			Implementation	Supervision
		diseases; - No child and/or forced labor will be employed by the EPC contractor; - Working conditions and terms of employment will be fully compliant to the Bangladesh labor laws.		

Note: Mitigation/enhancement measures cost will be determined during the environmental assessment of individual projects base on its location, types of construction, implementation schedule, cost for project implementation requirement of mitigation/enhancement activities.

During Operation Phase

For mitigating the possible environmental impacts during operational phase mitigation measures are proposed in the following Table 5.6.

Table 5.6: Mitigation/Enhancement measures during Operation phase of the typical project construction, rehabilitation and maintenance project

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
Air Pollution	• Dust emission from the increasing number of vehicles in the site area; • Vehicular emission from burning fuels.	– Establish the speed breaker to limit the speed of the vehicle near the site; – Strictly follow the BRTA rules and regulations; – Increase number of plantation by adding new species of trees on the appropriate locations after consultation with the concern authority.	DTE and Other IAs	DTE and Other IAs
Surface Water Pollution	• Remaining construction materials may be washed by the rainfall into the water sources and lead to sedimentation and increase turbidity; • Hazardous materials spilled by accidents; • Soil erosion during rainy season can contaminate nearby surface water.	– Remaining construction materials will be completely removed from the proposed project site after completing of the construction activities; – Cover the bare surface by plantation of trees/vegetation to reduce the surface soil erosion; – Speed control measures close to the site to reduce the occurrence of accidents; – Bank protection work can be done at the site; – Avoid rainy season for continuing any development activities.	DTE and Other IAs	DTE and Other IAs
Ground Water Pollution	• Accidental spillage of hazardous chemicals and materials.	– Speed control measures close to the site to reduce the occurrence of accidents; – Inform to the concern authority to take necessary action to reduce the contamination of groundwater.	DTE and Other IAs	DTE and Other IAs
Hydrology and Flood pattern	• Increase flood/ water logging/ drainage condition; • Encourage for erosion and siltation.	– During the planning stage and site selection local hydrology and flooding level will be considered; – Vertical navigation clearance should be kept in design and planning;	DTE and Other IAs	DTE and Other IAs

Issues/ Activities	Potential Environmental Impacts	Proposed Mitigation Measures	Responsibility	
			Implementation	Supervision
		– A separate and details hydro-morphological study should be conducted before starting construction activities; – Site should be clean properly after completion of the construction activities so that the natural drainage system may not hampered.		
Noise Pollution	• Faulty engine and hydraulic horn may increase the noise level.	– Necessary instruction for the drivers; – Establishment of signboard near the sensitive receptors like mosques, schools, temple, bazar etc.	DTE and Other IAs	DTE and Other IAs
Flora and Fauna	• Dust will hinder vegetation growth; • Increase number of death of wildlife and collision with the vehicles; • Avifauna will be affected by the movement of vehicles; • Fish and other aquatic animals will be affected.	– Re-plantation of various suitable local trees can be done on the slopes of the roads or the suitable locations around the project site; – Establishment of speed breaker or signboard indicating the movement route of the wildlife; – No disturbance for aquatic animal and keeps provision for the fish and other aquatic animals movement; – Diversion road should be removed properly as soon as possible; – Construction workers shall be instructed to protect natural resources, flora and fauna, including wild animals; – Natural river/khal/canal will be reinstated after completion of construction works; – Fingerling (fish) can be released to the river/khal/canal near the bridge site to boost up the fish resources.	DTE and Other IAs	DTE and Other IAs
Landscape and Aesthetics	• Land use of the proposed project area will be changed; • Improper removal of construction camp facilities and other construction waste will affect landscape and aesthetics.	– Tree/vegetation plantation at the suitable site; – Proper removal of construction camp facilities and construction wastes from the site after completion of the works; – Excavated borrow pit area will be properly managed by the contractor, it will be preferred to use dredging materials after quality testing.	DTE and Other IAs	DTE and Other IAs

Note: Mitigation/enhancement measures cost will be determined during the environmental assessment of individual projects based on its location, types of construction, implementation schedule, cost for project implementation and requirement of mitigation/enhancement

activities.

5.7 Required Site Specific Management Plans (ESS 1-10)

Site Specific Management Plans will be prepared by the contractors of the sub-projects. Selection of the management plans required by the sub-components/activities will be determined by the ESS requirements, applicable ECoPs and recommendation of ESMP. WB will review and clear plans for moderate risk interventions. Those lower than moderate risk will be reviewed and cleared by PIU/ASSET or SECC Consultant (if any).

Sand or soil borrowing plan (if required from river bed, agriculture land and wetlands): will be prepared and implemented by the contractors on the basis of the ECoPs and the mitigation measures given in Table 5.4-5.6. The Plan will describe among others the methodology to be adopted, restrictions to be followed, prior survey to be conducted, and documentation to be maintained for the sand extraction. The Plan will be submitted for review and approval before initiating the sand extraction activity.

Pollution Prevention Plan: will be prepared and implemented by the contractors on the basis of the ECoPs and WBG EHS Guidelines (1997) that will be part of the bidding documents. The Plan will be submitted for review and approval before contractor mobilization.

Laboratory/Workshop Safety Plan: will be prepared and implemented by the respective institutions approved by the approval agencies following the ECoPs and WHO's guideline for standard lab safety protocol. The plan will be submitted for the review and approval before the laboratories come into operation.

Waste Disposal and Effluent Management Plan: will be prepared and implemented by the Contractor on the basis of the ESMP, ECoP, and WBG EHS Guidelines (1997), which will be part of the bidding documents. The Plan will be submitted for review and approval before contractor mobilization.

Drinking Water Supply and Sanitation Plan: Separate water supply and sanitation provisions will be needed for the temporary facilities including offices, labor camps and workshops in order not to cause shortages and/or contamination of existing drinking water sources. A Plan will be prepared by the contractors and/respective institutions on basis of the ESMP and ECoPs, which are part of the bidding documents for contractors and approved institution operational policy for implementing agencies. The Plan will be submitted for review and approval before contractor mobilization.

Occupational Health and Safety (OHS) Plan: will be prepared and implemented by each contractor and implementing institutions on the basis of the WBG EHS Guidelines (1997), ECoPs, mitigation plan, and other relevant standards. The Plan will be submitted for review and approval before contractor mobilization.

Construction Camp Management Plan: will be prepared by each contractor. The Plan will include the camp layout, details of various facilities including supplies, storage, and disposal. The Plan will be submitted for review and approval before camp establishment.

Fuel and Hazardous Substances Management Plan: will be prepared by each contractor in accordance with the standard operating procedures, relevant guidelines, and where applicable, material safety data sheets (MSDS). The Plan will include the procedures for handling the oils and chemical spills. The Plan will be submitted for review and approval before contractor mobilization.

Emergency Preparedness Plan: will be prepared by each contractor after assessing potential risks and hazards that could be encountered during construction and by each implementing institutions during operation phase. The Plan will be submitted for review and approval before contractor mobilization.

Plantation Plan: A plantation plan will be prepared for the trees to be planted on the project construction site. The Plan will include the species to be planted, the plantation methodology, and plantation layout.

Environmental Management of Resettlement Sites: will be prepared by the Contractor in compliance with the stand-alone ESMP prepared for Resettlement Sites and presented in the main ESIA.

Health, Safety and Environment Plan: will be prepared by PIU/ASSET to address solid waste and emergencies associated with workers and community health and safety and to properly manage waste effluents generated from the maintenance works and campuses during operation. The Plan will be submitted to the World Bank for review and approval prior to completion of construction.

Resettlement Action Plan (RAP): A separate RPF has been prepared for PIU/ASSET project.

Communication Strategy: A formal communication strategy will be prepared for the project laying out various communication needs and outreach tools and explaining the responsibility of PIU/ASSET to convey the project impacts and its implications for various stakeholders. A key aspect of this strategy shall be the communication of any project related impacts.

Biodiversity conservation and monitoring: Detailed ecological studies will be carried out, during ESIA study in the project impact area, to broaden the existing baseline data. The proposed study will confirm these sensitive locations and area of conservation significance and prepare detailed conservation plans and implement these plans. If required, an expert consulting firm will be hired to carry out the studies and to conduct biodiversity monitoring during the construction and post-construction periods.

Pest Management Plan: will be prepared by the respective institution to comply with pest management standards during operation stage.

5.8 COVID-19 Health and Safety of the Workforce

The PIU/ASSET should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project activities: the location, existing resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. PIU should refer to guidance issued by relevant authorities, both national and international (e.g. WHO). Addressing COVID-19 at a project site goes beyond occupational health and safety and is a broader project issue which will require the involvement of different members of a project management team.

(a) Assessing Workforce Characteristics

- Breakdown of workers temporarily hired (i.e. workers from the community), and government officials. Where possible, there should be health check before employment, as workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site to avoid workers returning home to affected areas.
- Consideration should be given to requiring workers lodging in the local community to move to separate lodging facility (subject to availability) where they would be subject to the same restrictions.

- Workers from local communities, who return home daily will be more difficult to manage. They should be subject to health checks regularly and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

(b) Entry/Exit to the workplace and Checks on Commencement of Work

Entry/exit to the work site should be controlled and documented for all workers and officials. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID -19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.
- All rental vehicles should be parked in a secured place and no unauthorized use should be stopped until the contract is over.

(c) General Hygiene

Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a

toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.

- Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected.

Standard WHO suggested hygiene protocol:

Persons with symptoms should:

- wear a medical mask, self-isolate, and seek medical advice as soon as they start to feel unwell. Symptoms can include fever, fatigue, cough, sore throat, and difficulty breathing. It is important to note that early symptoms for some people infected with COVID-19 may be very mild;
- follow instructions on how to put on, take off, and dispose of medical masks;
- follow all additional preventive measures, in particular, hand hygiene and maintaining physical distance from other persons.

All persons should:

- avoid groups of people and enclosed, crowded spaces;
- maintain physical distance of at least 1 m from other persons, in particular from those with respiratory symptoms (e.g., coughing, sneezing);
- perform hand hygiene frequently, using an alcohol-based hand rub if hands are not visibly dirty or soap and water when hands are visibly dirty;
- cover their nose and mouth with a bent elbow or paper tissue when coughing or sneezing, dispose of the tissue immediately after use, and perform hand hygiene;
- refrain from touching their mouth, nose, and eyes.

(d) Cleaning and Waste Disposal

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national,

WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

- All vehicles should be cleaned thoroughly with disinfectants after returning to the parking facilities.

Disposal of Personal Protective Equipment (PPE):

If PPE is exposed to infectious materials during use (e.g., body fluids from an infected person) the PPE is considered contaminated and the wearer should remove it promptly, using proper removal procedures. It is essential that used PPE is stored securely within disposable rubbish bags. Based on the PPEs quality, the PPEs need to be burnt or washed or buried. Otherwise, these bags should be placed into another bag, tied securely, marked (with date) and kept separate from other waste within the room. This should be put aside for at least 72 hours before being disposed of as normal.

(e) Local Medical and Other Services

Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(f) Instances or Spread of the Virus

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational

considerations for case management of COVID-19 in health facility and community). These may include the following:

- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
- The worker should be transported to the nearest health facilities to be tested.
- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID-19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(g) Training and Communication with Workers

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them.

- It is important to be aware that in communities and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.

- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

5.9 Consultation and Participation Plan (ESS10)

A separate SEP has be prepared which discussed this ESS10 requirements elaborately.

5.10 Labor Management Procedures (ESS2)

A standalone LMF has been prepared to fulfill the requirement of ESS2 and will be disclosed by PIU/ASSET prior to appraisal by World Bank.

5.11 Guideline for preparation of Environmental and Social Monitoring Plan

The monitoring plan is the key element of ESMP to be prepared on the basis of impact assessment described in earlier section. The Plan describe the potentially negative impacts of each program activity, lists mitigation and control measures to address the negative impacts, and assigns responsibilities for implementation and monitoring of these measures. The Plans for the PIU/ASSET will be prepared and included in the ESIA; similar plans will be prepared for the later phases and included in the associated ESIAs. Table 5.7 presents the sample format of these plans. An overview of monitoring requirement of the key environmental and social impacts described in Chapter 4 is given in Table 5.8.

Table 5.7: Format of Monitoring Plan-During Project Implementation Period (Sample)

Environmental Impact/Issue	Actions	Responsibility		Key Performance Indicator	Timing	Cost Allocation
		Execution	Monitoring			
1. Activity: Design / pre-construction considerations of infrastructures						
1.1 Changes in land use, loss of properties, cultivated land and grazing land, relocation of settlements and amenities	– The RAP will be implemented for permanent land acquisition and loss of assets/ livelihood and other similar impacts	PIU/ASSET	SECC	• Documentary evidence of RAP implementation • Establishment of resettlement sites • Payment of compensation amounts • People resettling in new villages • Income levels of displaced households • Number of public grievances re resettlement and compensation	Before construction	Included in Overall program Cost
	– Contractors will lease the land for construction facilities on temporary basis. Proper documentation will be carried out for this leasing. Site selection will be carried out in consultation with the community and local officials; approval from SECC will also be required for the selected sites.	Contractor	SECC	• Documentary evidence of land leasing for temporary facilities • SECC approval for the selected site(s) • Absence of grievances regarding temporary facilities	Before contractor mobilization	Included in contractors' costs
1.2 borrowing construction material	– A material (particularly river sand and soil from agricultural land/wetlands, if required) borrowing plan will be prepared	Contractor	SECC	• Approved plan • Plan itself will outline appropriate KPIs for its implementation.	Before construction	Included in Contractors' costs

Table 5.8: Overview of Impacts, Mitigation and Monitoring Plan

Impacts/Issues	Mitigation Measures	Time Frame	Cost (USD x 10^6)	Responsibility		Key Monitoring Indicators	Monitoring Frequency
				Implementation	Supervision		
ENVIRONMENTAL IMPACTS DUE TO PROJECT SITING							
Land cover and land use changes	Relevant ECoPs of site selection. Integrated Pest Management Plan; Linkages with ongoing pest management programs	2021 onwards	In budget of ESMP	PIU	PIU	- to be developed under IPM	Six-monthly
Loss of vegetation and trees	Compensatory tree plantation along reconstructed embankment	2021-2025	In budget of ESMP	PIU	PIU	- trees cut and trees planted	Monthly
ENVIRONMENT IMPACTS DURING IMPLEMENTATON PERIOD							
Impacts of burrowing of material from riverbeds, agriculture land and wetlands (if required)	Compliance with relevant ECoPs of sand extraction, agricultural topsoil management and wetland digging	2021-2025	In budget of Contractor	Contractor	PIU	Sites approved, ongoing visual inspection of sand extraction	At the beginning of works and through sand extraction
Air pollution	Pollution prevention and implementation of ECoPs	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented; community complaints	Quarterly
Noise	Noise control measures and relevant ECoPs	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented; community complaints	Quarterly
Water pollution	Pollution prevention and control plan	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented	Quarterly
Soil contamination	Pollution prevention and control plan	2021-2025	In Contractors budget	Contractor	PIU	Plan approved and implemented	Quarterly
Solid wastes and hazardous wastes	Waste management and pollution control plan	2021-2025	In budget of Contractor	Contractor	PIU	Plan approved and implemented	Quarterly
Impacts on aquatic habitat	Treatment of waste effluents	2021-2025	In budget of Contractor	Contractor	PIU	Sites approved and ongoing monitoring of plan implementation	Before and during construction
Impacts on wildlife habitats	No construction related activities on sensitive wildlife habitat, use of low wattage lights at construction sites	2021-2025	In budget of ESMP	Contractor	PIU	Biodiversity monitoring studies	Six monthly
Site clearance and restoration	Site restoration and landscaping	2021-2025	In budget of Contractor	Contractor	PIU	Sites established and cleared	After construction
Occupational health and safety	Implement health and safety, and	2021-2025	In budget of	Contractor	PIU	Plan prepared and	Quarterly

Impacts/Issues	Mitigation Measures	Time Frame	Cost (USD x 10^6)	Responsibility		Key Monitoring Indicators	Monitoring Frequency
				Implementation	Supervision		
	emergency response plan		Contractor			implemented	
ENVIRONMENTAL IMPACTS DURING POST PROJECT PERIOD							
Generation of solid waste	Implementation of Health Safety Environment Plan	2025 on wards	PIU/ASSET annual budget	PIU	PIU	Plan prepared and implemented	Six monthly
Air and noise pollution	Air and noise quality and appropriate measures	2025 on wards	PIU/ASSET annual budget	PIU	PIU	to be developed	
Water pollution	Water treatment measures	2025 on wards	PIU/ASSET annual budget	PIU	PIU	Working condition of connected canals, mariculture area	Annually
Loss of vegetation	Implementation of related ECoPs of plantation	2025 on wards	PIU/ASSET annual budget	PIU	PIU	Plan prepared and implemented	Annually
Impact of avifauna	Implementation of related ECoPs of wildlife management	2025 on wards	PIU/ASSET annual budget	PIU	PIU	Plan prepared and implemented	Annually

5.12 Monitoring Program

As one of the key elements of the ESMP, a two-tier monitoring program is proposed comprising compliance monitoring and effects monitoring. The main purpose of this monitoring program is to ensure that the various tasks detailed in the ESMP particularly the mitigation measures are implemented in an effective manner, and also to evaluate program impacts on the key environment parameters. Various types of ESMP monitoring are discussed below.

Compliance Monitoring

The purpose of the compliance monitoring is to ensure that the contractor implements the mitigation measures given in the ESMP are effectively and timely implemented. This monitoring will generally be carried out by the PIU-ASSET with the help of checklists to be prepared on the basis of the Mitigation Plan (Table 5.8).

Effects Monitoring During Project Implementation

Effects monitoring is a very important aspect of environmental management to safeguard the protection of environment. A Social, Environmental and Communication Cell (SECC) headed by a Deputy Director under the Project Director/ASSET will be formed consisting of other members like E&S Safeguards Consultants, Stakeholders Engagement and Communication Consultant, and other nominated officials from PIU to monitor the ESMF implementation. The effects monitoring plan proposed for the PIU/ASSET is presented in Table 5.9; after the specific ESIA, this program will be revisited and revised. The monitoring will comprise surveillance to check whether the contractor is meeting the provisions of the contract during construction and operation of the program including the responsible agencies for implementation and supervision.

Table 5.9: Effects Monitoring Plan

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
During Project Implementation					
Sand extraction/soil collection	At all sand extraction points	Ecological inspection of the site prior to development; and extraction carried out not in long stretches	Weekly	Contractor	SECC
Soil Pollution	Construction site, camp & RS	Visual inspection that filling is through several compartments	Beginning of earth filling works	Contractor	SECC
	Construction, RS and material storage sites	Ensure no contaminated effluent is leaving from the filling area to the nearby	Weekly	Contractor	SECC

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
		agricultural lands			
Hydrocarbon and chemical storage	Construction camps and yards	Visual Inspection of storage facilities	Monthly	Contractor	SECC
Traffic Safety	Construction Access Roads	Visual inspection to see whether proper traffic signs are placed and flag-men for traffic management are engaged	Monthly	Contractor	SECC
Air Quality (dust, smoke)	Construction sites	Visual inspection to ensure good standard equipment is in use and dust suppression measures (e.g., spraying of waters) are in place.	Daily	Contractor	SECC
	Material storage sites	Visual inspection to ensure dust suppression work plan is being implemented	Monthly	Contractor	SECC
Air quality	Sensitive receptors along construction corridor	24 hours continuous monitoring with the help of appropriate instruments and analyzers (particulate matter, carbon dioxide, sulphur and nitrogen oxides)	Quarterly	Contractor	SECC
Noise	Construction sites	Noise measurement using noise meter; Ensure work	Weekly	Contractor	SECC

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
		restriction between 21:00-06:00 close to the sensitive locations			
Surface Water Quality	At the baseline monitoring sites	Sampling and analysis of surface water quality (TDS, Turbidity, pH, dissolved oxygen, biological and chemical oxygen demand)	Quarterly	Contractor through a nationally recognized laboratory	SECC
Groundwater quality	Locations of tube-well installation (for workers camps and RS), Other buildings	Depth of tube well should be more than 30m. Test water for arsenic iron and manganese before installing of casing. If the quality is found not suitable further deepening will be done.	During drilling of wells	Contractor trough a nationally recognized laboratory	SECC
	Water wells to be used by contractors for drinking	Laboratory analysis of all drinking water parameters specified in national standards	After development of wells	Contractor trough a nationally recognized laboratory	SECC
Plantation	Building construction sites, affected vegetation sites	Visual inspection to ensure plantations are taken care of.	Monthly	Contractor	SECC
Waste Management	Construction camps and construction sites, other infrastructure sites, laboratory,	Visual inspection that solid waste is disposed at designated site	Monthly	Contractor	SECC

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
	etc.				
Drinking water and sanitation	Construction camps and construction sites, other infrastructure sites, laboratory, etc.	Ensure the construction workers are provided with safe water and sanitation facilities in the site by checking drinking water quality	Weekly	Contractor	SECC
Flora and Fauna	Sensitive habitats in Project influence area	Survey and comparison with baseline environment Ensure use of lighting at construction sites conforms with requirements to limit impacts to wildlife	Six-monthly	Biodiversity Conservation and Monitoring Consultant	SECC
Restoration of Work Sites	All Work Sites	Visual Inspection	After completion of all works	Contractor	SECC
Safety of workers Monitoring and reporting accidents	At work sites	Usage of Personal Protective equipment and implementation of contractor OHS plan	Monthly	Contractor	SECC
Grievances (environmental issues)	In the project area	Number of grievances registered and addressed	Monthly	PIU	SECC
During Post Project Period					
Stability of protection works	Resettlement Sites (if any)	Visual inspection of erosion prevention measures and occurrence of erosion	Monthly	PIU/ASSET	SECC

Parameter / Activity	Location	Means of Monitoring	Frequency	Responsible Agency	
				Implemented By	Supervised By
Plantation	Construction sites, etc.	Visual inspection to ensure plantations are taken care of.	Monthly	Contractor	SECC
Waste effluents	Construction camps and construction sites, other infrastructure sites, laboratory, etc.	Visual inspection that solid and liquid waste effluents are properly managed during post project period	Six-monthly	Environmental Desk of PIU/ASSET	SECC

Performance Indicators

For evaluating the performance of the environmental management and monitoring plan, performance indicators are identified to for efficient and timely implementation of measures/actions proposed in ESMP. The indicators are defined both for implementation phase and for post project period. SECC will be responsible for compiling the information on these indicators and report to PIU/ASSET.

Separate performance indicators for each environmental issue will be specified in the mitigation plans for the PIU/ASSET and included in the associated ESIA. To measure the overall environmental performance of the program, an additional list of performance indicators is given below.

- Number of inspections carried out by SECC per month.
- Number of non-compliances observed by SECC.
- Availability of environmental specialists in SECC.
- Availability of environmental specialists in SECC.
- Availability of environmental specialists with contractors.
- Timely reporting of documents (as defined in ESMP and monitoring plan).
- Number of trainings imparted to stakeholders/other capacity building initiatives.
- Timely disbursement of compensation/ timely resettlement of program affectees.
- Timely implementation of resettlement schedule.
- Number of grievances received.
- Number of grievances resolved.
- Number of construction related accidents.

5.13 ESMP Implementation Cost

Cost estimates will need to be prepared for all the mitigation and monitoring measures to be proposed in the specific ESIA in accordance with the ESMF. The cost estimates for some of the mitigation measures to be identified in the ESMP will be part of civil works contract. Some of suggestive activities from ESIA will be implemented by hiring NGO (if required).

The Development Project Proposal (DPP)/Technical Assistance Project Proposal (TAPP) of PIU/ASSET for the proposed project should reflect the ESMP activities with budget for successful environmental management of the program.

Total US$ 2.25 million is estimated for implementation of ESMF which should be embedded in the proposed total project budget from IDA.

Table 5.10: Cost Estimates for ESMF implementation of the PIU/ASSET

SN	Description	Amount million US$
1	Contractor's Budget for development of management plans, staff, training, etc.	0.2
2	Water, soil and air quality monitoring during construction (quarterly for 5 years)	0.2
3	Tree plantation development and maintenance	0.05
4	Baseline Study, development of safety operation plans and monitoring during construction and operation (5 years), training to workers, monitoring of sites on COVID 19 health and occupation safety	0.3
5	Laboratory/Workshop Safety Protocol maintenance during operation	0.2
6	Independent Consultants to prepare ESIA and ESMP	0.3
7	Green campus management and operation (installation of energy saving option)	0.3
8	PIU/ASSET Environmental staff	0.3
9	Capacity building and institutional strengthening	0.4
	TOTAL	**2.25**

Chapter 6: Environmental, Social and Health & Safety Capacity Assessment

6.1 Capacity Assessment of The Partner Organizations of the ASSET Project

This assessment is mainly addressing the existing and potential capacity of the principal implementing agencies, **DTE, BMET, DGME, MoLE, DoYD and MoIND**, and other relevant external agencies like **Deputy Commissioners' (DC) offices, Department of Environment (DoE)** etc. in managing environmental and social, labor, Environment, Health and Safety (EHS) issues related to ASSET project. More particularly, this exercise highlights the requirements related to the 10 Environment and Social Safeguard (ESSs) of the World Bank Environmental and Social Framework (ESF) and assesses the alignment of the borrower's system, its capacity and readiness to implement the program adhering to those standards.

6.1.1 Objectives of the Assessment

The main objective of this exercise is to assess the existing capacities for managing the environmental, social, health and safety risks and impacts of the project, and based on the assessment, formulate a capacity building plan to address the short and medium term needs of the departments to manage environmental and social concerns of the project. The assessment has been focused on five main implementing agencies of the project: DTE, BMET, DGME, DoYD and MoIND. But it has also covered regulatory agencies, agencies involved in land acquisition process and agencies with the mandate for occupational health and safety, and management of labor and working conditions, which are new standards under WB ESF. The capacity building plan at the end of this chapter includes a monitor plan, to track progress and assess results of its implementation overtime. A proposed institutional arrangement to implement the ESMF has been described in Chapter 7.

6.1.2 The Approach

The assessment and capacity building planning was guided by the World Bank's Good Practice Note (GPN) on Project-Level Borrower Capacity Assessment which consists of six steps (Figure 6.1).

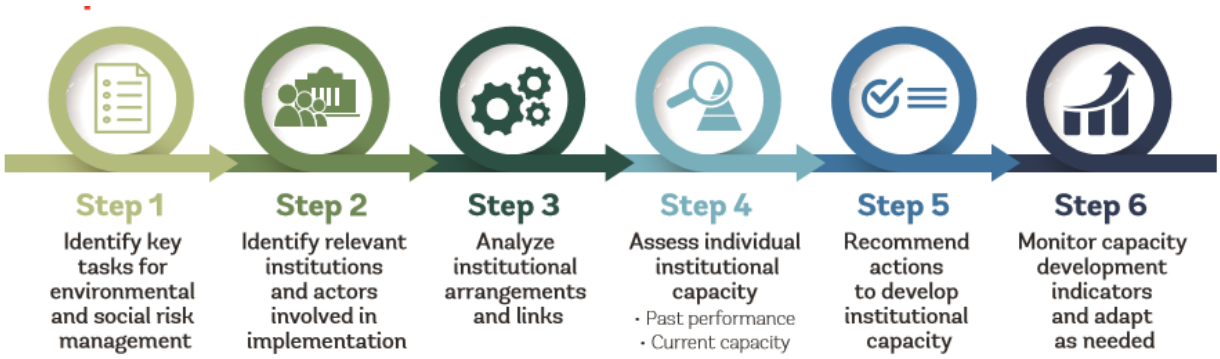

Figure 6.1: Steps in project-level borrower capacity assessment

- Key tasks for reducing environmental and social, health and safety risk in the entire project cycle, i.e., from preparation, implementation, operation and maintenance, monitoring and evaluation are identified.

- All relevant agencies/institutions and actors who would be directly or indirectly involved with minimizing the environmental and social, health and safety risk in project preparation and implementation are identified.
- Institutional arrangements and links especially focusing on those involved in managing environmental and social, health and safety risks are analyzed.
- The capacity, systems and track record of main implementing agencies in mitigating environmental and social risk and their impacts are assessed. The assessment is also extended to DC office, the agency involved in land acquisition and compensation process as well as Directorate of Environment (DoE), the main environmental regulatory agency of the country, and agencies with regulatory and oversight functions on health and safety and labor and working conditions (i.e. Department of Inspection for Factories and Establishment (DIFE), Labor Appellate Tribunal and Department of Labor (DoL) of MoLE).
- A time-bound staffing and capacity building project for DTE and other co-implementing agencies with indicative resourcing and budget is developed. Strengthening the roles of DC office, DoE, MoLE, DIFE and other agencies involved in program implementation are also included.
- Capacity development indicators against which progress in implementing the time-bound action plan will be measured are also developed.

Relevant data for the assessment and analysis were obtained through a combination of desk reviews, interviews, media analysis, focus groups, etc. Assessments of past experience of managing environmental and social safeguard systems of the implementing agencies were also reviewed.

6.2 Result of the Capacity Assessment

The assessment considers four elements of institutional capacity that are relevant for ES risk management: (i) the enabling laws and regulations that provide mandates for ES risk management activities; (ii) the institutional arrangements; (iii) agencies' experience and track records; and (iv) the resources available to the agencies, especially manpower.

6.2.1 ESS and Equivalent Policies, Laws and Regulations

Bangladesh has policies, laws and regulations that support environmental and social risk management, including the EIA system, the eminent domain land acquisition process, labor and occupational health and safety laws, pollution control, resource efficiency, policies and laws on biodiversity, indigenous communities, cultural heritage, transparency and stakeholder consultations. This section will assess these country laws and systems vis-a-vis the corresponding World Bank ES Standards. However, a detail review of the policies and laws has been done in the Chapter 2, hence to avoid duplication, findings are presented in the following table 6.1 instead of textual elaboration.

Table 6.1: ES Standards and related country systems

WB ESF Standard	Equivalent or Related System, Policy, Program	Relevant Legislations	Authority/Lead Agency
ESS1: Assessment and Management of Environmental and Social Impacts	EIA system	• ECA 1995 (as amended 2010) and ECR 1997 • EIA Guidelines for Industries	Department of Environment

WB ESF Standard	Equivalent or Related System, Policy, Program	Relevant Legislations	Authority/Lead Agency
and Risks			
ESS2: Labor and Working Conditions	Occupational health and Safety Policy 2013 Labor and OHS regulations	• Labor Act 2006 (Amendment 2018) • Occupational health and Safety Policy 2013 • Public Procurement Rule (PPR), 2008	Ministry of Labor and Employment (MLE)
ESS3: Resource Efficiency and Pollution Prevention and Management	Pollution Control Laws	• ECA 1995 (as amended 2010) ECR 1997 • Bangladesh Ambient Air Quality Standard 2005 • Agricultural Pesticides Ordinance 1971 • National Biosafety Guideline 2005 • Ship Breaking and Recycling Rules (2011) • Medical Waste Management Rules (2008) • Lead Acid Battery Recycling and Management Rules (2006) • Sustainable and Renewable Energy Development Authority Act in 2012	Department of Environment (DOE) Sustainable and Renewable Energy Development Authority (SREDA)
ESS4: Community Health and Safety	Community Health Program Road Safety Program	• National Road Transport Act 2018 • ECR 1997 • Labor Act 2006 (as amended 2018) • Public Procurement Rule 2008 • Water Act 2013 • Agricultural Pesticides Ordinance 1971	Ministry of Health and Family Welfare (MHFW) Road Transport Authority (RTA)
ESS5: Land Acquisition, Land Use Restriction and Involuntary Resettlement	Eminent Domain Land Acquisition	• The Acquisition and Requisition of Immovable Property Act, 2017 (ARIPA) • CHT Land Acquisition Regulation, 1958 (as amended 2019) • East Bengal State Acquisition and Tenancy Act 1950	Ministry of Land
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	National Biodiversity Strategy and Action Plan	• Wildlife Conservation and Security Act 2012 • Biological Diversity Act 2017 • The Forest Act 1927 • The Protection and Conservation of Fish Rules 1985 • Bangladesh Biosafety Rules (BR), 2012	Department of Environment Forestry Department National Committee on Biodiversity

WB ESF Standard	Equivalent or Related System, Policy, Program	Relevant Legislations	Authority/Lead Agency
ESS7: Indigenous People	(No discernible National Program)	• Small Ethnic-Community Cultural Institute Act, 2010; • Chittagong Hill Tracts Regulation (1900); • State Acquisition and Tenancy Act (1950); • CHT Development Board Ordinance (1976); • Hill District Council Acts (1989); • CHT Regional Council Act (1998); • CHT Land Disputes Resolution Commission Act (2001);	(No distinguishable lead agency)
ESS8: Cultural Heritage	National Cultural Policies 2006	• Antiques Law 1968 • Shilpakala Academy Law of 1989 • National Archive Ordinance 1983 • National Museum Ordinance 1983 • Bangla Academy Ordinance 1978 • The Bangladesh Folk Arts and Crafts Foundation Law 1998	Ministry of Cultural Affairs - Department of Archaeology
ESS9: Financial Intermediaries	N/A	• N/A	
ESS10: Stakeholder Engagement and Information Disclosure		• EIA Guidelines of various sector agencies	DOE Various sector agencies

6.2.2 Analysis of Gaps in Government Policies, Laws and Regulations

The E&S risk assessment and management system for development projects in Bangladesh is open-ended and does not cover all the World Bank ESF's ES Standards. A detail of the gaps between WB ESF's ES and Bangladesh laws are furnished in sub-section 3.4, Chapter 3.

6.3 Roles and Capacities of Agencies Involved in ES Risk Management

The management of E&S risk for skill development projects are the main responsibility of the proponent agencies, in this case: DTE and its co-implementing agencies i.e. BMET, DGME, DoYD and MoI. Regulatory agencies could be involved to provide review and monitor the process such as during the conduct of the ESIA. However, currently only Department of Environment (DOE) and Forest Department (FD) are actively involved in the project's vetting process. Other regulatory agencies which have clear mandates on certain issues (such as DOL on labor and DIFE on OHS) operate independently of the ESIA process and hence not involved in project review, approval and rarely in monitoring and audit. Other agencies have programs that could be tapped to help address particular risk areas, such as the Ministry of Health and Family Welfare (MHFW) on health aspects of the project, the Department of Archaeology on cultural heritage, the BRTA for road safety, etc. Detailed assessments of individual agency capacities are discussed below:

6.3.1 Main Implementing Agency of ASSET Project

Directorate of Technical Education (DTE)

Institutional Setup

DTE functions under the Technical and Madrasah Education Division (TMED) of Ministry of Education (MoE), Bangladesh. It was established in 1960 to create skilled human resources through expansion and improvement of technical education. In the last half century, many branches of technical education and administration were expanded. The main functions of the directorate are four, namely, (1) managing human resources management, (2) development activities, (3) supervising academic programs and (4) connecting with domestic and international organizations related to technical education. DTE runs demand-based Technical and Vocational Education and Training (TVET) to ensure the overall quality, monitoring and evaluation of the sectoral projects. In total 119 educational institutions are run by DTE. There are three level teaching programs, namely – Certificate level, Diploma level and Degree level. There are 64 Technical School and College (TSC) for Certification level, 1 Vocational Teacher Training Institute (VTTI), 49 nine Diploma level Polytechnic Institutes and Degree Level institute include 1 Technical Teachers Training College, and 4 Engineering College.

Role of DTE in the ASSET Project

As the main implementing agency of the ASSET, DTE will be responsible for the assessments of the social and environmental risks and impacts and the formulation and implementation of environmental and social management plans for the project. In addition, DTE will also be responsible to bring the project through the ECC process under the ECA/ECR. DTE will also undertake internal review, compliance monitoring and evaluation of the risks and impact mitigation measures in this project.

Past Experience of Collaborative Project Management

DTE has experience with the regional and international organizations like UNIVOC, UNESCO, CPSC, IDB, WB, ADB, KOICA, JICA, and EC-ILO, etc. with the technical education departments as the government agency. It is considered as one of the premier organizations of Bangladesh with a long track record of designing and delivering development partner-assisted projects for TVET and its current portfolio includes more than 30 development projects in TVET sector. Moreover, DTE was one of the lead implementing agency of the World Bank's funded Skills and Training Enhancement Project (STEP) project, implemented between 2010 and 2019. STEP was implemented under the Ministry of Education (MoE) with the aim to enhance teaching and learning environments in TVET institutions and improve market relevance of TVET through partnerships with ministries, industries, and global TVET leaders and to improve access and equity in TVET for female students and students from disadvantaged households, with a total of around 600,000 beneficiaries. As such, DTE is expected to have a certain institutional capacity to implement the project per the World Bank regulations.

ES Risk Management at DTE

DTE has no dedicated unit for managing environmental and social risks of their projects. For government-funded projects it relies mainly on the system provided by the DOE for environmental clearance and on the ARIPA for eminent domain land acquisition. Nevertheless, it has a long experience in conducting EIAs and in implementing environmental and social safeguards policies of international

donor agencies including the World Bank albeit under the old OP/BPs. For donor-funded projects, Environmental and Social Safeguard units are established usually on an ad hoc, per project basis as part of the Project Implementing/Management Unit (PIU/PMU).

Internal ES Safeguards System

The PMU/PIU at the central level usually screens projects for IEE or EIA as per ECR 1997 provisions, undertake the preparation of IEE/EIA and obtain ECC from the Department of Environment. The responsibility of E&S risk management lies on the PIU/PMU which includes conducting supervision and monitoring of project interventions as per recommendations of the ESMP. They usually hire consultants for ESA preparation (ESMF or EIA preparation). Supervision of E&S mitigation activities are also assisted by consultants, also hired by the PIU but typically not the same consultants who prepared the ESA. Director – Planning and Development office at HQ are responsible during the implementation stage of projects. They have major roles in engagement of contractors, construction supervision; environmental and social impact supervision and mitigation of the project. The responsibilities also include incorporation of the environmental codes of practices in the bid document of the contractors based on the approved IEE/EIA documents and hiring contractors is the responsibility of the PMU/PIU.

There is no internal review or auditing systems for social safeguards in DTE. There are some designated project level posts in the past to do the job to supervise the social impact issues, and for most of the cases they were trained to comply with the donor's policies. However, DTE has national guideline for ensuring women and disadvantaged groups' inclusion in the TVET and ensure equality of Gender in TVET. It has inbuilt GM process guided by the GoB's GRM Guideline 2015, but it is currently primarily managed on reactive basis, coordinated through MoE. DTE does not currently coordinate or have active linkages with DIFE and DOL.

6.3.2 Co-implementing Agencies of ASSET Project

Bureau of Manpower, Employment and Training (BMET)

Bureau of Manpower Employment and Training (BMET) was established as an attached department of the then Ministry of Manpower Development and Social Welfare in 1976. Government of the People's Republic of Bangladesh established BMET with the purpose of recruiting and sending migrant workers overseas. BMET is engaged in overall planning and implementation of the strategies for regulating migration process, promoting migrant workers' rights and skill development for proper utilization of migrant workers of the country, as a government department under the Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE). It is contributing immensely to the government services for migrant communities, job seekers, and other stakeholders. It operates a total of 68 Technical Training Centers (TTCc) located all over the country. Besides, another 96 private TTCs are available and guided under the BMET.

Role of BMET in the ASSET Project

As one of the co-implementing agencies of the ASSET, BMET will be responsible for providing support to the PIU for assessments of the social and environmental risks and impacts, and the formulation and implementation of environmental and social management plans for the project. BMET will support the

expansion of market-driven trades in formal short-course training programs offered by public and private technical training institutes.

Past Experience of Collaborative Project Management

BMET has been collaborating with various regional and international organizations such as ILO. BMET was also one of the co-implementing agencies of the World Bank's funded Skills and Training Enhancement Project (STEP) project, implemented between 2010 and 2019 under old OP/BPs. Consequently, BMET is expected to have a certain institutional capacity to implement the project per the World Bank regulations.

ES Risk Management and Safeguards System at BMET

BMET has no dedicated unit for managing environmental and social risks of their projects. For government-funded projects, these are implemented as per the government rules. It has, however, considerable experience in conducting EIAs and in implementing environmental and social safeguards policies of international donor agencies including the World Bank. For donor-funded projects, Environmental and Social Safeguard units are established usually on an ad hoc, per project basis as part of the Project Implementing/Management Unit (PIU/PMU). The responsibility of ES risk management lies on the PIU/PMU which includes conducting supervision and monitoring of project interventions as per recommendations of the ESMP. They usually hire consultants for ESA preparation (ESMF or EIA preparation). Supervision of E&S mitigation activities are also assisted by consultants (also hired by the PIU) but typically not the same consultant who prepared the ESA. There is no internal review or auditing systems for social safeguards in BMET.

Directorate General of Medical Education (DGME) / Ministry of Health and Family Welfare

The Ministry of Health and Family Welfare provides public health services and regulates both public and private health services sectors. As per Schedule I of the Rules of Business, the Ministry has been empowered to act as the central body for policy formulation and planning, regulating the medical profession and standards, managing and controlling drug supply, administering medical institutions, providing health services and much more. The Ministry, with its two wings of Health, and Family Planning, manages public sector health services ranging from primary to tertiary care (excluding urban primary healthcare), stretching from the central level to the grassroots and covering both rural and urban areas. It is responsible for the control of epidemics and prevention of infectious and contagious diseases; health insurance; nutrition research, educational and nutritional deficiency diseases; control of drugs; and survey, monitoring evaluation and compilation statistics of field activities in matters relating to family planning. The public health services include programs for the control of tuberculosis, now covering all upazilas with the Directly Observed Treatment Strategy (DOTS); the National Leprosy Elimination Program; the Malaria and Parasitic Disease Control Program; Kala-azar (visceral leishmaniasis) control; and the HIV/AIDS Program.

The Ministry of Health and Family Welfare, through the **Directorates General of Medical Education (DGME)** and Family Planning (DGFP), manages a dual system of general health and family planning services through 53 District Hospitals, 425 Upazila Health Complexes, 1469 Union Health and Family Welfare Centres, and 12,248 community clinics at ward levels. In addition, the Ministry of Local Government, Rural Development and Cooperatives manages the provision of urban primary care

services. The quality of services at these facilities, however, is quite low, due mainly to insufficient resources, institutional limitations and absenteeism or negligence of service providers. The Ministry of Health and Family Welfare also suffers from chronic lack of adequate budget.

Role of DGME/MoHFW in the ASSET Project

The country needs to train many more medical technicians (MTs) and medical assistants (MAs) to better able to handle necessary medical procedures to combat pandemics like the COVID19 outbreak and as well as improve the overall quality of medical services in Bangladesh. There are significant human resource and skills gaps in MTs/MAs labor market in Bangladesh due to the limited supply of trained MTs/MAs. The Medical Education and Family Welfare Division (MEFWD), MoHFW, and its relevant departments are currently working on formulating a mechanism to increase enrolment in the Institutes of Health Technology (IHT) and Medical Assistant Training Schools (MATS). DGME/MoHFW as one of the co-implementing agencies of ASEET project will be involved in the project under sub-component 1.2 to train MTs and MAs.

Past Experience of Collaborative Project Management

MoHFW has been implementing the Health Population and Nutrition Sector Development Program (HPNSDP) for a period of five years from July 2011 to June 2016. After HPSP (1998-2003) and HNPSP (2003-2011), the HPNSDP is the third sector-wide program for overall improvement of health, population and nutrition sub-sectors, jointly funded by a number of major bilateral and multilateral development agencies including World Bank. The priority of the program is to stimulate demand and improve access to and utilization of HPN services in order to reduce morbidity and mortality; reduce population growth rate and improve nutritional status, especially of women and children. It has long experience of implementing DPs supported project. So, MoHFW is expected to have a certain institutional capacity to implement the project per the World Bank regulations.

ES Risk Management and Safeguards System at MoHFW

MoHFW also has no dedicated unit for managing environmental and social risks of their projects. For government-funded projects, these are implemented according the relevant government rules and policies. However, it has long experience in conducting EIAs and in implementing environmental and social safeguards policies of international donor agencies including the World Bank. For donor-funded projects, Environmental and Social Safeguard units are established usually on an ad hoc, per project basis as part of the Project Implementing/Management Unit (PIU/PMU). There is no internal review or auditing systems for social safeguards in DTE.

Ministry of Labor and Employment (MoLE)

The Ministry of Labor and Employment (MoLE) is the main agency responsible for the implementation of the Labor Act 2006, as amended in 2018 most recently. It has four directorates or departments: (1) Inspector of Factories and Establishments; (2) Child Labor Unit; (3) Minimum Wage Board; and (4) the Department of Labor. The Child Labor Unit is a specialized unit responsible for eliminating child labor in Bangladesh while the Minimum Wage Board is responsible for recommending changes to the industry-specific minimum wage to the government.

The Department of Labor (DoL) facilitates effective labor management relations, collective bargaining and negotiation and ensure prompt and efficient settlement of labor disputes in the industrial sectors of Bangladesh. They are the authority to register trade unions. The government has a standard operating procedure (SOP) for registration of the labor organizations. A labor organization would apply for registration in specific form and the Director General would resolve the application within 55 days. DoL also provides trainings to government agencies and others on the related issues of labor rights and labor management.

The Department of Inspection of Factories and Establishments (DIFE) is the government agency responsible for health and safety inspection in factories and industries. Besides its regulatory and oversight functions, DIFE provides information and advice to employers and workers concerning the most effective means of complying with the Bangladesh labor law and labor rules. It also collaborates with various government and private organizations, agencies along with international organizations specially ILO to facilitate policy, planning, measures and directions adopted to enhance occupational safety and health for all workers by appropriate working conditions and environment. DIFE has the legal mandate as per BLA 2006 and implementation of national action plan for workplace safety to prevent or reduce work related diseases and fatalities.

DIFE has one head office and 23 regional offices in seven divisions with 314 inspectors around the country to inspect and monitor the working conditions, labor rights and OHS performance. Each divisional office has four branches i.e. Health, Safety, General and Shop & Institutions. DIFE clearly has inadequate resources and manpower to monitor workplace safety all over the country. The total number of inspectors dedicated for health and safety is only 82 and most of the district offices have only one inspector for health and one for safety headed by Deputy Inspector General.

Role of MoLE in ASSET Project

For the MoLE, the project will support the establishment and operationalization of new DoE and piloting of public employment services.

Past Experience of Collaborative Project

The World Bank has supported the government's effort through Northern Areas Reduction of Poverty Initiative (NARI) from 2012-2018. NARI aimed to facilitate access to employment for women from poor and under-developed areas in the Ready-made Garments (RMG) sector, focusing particularly on the vulnerable groups of impoverished and marginalized women with little or no education. It was implemented under the Ministry of Labor and Employment (MoLE) and the Bangladesh Export Processing Zones Authority (BEPZA).

E&S Risk Management Process of MoLE

DIFE has prepared questionnaires and checklist for small and medium factories, supershops/shopping mall, old industries, ship-breaking/ship-building yard and ready-made garments (RMG) industries. The safety performance of factories/establishment is assessed and scored based on the fulfillment of requirements as per national policies, regulations/standards. The facilities/factories are categorized into three classes; Grade A-Compliant, Grade B-Partially Compliant and Grade C Non-compliant based on the total score obtained. DIFE provide recommendations for remediation to improve the status and do

follow-up until the facility become complaint. **The following are key observations of the DIFE inspection system with respect to ESS2 and ESS4 of construction projects:**

- Labor, health and safety issues in development projects in general and civil connstruction projects in particular are not a priority for DIFE. Development projects are usually ad hoc establishments with labor and employment in short-term basis, co-terminus with the project. Contractors and their construction sites could be treated just like factory establishments and included in the few inspections. But still, the temporary and constantly changing nature of the workplace in constructions makes the inspection less valuable than a regular factory/workplace setting.

- Absence of institutional linkages between implementing and regulatory agencies for effective management of labor and health & safety issues in civil constructions projects. Neither DTE nor other CIAs coordinate with MoLE departments in the review of EIA of civil construction projects or in the conduct of regular OHS audit of construction sites.
- DIFE's mandate does not cover community health and safety issues.
- There are currently no guidelines for labor working conditions and safety inspection checklist/protocols and enforcement mechanism for civil construction development projects. This is expected because as discussed above development projects are not a priority of DIFE's limited inspections.
- Limited resource and skilled manpower for effective enforcement of labor and health and safety issues
- Absence of R&D and training unit at central level for human resource development.

Department of Youth Development (DoYD) of Ministry of Youth and Sports (MoYS)

As per National Youth Policy, those in the age group of 18-35 years are considered to be youths and they constitute one-third of the total population of Bangladesh. To provide this huge manpower with proper skill development and institutional support, the Government created in 1978 the Ministry of Youth Development (subsequently renamed Ministry of Youth & Sports) and Department of Youth Development (DYD) in 1981. Since its inception, the Department has been extending multifarious training, guidance and support to the youths to harness their potentialities properly and transform them into human resource.

The MoYS operates around 60 YCs scattered across the country, some with residential capacities, which offer 85 different needs-based training programs ranging from 1 to 3 months to around 350,000 youths annually. Bangladeshi youths are facing formidable challenges in engaging in productive economic activities. Youths from lower-income groups are particularly vulnerable due to their poor education background and the consequent market-oriented skills. ASSET activity will support the strengthening of youth training programs by the Youth Centers (YCs). The YCs have been offering unique technical and entrepreneurship training programs to disadvantaged unemployed youths. The DoYD, MoYS will prepare SDPs for YCs to set out the strategies for expanding new market-oriented training programs, job matching programs for youths, and youth entrepreneurship programs. Most of the YCs are expected to receive support from the project. Additional 200,000 youths will receive skills training through the supported programs of YCs. In addition, the strengthened training capacity of YCs is expected to extend the benefit to other on-going training programs of the YCs. DoYD has no past experience of engaging in

World Bank supported project, and expected to have weak capacity among the consortium of partners in E&S safeguards implementation.

Ministry of Industry (MoIND)

MoIND has four corporation of which one is BSEC. Besides, it has 6 directorates, 1 boards and 2 foundations under its jurisdiction. For the MoIND, the ASSET project will provide technical assistance for the establishment of an automotive research institute under BSEC and capacity development of the National Productivity Organization (NPO). MoIND has no past experience of engaging in World Bank supported project.

6.3.3 Other Agencies Important for E&S Safeguards of ASSET Project

Department of Environment

Mandate

The Department of Environment (DoE) under the Ministry of Environment, Forests and Climate Change (MoEFCC) is the main environmental regulation and enforcement agency, tasked with implementing and enforcing the ECA and its implementing rules, the ECR. The mandate of the Department includes: assessment and monitoring of tasks such as on-site surveillance of environmental improvement components of development projects; promoting environmental awareness through public information program; and controlling and monitoring industrial pollution; environmental impact assessment, and in formulating guidelines for line agencies involved in activities affecting air quality, soil and water conservation, afforestation, wildlife, critical habitats, fisheries and other natural resources issues.

DOE is responsible for the issuance of environmental clearance certificates (ECC) to development projects and the enforcement and monitoring of compliance with its provisions, including environmental management measures in the EMP/ESMP, and the enforcement of environmental standards, preventing activities that are likely to cause environmental degradation and carrying out various other advisory and research activities. The ECA gives the Director General of DOE wide powers, including the immediate closure of any polluting industrial plant. and enforcing and monitoring of environmental quality standards. DoE also has the legal authority to declare and manage Ecologically Critical Area (ECA) under the ECA/ECR. It is mandated to coordinate the activities of any authority or agency (including other line ministries or their respective departments) relating to the adherence to basic principles of ECA 1995 and ECR 1997. DoE also implements donor-funded projects such as the Coastal and Wetlands Biodiversity Management Project (CWBMP) and is responsible for reporting to international conventions and treaties that Bangladesh is party to, such as the Convention on Biological Diversity (CBD).

Organizational Setup

The DoE is set up in six divisional headquarters, 16 underneath which are field offices in 21 districts (out of the 64 districts in 8 divisions of Bangladesh). Divisional offices typically have 5 to 6 staff, while district offices typically have 3 staff only. The DoE needs to ensure that the core functional areas related to major environmental priorities are clearly reflected in the organogram. There is a directorate for Air Quality but there are no directorates for other core functional areas, such as water quality, wastewater management, hazardous waste management, environmental quality, and laboratories. Adding such directorates would help ensure that these issues receive the attention they require and bring the DoE in

line with the environmental authorities of many other countries. Full separation between environmental clearance staff and monitoring and enforcement staff would enhance accountability and efficiency. As shown in the organogram (Figure 8), environmental clearance is already separate from monitoring and enforcement at the directorate level.

Resources

DOE's has a strong mandate to manage environmental risks of projects but its capacity to fulfill these functions remains weak. Although it now acts as a "clearing house" for all development projects put forward by the different line ministries, it still lacks the necessary basic technical expertise to effectively assess and monitor projects for their environmental impacts. It suffers from shortage of adequately trained manpower, facilities, equipment and other logistical support. There is also absence of regular training programs to support staff development.

The volume of tasks for the DoE has increased by several folds over the last two decades due to the scale of environmental issues and regulatory demand, and changing economic, population, and environmental conditions. However, its manpower has not increased nearly enough to accommodate this increase. The DoE currently operates with a staff of 431 against an approved 735 posts (the rest being vacant due to bureaucratic delays). In 2016, the DoE requested the additional hiring of 1,222 staff to meet its needs for all district and divisional offices, but only managed to get 172 new posts approved (World Bank, 2018).

Staffing increases are especially needed at the divisional and district levels. Inadequate manpower and physical resources at the field level do not allow the DoE to extend its activities in a fully decentralized way. Divisional offices are supposed to process all files related to environmental clearances, remediation, and corrective and enforcement actions for all industries and development activities that trigger such requirements in that division/district. Industries seeking environmental clearance or processing of other compliance-related actions in districts with no DoE office have to file applications in another district. This often results in processing delays, as it further burdens the already overstretched neighboring offices. Moreover, in areas with no district office, the DoE also lacks eyes on the ground to monitor and follow up on cases of ECC noncompliance. DoE is undertaking needs assessments and has identified districts (i.e. districts with rapid industrial development and sensitive ecosystems) where increase in manpower is also urgently needed.

The Department of Environment's role is limited to primarily providing environmental clearance based on IEE/EIA reports for civil construction development projects. Their involvement in post-EIA monitoring is not practical even for random auditing or following up on EMP commitments, considering their small manpower. They rarely go to the project sites to observe compliance of the EMP and conditionalities in the ECC. Also, civil construction development projects get low priority compared to industrial projects for ES supervision and monitoring. During operations, DoE rarely has any critical concern for civil construction projects. For industrial projects, it enforces pollution control measures and monitors compliance with emissions and effluents limits.

The EIA covers a wide range of issues and expertise and now, with the new World ESF, it would cover even more issues. However, DoE staff are focused only on environmental issues. The DoE would necessarily be handicapped to review the EIA especially on social risks and impacts, labor and occupational health and safety and community health and safety. There is therefore a need to

strengthen the Environmental Clearance Directorate with sociologists to initially look at social issues and risks, and specialists on OHS and community health risks and impacts. Collaborations and linkages with experts from other agencies who have the primary mandates on the issues should also be part of the regular functions of the directorate.

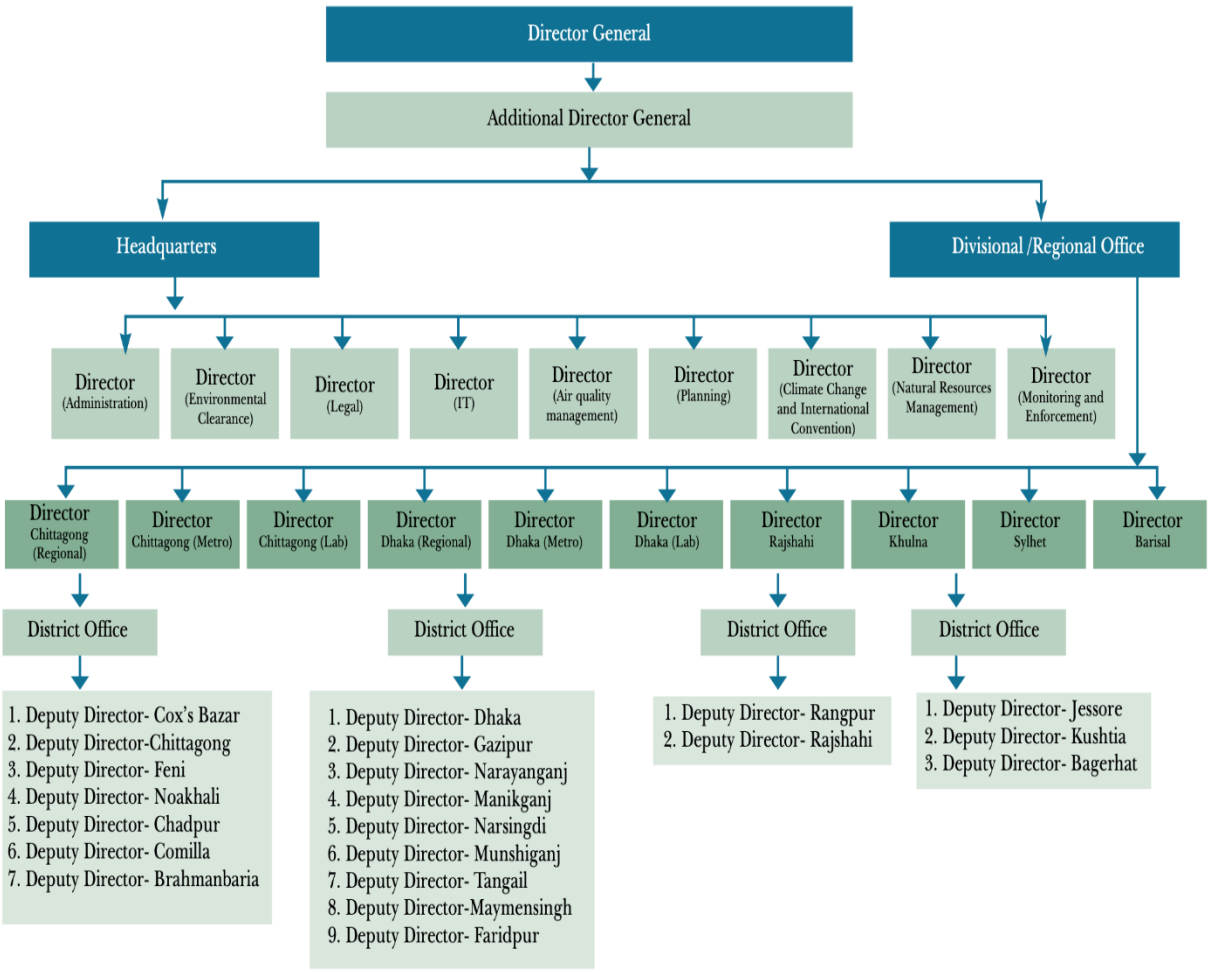

Figure 6.2. Organogram of the Department of Environment

Ministry of Women and Children Affairs (MoWCA)

The key mandates of MoWCA are to empower women, stop violence against women, trafficking of women, the protection of women in the workplace and women in the mainstream of socio-economic activity to ensure the full and equal participation of women in the overall socio-economic development. The MoWCA runs a milestone project named Multi Sectoral Programme on Violence against Women (MSPVAW) which designed and introduced several components to ensure protection of women in the workplace. They have One-stop Crisis Centers at divisional headquarters which provides medical, psychosocial and legal services to women. They also have regional and national Trauma Counselling Centers. Moreover, they introduced National Helpline for violence to any women. Until now this project is funded by the Denmark government but already they are in negotiation with the GoB to hand over

the model to work as a government program under the ministry. MoWCA has not been involved in either TVET projects.

Department of Archaeology (DOA)

Department of Archaeology is entrusted with the conservation and preservation of archaeological sites in Bangladesh under the Antiquities Act 1968. The DOA maintains a list of archaeological sites and artifacts of Bangladesh. The department also works to recover history by discovering ancient cultural elements from remote areas scattered within the country, and to repair and preserve the discovered monuments and exhibit them. A technical Advisory Committee headed by the Director of the DoA performs these tasks.

Deputy Commissioners Office

The Deputy Commissioner (DC) of respective districts runs the district administration. The Deputy Commissioner, more specifically, the Additional Deputy Commissioner (ADC) for land, has a key role to play in land acquisition and supportive role in resettlement and rehabilitation processes. The DC has the legal responsibility of acquiring land and paying compensation directly to the project-affected persons (PAPs) as per the Acquisition and Requisition of Immovable Property Act (ARIPA) of 2017.

6.4 Capacity Building Plan

Capacity building for effective implementation of the ESSs requirements is a key element of the ESMP. Capacity building for environmental and social safeguard management will need to be carried out at all tiers of the ASSET project, including DTE, other IAs, Institutions and contractors. At the construction site, Social, Environmental and Communication Cell (SECC) of PIU/ASSET will take the lead in implementing the capacity building plan, though the contractors will also be responsible to conduct trainings for their own staff and workers. The various aspects that are covered under the capacity building will include general environmental and social awareness, key environmental and social sensitivities of the area, key environmental and social impacts of the project, ESMP requirements, OHS aspects, and waste disposal.

Hence, a separate Capacity Building Plan (CBP) for the ASSET has been prepared under the Capacity Assessment of the Implementing Partners which will be the main guiding document to build capacity of DTE and other IAs for implementing this ESMF. Following paragraphs provides summary of the capacity building requirements as assessed in this report.

6.4.1 Training Plan

Advanced training on environmental and social management and monitoring will be useful for the officials of the DTE and other IAs in successfully implementing environmental and social management. It is also necessary to provide the basic training for key personnel on regulatory requirements, environmental impacts, and environmental assessment and management in home or abroad. They can participate in field based training including the environmental and social impact assessment, screening, scoping, mitigation and monitoring of existing construction, rehabilitation and maintenance projects under the DTE. Different organizations in Bangladesh like: DoE, IEB, FD, Climate Change Unit, training institutes/organizations etc. provide training on environment, social, disaster, climate change etc. issues which could be tapped for DTE in this regard.

The training program for the proposed SECC Staff shall be based on their expanded functions and new and additional safeguards areas covered by the World ESF. Hence, a general introduction to the new World Bank ESF should be priority, followed Labor and Working Conditions, Community Health and Safety and Stakeholder Engagement. The next priority should be training on the preparation and review of RPF and RAP, and the training on the preparation and review of IPPF and IPP. In regard to ESIA, a training should also be schedule later in Year 1 of the project to update on the new scope of study brought about by the ESF. The other areas which the units should immediately be trained on are field compliance monitoring and audits, particularly on ESMP Compliance and occupational and community health and safety audit, cultural heritage assessment and impacts management; and biodiversity and wildlife impact management for construction/renovation/expansion projects (Table 6.2). Finally, since in the long run it will efficient for the staff of ES units to contract out works to consultants, not the preparation of ESIA and RAPs, but also field monitoring and evaluation, it is imperative that the staff of both units shall be skilled in consulting contract management. Hence a training module on such topic is also proposed.

Table 6.2: Training plan for SECC of PIU/ASSET and relevant agencies staff

Seminar Topic/Training Module	Prospective Attendees	Time Frame	Indicative Cost in '000 USD
1. Introduction to World Bank ESF	PIU staff, SECC Staff, Regulatory other Agency representatives	Year 1, Year 3, Year 5	8
2. Labor and working conditions	PIU staff, SECC Staff, DOL and DIFE representatives, MoIND, MoYS and MoHFW rep.	Year 1, Year 2	12
3. Community health and safety	SECC Staff, MoIND, MoYS and MoHFW rep.	Year 2	6
4.Stakeholder Engagement	SECC Staff, Field Institutions	Year 1	6
5. Preparation and review of RPF and RAP	SECC Staff, Agencies officers, Ministry of Lands, DC reps	Year 1	6
7. Preparation of ESIA under ESF	PIU staff, SECC Staff, DOE by invitation	-	-
8. ESMP compliance monitoring and audit	PIU staff, SECC Staff and Field Office Engineers	Year 1, Year 2	12
9. RAP compliance monitoring and audit	SECC Staff and Ministry of Lands, DC reps and Engineers	Year 1, Year 2	12
10. OCHS and Labor Management audit	SECC and ESSU Staff	Year 1, Year 2	12
11. Cultural heritage impacts management	SECC staff, Department of Archaeology staff.	Year 3	8
		Total	**44**

6.4.2 Monitoring and Evaluation

To keep track of the progress and outcomes of the implementation of the Capacity Building Action Plan, the management of the ASSET project will periodically monitor and evaluate the sets of indicators in Table 6.3. A Capacity Plan Monitoring and Evaluation Report should be provided to and discussed with the World Bank project team during each supervision mission.

Table 6.3: Capacity Development Indicators

Actions	Indicator	Method of Collection
Inputs		
Staff Recruited at DTE PIU	No. of new staff hired Number of consultants hired	Reports
Trainings Conducted	Number and types of trainings conducted	Reports
Coordination meetings conducted	Number of coordination meetings conducted; invitation letters sent.	Office Records
Outputs		
Expand role of ES units	Memorandum Circular expanding roles and coverage	Copy of the MC
Prepare new/update protocols	Number and types of protocols developed	Copies of the Protocols
Prepare new/update guidelines	Number and types of guidelines developed	Copies of the Guidelines
Outcomes		
Scope of activities	Range of activities conducted	Reports and Staff Interviews
Skills of staff	New tasks undertaken by staff	Reports and Staff Interviews
Resource endowments	Annual budget Office space New equipment	Reports Staff Interview
Coordination and involvement	Number of agencies involved in ES Management of DTE and other CIAs projects	Reports and Staff Interview
Results/Performance		
Project preparation	No. of projects/subprojects prepared by under the new ESF compliant system	SECC records
Review and approval of projects	Number of RPF RAP reviewed and approved under the new ESF compliant system	SECC records
Environmental and Social Auditing	Number of subprojects audited under new ESF compliant system	SECC records
Awareness of ESF	Percentage of DTE and other CIAs staff that are aware of the new ESF	Staff Interviews

Chapter 7: Institutional Framework

7.1 Key Institutions/Persons Involved in the Implementation of the ASSET ESMF

7.1.1 Governmental and Non-Governmental Organizations

The Directorate of Technical Education (DTE) of Technical and Madrasah Education Division (TMED), Ministry of Education (MoE) will be the lead implementing agency of the project. Bureau of Manpower, Employment and Training (BMET) of Ministry of Expatriate Welfare and Oversea Employment (MoEWOE), Directorate General of Medication Education (DGME) of Medical Education and Family Welfare Division (MEFWD), Ministry of Health and Family Welfare (MoHFW) and Ministry of Industry (MoI), will be the partner implementing agencies (PIAs) of the project. The success of the proposed environmental and social assessment depends on the clear identification and allocation of responsibilities and functions, as well as the capability of the project management team i.e. Implementing Agencies (IAs) in collaboration with other related agencies, to take proper actions throughout the various stages of the proposed project activities. The following other organizations may involve during the implementation of ASSET project:

- Social, Environmental and Communication CELL (SECC) for ASSET project in DTE (The cell is proposed to form headed by a Deputy Director under the PD/ASSET);
- Department of Environment (DoE);
- Ministry of Industry (MoI);
- Bangladesh Hi-Tech Park Authority (BHTPA);
- Bangladesh Economic Zone Authority (BEZA);
- Industry Skills Councils (ISCs);
- Industry Associations (IAs);
- National Skills Development Authority (NSDA);
- Department of Fisheries (DoF);
- Bangladesh Forest Department (BFD);
- Public Works Department (PWD);
- Ministry of Housing and Public Works (MoHPW)
- Local Government Engineering Department (LGED);
- Bangladesh Water Development Board (BWDB);
- Bangladesh Agricultural Extension (BAE);
- Local Administration (District/Upazila/Union);
- Respective Municipalities and City Corporations;
- Private Skill Development Institutions;
- Community based organizations;
- Micro-credit organizations;
- Non-government organizations.

7.1.2 Consultants

The PIU/ASSET will appoint a team of qualified consultants and specialists to carryout environmental and social assessment studies. A GBV Management/Gender Specialist and Social Development Specialist will be engaged for 60 months of the duration of the project, while an Environmental Specialist, Labor

Management and Community Health Specialist, and Stakeholder Engagement and Communications Specialist will be engaged for 36 months of the duration of the project. These consultants will be responsible for supervising all environmental and social safeguard measures that outlined in their respective ToRs and ESMP. They also responsible to verify all safeguards are reflected correctly and clear in the bidding documents, in the Bill of Quantities (BOQs) and in the works contracts.

7.1.3 Contractors

There are many well reputed construction, service and supply firms in Bangladesh; PIU/ASSET may appoint local firms for the implementation of the project activities. The main responsibilities of contractors during the implementation of the project include new construction, rehabilitation and maintenance of existing infrastructures in accordance with the bidding documents, including compliance with the ESMP, prepared during IEE/ESIA studies. The contractors will be responsible for implementing community and occupational health and safety measures.

7.2 Project Implementation Arrangement

The lead implementing agency (LIA), DTE, will be responsible for the implementation of the project activities, and fiduciary management and safeguard compliance for all the sub-components. The PIAs will be implementing the sub-component/activities that are relevant to their respective areas/institutions under the overall management by the lead agency. Other than the agencies mentioned in the sub-section 7.1.1, the National Skills Development Authority (NSDA) will be the partner agency for sector coordination. Private industry groups (i.e., Bangladesh Employers Federation (BEF), chambers of commerce and industries, industry associations, and Industry Skills Councils (ISCs)), industrial zones (Economic Zones (EZs) and Hi-Tech Parks (HTPs) will be implementing partners for respective sub-components and activities. Table 7.1 below summarizes the sub-component-wise mapping of the responsibilities of implementing agencies. The implementation of Component 4 (Project Management and M&E), including fiduciary and safeguards management, will be managed by the LIA, DTE, with support from all the PIAs.

Table 7.1: Component-wise Implementation Responsibility Matrix

Component	Sub-component	Implementing Agencies	Concerned Agencies
	1.0: COVID-19 response actions to build resilience in the TVET sector	TMED	
Component 1	1.1: Strengthening employability and inclusiveness of diploma courses for priority sectors	TMED, MoHFW, MoI	
	1.2: Expanding Market-Demanded and Inclusive Formal Short-Courses for Priority Sectors	MoEWOE, MoI, TMED	
	1.3: Establishing an international standard model polytechnic institute	TMED	
Component 2	2.1: Expanding Enterprise-based Training for Competitiveness and Inclusiveness	TMED	ISCs
	2.2: Recognizing the skills of	TMED, NSDA	

Component	Sub-component	Implementing Agencies	Concerned Agencies
	informal sector workers		
Component 3	3.1: Enhancing the institutional capacity of central government agencies of the skills development system	TMED, MoHFW, MoEWOE, MoI,	ISCs, NSDA
	3.2: Project Management, Social Marketing, M&E	TMED	All implementing agencies, partner agencies

Project Implementation Unit (PIU):

A PIU will be established at DTE. Given the multi-ministerial nature of the project, there will be a single PIU that encompasses all the LIA and all PIAs to ensure collaboration and synergy across different agencies and activities and to minimize the transaction cost of the project operation. The PIU will operate under a shared leadership structure where the Project Director (PD) will be from the LIA while the PIAs will depute officials to join the PIU. The deputed officials from the PIAs will be responsible for overseeing the specific activities related to their respective ministries and liaising with their originated ministries. The PIU will be responsible for, inter alia, (a) planning, coordinating, implementing, and monitoring the project activities, (b) procurement and financial management, (c) social and environmental safeguard, and (d) reporting on the project progress. The PIU will consist of several units led by Senior Program Officers (SPOs) and will be supported by technical experts. The PIU will develop IDG Operations Manual (IDGOM), Short-Course Operations Manual (SCOM), and Partnership Operations Manual (POM) for the project. The PIU will consist of seven units led by Senior Program Officers (SPOs) and staffed with Program Officers and Junior Program Officers; who will be supported by technical experts.

Project Steering Committee (PSC):

The Project Steering Committee (PSC) will be formed for overall policy guidance and for all key decisions related to project implementation and coordination. The PSC will be (a) chaired by the Secretary, TMED, MoE; (b) joined by representatives from all the PIAs; and (d) meeting periodically every six months and on an ad-hoc basis to confirm project progress, make policy-level decisions for the project, and resolve coordination issues. The PIC will be (a) chaired by the Director General (DG), DTE; (b) joined by representatives from all the PIAs; and (c) meeting periodically every three months and on an ad-hoc basis to monitor and discuss project progress and make key operation-level decisions for the project to resolve issues in project implementation. The PIU will support the PSC and PIC as their secretariat.

Project Advisory Committee (PAC):

The Advisory Committee will be chaired by the Chief Coordinator of SDGs under the Prime Minister's Office and joined by the senior officials from the participating ministries and agencies. The Committee will meet on an ad-hoc basis to support the multi-ministerial coordination.

Project Implementation Committee (PIC):

A Project Implementation Committee chaired by the Additional Secretary (Development), TMED, MoE

and supported by the Additional Secretaries of MoEWOE, MoI, MoYS and MoHFW, will be constituted to (a) provide operational guidance to the implementing agencies and PIU, (b) provide approvals to key operational procedures, and (c) support inter-ministerial coordination for day-to-day operations.

7.3 Institutional Arrangements for ESMF implementation in ASSET

The following institutional arrangements have been suggested in this ESMF, recommended to elaborate during specific IEE/ESIA of ASSET. These arrangements will be revisited and modified as appropriate upon WB's agreement.

7.3.1 During Project Implementation

The ASSET implementation will be led by the Project Implementation Unit (PIU) that will be established within DTE. The PIU will be headed by the assigned Project Director (PD) from DTE, supported by Deputy Project Directors (DPDs), one each from Co-implementing Agencies (CIAs) along with Environmental Safeguards Expert and Social Safeguards Expert. Further details of the institutional arrangement for the overall ASSET management should be available in the ESMP of specific IEE/ESIA report for ASSET under the Institutional Arrangement volume.

Formation of a Social, Environmental and Communication Cell (SECC) at PIU/ASSET

The ESMF for ASSET project includes a comprehensive assessment of the Borrower's capacity on E&S risk management as per the requirements of the Bank's ESF. The assessment informs the requirement of E&S staff in the PIU, capacity development program for the project on E&S and the overall procedure of E&S risk management, including resettlement issues by the project management. A Deputy Director will head the project's Social, Environmental and Communication Cell (SECC) under the Project Director. The cell will be supported by an Environmental Specialist, Social Development Specialist, Labor Management and Community Health Specialist, GBV Management/Gender Specialist and Stakeholder Engagement and Communications Specialist.

SECC will oversee the Project Partners/Project Consultants and other contractors (to be engaged in project activities implementation) and will compile quarterly monitoring reports on ESMP compliance, to be sent to the Project Director and also shared with the World Bank, throughout the project implementation period. The SECC will also provide trainings to the DTE and other CIAs field personnel responsible for monitoring of environmental compliance during both implementation and subsequent post project period of the project. Thus, smooth transition to DTE and other CIAs will happen to ensure environmental compliance during the post project period. The organogram for ESMF implementation arrangement is shown in Figure 7.1.

The overall responsibility of environmental performance including ESMP implementation of the ASSET will rest with the PIU. Aside from their in-house environmental and social specialists, the PIU will engage SECC to supervise the contractors including environmental and social management requirements and measures on their execution of construction-related, infrastructural development and other activities that have significant negative environmental and social impacts identified in the ESMF/IEE/ESIA. The SECC will ensure adherence to the monitoring parameters including quality requirements, as well as all ESMP measures.

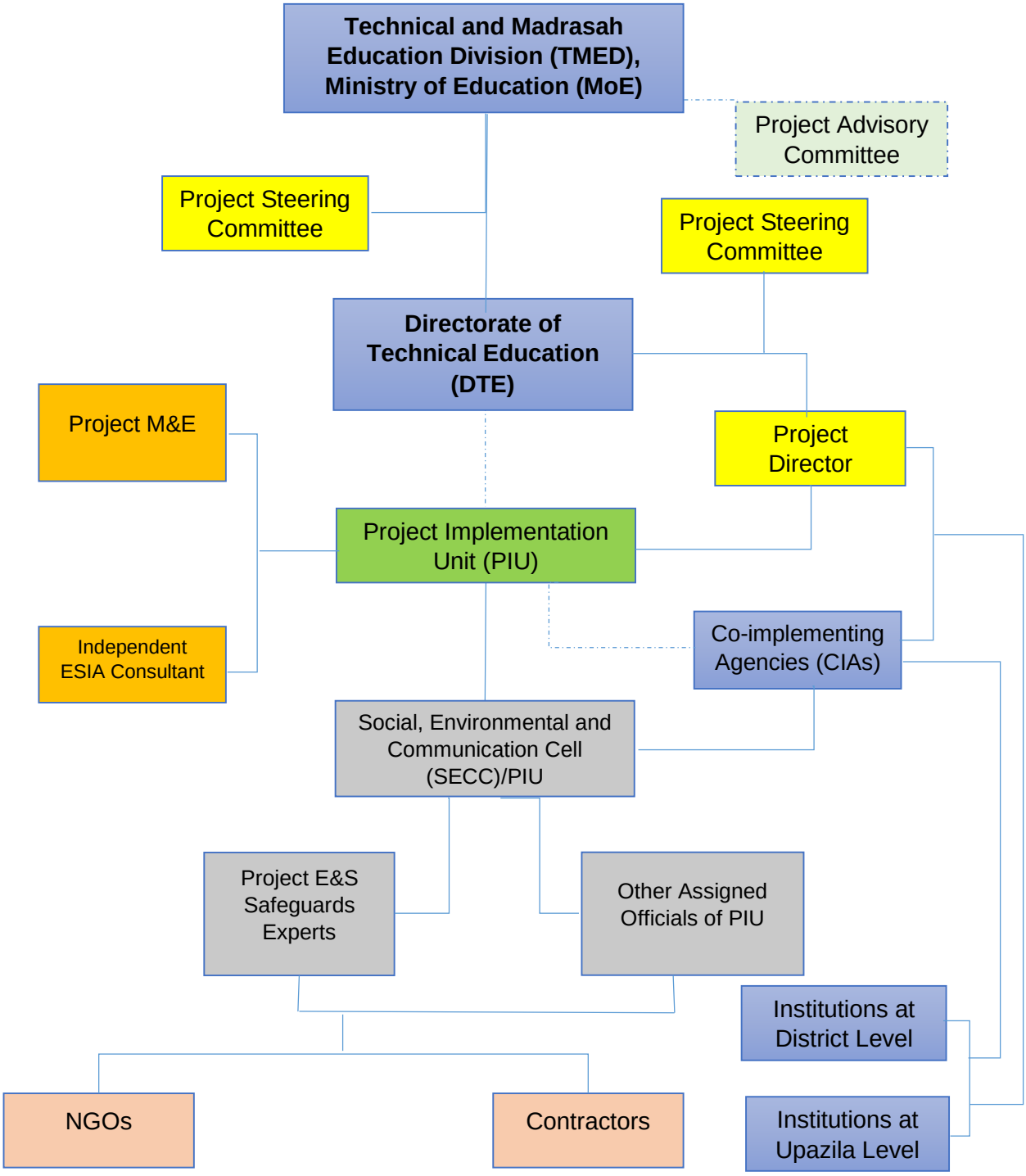

Figure 7.1: Organizational Structure for ESMF Implementation

Table 7.2: Roles and Responsibilities of ESMF Implementation

Organization	Responsibilities
PIU at DTE	• Ensure that all project activities are well-managed and coordinated • Procurement of works and goods • Payment of compensation to the project affectees • Recruitment and supervision of contractors and consultants
Social, Environmental and Communication Cell (SECC) at PIU	• Ensuring inclusion of ESMP in bidding documents • Providing training on ESMP principles and requirements to contractors, DTE and CIAs field staff, and others as needed to ensure effective implementation of ESMP • Supervising partners/contractors for the implementation of ESMP • Ensure that all the project activities are carried out in environmentally sound and socially acceptable manner • Closely coordinate with other concerned agencies, local governments and communities to support implementation of ESMP • Preparation of progress reports on implementation of ESMP • Ensure effective implementation of ESMP components not directly tasked to the contractor including components dealing with indirect, induced and cumulative effects, as well as operations and maintenance (post project) stage plans and measures • Supervise civil works, ensuring compliance with all design parameters including quality requirements and supervise all other project activities that have significant environmental impact • Commissioning and oversight/review of consultant reports for IEE/ESIAs/ESMPs
E&S Safeguards Experts	• Assist PIU and SECC in execution of the project activities • Responsible for preparing all project documents • Provide support in project management and operation at day to day basis • Prepare contract documents and other necessary reports • Supervise contractors engaged in the project implementation to perform their works
Contractor/Others	• Responsible for implementation of mitigation and monitoring measures proposed in the ESMP • Each contractor will recruit an Environmental, Health, and Safety Manager (EHSM), who will be responsible for implementing the contractors' environmental, health and safety responsibilities, and liaising with government agencies. S/he will have adequate number of staff to support him/her for these tasks

7.3.2 Post Project Monitoring Period

Environmental and social management of the project during the post project monitoring period will be lied on SECC/PIU, which will have adequate numbers of the officers from CIAs, dedicated environmental and social experts (in-house) trained by the project. During the life of the project loan, the SECC/PIU will remain ultimately responsible for all environmental and social monitoring aspects of the project, but with the goal of gradually transitioning this role with respect to environmental and social dimensions of monitoring requirements to the Environmental and Social Desk at each agencies, including through capacity building activities as well as on-the job involvement of team members in post project monitoring stage ESMP implementation.

Chapter 8: Stakeholder Engagement and Disclosure

8.1 Requirements of ESS 10: Stakeholder Engagement and Information Disclosure of ASSET

A separate Stakeholders Engagement Plan (SEP) has been prepared for ASSET which will be the main guiding document for the PIU. The following sections are summarizing the ESMF requirements for stakeholder's consultations and disclosures specifically for preparing ESMP.

8.2 Stakeholder Consultations and Disclosure (ESS 10)

In the context of the above, Field surveys, consultations with different stakeholders, focus group discussions (FGDs) that were carried out to develop this ESMF of ASSET were not enough considering the project area and dimension of the stakeholders. Extensive field visits are required at the IEE/ESIA stage to overcome this shortcoming and conduct extensive discussions with the relevant stakeholders throughout the program sites to discuss components, sub-components, activities, potential positive and negative impacts and measures taken to mitigate those impacts. It is also required to record the views of each of the respondents of the consultations, irrespective of gender, profession, religion, and age groups. The ToR of the IEE/ESIA should be described in the public meetings during the initial stage of the IEE/ESIA in all the sites of the proposed project. Findings of the IEE/ESIA will also be presented in local language going back to the same stakeholders while the draft is ready to submit for DoE clearance. Consultation meetings are necessary to identify issues and problems to enable ASSET to include corrective measures and to identify lessons and opportunities to enhance program implementation mechanism.

8.2.1 Objective of the Consultations

The GoB as well as international donors (e.g. the World Bank) place great importance on involving primary and secondary stakeholders for determining the environmental and social impacts associated with project implementation. In order to gather local knowledge for baseline conditions, understand perceptions of the community regarding impact significance, and propose meaningful mitigation measures, participation of stakeholders is an integral part of the environmental assessment process. During the preparation of the present ESMF, two initial consultations with the key stakeholders have been carried out to obtain their views on project interventions. However, additional consultations are required to fulfill the IEE/ESIA requirement of Orange A or B Category and WB's guideline for Category 'Moderate Risk' project.

The consultation process has been conceived, planned, and initiated with the following key objectives:

- To provide key program information and create awareness among various stakeholders about program intervention;
- To share the terms of reference of the current ESMF and proposed IEE/ESIA;
- To have interaction for primary and secondary data collection with program beneficiaries, affectees, and other stakeholders;
- To identify environmental and social issues such as displacement, safety hazards, employment, and vulnerable persons;

- To begin establishing communication and an evolving mechanism for the resolution of social and environmental problems at local and program level;
- To involve program stakeholders in an inclusive manner; and
- To receive feedback from primary stakeholders on mitigation and enhancement measures to address the environmental and social impacts of the program.

8.2.2 Methodology and Tools for the Consultation

The consultation and participation process in preparing the ESMF was limited to selected stakeholders both at the project area and at the regional and national level, since specific sites have not been identified yet. Stakeholders' consultation and engagement at the individual household level was not carried out during the preparation of the ESMF. However, this will be done at the site level once they are identified and will be more inclusive irrespective of gender, profession, religion and age groups during conducting IEE/ESIA.

Stakeholders are people, groups, or institutions, which are likely to be impacted (either negatively or positively) by the proposed project interventions or those who can influence the outcome of the project. A stakeholders mapping was conducted prior to conducting consultation meeting held virtually using web-based platform. The primary stakeholders include all directly affected persons such as title owners losing land, physically displaced people living on their own land, squatters residing on the potential construction sites, students, teachers, and indirectly affected persons and communities/host institutions. The secondary stakeholders are NGOs, community-based organizations, community development projects, governance agencies, development partners, media, community leaders, civil society, traders, construction laborers and consultants in the project area.

The various tools identified in the SEP will be used for consultations including household level interviews, participatory rural appraisal, FGDs, stakeholders consultation meetings, issue specific consultation meetings, open meetings, and workshops at both local and national levels. During IEE/ESIA, consultation meetings and FGDs will be carried out in all sites/Unions (lowest administrative unit) and local level workshops will be organized at some selected Upazilas (Sub-district)/districts to ensure a comprehensive coverage of the entire project area and provide them specific list of interventions.

During preparation of ESMF, ASSET has conducted 2 consultations with different stakeholders. Among those, the first was held before the COVID-19 pandemic situation in Bangladesh, while the later was organized during COVID-19 pandemic using virtual web-based platform. The discussion and the concerns and responses are extensively documented in SEP. A summary of consultation meetings are given below in Table 8.1. List of participants of the consultations are furnished in Annex 6.

Table 8.1: Summary of Consultation Meetings

No.	Date	Venue	No. of Participants		
			Total	Male	Female
1	December 11, 2019	Institute of Diploma Engineers Bangladesh (IDEB), Dhaka	49	44	5
2	June 17, 2020	Virtual Stakeholders Consultation Workshop using Zoom	22	14	8

8.2.3 Outcomes of Consultation Meetings

During preparation of ESMF, DTE has taken stakeholders opinion and those are incorporated with the entitlement matrix preparation. A summary of consultation outcomes is given below in:

Stakeholders' Consultation – 1: Institute of Diploma Engineers Bangladesh (IDEB), Dhaka

- The project should create a harmony between the government agencies and the private sector to ensure a multilateral approach in skilling up the people and ensure jobs.
- The project should not only address the developments of the 4th industrial revolution but also go beyond to ensure future proofing. The project should have technology-based training to ensure future skills of the people.
- The activities of the project should be designed in such a way that they sustain even after the completion of the project.
- The project must ensure that there is no resource duplication and is aligned with the vision, mission and roadmap of the government.
- The project should also look to develop and strengthen the skills system and administrative agencies.
- Private technical institutions should be supported to ensure that they are strengthened.
- The project should have ample opportunity for teachers training and capacity development.
- There should be the provision of modern equipment for institutions.
- The project should also have a good monitoring system to ensure effective implementation of the project.

Stakeholders' Consultation-2: Virtual Stakeholders Consultation Workshop using Zoom

- Development of digital learning is important specially in the COVID era. There is also a need to ensure access of digital learning to all students.
- Reskilling of unemployed and returnee migrants is important.
- Special focus should be given towards marginalized and students from hard to reach areas.
- The gaps between private and public institutions need to be bridged.
- Provide increased teachers training specially in digital pedagogy.
- There needs to be meaningful job placements done by all institutions.
- There needs to be increased communication efforts to attract more students and continue efforts from STEP.
- The innovations from the Skills Competition should be sustained and think about commercialization.
- Introduce Skills competition for teachers.
- Increased cooperation and mobilization of the private sector is especially important.

As this was the first effort of organizing web-based stakeholders consultation, due to time limitation several of the above important RPF issues could not be discussed. So, it is suggested that PIU/ASSET will organize multiple stakeholders' consultation at each construction/renovation sites during IEE/ESIA preparation engaging different stakeholders including land and different structure owners, squatters, CPR management and wage earners etc.

8.3 Consultations and Communication Guideline (ESS10)

Consultations with the key stakeholders will need to be carried out throughout the program life. These will include consultations and liaison with communities and other stakeholders during the project implementation and also extensive consultations with the grass-root as well as institutional stakeholders during the ESIA study. The framework for the future consultations is presented in Table 8.2 below:

Table 8.2: Future Consultation Guideline

Description	Objective/Purpose	Responsibility	Timing	Frequency
Consultations with communities and other stakeholders during project implementation	Information dissemination; public relation; confidence building; awareness about risks and impacts; minimizing conflicts and frictions.	SECC, ASSET; Contractors; PIU	During Project Implementation	Project Specific Location of interventions and impacted area.
Consultations with communities and other stakeholders during IEE/ESIA study	Sharing IEE/ESIA ToR	SECC, ASSET and IEE/ESIA team	During scoping stage of IEE/ESIA	Consultation Meeting at all selected Sites/ Upazilla; FGD at All selected Sites
	Dissemination of information on program and its key impacts and proposed mitigation measures; soliciting views, comments, concerns, and recommendations of stakeholders	SECC, ASSET and IEE/ESIA team	During IEE/ESIA study (once draft analysis is available for discussion and feedback) before submission to DoE for clearance	Consultation Meeting at all selected Upazilla; FGD at All selected Sites; National Stakeholders; Consultation.
Consultations with communities	Liaison with communities and program beneficiaries	SECC, ASSET/PIU	Post Project Period	As and when necessary

8.3.1 Community Engagement and Stakeholders Participation (ESS10)

A standalone Stakeholders Engagement Plan (SEP) will be prepared by ASSET and disclose following the ESS 10 requirements.

8.3.2 Gender Analysis Procedures and Guidelines (ESS 1, 2, 4, 5, 7)

ASSET would address gender issues through approaches that are participatory and responsive to the needs of the poor, particularly when it involves management of fisheries resources. **However, a separate standalone Gender Based Violence (GBV) report will be prepared and disclose by ASSET, to address the ESS requirement.**

Gender Action Plan

A gender action plan has been proposed for the project for review and updating by the ASSET before implementation based on social screening, social impacts assessment and designing the activities for implementation. **However, a separate GBV document has been prepared and disclosed by ASSET.**

8.3.3 Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations under the outbreak and spread of COVID-19

These restrictions have implications for World Bank-supported operations. In particular, they will affect Bank requirements for public consultation and stakeholder engagement in projects, both under implementation and preparation. WHO has issued technical guidance in dealing with COVID-19, including: (i) Risk Communication and Community Engagement (RCCE) Action Plan Guidance Preparedness and Response; (ii) Risk Communication and Community engagement (RCCE) readiness and response; (iii) COVID-19 risk communication package for healthcare facilities; (iv) Getting your workplace ready for COVID-19; and (v) a guide to preventing and addressing social stigma associated with COVID-19. All these documents are available on the WHO website through the following link: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance.

During Implementation

With growing concern about the risk of virus spread, there is an urgent need to adjust the approach and methodology for continuing stakeholder consultation and engagement, the following are some considerations while selecting channels of communication, in light of the current COVID-19 situation under the AF-NJLIP:

- Avoid public gatherings (taking into account national restrictions), including public hearings, workshops and community meetings;
- If smaller meetings are permitted, conduct consultations in small-group sessions, such as focus group meetings If not permitted, make all reasonable efforts to conduct meetings through online channels, including webex, zoom and skype;
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chatgroups appropriate for the purpose, based on the type and category of stakeholders;
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, and mail) when stakeholders to do not have access to online channels or do not use them frequently. Traditional channels can also be highly effective in conveying relevant information to stakeholders, and allow them to provide their feedback and suggestions;

- Where direct engagement with project affected people or beneficiaries is necessary, such as would be the case for Resettlement Action Plans or Indigenous Peoples Plans preparation and implementation, identify channels for direct communication with eachaffected household via a context specific combination of email messages, mail, online platforms, dedicated phone lines with knowledgeable operators;
- Each of the proposed channels of engagement should clearly specify how feedback and suggestions can be provided by stakeholders;
- An appropriate approach to conducting stakeholder engagement can be developed in most contexts and situations. However, in situations where none of the above means of communication are considered adequate for required consultations with stakeholders, the team should discuss with the PMU whether the project activity can be rescheduled to a later time, when meaningful stakeholder engagement is possible. Where it is not possible to postpone the activity (such as in the case of ongoing resettlement) or where the postponement is likely to be for more than a few weeks, the task team should consult with the OESRC to obtain advice and guidance.

During Project Preparation:

Where sub-projects are under preparation and stakeholder engagement is about to commence or is ongoing, such as in the project E&S planning process, stakeholder consultation and engagement activities should not be deferred, but rather designed to be fit for purpose to ensure effective and meaningful consultations to meet project and stakeholder needs. Some suggestions for advising clients on stakeholder engagement in such situations are given below. These suggestions are subject to the coronavirus situation in country, and restrictions put in place by governments. The task team and the SDF should:

- Review the country COVID-19 spread situation in the project area, and the restrictions put in place by the government to contain virus spread;
- Review the draft Stakeholder Engagement Plan (SEP, if it exists) or other agreed stakeholder engagement arrangements, particularly the approach, methods and forms of engagement proposed, and assess the associated potential risks of virus transmission in conducting various engagement activities;
- Be sure that all task team and PIU members articulate and express their understandings on social behavior and good hygiene practices, and that any stakeholder engagement events be preceded with the procedure of articulating such hygienic practices.
- Avoid public gatherings (taking into account national restrictions), including public hearings, workshops and community meetings, and minimize direct interaction between project agencies and beneficiaries / affected people;
- If smaller meetings are permitted, conduct consultations in small-group sessions, such as focus group meetings. If not permitted, make all reasonable efforts to conduct meetings through online channels, including webex, zoom and skype meetings;
- Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chatgroups appropriate for the purpose, based on the type and category of stakeholders;
- Employ traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, public announcements and mail) when stakeholders do not have access to online channels or do

not use them frequently. Such channels can also be highly effective in conveying relevant information to stakeholders, and allow them to provide their feedback and suggestions;

- Employ online communication tools to design virtual workshops in situations where large meetings and workshops are essential, given the preparatory stage of the project. Webex, Skype, and in low ICT capacity situations, audio meetings, can be effective tools to design virtual workshops. The format of such workshops could include the following steps:
    - Virtual registration of participants: Participants can register online through a dedicated platform.
    - Distribution of workshop materials to participants, including agenda, project documents, presentations, questionnaires and discussion topics: These can be distributed online to participants.
    - Review of distributed information materials: Participants are given a scheduled duration for this, prior to scheduling a discussion on the information provided.
    - Discussion, feedback collection and sharing:
        - ✓ Participants can be organized and assigned to different topic groups, teams or virtual "tables" provided they agree to this.
        - ✓ Group, team and table discussions can be organized through social media means, such as webex, skype or zoom, or through written feedback in the form of an electronic questionnaire or feedback forms that can be emailed back.
    - Conclusion and summary: The chair of the workshop will summarize the virtual workshop discussion, formulate conclusions and share electronically with all participants.
- In situations where online interaction is challenging, information can be disseminated through digital platform (where available) like Facebook, Twitter, WhatsApp groups, Project weblinks/ websites, and traditional means of communications (TV, newspaper, radio, phone calls and mails with clear description of mechanisms for providing feedback via mail and / or dedicated telephone lines. All channels of communication need to clearly specify how stakeholders can provide their feedback and suggestions.
- *Engagement with direct stakeholders for household surveys*: There may be planning activities that require direct stakeholder engagement, particularly in the field. One example is resettlement planning where surveys need to be conducted to ascertain socioeconomic status of affected people, take inventory of their affected assets, and facilitate discussions related to relocation and livelihood planning. Such survey activities require active participation of local stakeholders, particularly the potentially adversely affected communities. However, there may be situations involving indigenous communities, or other communities that may not have access to the digital platforms or means of communication, teams should develop specially tailored stakeholder engagement approaches that will be appropriate in the specific setting. The teams should reach out to the regional PMs for ENB and Social Development or to the ESSA for the respective region, in case they need additional support to develop such tailored approaches.
- In situations where it is determined that meaningful consultations that are critical to the conduct of a specific project activity cannot be conducted in spite of all reasonable efforts on the part of the client supported by the Bank, the task team should discuss with the client whether the proposed project activities can be postponed by a few weeks in view of the virus spread risks. This would depend on the COVID-19 situation in the country, and the government policy requirements to contain the virus spread. Where it is not possible to postpone the activity

(such as in the case of ongoing resettlement) or where the postponement is likely to be for more than a few weeks, the task team should consult with the OESRC to obtain advice and guidance.

8.4 Grievance Mechanism (ESS10)

The ASSET program will establish a grievance mechanism (GM) for addressing grievances and complaints received from the project affected persons due to environmental issues. Grievance Mechanism (GM) is a valuable tool which will allows affected people to voice concerns regarding environmental and social impacts for ASSET's activities. ASSET would ensure that grievance redress procedures are in place and would monitor those procedures to ensure that grievances are handled properly. The ASSET office will establish a procedure to answer sub-component -related queries and address complaints, disputes, and grievances about any aspect of the sub- component, including disagreements regarding the assessment and mitigation of environmental and social impacts. Details of the institutional arrangements and procedures are discussed in following sections.

Overview and Scope. ASSET will establish and will follow a Grievance Mechanism (GM) for answering queries, receiving suggestions and addressing complaints and grievances likely to raise in the project cycle including identification, planning, design and implementation. The GM spans the entire implementation period and will cater to both the beneficiary communities and the directly and indirectly affected population including the teachers, staff and students. Though the GM proposed here a mechanism of redress has been designed to address environmental and social problems identified during implementation, it will also cater to manage any disconnects that emerge from the site level and that has significant implications for effective implementation of the project interventions.

Objectives of Grievance Mechanism. The fundamental objective of grievance mechanism (GM) will be to resolve any program -related grievances locally in consultation with the aggrieved party to facilitate smooth implementation of the social and environmental action plans. Another important objective is to democratize the development process at the local level and to establish accountability to the affected people. The procedures will however not pre-empt a person's right to go to the courts of law.

The GM will be consistent with the requirements of the World Bank ESF to ensure mitigation of community concerns, risk management, and maximization of environmental and social benefits. The overall objective of the GM is therefore to provide a robust system of procedures and processes that provides for transparent and rapid resolution of concerns and complaints identified at the local level. The GM will be accessible to diverse members of the community, including women, senior citizens and other vulnerable groups. Culturally-appropriate communication mechanisms will be used at all project sites both to spread awareness regarding the GM process as well as complaints management. Where project intervention areas cover beneficiaries from the small ethnic communities, project GM will integrate traditional grievance management system available with the small ethnic communities.

Communication & Awareness raising on GM. The final processes and procedures for the GM will be translated into local language (i.e. Bangla) and disseminated at all project locations. These shall be made available (in both leaflet and poster format) to all project locations with the Project Manager on site and in the offices of each DC Office.

Proposed Institutional Mechanisms. There will be two-tier grievance mechanism; 1st at local level (site/union/upazila/district), and at PIU level (PD). All the local level complaints will be received at the

Project Office at Upazila/district/site. All cases at the local level will be heard within two weeks of their receipt. PIU with the support of SECC will inform all affected stakeholders and interested group about the program GM and different committees at local, project, ministry level. However, anybody can complain to World Bank through its Grievance Redress Services (GRS) at any stages of the project.

8.4.1 Composition of Local/Site Specific GRC

First level GRC will be formed in the local level where community or local people will be able to complaint/raise grievances directly to the field level project office. DTE/IAs with support from the PIU consultants' team will inform all affected people and local community about the project Grievance Mechanism in local language. This local GRC will ensure easy accessibility by the PAPs, local communities and interested stakeholders, so that any grievances can be solved directly or within a very short period of time. The members of the local GRC will be Upazila Level Officer of DTE/CIAs as convener; Safeguard Specialists from the PIU or officials from DTE/IAs as members secretary; and as members representative from local chairman, teacher from Local Educational Institution, representative from Local Women's Group, and representative from the PAP Group. (Table 8.3)

The membership of the GRCs will ensure proper presentation of complaints and grievances as well as impartial hearings and investigations, and transparent resolutions. Where grievances are among the affected persons, the membership composition of the GRCs will take into account any traditional conflict resolution arrangements that communities may practice. If the aggrieved person is a female, PIU will ask the concerned female UP Member or Municipal Ward Councilor to participate in the hearings. Members of the GRCs will be nominated by the PIU/ASSET. In areas/sites where there are significant ethnic minority population, a representative from these communities will be adopted as member in the local level GRC.

Table 8.3: GRC membership at local/site level

Organization	Member
1. Site/Upazila Level Officer (DTE/Other IAs)	Convener
2. Safeguard Specialist from PIU or DTE/IAs officials	Member-Secretary
3. Local UP Member/Ward Councilor	Member
4. Teacher from Local Educational Institution	Member
5. Representative from Local Women's Group	Member
6. Representative from the PAP Group	Member
7. Women Representative of UP/WC (in case PAP is female)	Member

All complaints will be received at the Site/Upazila Project Office. All cases at the local level will be heard within two weeks of their receipt. Grievances received through any channel will be registered and a notification of receipt with assurance of necessary review and resolution given in writing to the aggrieved persons.

8.4.2 Composition of PIU and PSC level GRC

If a decision at district level is again found unacceptable by the aggrieved person(s), the case will then refer to the PIU with the minutes of the hearings at local and district levels. PD will be the convener and Social Safeguard Specialist/Environmental Safeguards Specialist will be the member secretary at PIU level. All the unsolved cases at the PIU level, decisions on unresolved cases, if any, will be made in no

more than four weeks by an official designated by the Secretary, TMED/MoE. A decision agreed with the aggrieved person(s) at any level of hearing will be binding upon PIU. There will be budgetary allocation for local and district committee members for participating meetings and refreshments during meeting. Figure 8.1 is showing a hierarchy of GM process:

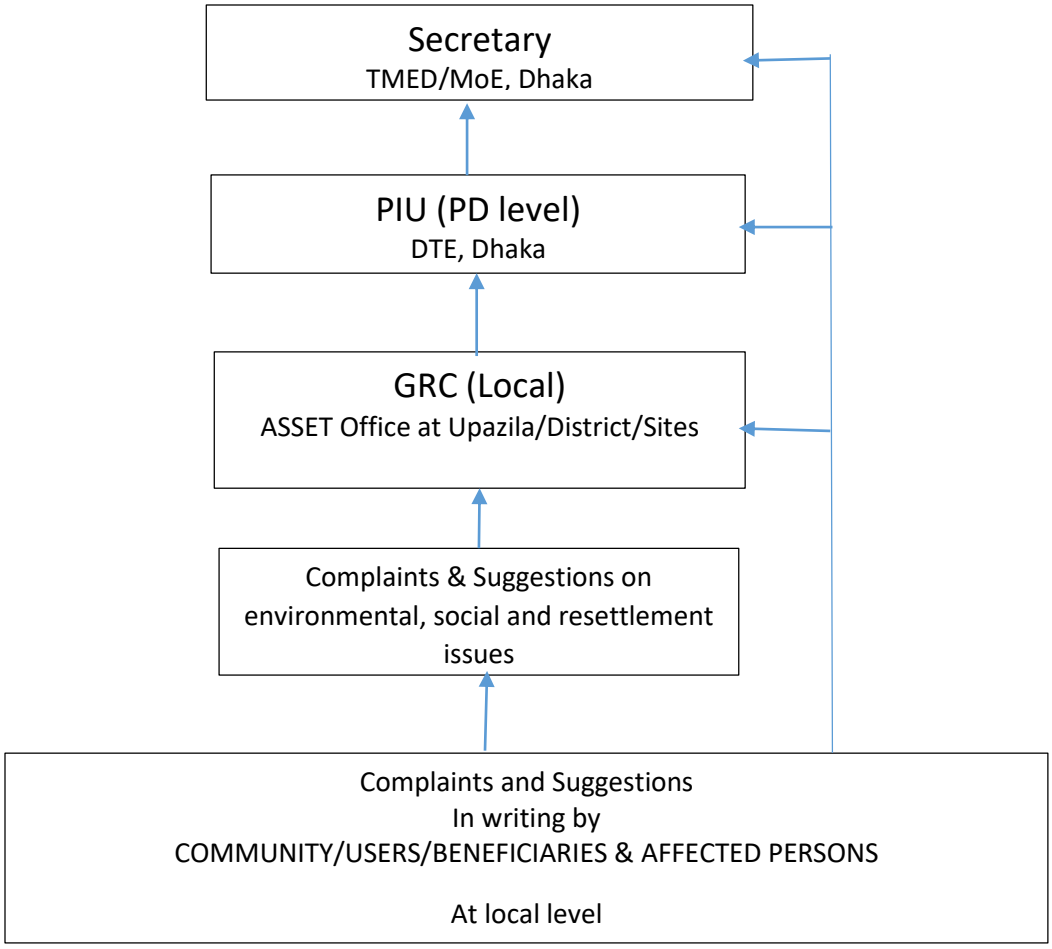

Figure 8.1: GM Process of the ASSET Project

To ensure that grievance redress decisions are made in formal hearings and in a transparent manner, the convener will apply the following guidelines:

- Reject a grievance redress application with any recommendations written on it by a GRC member or others such as politicians and other influential persons.
- Remove a recommendation by any person that may separately accompany the grievance redress application.
- Disqualify a GRC member who has made a recommendation on the application or separately before the formal hearing: Where a GRC member is removed, appoint another person in consultation with the Project Director.
- The Convener will also ensure strict adherence to the impact mitigation policies and guidelines adopted in this RPF and the mitigation standards, such as compensation rates established through market price surveys.

The affected persons and their communities will be informed of the project's grievance mechanism in open meetings at important locations and in PAP group meetings. Bangla translations of the RPF in the form of information brochures will be distributed among the affected persons. The PAPs will also be briefed on the scope of the GRC, the procedure for lodging grievances cases and the procedure of grievance resolution at the project level.

To ensure impartiality and transparency, hearings on complaints will remain open to the public. The GRCs will record the details of the complaints and their resolution in a register, including intake details, resolution process and the closing procedures. PIU will maintain the following three Grievance Registers:

***Intake Register*:** (1) Case number, (2) Date of receipt, (3) Name of complainant, (4) Gender, (5) Father or husband, (6) Complete address, (7) Main objection (loss of land/property or entitlements), (8) Complainants' story and expectation with evidence, and (8) Previous records of similar grievances.

Resolution Register: (1) Serial no., (2) Case no.,(3) Name of complainant, (4) Complainant's story and expectation, (5) Date of hearing, (6) Date of field investigation (if any), (7) Results of hearing and field investigation, (8) Decision of GRC, (9) Progress (pending, solved), and (10) Agreements or commitments.

Closing Register: (1) Serial no., (2) Case no., (3) Name of complainant, (4) Decisions and response to complainants, (5) Mode and medium of communication, (6) Date of closing, (7) Confirmation of complainants' satisfaction, and (8) Management actions to avoid recurrence.

Grievance resolution will be a continuous process in subcomponent level activities and implementation of those. The PIU will keep records of all resolved and unresolved complaints and grievances (one file for each case record) and make them available for review as and when asked for by Bank and any other interested persons/entities. The PIU also prepare periodic reports on the grievance resolution process and publish these on the DTE website. The format in Annex 7 will be used for periodic grievance reporting.

The ASSET project intends to strengthen the GM through information and communication technology to ensure that all complaints including those of sexual exploitation and abuse are immediately reported to the Government. PIU will integrate the GM on a web-based dashboard, to adequately and promptly address any potential grievance related to Gender Based Violence and SEA. The complaints registered in this system will be managed by a dedicated administrator that will liaise immediately any GBV and SEA complaints with the contractors, consultant and PIU for immediate measures. If the GM receives a case on sexual exploitation and abuse related to the project, it will be recorded, and the complainant will be referred to the relevant assistance, if needed, for referral to any other service providers. The supervision consultant will keep the information confidential to protect privacy of GBV and SEA complainants. In cases, where the perpetrator(s) is linked to project activities then the contractor will take appropriate actions as per the Code of Conduct signed by the particular person and under the effective law in Bangladesh. PIU will report activities and outcomes of GBV and SEA surveillance and management to the World Bank on a regular basis.

To ensure that grievance redress decisions are made in formal hearings and in a transparent manner, the Convener will apply the following guidelines:

i. A standard application format will be used for receiving grievances which will be available at the office of NGO /Consulting firm. This application format would be concurred by the PD.

ii. Reject a grievance redress application with any recommendations written on it by a GRC member or others such as politicians and other influential persons.
iii. Remove a recommendation by any person that may separately accompany the grievance redress application.
iv. Disqualify a GRC member who has made a recommendation on the application separately before the formal hearing.
v. Where a GRC member is removed, appoint another person in consultation with the Project Director. and

The Convener will also ensure strict adherence to the impact mitigation policies and guidelines adopted in this ESMF, RPF, LMF, SEP, GVB, SECDF and the mitigation standards, such as compensation rates established through market price surveys.

World Bank Grievance Redress Service (GRS). Communities and individuals who believe that they are adversely affected by Sub-project interventions may submit complaints to existing project-level GM or the WB Grievance Redress Service (GRS). Project affected communities and individuals may also submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, because of non-compliance with WB ESF requirements. Details of the procedures to submit complaints to the WB's corporate GRS, is available in the GRS website: *http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.* For information on how to submit complaints to the WB Inspection Panel, please visit www.inspectionpanel.org. Any disclosure instrument on GM will provide addresses of the GRS and the Inspection Panel.

8.5 Communication and Consultation Strategy (ESS10)

As required for informed consultation, ASSET will provide communities and affected persons with all activity-related information, including that on potential adverse impacts in a language familiar to and understandable by the target communities. To facilitate consultation the implementing agency will,

- Prepare a timetable for dialogues during activity 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 community organizations, community elders/leaders and others with adequate gender and generational representation; and civil society organizations like NGOs and groups knowledgeable of issues related communities living within project area.
- Consultation will include the activity objectives and scope; the likely key adverse impacts on (and benefits for) communities; communities' own perception of the impacts and feedback; and a preliminary assessment of economic opportunities which the implementing agency could promote – in addition to mitigation of the adverse impacts.
- Consultation will in general concentrate on targeting and the adverse impacts perceived by the communities and the probable (and feasible) mitigation measures, as well as exploring additional development activities that could be promoted under the project.

- The implementing agency will keep Minutes of these consultation meetings in the activity files and make them available for inspection by World Bank, respective government officials and other interested groups and persons.
- If the presence of small ethnic communities is identified in the sub-project area, based on the baseline data appropriate social tool will be adopted using free, prior, informed consultation. This will serve as the basis for sub-project implementation and monitoring.

8.5.1 Information Disclosure (ESS10)

The mechanism of information dissemination should be simple and be accessible to all. Two of the important means that have been followed until now include briefing material and organization of community consultation sessions. The briefing material (all to be prepared in local language) can be in the form of (a) brochures (including project information, details of entitlements including compensation and assistance to be given to the PAPs; grievance mechanism) that can be kept in the offices of local self-government (gram parishad office) and project office; (b) posters to be displayed at prominent locations and (c) leaflets that can be distributed in the project areas. Consultation meetings should also be organized at regular intervals by the project to acquaint the communities, target group beneficiaries and affected persons of the following:

- Timeline and progress of the project by components;
- Information on beneficiary participation;
- Information of involuntary displacement, compensation and entitlements;
- Information of participation of small ethnic communities;
- Timeline for acquisition of land using voluntary donation, direct purchase and any other voluntary approach.

Also, opinion and consensus of the community needs to be sought for livelihood transformation, relocation of any community assets and involuntary resettlement management. Information disclosure procedures are mandated to provide citizen centric information as well as all documentation necessary for addressing any queries. Disclosure of information will enhance governance and accountability specifically with respect to strengthening of monitoring indicators to help the World Bank monitor compliance with the agreements and assess impact on outcomes.

Table 8.4: Disclosure Requirements

Topic	Documents to be Disclosed	Frequency	Where
Environmental and Social Impact Assessment;	Initial Environmental Examination (IEE); Environmental and Social Impact Assessment (ESIA);	Once in the entire project cycle. But to remain on the website and other disclosure	World Bank's website; On the website of ASSET, The client would make the

Topic	Documents to be Disclosed	Frequency	Where
Resettlement, Rehabilitation and Land requirement	Environmental and Social Management Plan (ESMP); Resettlement Action Plan (RAP).	locations throughout the project period.	ESIA Report, ESMP, RAP available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to the stakeholders and PAPs in the following offices: UP Office Public Library if any Project Office
	Resettlement Policy Framework translated in local language	Once in the entire project cycle.	Distributed among Project Affected Persons (PAP)
	Information regarding impacts and their entitlements in local language	Once at the start of the project and as and when demanded by the PAP.	Through one-to-one contact with PAPs. Community consultation List of PAPs with impacts and entitlements to be pasted in the project office and website of ASSET,
	R&R monthly progress report.	10th day of every month	Website of ASSET. Hard copy in the project office
	RAP Impact Assessment Report	At midterm and end of the RAP and ESMP implementation	ASSET website in local language.
Small ethnic communities (if any)	Small Ethnic Community Development Framework and Plans	Identification, design and implementation, monitoring and evaluation	ASSET websites Hard copies in local language in the following offices: UP Office Project Office

Topic	Documents to be Disclosed	Frequency	Where
			SECs to be informed on one to one contact
Public Consultation	Minutes of Formal Public Consultation Meetings	Within two weeks of meeting	On the web sites of ASSET Hard copies in local language in the following offices: UP Office Project office
Grievance redressed process	Proceedings of grievance process/ monitoring reports	Continuous process throughout the project cycle.	On the web sites of ASSET Hard copies in local language in the following offices: UP Office Project Office Beneficiaries and affected persons to be informed on one to one contact
Beneficiary identification and engagement	Approach and proceedings/long and short list of beneficiaries	Continuous process throughout the project cycle.	On the web sites of ASSET Hard copies in local language in the following offices: UP Office Project Office Potential target group beneficiaries to be informed on one to one contact

8.5.2 Access to Information (ESS10)

The draft ESMF of ASSET will be disclosed to the local and national level stakeholders through different methods as described below.

Workshop. A national workshop will be held at Dhaka to present the detailed project including safeguard aspects of ASSET to the key stakeholders. In addition, stakeholders' meetings will be held at some selected upazilas/districts to disclose the ToR and results of the IEE and ESIA. Representative of

implementing authority, the study team, and the government officials from different departments, representatives from NGOs, local communities of different occupation, journalist, and local elite/civil society may attend the workshops. In the workshops, the participants will share their observations, views, and remarks with the study team. Appropriate suggestions and recommendations on different issues from the stakeholders of the meeting would be incorporated in the program specific IEE/ESIA. The workshops will also help to resolve conflicting issues among stakeholders. Besides, FGDs and personal interviews will be carried out at the all selected sites of the ASSET project area to generate communities' views and concerns.

Publication in electronic and print media: The information on program interventions and the findings of environmental assessment would also be disclosed through newspapers and electronic media (e.g. internet, TV, radio, etc.). The report would be disclosed in Bengali language.

Availability of the Document: Summary of the IEE, ESIA and ESMF report along with ESMP will be translated into Bengali language and disseminated locally. The full report (in English) and the summary (in Bengali) will also be uploaded in the website of ASSET and World Bank. Hard copy of the IEE, ESIA and ESMF will also be available at ASSET District and Upazila offices of the program area.

Annexure

Annex 1: Sample Environmental and Social Screening Form

A. ENVIRONMENTAL SCREENING FORM (Sample)

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 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[2]
			High	Medium	Low	
• loss of top soil?	☐	☐	☐	☐	☐	
• negative effects on species of flora or fauna or their habitat?	☐	☐	☐	☐	☐	
• negative effects on designated wetlands?	☐	☐	☐	☐	☐	
• negative effects on vegetation?	☐	☐	☐	☐	☐	
• destruction of trees and vegetation?	☐	☐	☐	☐	☐	
• impact on fish migration and navigation?	☐	☐	☐	☐	☐	
• drainage congestion in the project area?	☐	☐	☐	☐	☐	
• water logging in the project areas?	☐	☐	☐	☐	☐	
• negative effects on surface water quality, quantities or flow?	☐	☐	☐	☐	☐	
• negative impact on soil stability and compactness?	☐	☐	☐	☐	☐	
• negative impacts on irrigation and canals	☐	☐	☐	☐	☐	
• increased noise due to day-to-day construction activities?	☐	☐	☐	☐	☐	
• increased wind-blown dust from material (e.g. fine aggregate) storage areas?	☐	☐	☐	☐	☐	
• degradation or disturbance of historical or culturally important sites (mosque, graveyards, monuments etc.)?	☐	☐	☐	☐	☐	

11. Possible environmental impacts of the subproject

Environmental impacts	Mitigation measures (Identify the relevant **ECoP)**

12. The Environment and Social Management Plan (ESMP) 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:

B. SOCIAL SCREENING FORM (Sample)

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 7.2 Is there any way that proposed project may pose any threat to cultural tradition and way of life of Tribal Peoples? Yes/No……

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.....
□ Better access to schools, education and communication? 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 2: Terms of Reference (ToR) of the ESIA Study

Introduction: The Government of Bangladesh (GoB) through the Ministry of Finance (MoF) has requested the World Bank (WB) to support the preparation and implementation of the Accelerating and Strengthening Skills for Economic Transformation (ASSET) project with the Directorate of Technical Education (DTE) of Technical and Madrasah Education Division (TMED), Ministry of Education (MoE) as the lead implementing agency along with other partner implementing agencies (PIAs), as following: Bureau of Manpower, Employment and Training (BMET) of Ministry of Expatriate Welfare and Oversea Employment (MoEWOE); Directorate General of Medical Education (DGME) of Medical Education and Family Welfare Division (MEFWD), Ministry of Health and Family Welfare (MoHFW); Ministry of Industry (MoI), and Directorate of Youth Development (DoYD) of Ministry of Youth and Sports (MoYS). The lead implementing agency (LIA), DTE, will be overall responsible for the implementation of the project activities, fiduciary management and safeguard compliance for all the sub-components. The PIAs will be implementing the sub-component/activities that are relevant to their respective areas/institutions under the overall management by the lead agency. The ASSET project will promote employment-oriented job market relevant high-quality skills development for a range of social and productive sectors and at long-term and short-term training institutions to produce high-level skills for greater economic modernization and labor productivity. It also supports expanding equitable access to skills development opportunities for vulnerable population especially marginalized women, poor and people with disability, and enhance skills development and recognition of workers in the informal sector. The project also supports capacity development for quality assurance and coordination at key agencies at the central level.

The project is expected to be implemented nationwide but the exact project locations will be determined during the implementation stage only. However, some of the establishments and facilities under the previous phase of Northern Areas Reduction-of-Poverty Initiative (NARI) Project under MoLE and Skills and Training Enhancement Project (STEP) under MoE under ASSET and as well as Special Economic Zones (SEZs) under Bangladesh Economic Zone Authority (BEZA) are expected to be included. But the specific locations will be decided, as mentioned above, during implementation phase. The project will help Bangladesh build a highly skilled labor force in priority sectors, aligned to the future of work, and inclusive of women and disadvantaged groups. The project interventions aim to ensure catering to the needs of both present and future workforce through a robust private sector integration approach and holistic capacity development and filling the crucial access gaps in skills development for most disadvantaged population and informal sector workers through innovative partnerships. The project will be implementing during the fiscal year 2020-2021 to the 2025-26 for five years with the co-financing from International Development Association (IDA), World Bank and Govt. of Bangladesh. The project would also mobilize financial and technical resources from other Development Partners (DP). The project would leverage contributions from private sector partners both in terms of finance and expertise. Key potential partner agencies will be the private industry sector and NGOs. Some of the industry associations have previous experience of working with the World Bank-funded projects. All potentially relevant NGO partners have previous or on-going engagement under the World Bank-funded projects.

An ESMF was prepared for ASSET during appraisal mainly to address the potential environmental and social, labour, Environment, Health and Safety (EHS) and stakeholder's engagement issues related to the

project activities to be implemented under the ASSET infrastructural improvement/rehabilitation. All the potential major environmental and social impacts along with mitigation and management measures have been compiled in the form of ESMF. More particularly, this ESMF highlights the requirements related to the 10 Environment and Social Standards (ESSs) of the World Bank Environmental and Social Framework (ESF).

Objectives of the ESIA: The objective of the assignment is to carry out the tasks related to environmental aspects in light of the ToR. These include preparation of the Environmental Impact Assessment (including ESMP) of the ASSET.

Scope of Services: Carry out an overall Environmental and Social Impact Assessment (ESIA) and prepare Environmental and Social Management Plan (ESMP) for the project area covered under the ASSET. ESIA and ESMP would be prepared according to the World Bank Guidelines and Operational Policies and the GoB procedures. The Consultant shall familiarize themselves with the project details and components. The Consultant should interact with other preparation consultants of PIU to determine best way of conducting environment activities. Consultant shall appropriately plan the timing of the deliverables.

The major activities to be carried out will include, but not limited to the following:

A. Review the ESMF Report

a. Review the existing ESMF report prepared for the ASSET;
b. Review the preliminary Baseline report prepared on the basis of reconnaissance field investigations carried out by ASSET;
c. Determine any gaps particularly in the ESMF;

B. Review the Project details

a. Obtain from the ASSET and PIU consultants all the details about the project;
b. Hold meetings with the PIU team to understand the scope and nature of work;

C. Scoping

a. Carry out reconnaissance field visit. On the basis of this field visit and review of the project details, carry out scoping for the ESIA study. Screen out the impacts that are not likely to take place and prepare a list of potential impacts that are likely to take place.
b. Prepare criteria to be used to determine the program influence area for conducting ESIA;
c. Specify the boundaries of the study area for the assessment (project influence area): canal area, river basin/catchments, land use, the drainage area and patterns, aquaculture and other development interventions – current and proposed, watersheds, access to sensitive/remote areas such as parks/ reserves/forests/agriculture land, elements of transport development program in the area.

D. Describe the Proposed Project

a. Provide information on the following: location of all project-related development sites and general layout and extent of facilities at project-related development sites; diagrams/drawings of proposed structures; design basis, size, capacity; preconstruction activities; construction activities (land clearing, land grading, worker camps, if any), schedule, staffing and support, facilities and services; operation and maintenance activities, staffing and support, facilities and services; management of risks, including health and safety; life expectancy for major components. Components may include any

or all of the following: structural measures; dikes and levees; drainage, and nonstructural measures, repair/replacement of infrastructures; and resettlement sites. Also describe sources of materials used during proposed works; generation of wastes and their disposal, expected volume of use, construction-related vehicular traffic; resettlement, land acquisition, safety features; staffing and accommodation of employees, including site clearance, scheduling of project activities, approximate quantity and likely source of construction materials.

b. Provide maps and diagrams with appropriate scales to illustrate the general setting of project-related development sites and key project components. These maps and diagrams shall include overall project layout, details of individual components, project time schedule, and any related aspects.

E. Description of the Environment

a. Review the Baseline report prepared as part of the ESMF of the ASSET and identify gaps if any. Obtain additional data as needed.

b. Assemble and evaluate and baseline data on the environmental characteristics of the study area, including construction, resettlement sites, inundation, floodplain, and biological features (habitats and rare species, vegetation, fisheries, birds, terrestrial fauna), and floodplain (recession) agriculture. Include information on any changes anticipated before the project commences.

c. Physical environment: geology, topography, soils, climate, surface and ground water hydrology, annual peak discharge, ambient air quality; noise; vehicular traffic; recurrence intervals of various peak discharges and peak stages of various discharges, erosion and sediment loading, existing/projected pollution discharges and receiving water quality; instances of flooding, siltation/erosion, depth, bottom topography of the rivers;

d. Biological environment: ecology: flora and fauna, including rare or endangered species; sensitive natural habitats, including sanctuaries and reserves; biological connectivity; potential vectors for disease; exotics and aquatic weeds; application of pesticides and fertilizers (current and projected as agriculture production is expected to be increased);

e. Socio-cultural environment: land use (including current crops and cropping patterns; fisheries and farm outputs and inputs; transportation; land tenure and land titling; present water supply and water uses (including current distribution of water resources); control over allocation of resource use rights; water and fisheries related human health problems; cultural sites, present and projected population; present land use/ownership; planned development activities; community structure; present and projected employment by industrial category; distribution of income, goods and services; recreation; public health; cultural properties; indigenous peoples, customs and aspirations; significant natural, cultural or historic sites, etc. Presence of HIV/AIDS, Pandemic COVID-19 spreads/effects, and other sexually transmitted diseases;

f. Provide location wise and union/upazila wise information of the project intervention and identify any critical aspects that need special consideration during design, construction and operation.

F. **Stakeholder consultations**

a. Consultations need to be carried out at least twice, in accordance with the WB requirements: (a) shortly after environmental screening and before the terms of reference for the ESIA is finalized; and (b) once a draft ESIA report is prepared.
b. Review the consultations carried out during the ESMF.
c. Carry out consultations with institutional stakeholders including but not limited to officials from DoE, DTE, Local Government, and also with local, national, and international NGOs, and other organization as appropriate and relevant.
d. Carry out comprehensive consultations with primary stakeholders particularly with the communities to be positively and negatively affected by the project.
e. Relevant materials will be provided to affected groups in a timely manner prior to consultations and in a form and language that is understandable and accessible to the groups being consulted. The Consultant should maintain a record of the public consultation (written and video and pictorial proof) and the records should indicate: means other than consultations (e.g., surveys) used to seek the views of affected stakeholders; the date and location of the consultation meetings, a list of the attendees and their affiliation and contact address; and, summary minutes.

G. Determination of the Potential Impacts of and Impacts on the Proposed Project

a. Review the impact assessment carried out during the ESMP and identify gaps if any.
b. Review the ESMP compliance for the ESMF, particularly review the institutional setup, implementation of mitigation measures, environmental monitoring and documentation, environmental monitoring reports, environmental quarterly progress reports, and other reports. Determine gaps if any; also determine impracticality and or inappropriateness of any ESMP aspect such as institutional set up, mitigation measures, monitoring measures, and others.
c. This analysis will require in depth interpretation. In this analysis, distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Identify impacts that are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits. Assign economic values when feasible. Characterize the extent and quality of available data, explaining significant information deficiencies and any uncertainties associated with predictions of impact. Compare the impact with the baseline. Provide ToRs for studies to obtain the missing information. Special attention should be given to the environmental impact those identified during the screening process of ESMF.

H. Development of an Environmental and Social Management Plan (ESMP)

a. Review the ESMP included guideline in the ESMF.
b. Identify key mitigation and enhancement approaches and prepare the impact specific mitigation measures. Estimate the impacts and costs of the mitigation measures and of the institutional and training requirements to implement them. If appropriate, assess compensation to affected parties for impacts that cannot be mitigated. Prepare an ESMP, including proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures, monitoring, etc. Include measures for emergency response to accidental events (e.g. entry of raw sewage or toxic wastes into streams).

c. Prepare a detailed plan to monitor the implementation of mitigating measures and the impacts of the project during rehabilitation and operation (e.g., emission and ambient levels of pollutants where these may be detrimental to human health, soil erosion, changes in the floodplain). Include in the plan an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to implement the plan. Include a regular schedule of monitoring the quality of surface and ground waters to ensure that mitigation measures are effective. Provide guidance for reporting and enforcement and conducting environmental audits.
d. Estimate the costing of ESMP, environmental code of practices (ECoPs) and provide necessary clauses for incorporating in the bid document.
e. Review the responsibilities and capability of institutions at local, provincial/regional, and national levels and recommend steps to strengthen or expand them so that the ESMP may be effectively implemented. The recommendations may extend to new laws and regulations, new agencies or agency functions, inter-sectoral arrangements, management procedures and training, staffing, operation and maintenance training, budgeting and financial support.
f. An outline of the contents of the ESMP to be included in the project's Operational Manual should be provided along with environmental/social protection clauses for contracts and specifications.
g. Define the roles and responsibilities of officials, staff, consultants and contractors of ASSET on environmental management.
h. Describe in detail who will (a) implement the environmental mitigation activities (b) carrying out environmental monitoring; (c) supervise environmental mitigation and monitoring; (d) design, implement and apply the environmental management information system (EMIS); and (e) prepare quarterly progress report on environmental management;

ESIA Report Compilation:

a. Finalize the draft ESIA incorporating the comment from the consultation (see Annex 3 for the ESIA structure);
b. Translate and finalize the executive summary of ESIA in Bengali.

Team composition and qualifications:

The assignment requires interdisciplinary analysis with specialized sector knowledge (i.e., ecology, fisheries, water resource and hydrology). The general skills required of the Environmental Safeguard team are: environmental management planning, civil engineer(s), with particular experience in building construction and educational institutional building projects, general construction, wildlife and aquatic biologist depending upon the predicted impacts, land use planner, sociologist, archaeologist and communications / stakeholder engagement. The consulting team must be able to demonstrate appropriate skill mix and depth of experience to cover all areas of the proposed analysis, including incorporation of other specialized skill sets where required. The consulting team shall be led by a Team Leader with at least 10 years of experience leading ESIA studies, including prior international experience on similar types of ASSET project, and prior experience as either team leader or deputy team leader on at least one (1) previous major ESIA for World Bank funded projects.

Schedule/Duration of the study:

The study period shall be of 12 (twelve) months from the date of commencement of the study.

Reports:

After commencement of the study the submission of the reports shall be both in hard (3 copies) and soft copy as follows:

- Inception Report---submitted at the end of 1st month of signing the contract
- Draft Scoping Report ---submitted at the end of 3rd month of signing the contract
- Draft Baseline Report---submitted at the end of sixth month of signing the contract
- Draft Environmental and Social Impact Assessment with a standalone Executive Summary submitted at the end of 9th month of signing the contract
- Final Environmental and Social Impact Assessment with a standalone Executive Summary submitted at the end of 12th month of signing the contract
- Bengali Translation of the Executive Summary -- submitted at the end of 12th month of signing the contract.

Reporting:

The consultant will report to the Project Director, ASSET.

Annex 3: Structure of the ESIA Report

The Consultant is required to prepare an ESIA report that is concise and limited to significant environmental issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used in interpreting those data. Detailed or uninterrupted data are not appropriate in the main text and should be presented in appendices or a separate volume. Unpublished documents used in the assessment may not be readily available and should also be assembled in an annex. Organize the environmental assessment report according to the outline below.

The report should be prepared as per the following key contents:

1. Executive Summary (ES): The Executive Summary should mirror the report both in form and content and should be about 10 percent in length of the report. The significant findings and recommended actions should be clearly discussed in the ES.
2. Introduction: This section will include (i) purpose of the report and (ii) extent of the environmental study.
3. Policy, Legal and Administrative Framework: This section will describe relevant environmental policies, rules and administrative procedures that need to be followed for the proposed project. The relevant international environmental agreements to which Bangladesh is a party should also be discussed.
4. Project Planning of Components and Description: This section will provide a brief but clear picture about (i) type of project; (ii) category of project; (iii) need for project; (iv) location (use maps showing general location, specific location, and project site); (v) size or magnitude of operation; (vi) Project influence area (vii) proposed schedule for implementation. The proposed project should be described with reasonable details so that the ESIA report can be read as a standalone document without reference to other project documents. This section should present the parameters which should be considered in the design for minimizing the environmental impact.
5. Environmental and Social Baseline: This section will provide sufficient information on the existing environmental and Social baseline resources in the area affected by the project, including the following:
    a. Physical Resources: (e.g. atmosphere (e.g. air quality and climate), topography and soils, surface water & groundwater, geology/seismology)
    b. Water Resources: (e.g. hydrology, surface water and groundwater system, sedimentation, tidal influence, etc.)
    c. Land and Agriculture resources: (e.g. land type, land use, cropping pattern, crop production, etc.)
    d. Fisheries resources: (e.g. fisheries diversity, fish production, aquaculture, etc.)
    e. Ecology: (e.g. ecosystems, wildlife, forests, rare or endangered species, protected areas)
    f. Socio-economic condition:(e.g. population and communities (e.g. numbers, locations, composition, employment), health facilities, education facilities, socio-economic conditions (e.g. community structure, family structure, social wellbeing), physical or cultural heritage, current use of lands and resources for traditional purposes by indigenous peoples, structures or sites that are of historical, archaeological, paleontological, or architectural significance, economic development (e.g. industries,

infrastructure facilities, transportation, power sources and transmission, mineral development, and tourism facilities, etc.).

To assess the dimensions of the study area, the relevant physical, biological, and socioeconomic conditions before the project commencement should be discussed. The relevant data related to the issues have to be collected and reported.

6. Climate Change issues: Climate change aspects in global, regional and local perspectives and the likely impacts on the Project area and its surroundings should be briefly discussed in this section.
7. Significant Environmental Impacts: This chapter will need careful interpretation. Significant environmental and social impacts due to project location, and related to project design, construction, and operations phase should be discussed in detail in this section. The prediction and assessment of the project's likely positive and negative impacts, in quantitative terms to the extent possible should be made. The mitigation measures and any residual negative impacts that cannot be mitigated should be identified. The opportunities for environmental enhancement should also be explored. Estimates should be done on the extent and quality of available data, key data gaps, and uncertainties associated with predictions; and the topics that do not require further attention should be specified. Considering the impact the ASSET activities has to be classified into Categories of 'Moderate Risk' as per ESS1.
8. Cumulative and Induced Impacts: Cumulative impacts of the proposed Project and other projects as well as induced impacts should be provided in this section.
9. Environmental and Social Management Plan: The environmental and social management plan (ESMP) will include mitigation and enhancement plan, compensation and contingency plan as well as monitoring plan including institutional arrangement for implementation of the ESMP. The ESMP should also include tentative cost of implementation of the plan. Guideline for preparation of ESMP is included in Annex 4.

   The ESMP should include a grievance mechanism (GM) guided by the ESFM. The mechanism should be outlined to ensure that the project sponsor maintains appropriate external channels for communicating with and receiving feedback, questions, and complaints from local stakeholders, as well as internal procedures for following up and resolving any complaints or grievances in a timely manner. The mechanism should include more than one channel for receiving communications and grievances (for example, a hotline, a public information office, boxes to receive written complaints or queries, etc. – depending on local preferences, literacy levels, etc.), as well as indicating requirements, responsibilities and budget for documenting, processing, and resolving issues that arise, including providing feedback to complainant(s) regarding the resolution. The existence of the grievance mechanism must be fully and proactively disclosed to the public.
10. Stakeholder Consultation and Disclosure: The proceeding of the consultations done as per ESS10 and SEP of the ASSET project has to be included in this section of the ESIA report. It is to be noted that during the ESIA process for all WB Category Moderate Risk project, the proponents have to consults project-affected groups and local nongovernmental organizations (NGOs) about the project's environmental aspects and take their views into account. The proponents' initiates such consultations as early as possible. For Category Moderate Risk projects, the proponents consult these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the ESIA is finalized; and (b) once a draft ESIA report is prepared. In

addition, the proponent must consult with such groups throughout project implementation as necessary to address ESIA-related issues that affect them.

Disclosure: For meaningful consultations between the borrower and project-affected groups and local NGOs on all Category Moderate projects proposed for WB financing, the proponents must provide relevant material in a timely manner prior to consultation and in a form and language (i.e. Bangla) that are understandable and accessible to the groups being consulted. The disclosure details done as per ESS10 should be provided in this section.

11. References: References should be provided to written materials both published and unpublished, used in study preparation.

Annexes:

- List of Environmental Assessment Preparers
- Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs
- Data and Unpublished Reference Documents.

Annex 4: Guideline for Preparing Environment and Social Management Plan (ESMP)

The Consultant is required to develop an Environmental and Social Management Plan (ESMP) consisting of a set of feasible and cost-effective mitigation measures and monitoring and institutional plan to prevent or reduce significant negative impacts to acceptable levels. This will include measures for emergency response to accidental events (e.g., fires, explosions), as appropriate. The Consultant will provide an estimation of the impacts and costs of the mitigation measures, and of the institutional and training requirements to implement them. In particular, this would include:

- **Environmental and Social Mitigation & Enhancement Measures:** Recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Apart from mitigation of the potential adverse impacts on the environmental components, the ESMP shall identify opportunities that exist for the enhancement of the environmental quality along the surrounding area. Residual impacts from the environmental measures shall also be clearly identified. The ESMP shall include detailed specification, bill of quantities, execution drawings and contracting procedures for execution of the environmental mitigation and enhancement measures suggested, separate for pre-construction, construction and operation periods. In addition, the ESMP shall include good practice guides related to construction and upkeep of plant and machinery. Responsibilities for execution and supervision of each of the mitigation and enhancement measures shall be specified in the ESMP. A plan for continued consultation to be conducted during implementation stage of the project shall also be appended.
- **Institutional Arrangements, Capacity Building and Trainings:** The ESMPs shall describe the implementation arrangement needed for the project, implementation of ESMP, especially the capacity building proposals including the staffing of the environment unit (as and when recommended) adequate to implement the environmental mitigation and enhancement measures. For each staff position recommended to be created, detailed job responsibilities shall be defined. Equipment and resources required for the environment unit shall be specified, and bill of quantities prepared. A training plan and schedule shall be prepared specifying the target groups for individual training programs, the content and mode of training. Training plans shall normally be made for the client agency (including the environmental unit), the supervision consultants and the contractors.
- **Supervision and Monitoring:** Environmental monitoring plan will be an integral part of the ESMP, which outlines the specific information to be collected for ensuring the environmental quality at different stages of project implementation. The parameters and their frequency of monitoring should be provided along with cost of the monitoring plan and institutional arrangements for conducting monitoring. Reporting formats should be provided along with a clear arrangement for reporting and talk corrective action. The ESMP shall list all mandatory government clearance conditions, and the status of procuring clearances.
- **Reporting:** The ESMP will specify the documentation and reporting requirements, specifically, complete record will be maintained for compliance monitoring, effects monitoring, trainings, grievances, accidents, incidents, resource usage, and waste disposal quantities.
- **Grievance Mechanism:** The ESMP will describe the grievance mechanism (GM) to address the project-related grievances and complaints particularly from the local communities.
- **ESMP implementation cost:** The ESMP will also include the cost of its implementation including personnel costs, costs on trainings, effects monitoring, additional studies, and others.

Annex 5: Details of the ECoPs

ECoP 1: Waste Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
General Waste	Soil and water pollution from the improper management of wastes and excess materials from the construction sites.	The Contractor shall • Develop waste management plan for various specific waste streams (e.g., reusable waste, flammable waste, construction debris, food waste etc.) prior to commencing of construction and submit to SECC for approval. • Organize disposal of all wastes generated during construction in an environmentally acceptable manner. This will include consideration of the nature and location of disposal site, so as to cause less environmental impact. • Minimize the production of waste materials by 3R (Reduce, Recycle and Reuse) approach. • Segregate and reuse or recycle all the wastes, wherever practical. • Prohibit burning of solid waste • Collect and transport non-hazardous wastes to all the approved disposal sites. Vehicles transporting solid waste shall be covered with tarps or nets to prevent spilling waste along the route • Train and instruct all personnel in waste management practices and procedures as a component of the environmental induction process. • Provide refuse containers at each worksite. • Request suppliers to minimize packaging where practicable. • Place a high emphasis on good housekeeping practices. • Maintain all construction sites in a cleaner, tidy and safe condition and provide and maintain appropriate facilities as temporary storage of all wastes before transportation and final disposal.
Hazardous Waste	Health hazards and environmental impacts due to improper waste management practices	The Contractor shall • Collect chemical wastes in 200 liter drums (or similar sealed container), appropriately labeled for safe transport to an approved chemical waste depot. • Store, transport and handle all chemicals avoiding potential environmental pollution. • Store all hazardous wastes appropriately in bunded areas away from water courses. • Make available Material Safety Data Sheets (MSDS) for hazardous materials on-site during construction. • Collect hydrocarbon wastes, including lube oils, for safe transport off-site for reuse, recycling, treatment or disposal at approved locations. • Construct concrete or other impermeable flooring to prevent seepage in case of spills.

ECoP 2: Fuels and Hazardous Substances Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Fuels and hazardous goods	Materials used in construction have a potential to be a source of contamination. Improper storage and handling of fuels, lubricants, chemicals and hazardous goods/materials on-site, and potential spills from these goods may harm the environment or health of construction workers.	The Contractor shall • Prepare spill control procedures and submit the plan for SECC approval. • Train the relevant construction personnel in handling of fuels and spill control procedures. • Store dangerous goods in bunded areas on a top of a sealed plastic sheet away from watercourses. • Refueling shall occur only within bunded areas. • Make available MSDS for chemicals and dangerous goods on-site. • Transport waste of dangerous goods, which cannot be recycled, to a designated disposal site approved by DoE. • Provide absorbent and containment material (e.g., absorbent matting) where hazardous material are used and stored and personnel trained in the correct use. • Provide protective clothing, safety boots, helmets, masks, gloves, goggles, to the construction personnel, appropriate to materials in use. • Make sure all containers, drums, and tanks that are used for storage are in good condition and are labeled with expiry date. Any container, drum, or tank that is dented, cracked, or rusted might eventually leak. Check for leakage regularly to identify potential problems before they occur. • Store hazardous materials above flood plain level. • Put containers and drums in temporary storages in clearly marked areas, where they will not be run over by vehicles or heavy machinery. The area shall preferably slope or drain to a safe collection area in the event of a spill. • Put containers and drums in permanent storage areas on an impermeable floor that slopes to a safe collection area in the event of a spill or leak. • Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution. • Avoid the use of material with greater potential for contamination by substituting them with more environmentally friendly materials. • Return the gas cylinders to the supplier. However, if they are not empty prior to their return, they must be labeled with the name of the material they contained or contain, information on the supplier, cylinder serial number, pressure, their last hydrostatic test date, and any additional

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		identification marking that may be considered necessary.

ECoP 3: Water Resources Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Hazardous Material and Waste	Water pollution from the storage, handling and disposal of hazardous materials and general construction waste, and accidental spillage.	The Contractor shall • Follow the management guidelines proposed in EC0Ps 1 and 2. • Minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes). These substances must not enter waterways, storm water systems or underground water tables.
Discharge from Construction sites	During construction both surface and groundwater quality may be deteriorated due to construction activities in the river, sewerages from construction sites and work camps. The construction works will modify groundcover and topography changing the surface water drainage patterns of the area including infiltration and storage of storm water. These changes in hydrological regime lead to increased rate of runoff, increase in sediment and contaminant loading, increased flooding, groundwater contamination, and effect habitat of fish and other aquatic biology.	The Contractor shall • Install temporary drainage works (channels and bunds) in areas required for sediment and erosion control and around storage areas for construction materials • Install temporary sediment basins, where appropriate, to capture sediment-laden run-off from site • Divert runoff from undisturbed areas around the construction site • Stockpile materials away from drainage lines • Prevent all solid and liquid wastes entering waterways by collecting solid waste, oils, chemicals, bitumen spray waste and wastewaters from brick, concrete and asphalt cutting where possible and transport to an approved waste disposal site or recycling depot • Wash out ready-mix concrete agitators and concrete handling equipment at washing facilities off site or into approved bunded areas on site. Ensure that tires of construction vehicles are cleaned in the washing bay (constructed at the entrance of the construction site) to remove the mud from the wheels. This shall be done in every exit of each construction vehicle to ensure the local roads are kept clean.
Soil Erosion and siltation	Soil erosion and dust from the material stockpiles will increase the sediment and contaminant loading of surface water bodies.	The Contractor shall • Stabilize the cleared areas not used for construction activities with vegetation or appropriate surface water treatments as soon as practicable following earthwork to minimize erosion • Ensure that roads used by construction vehicles are swept regularly to remove sediment • Water the material stockpiles, access roads and bare

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		soils on an as required basis to minimize dust. Increase the watering frequency during periods of high risk (e.g. high winds)
Construction activities in water bodies	Construction works in the water bodies will increase sediment and contaminant loading, and effect habitat of fish and other aquatic biology.	The Contractor shall • Dewater sites by pumping water to a sediment basin prior to release off site – do not pump directly off site • Monitor the water quality in the runoff from the site or areas affected by dredge plumes, and improve work practices as necessary • Protect water bodies from sediment loads by silt screen or bubble curtains or other barriers • Minimize the generation of sediment, oil and grease, excess nutrients, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes). These substances must not enter waterways, storm water systems or underground water tables. • Use environment friendly and nontoxic slurry during construction of piles to discharge into the river. • Reduce infiltration of contaminated drainage through storm water management design • Do not discharge cement and water curing used for cement concrete directly into water courses and drainage inlets.
Drinking water	Groundwater at shallow depths is contaminated with arsenic and hence not suitable for drinking purposes.	The Contractor shall • Pumping of groundwater shall be from deep aquifers of more than 300 m to supply arsenic free water. Safe and sustainable discharges are to be ascertained prior to selection of pumps. • Tube wells will be installed with due regard for the surface environment, protection of groundwater from surface contaminants, and protection of aquifer cross contamination • All tube wells, test holes, monitoring wells that are no longer in use or needed shall be properly decommissioned.
	Depletion and pollution of groundwater resources	• Install monitoring wells both upstream and downstream areas near construction yards and construction camps to regularly monitor the water quality and water levels. • Protect groundwater supplies of adjacent lands

ECoP 4: Drainage Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Excavation and earth works, and	Lack of proper drainage for rainwater/liquid waste or	The Contractor shall • Prepare a program for prevent/avoid standing

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
construction yards	wastewater owing to the construction activities harms environment in terms of water and soil contamination, and mosquito growth.	waters, which SECC will verify in advance and confirm during implementation • Provide alternative drainage for rainwater if the construction works/earth-fillings cut the established drainage line • Establish local drainage line with appropriate silt collector and silt screen for rainwater or wastewater connecting to the existing established drainage lines already there • Rehabilitate road drainage structures immediately if damaged by contractors' road transports. • Build new drainage lines as appropriate and required for wastewater from construction yards connecting to the available nearby recipient water bodies. Ensure wastewater quality conforms to the relevant standards provided by DoE, before it being discharged into the recipient water bodies. • Ensure the internal roads/hard surfaces in the construction yards/construction camps that generate has storm water drainage to accommodate high runoff during downpour and that there is no stagnant water in the area at the end of the downpour. • Construct wide drains instead of deep drains to avoid sand deposition in the drains that require frequent cleaning. • Provide appropriate silt collector and silt screen at the inlet and manholes and periodically clean the drainage system to avoid drainage congestion. • Protect natural slopes of drainage channels to ensure adequate storm water drains. • Regularly inspect and maintain all drainage channels to assess and alleviate any drainage congestion problem. • Reduce infiltration of contaminated drainage through storm water management design.
Ponding of water	Health hazards due to mosquito breeding	The Contractor shall • Do not allow ponding/storage of water especially near the waste storage areas and construction camps • Discard all the storage containers that are capable of storing of water, after use or store them in inverted position.

ECoP 5: Soil Quality Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Filling of Sites with dredge	Soil contamination will occur from drainage of	The Contractor shall • Ensure that dredged sand used for land filling shall be

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
spoils	dredged spoils	free of pollutants. Prior to filling, sand quality shall be tested to confirm whether soil is pollution free. Sediments shall be properly compacted. Top layer shall be the 0.5 m thick clay on the surface and boundary slopes along with grass. Side Slope of Filled Land of 1:2 shall be constructed by suitable soils with proper compaction as per design. Slope surface shall be covered by top soils/ cladding materials (0.5m thick) and grass turfing with suitable grass. • Leaching from the sediments shall be contained to seep into the subsoil or shall be discharged into settling lagoons before final disposal. • No sediment laden water in the adjacent lands near the construction sites, and/or wastewater of suspended materials excessive of 200mg/l from dredge spoil storage/use area in the adjacent agricultural lands.
Storage of hazardous and toxic chemicals	Spillage of hazardous and toxic chemicals will contaminate the soils	The Contractor shall • Strictly manage the wastes management plans proposed in ECP1 and storage of materials in ECP2 • Construct appropriate spill contaminant facilities for all fuel storage areas • Establish and maintain a hazardous materials register detailing the location and quantities of hazardous substances including the storage, use of disposals • Train personnel and implement safe work practices for minimizing the risk of spillage • Identify the cause of contamination, if it is reported, and contain the area of contamination. The impact may be contained by isolating the source or implementing controls around the affected site • Remediate the contaminated land using the most appropriate available method to achieve required commercial/industrial guideline validation results.
Construction material stock piles	Erosion from construction material stockpiles may contaminate the soils	The Contractor shall • Protect the toe of all stockpiles, where erosion is likely to occur, with silt fences, straw bales or bunds.

ECoP 6: Erosion and Sediment Control

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Clearing of construction sites	Cleared areas and slopes are susceptible for erosion of top soils that affects the growth of vegetation which causes ecological imbalance	The Contractor shall • Reinstate and protect cleared areas as soon as possible. • Mulch to protect batter slopes before planting • Cover unused area of disturbed or exposed surfaces immediately with mulch/grass turfings/tree plantations.
Construction activities and	The impact of soil erosion are (i) Increased run off	The Contractor shall • Locate stockpiles away from drainage lines

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
material stockpiles	and sedimentation causing a greater flood hazard to the downstream, (ii) destruction of aquatic environment in nearby lakes, streams, and reservoirs caused by erosion and/or deposition of sediment damaging the spawning grounds of fish, and (iii) destruction of vegetation by burying or gullying.	• Protect the toe of all stockpiles, where erosion is likely to occur, with silt fences, straw bales or bunds • Remove debris from drainage paths and sediment control structures • Cover the loose sediments and water them if required • Divert natural runoff around construction areas prior to any site disturbance • Install protective measures on site prior to construction, for example, sediment traps • Control drainage through a site in protected channels or slope drains • Install 'cut off drains' on large cut/fill batter slopes to control water runoff speed and hence erosion • Observe the performance of drainage structures and erosion controls during rain and modify as required.

ECoP 7: Top Soil Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Land clearing and earth works	Earthworks will impact the fertile top soils that are enriched with nutrients required for plant growth or agricultural development	The Contractor shall • Strip the top soil to a depth of 15 cm and store in stock piles of height not exceeding 2m. • Remove unwanted materials from top soil like grass, roots of trees and similar others. • The stockpiles will be done in slopes of 2:1 to reduce surface runoff and enhance percolation through the mass of stored soil. • Locate topsoil stockpiles in areas outside drainage lines and protect from erosion. • Construct diversion channels and silt fences around the topsoil stockpiles to prevent erosion and loss of topsoil. • Spread the topsoil to maintain the physico-chemical and biological activity of the soil. The stored top soil will be utilized for covering all disturbed area and along the proposed plantation sites • Prior to the re-spreading of topsoil, the ground surface will be ripped to assist the bunding of the soil layers, water penetration and revegetation.
Transport	Vehicular movement outside ROW or temporary access roads will affect the soil fertility of the agricultural lands	The Contractor shall • Limit equipment and vehicular movements to within the approved construction zone • Construct temporary access tracks to cross concentrated water flow lines at right angles • Plan construction access to make use, if possible, of the final road alignment • Use vehicle-cleaning devices, for example, ramps or

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		wash down areas.

ECoP 8: Topography and Landscaping

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Land clearing and earth works	Flood plains of the existing Project area will be affected by the construction of various project activities. Construction activities especially earthworks will change topography and disturb the natural rainwater/flood water drainage as well as will change the local landscape.	The Contractor shall • Ensure the topography of the final surface of all raised lands (construction yards, approach roads, access roads, bridge end facilities, etc.) are conducive to enhance natural draining of rainwater/flood water; • Keep the final or finished surface of all the raised lands free from any kind of depression that insists water logging • Undertake mitigation measures for erosion control/prevention by grass-turfing and tree plantation, where there is a possibility of rain-cut that will change the shape of topography. • Cover immediately the uncovered open surface that has no use of construction activities with grass-cover and tree plantation to prevent soil erosion and bring improved landscaping.

ECoP 9: Sand Extraction

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Sand extraction	Sand extraction can potentially impact the aquatic habitat, water quality, and key aquatic species and their food availability.	The Contractor shall • not extract sand from the river bed in long continuous stretches; alternate patches of river bed will be left undisturbed to minimize the potentially negative impacts on the aquatic habitat. • not collect large quantities of sand from any single location • not excavate deeper than 3 m at any single location. • not carry out sand extraction near chars that have sensitive Habitats • not carry out sand extraction during the night particularly near the chars • obtain approval from SECC before starting sand extraction from any location. • carry out sand extraction from sand bars to the extent possible. • maintain record of all sand extraction (quantities, location shown on map, timing, any sighting of key species) • provide silt fences, sediment barriers or other devices around the extraction areas to prevent migration of

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		sediment rich water in to the river channels. • refuel of barges and boats with a proper care to avoid any spills. • make available spill kits and other absorbent material at refueling points on the barges. • properly collect, treat and dispose the bilge water from of barges, and boats. • regularly service all waterborne plant as per the manufacturer's guidelines and be inspected daily prior to operation. SECC will: • carry out survey of the area prior to sand extraction • identify any sensitive receptors/habitats (eg, turtle nesting area, bird colony) at or near the proposed sand extraction locations. • determine 'no-go' areas for sand extraction, based upon the above survey, • monitor the activity to ensure that the contractor complies with the conditions described earlier. • survey the area after sand extraction to identify any leftover impacts.

ECoP 10: Air Quality Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Air quality can be adversely affected by vehicle exhaust emissions and combustion of fuels.	The Contractor shall • Fit vehicles with appropriate exhaust systems and emission control devices. Maintain these devices in good working condition. • Operate the vehicles in a fuel-efficient manner • Cover haul vehicles carrying dusty materials moving outside the construction site Impose speed limits on all vehicle movement at the worksite to reduce dust emissions • Control the movement of construction traffic • Water construction materials prior to loading and transport • Service all vehicles regularly to minimize emissions • Limit the idling time of vehicles not more than 2 minutes.
Construction machinery	Air quality can be adversely affected by emissions from machinery and combustion of fuels.	The Contractor shall • Fit machinery with appropriate exhaust systems and emission control devices. Maintain these devices in good working condition in accordance with the specifications defined by their manufacturers to maximize combustion efficiency and minimize the contaminant emissions. Proof or maintenance register shall be required by the equipment suppliers

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		and contractors/subcontractors • Focus special attention on containing the emissions from generators • Machinery causing excess pollution (e.g. visible smoke) will be banned from construction sites • Service all equipment regularly to minimize emissions • Provide filtering systems, duct collectors or humidification or other techniques (as applicable) to the concrete batching and mixing plant to control the particle emissions in all its stages, including unloading, collection, aggregate handling, cement dumping, circulation of trucks and machinery inside the installations
Construction activities	Dust generation from construction sites, material stockpiles and access roads is a nuisance in the environment and can be a health hazard.	The Contractor shall • Water the material stockpiles, access roads and bare soils on an as required basis to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (e.g. high winds). Stored materials such as gravel and sand shall be covered and confined to avoid their being wind-drifted • Minimize the extent and period of exposure of the bare surfaces • Reschedule earthwork activities or vegetation clearing activities, where practical, if necessary to avoid during periods of high wind and if visible dust is blowing off-site • Restore disturbed areas as soon as practicable by vegetation/grass-turfing • Store the cement in silos and minimize the emissions from silos by equipping them with filters. • Establish adequate locations for storage, mixing and loading of construction materials, in a way that dust dispersion is prevented because of such operations • Crushing of rocky and aggregate materials shall be wet-crushed, or performed with particle emission control systems.

ECoP 11: Noise and Vibration Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Noise quality will be deteriorated due to vehicular traffic	The Contractor shall • Maintain all vehicles in order to keep it in good working order in accordance with manufactures maintenance procedures • Make sure all drivers will comply with the traffic codes concerning maximum speed limit, driving hours, etc.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Organize the loading and unloading of trucks, and handling operations for the purpose of minimizing construction noise on the work site
Construction machinery	Noise and vibration may have an impact on people, property, fauna, livestock and the natural environment.	The Contractor shall • Appropriately site all noise generating activities to avoid noise pollution to local residents • Use the quietest available plant and equipment • Modify equipment to reduce noise (for example, noise control kits, lining of truck trays or pipelines) • Maintain all equipment in order to keep it in good working order in accordance with manufactures maintenance procedures. Equipment suppliers and contractors shall present proof of maintenance register of their equipment. • Install acoustic enclosures around generators to reduce noise levels. • Fit high efficiency mufflers to appropriate construction equipment • Avoid the unnecessary use of alarms, horns and sirens.
Construction activities	Noise and vibration may have an impact on people, property, fauna, livestock and the natural environment.	The Contractor shall • Notify adjacent landholders prior any typical noise events outside of daylight hours • Educate the operators of construction equipment on potential noise problems and the techniques to minimize noise emissions • Employ best available work practices on-site to minimize occupational noise levels • Install temporary noise control barriers where appropriate • Notify affected people if major noisy activities will be undertaken, e.g. pile driving • Plan activities on site and deliveries to and from site to minimize impact • Monitor and analyze noise and vibration results and adjust construction practices as required. • Avoid undertaking the noisiest activities, where possible, when working at night near the residential areas.

ECoP 12: Protection of Flora

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Vegetation clearance	Local flora is important to provide shelters for the birds, offer fruits and/or timber/fire wood, protect soil erosion and overall	The Contractor shall • Reduce disturbance to surrounding vegetation • Use appropriate type and minimum size of machine to avoid disturbance to adjacent vegetation. • Get approval from supervision consultant for

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
	keep the environment very friendly to human living. As such damage to flora has wide range of adverse environmental impacts.	clearance of vegetation. • Make selective and careful pruning of trees where possible to reduce need of tree removal. • Control noxious weeds by disposing of at designated dump site or burn on site. • Clear only the vegetation that needs to be cleared in accordance with the plans. These measures are applicable to both the construction areas as well as to any associated activities such as sites for stockpiles, disposal of fill and construction of diversion roads, etc. • Do not burn off cleared vegetation – where feasible, chip or mulch and reuse it for the rehabilitation of affected areas, temporary access tracks or landscaping. Mulch provides a seed source, can limit embankment erosion, retains soil moisture and nutrients, and encourages regrowth and protection from weeds. • Return topsoil and mulched vegetation (in areas of native vegetation) to approximately the same area of the roadside it came from. • Avoid work within the drip-line of trees to prevent damage to the tree roots and compacting the soil. • Minimize the length of time the ground is exposed or excavation left open by clearing and re-vegetate the area at the earliest practically possible. • Ensure excavation works occur progressively and revegetation done at the earliest • Provide adequate knowledge to the workers regarding nature protection and the need of avoid felling trees during construction • Supply appropriate fuel in the work caps to prevent fuel wood collection

ECoP 13: Protection of Fauna

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities	The location of construction activities can result in the loss of wild life habitat and habitat quality.	The Contractor shall • Limit the construction works within the designated sites allocated to the contractors • Check the site for animals trapped in, or in danger from site works and use a qualified person to relocate the animal.
	Impact on migratory birds, its habitat and its active nests	The Contractor shall • Not be permitted to destruct active nests or eggs of migratory birds • Minimize the tree removal during the bird breeding season. If works must be continued

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		during the bird breeding season, a nest survey will be conducted by a qualified biologist prior to commence of works to identify and located active nests • Minimize the release of oil, oil wastes or any other substances harmful to migratory birds to any waters or any areas frequented by migratory birds.
Vegetation clearance	Clearance of vegetation may impact shelter, feeding and/or breeding and/or physical destruction and severing of habitat areas	The Contractor shall • Restrict the tree removal to the minimum required. • Retain tree hollows on site, or relocate hollows, where appropriate • Leave dead trees where possible as habitat for fauna • Fell the hollow bearing trees in a manner which reduces the potential for fauna mortality. Felled trees will be inspected after felling for fauna and if identified and readily accessible will be removed and relocated or rendered assistance if injured. After felling, hollow bearing trees will remain unmoved overnight to allow animals to move of their own volition.
Construction camps	Illegal poaching	The Contractor shall • Provide adequate knowledge to the workers regarding protection of flora and fauna, and relevant government regulations and punishments for illegal poaching.

ECoP 14: Protection of Fisheries

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities in River and Floodplain Water	The main potential impacts to fisheries are hydrocarbon spills and leaks from riverine transport and disposal of wastes into the river and floodplain water	The Contractor shall • Ensure the riverine transports, vessels and ships are well maintained and do not have oil leakage to contaminate river water. • Contain oil immediately on river in case of accidental spillage from vessels and ships and in this regard, make an emergency oil spill containment plan to be supported with enough equipment, materials and human resources • Do not dump wastes, be it hazardous or non-hazardous into the nearby water bodies or in the river.
	The main potential impacts to aquatic flora and fauna River are increased suspended solids from earthworks erosion,	The Contractor shall • follow mitigation measures proposed in ECoP 3 : Water Resources Management and EC4: Drainage Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
	sanitary discharge from work camps, and hydrocarbon spills	
Construction activities on the land	Filling of ponds for site preparation will impact the fishes	The Contractor shall • Inspect any area of a water body containing fish that is temporarily isolated for the presence of fish, and all fish shall be captured and released unharmed in adjacent fish habitat • Install and maintain fish screens etc. on any water intake with drawing water from any water body that contain fish.

ECoP 15: Road Transport and Road Traffic Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction vehicular traffic	Increased traffic use of road by construction vehicles will affect the movement of normal road traffics and the safety of the road-users.	The Contractor shall • Prepare and submit a traffic management plan to the SECC for his approval at least 30 days before commencing work on any project component involved in traffic diversion and management. • Include in the traffic management plan to ensure uninterrupted traffic movement during construction: detailed drawings of traffic arrangements showing all detours, temporary road, temporary bridges temporary diversions, necessary barricades, warning signs / lights, and road signs. • Provide signs at strategic locations of the roads complying with the schedules of signs contained in the Bangladesh Traffic Regulations. • Install and maintain a display board at each important road intersection on the roads to be used during construction, which shall clearly show the following information in Bangla: o Location: Village name o Duration of construction period o Period of proposed detour / alternative route o Suggested detour route map o Name and contact address/telephone number of the concerned personnel o Name and contact address / telephone number of the Contractor o Inconvenience is sincerely regretted.
	Accidents and spillage of fuels and chemicals	The Contractor shall • Restrict truck deliveries, where practicable, to day time working hours. • Restrict the transport of oversize loads. • Operate road traffics/transport vehicles, if possible, to

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		nonpeak periods to minimize traffic disruptions. • Enforce on-site speed limit

ECoP 17: Construction Camp Management

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Siting and Location of construction camps	Campsites for construction workers are the important locations that have significant impacts such as health and safety hazards on local resources and infrastructure of nearby communities.	The Contractor shall • Locate the construction camps at areas which are acceptable from environmental, cultural or social point of view. • Consider the location of construction camps away from communities in order to avoid social conflict in using the natural resources such as water or to avoid the possible adverse impacts of the construction camps on the surrounding communities. • Submit to the SECC for approval a detailed layout plan for the development of the construction camp showing the relative locations of all temporary buildings and facilities that are to be constructed together with the location of site roads, fuel storage areas (for use in power supply generators), solid waste management and dumping locations, and drainage facilities, prior to the development of the construction camps. • Local authorities responsible for health, religious and security shall be duly informed on the set up of camp facilities so as to maintain effective surveillance over public health, social and security matters
Construction Camp Facilities	Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.	The Contractor shall provide the following facilities in the campsites: • Adequate housing for all workers • Safe and reliable water supply. Water supply from deep tube wells of 300 m depth that meets the national standards • Hygienic sanitary facilities and sewerage system. The toilets and domestic waste water will be collected through a common sewerage. Provide separate latrines and bathing places for males and females with total isolation by wall or by location. The minimum number of toilet facilities required is one toilet for every ten persons. • Treatment facilities for sewerage of toilet and domestic wastes • Storm water drainage facilities. Both sides of roads are to be provided with shallow v drains to drain off storm water to a silt retention pond which shall be sized to provide a minimum of 20 minutes retention of storm water flow from the whole site. Channel all discharge from the silt retention pond to natural

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		drainage via a grassed swale at least 20 meters in length with suitable longitudinal gradient. • Paved internal roads. Ensure with grass/vegetation coverage to be made of the use of top soil that there is no dust generation from the loose/exposed sandy surface. Pave the internal roads of at least haring-bond bricks to suppress dusts and to work against possible muddy surface during monsoon. • Provide child crèches for women working construction site. The crèche shall have facilities for dormitory, kitchen, indoor and outdoor play area. Schools shall be attached to these crèches so that children are not deprived of education whose mothers are construction workers • Provide in-house community/common entertainment facilities dependence of local entertainment outlets by the construction camps to be discouraged/prohibited to the extent possible.
Disposal of waste	Management of wastes is crucial to minimize impacts on the environment	The Contractor shall • Ensure proper collection and disposal of solid wastes within the construction camps • Insist waste separation by source; organic wastes in one pot and inorganic wastes in another pot at household level. • Store inorganic wastes in a safe place within the household and clear organic wastes on daily basis to waste collector. Establish waste collection, transportation and disposal systems with the manpower and equipment/vehicles needed. • Dispose organic wastes in a designated safe place on daily basis. At the end of the day cover the organic wastes with a thin layer of sand so that flies, mosquitoes, dogs, cats, rats, are not attracted. One may dig a large hole to put organic wastes in it; take care to protect groundwater from contamination by leachate formed due to decomposition of wastes. Cover the bed of the pit with impervious layer of materials (clayey or thin concrete) to protect groundwater from contamination. • Locate the garbage pit/waste disposal site min 500 m away from the residence so that peoples are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places. Encompass the waste dumping place by fencing and tree plantation to prevent children to enter and play with. • Do not establish site specific landfill sites. All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.
Fuel supplies for	Illegal sourcing of fuel	The Contractor shall

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
cooking purposes	wood by construction workers will impact the natural flora and fauna	• Provide fuel to the construction camps for their domestic purpose, in order to discourage them to use fuel wood or other biomass. • Made available alternative fuels like natural gas or kerosene on ration to the workforce to prevent them using biomass for cooking. • Conduct awareness campaigns to educate workers on preserving the protecting the biodiversity and wildlife of the project area, and relevant government regulations and punishments on wildlife protection.
Health and Hygiene	There will be a potential for diseases to be transmitted including malaria, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews spreading sexually transmitted infections and HIV/AIDS.	The Contractor shall • Provide adequate health care facilities within construction sites. • Provide first aid facility round the clock. Maintain stock of medicines in the facility and appoint fulltime designated first aider or nurse. • Provide ambulance facility for the laborers during emergency to be transported to nearest hospitals. • Initial health screening of the laborers coming from outside areas • Train all construction workers in basic sanitation and health care issues and safety matters, and on the specific hazards of their work • Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis • Complement educational interventions with easy access to condoms at campsites as well as voluntary counseling and testing • Provide adequate drainage facilities throughout the camps to ensure that disease vectors such as stagnant water bodies and puddles do not form. Regular mosquito repellant sprays during monsoon. • Carryout short training sessions on best hygiene practices to be mandatorily participated by all workers. Place display boards at strategic locations within the camps containing messages on best hygienic practices
Safety	In adequate safety facilities to the construction camps may create security problems and fire hazards	The Contractor shall • Provide appropriate security personnel (police / home guard or private security guards) and enclosures to prevent unauthorized entry in to the camp area. • Maintain register to keep a track on a head count of persons present in the camp at any given time. • Encourage use of flameproof material for the construction of labor housing / site office. Also, ensure that these houses/rooms are of sound construction and capable of withstanding wind

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		storms/cyclones. • Provide appropriate type of firefighting equipment suitable for the construction camps • Display emergency contact numbers clearly and prominently at strategic places in camps. • Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractors
Site Restoration	Restoration of the construction camps to original condition requires demolition of construction camps.	The Contractor shall • Dismantle and remove from the site all facilities established within the construction camp including the perimeter fence and lockable gates at the completion of the construction work. • Dismantle camps in phases and as the work gets decreased and not wait for the entire work to be completed • Give prior notice to the laborers before demolishing their camps/units • Maintain the noise levels within the national standards during demolition activities • Different contractors shall be hired to demolish different structures to promote recycling or reuse of demolished material. • Reuse the demolition debris to a maximum extent. Dispose remaining debris at the designated waste disposal site. • Handover the construction camps with all built facilities as it is if agreement between both parties (contactor and land-owner) has been made so. • Restore the site to its condition prior to commencement of the works or to an agreed condition with the landowner. • Not make false promises to the laborers for future employment in O&M of the project.

ECoP 18: Cultural and Religious Issues

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities near religious and cultural sites	Disturbance from construction works to the cultural and religious sites, and contractors lack of knowledge on cultural issues cause social disturbances.	The Contractor shall • Communicate to the public through community consultation and newspaper announcements regarding the scope and schedule of construction, as well as certain construction activities causing disruptions or access restriction. • Do not block access to cultural and religious sites, wherever possible • Restrict all construction activities within the foot prints of the construction sites.

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Stop construction works that produce noise (particularly during prayer time) shall there be any mosque/religious/educational institutions close to the construction sites and users make objections. • Take special care and use appropriate equipment when working next to a cultural/religious institution. • Stop work immediately and notify the site manager if, during construction, an archaeological or burial site is discovered. It is an offence to recommence work in the vicinity of the site until approval to continue is given by the SECC/PIU. Provide separate prayer facilities to the construction workers. • Show appropriate behavior with all construction workers especially women and elderly people • Allow the workers to participate in praying during construction time • Resolve cultural issues in consultation with local leaders and supervision consultants • Establish a mechanism that allows local people to raise grievances arising from the construction process. • Inform the local authorities responsible for health, religious and security duly informed before commencement of civil works so as to maintain effective surveillance over public health, social and security matters

ECoP 19: Worker Health and Safety

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Best practices	Construction works may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the construction site and the construction workers will be exposed to a number of (i) biophysical health risk factors, (e.g. noise, dust, chemicals, construction material, solid waste, waste water,	The Contractor shall • Implement suitable safety standards for all workers and site visitors which shall not be less than those laid down on the international standards (e.g. International Labor Office guideline on 'Safety and Health in Construction; World Bank Group's 'Environmental Health and Safety Guidelines') and contractor's own national standards or statutory regulations, in addition to complying with the national standards of the Government of Bangladesh (e.g. `The Bangladesh Labor Code, 2006') • Provide the workers with a safe and healthy work environment, taking into account inherent risks in its particular construction activity and specific classes of hazards in the work areas, • Provide personal protection equipment (PPE) for workers, such as safety boots, helmets, masks, gloves,

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
	vector transmitted diseases etc), (ii) risk factors resulting from human behavior (e.g. STD, HIV etc) and (iii) road accidents from construction traffic.	protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. • Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job • Appoint an environment, health and safety manager to look after the health and safety of the workers • Inform the local authorities responsible for health, religious and security duly informed before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters.
	Child and pregnant labor	The Contractor shall • not hire children of less than 14 years of age and pregnant women or women who delivered a child within 8 preceding weeks, in accordance with the Bangladesh Labor Code, 2006
Accidents	Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victims	• Provide health care facilities and first aid facilities are readily available. Appropriately equipped first-aid stations shall be easily accessible throughout the place of work • Document and report occupational accidents, diseases, and incidents. • Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, so far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice. • Identify potential hazards to workers, particularly those that may be life-threatening and provide necessary preventive and protective measures. • Provide awareness to the construction drivers to strictly follow the driving rules • Provide adequate lighting in the construction area and along the roads
Construction Camps	Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.	• The Contractor shall provide the following facilities in the campsites to improve health and hygienic conditions as mentioned in ECoP 17 Construction Camp Management • Adequate ventilation facilities • Safe and reliable water supply. Water supply from deep tube wells that meets the national standards • Hygienic sanitary facilities and sewerage system. The toilets and domestic wastewater will be collected through a common sewerage. • Treatment facilities for sewerage of toilet and domestic wastes

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		• Storm water drainage facilities. • Recreational and social facilities • Safe storage facilities for petroleum and other chemicals in accordance with ECoP 2 • Solid waste collection and disposal system in accordance with ECP1. • Arrangement for trainings • Paved internal roads. • Security fence at least 2 m height. • Sick bay and first aid facilities
Water and sanitation facilities at the construction sites	Lack of Water sanitation facilities at construction sites cause inconvenience to the construction workers and affect their personal hygiene.	• The contractor shall provide portable toilets at the construction sites, if about 25 people are working the whole day for a month. Location of portable facilities shall be at least 6 m away from storm drain system and surface waters. These portable toilets shall be cleaned once a day and all the sewerage shall be pumped from the collection tank once a day and shall be brought to the common septic tank for further treatment. • Contractor shall provide bottled drinking water facilities to the construction workers at all the construction sites.
Other ECoPs	Potential risks on health and hygiene of construction workers and general public	The Contractor shall follow the following ECPs to reduce health risks to the construction workers and nearby community • ECoP 2: Fuels and Hazardous Goods Management • ECoP 4: Drainage Management • ECoP 10: Air Quality Management • ECoP 11: Noise and Vibration Management • ECoP 15: Road Transport and Road Traffic Management • ECoP 16: River Transport management
Trainings	Lack of awareness and basic knowledge in health care among the construction workforce, make them susceptible to potential diseases.	The Contractor shall • Train all construction workers in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of sexually transmitted infections (STI) HIV/AIDS. • Train all construction workers in general health and safety matters, and on the specific hazards of their work Training shall consist of basic hazard awareness, site specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. • Commence the malaria, HIV/AIDS and STI education campaign before the start of the construction phase and complement it with by a strong condom marketing, increased access to condoms in the area as well as to voluntary counseling and testing. • Implement malaria, HIV/AIDS and STI education campaign targeting all workers hired, international and national, female and male, skilled, semi- and unskilled occupations, at the time of recruitment and thereafter pursued throughout the construction phase on ongoing

Project Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
		and regular basis. This shall be complemented by easy access to condoms at the workplace as well as to voluntary counseling and testing.

Annex 6: List of Attendee in the Stakeholder Consultations

Stakeholders Consultation Workshop
Institute of Diploma Engineers Bangladesh (IDEB)
December 11, 2019
List of Participants:

1. Mr. Munshi Shahabuddin, Secretary
2. Mr. AKM Zakir Hossain Bhuiyan, Addl. Secretary
3. Mr. Ashoke Kumar Ghosh, Joint Secretary
4. Mr. Noor Mohammad Masum, Deputy Secretary
5. Mr. Md. Abdur Rakib, Deputy Chief
6. Mr. Rawnak Mahmud, Director General, Directorate of Technical Education
7. Mr. Md. Jahangir Alam, Director (Planning and development), Directorate of Technical Education
8. Mr. Biplab Bikash, DTE
9. Mr. Md. Golam Sarwar Khan, TMED
10. Mr. Md. Monjurul Islam, DTE
11. Mr. khondakar Humayunn Kabir, DTE
12. Mr. Mohammad Zahangir Alam, DME
13. Ms. Mst. Ayesha Akhtar, DTE
14. Mr. Shishir Kumar Dhar, DTE
15. Mr. Md. Abdus Salam Khan, Deputy Chief
16. Mr. Md. Sirajul Islam, Chief Urban Planner
17. Mr. Md. Shahadat Hossain, BMET
18. MR. Mokbul Hossain, JTSC
19. Mr. Md. Bablur Rahman Khan, Central Store
20. Mr. M. Amenoor SMC, BIM
21. Mr. Kazi Kamrul Ahsan, NTRCA
22. Mr. MD. Shafiul Islam, NTACAR
23. Dr. Sultan Mahmud Bhuiyan, UGC
24. Ms. Shahin Islam, DG, NIMC
25. Ms. Aniqa Raisa Chowdhury, DSHE
26. Mr. Khondokar Abdullah Mahruf, RISDA Bangladesh
27. Mr. Md. Mozzammel Hussain, RISDA Bangladesh
28. Mr. Md. Nazul Islam, NIMC
29. Mr. SM Shahjahan, BTEB
30. Ms. Farzana Yeasmin, ICTD
31. Mr. MD. Enamul Haque, IDEB
32. Mr. Mohammad Sayedur Rahman, BIM
33. Mr. Subrata Sikder, Ministry of Youth and Sports
34. Mr. Sanowar, DPDT
35. Mr. Md. Shamsur Rahman, IDEB
36. Engr. Md. Shahbuddin, BIIT
37. Mr. Mohammed Abdul Mannan, PIB
38. Mr. Suman Barua, Chattogram City Corporation
39. Mr. Jakir Hossain, DMC Ministry of Information
40. Mr. Md. Abdus Sobhan, BOESL

41. Mr. Sharif Rayhan Kabir, Ministry of Commerce
42. Mr. Md. Abdur Rob, TSC Gazipur
43. Prof. Dr. Md. Mizanur Rahman, Faridpur Engineering College
44. Mr. Md. Dilpear Hossain, TSC Narshingdi
45. Mr. Md. Golam Mostafa, DPI
46. Mr. Ahsan Habib, NIT
47. Dr. Engr. Md. Shakhawat Ali, BKTTC
48. Representative, Sheikh Fazilatunnesa Mujib TTC
49. Representative, BGTTC

Virtual Stakeholders Consultation Workshop Using Zoom
June 17, 2020
List of Participants:

1. Mr. Md. Jahangir Alam, Director, DTE
2. Ms. Nazmun Naher, Assistant Director, DTE
3. Mr. Benjir Ahmed, Project Officer (P&D)
4. Mr. Rezwanul Haque, Equipment Officer (P&D)
5. Mr. Md. Khaled Hossain , Principal, Rangpur polytechnic
6. Ms. Shahana Begum, Principal, Dhaka Mohila polytechnic
7. Mr. Mohammad Abdul Matin Howlader, Principal, Bangladesh Sweden Polytechnic Institute
8. Dr. Syed Abdul Aziz, Principal, Jessore TSC
9. Dr. Sheikh Abu Reza, Director, Ideal Institute of Science & Technology
10. Mr. Ahasan Habib, Principal, National Institute of Technology, Chattogram
11. Mr. Mohammad. Abdus Salam Chowdhury, Chief Instructor, Chattogram Polytechnic Institute
12. Mr. Sujit Bikash ChakmaTT Instructor, TTTC, Dhaka
13. Mr. Paban Kumar Sarker, Instructor, Parbatipur Technical School and College
14. Ms. Farhana Yeasmin, Instructor, Dhaka Polytechnic Institute
15. Ms. Rokshana Khatun, Instructor, Rajshahi Mohila Polytechnic Institute
16. Mr. Shofiqul Islam, Student
17. Ms. Nahida Jannat Mayouree, Student
18. Ms. Maryam Arfin Fima, Student
19. Mr. Abdullah Al Masud, Student
20. Ms. Noor A Jannat Maisha, Student
21. Mr. Sugata Chakma, Student
22. Ms. Me Swe Ching Marma, Student

Annex 7: Quarterly Grievance Report

Period from……to……20…… Project Phase:…….

Case No.	Complainant's name, gender and location	Nature of complaints and expectation of complainant	Date of Petition submitted	Method of resolution with dates	Decisions and date of communication to the complainant	Agreement with and commitment to complainant	Progress (solved/ pending)	Reason, if pending

Annex 8: Summary of Applicable Environmental, Social and Safeguards Regulations of GOB

S.No.	Policies/Act/Rules	Key provisions and purpose	Applicability to ASSET Project
1.	Bangladesh Environmental Conservation Act (ECA), 1995	This umbrella Act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. According to this act (Section 12), no industrial unit or project shall be established or undertaken without obtaining, in a manner prescribed by the accompanying Rules, an Environmental Clearance Certificate (ECC) from the Director General of DoE.	Yes, ASSET project needs NOC from the local authority and ECC from the DoE.
2.	Bangladesh Environmental Conservation Rules (ECR), 1997	The Rule 7 classifies industrial units and projects into four categories depending on environmental impact and location for the purpose of issuance of ECC. These categories are: Green, Orange A, Orange B, and Red. The ECR'97 describes the procedures for obtaining Environmental Clearance Certificates (ECC) from the Department of Environment for different types of proposed units or projects.	Yes, some of the ASSET interventions may be fallen under Orange B category, hence would require both IEE, ESIA and ESMP approved by the DoE and have to deposit prescribe fees according to the schedule 13 to obtain ECC.
3.	Bangladesh Environment Court Act, 2010	Bangladesh Environment Court Act, 2010 has been enacted to resolve the disputes and establishing justice over environmental and social damage raised due to any development activities.	According to this act, government can take legal actions if any environmental problem occurs due to ASSET interventions.

S.No.	Policies/Act/Rules	Key provisions and purpose	Applicability to ASSET Project
4.	The Protection and Conservation of Fish Act (1950)	This Act provides power to the government to: make and apply rules to protect fisheries; prohibit or regulate pollution to the water bodies.	Yes, as the ASSET includes renovation of existing buildings, operation of lab facilities, installation of equipment's, use of chemical substances, potential solid and liquid waste generation, etc. which has potential risk for water pollution and habitat alternation, if not properly managed.
5.	Protection and Conservation of Fish Rules (1985)	Section 6 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.	Yes, mostly during construction/reconstruction/ refurbishment of the buildings, lab operation and waste management.
6.	Bangladesh Wildlife (Protection and Preservation) Act 2012	The Act protects 1,307 species of plants and animals, including 32 species of amphibian, 154 species of reptile, 113 species of mammal, 52 species of fish, 32 species of coral, 137 species of mollusk, 22 species of crustacean, 24 species of insect, six species of rodent, 41 species of plant and 13 species of orchid. Of these, eight amphibian, 58 reptile, 41 bird, and 40 mammal species are listed as endangered in the IUCN Red Data Book (2000, updated in 2015).	Yes, project area might have presence of these listed threatened animals in old campuses.
7.	Bangladesh Labour Act, 2006, (as amended 2018); Bangladesh Labour Rules, 2015; and Bangladesh Child Labour Mitigation	It provides the guidance of employer's extent of responsibility and workmen's extent of right to get compensation in case of injury by accident while working.	Yes, ASSET activities require labour from local and external areas.

S.No.	Policies/Act/Rules	Key provisions and purpose	Applicability to ASSET Project
	Policy, 2010		
8.	Bangladesh National Building Code, 2006	The BNBC clearly sets out the constructional responsibilities according to which the relevant authority of a particular construction site shall adopt some precautionary measures to ensure the safety of the workmen. The Code also clarifies the issue of safety of workmen during construction.	Yes, ASEET project will include construction or renovation or expansion of existing buildings, etc.
9.	The Noise Pollution Control Rules, 2006	The Noise Pollution Control Rules have been established in order to manage noise generating activities which have the potential to impact the health and wellbeing of workers and the surrounding communities.	Yes, many activities of the project will be performed under the dense populated areas.
10.	Road Transport Act, 2018	The new Road Transport Act 2018 has finally come into effect at the start of November. After the long-standing Motor Vehicle Ordinance of 1983, the new act introduces a myriad of updated laws and adds new definitions for what constitutes an offence, with most of the fines and punishments receiving major bumps.	Yes, ASSET project will use vehicles, deploy drivers and operators of machineries in construction sites of existing campuses.
11.	The Water Supply and Sanitation Act (1996)	Regulates the management and control of water supply and sanitation in urban areas.	Yes, ASSET will include construction of water supply and sanitation facilities.
12.	The Ground Water Management Ordinance (1985)	Describes the management of ground water resources and licensing of tube wells	Yes, construction sites may require deep tube wells for meeting up water use.
13.	The Antiquities Act (1968)	Describes the preservation of cultural heritage, historic monuments and protected sites	Yes, project locations may have elements of cultural, historic and protected value.

S.No.	Policies/Act/Rules	Key provisions and purpose	Applicability to ASSET Project
14.	Acquisition and Requisition of Immovable Property Act, 2017	The principal legal instrument governing land acquisition in Bangladesh is the Acquisition and Requisition of Immovable Property.	Yes, both acquisition and requisition of land, and other properties would require by the ASSET project.
15.	Bangladesh Medical Waste Management and Processing Rules 2008	The Government of Bangladesh promulgated the Medical waste (management and processing) Rule, 2008 for processing and management of MW in Bangladesh. The environmental assessment must show whether the wastes will be disposed of following the mechanism devised by rules.	Yes, project intervention of modernization and operation of medical/health training labs may generate medical waste.
16.	Bangladesh Biosafety Guideline 2007	Biosafety guidelines are applicable to all research and development activities of modern biotechnology conducted in laboratories of the government research institutes, state enterprises, universities, international organizations located in Bangladesh, private companies or non-governmental organizations. It applies to laboratory and field trial, trans-boundary movement, transit, handling and use of all GMOs/LMOs that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.	Yes, project intervention of modernization and operation of medical/health training labs and other practical labs those may use hazardous chemicals/medicines.
17.	The East Bengal State Acquisition and Tenancy Act 1950 (Act XV of 1951)	The East Bengal State Acquisition and Tenancy Act 1950 (Act XV of 1951) provides the ownership of diluvion land (eroded into river) and alluvion land (accreted in situ). Land on the riverside of the AD line is public land and that on the countryside is governed by recorded ownership.	Yes, though project does not plan to acquisition or requisition of new land, but the potential sites for construction are yet not identified. Hence, a separate RPF is prepared to address any potential land issues.

S.No.	Policies/Act/Rules	Key provisions and purpose	Applicability to ASSET Project
18.	CHT (Land Acquisition) Regulation, 1958 (as amended 2019)	The Regulation replaces certain sections of the CHT 1900 Act, but it was specifically adopted to clarify the government's authority for acquisition of land on the eve of the Kaptai dam construction. In the process, it remains as the most important legal instrument for the government with regard to land acquisition in the region.	Yes, as some to the project targeted institutions are situated in the CHT area. And, project has dedicated activities involving SEC.

Annex 9: Relevant International Treaty or Conventions and Responsible Agency

Treaty	Year	Brief Description/Relevance to the ASSET	Relevant Department
Protection of birds (Paris)	1950	Protection of birds in wild state Broadly applicable for birds in and around the project influence area; mitigation measures included in ESMP address potential impacts on birds as well.	DoE/DoF
Ramsar Convention	1971	Protection of wetlands. Broadly applicable for wetlands in and around the project influence area; mitigation measures included in ESMP address potential impacts on wetlands and associated resources as well.	DoE/DoF
Protocol on Waterfowl Habitat	1982	Amendment of Ramsar Convention to protect specific habitats for waterfowl. Broadly applicable for wetlands in and around the project influence area; mitigation measures included in ESMP address potential impacts on wetlands and associated ecological resources as well.	DoE/DoF
World Cultural and Natural Heritage (Paris)	1972	Protection of major cultural and natural monuments. Not applicable since no major cultural or natural monuments are known to exist in the project influence area. However Chance Find Procedures have been included in the ESMP	DoArch
Bonn Convention	1979	Conservation of migratory species of wild animals. Broadly applicable to the migratory birds in and around the project influence area. Project activities are not likely to have any significant impacts on these species; precautionary measures have nonetheless been included in ESMP.	DoE/DoF
Prevention and Control of Occupational hazards	1974	Protect workers against occupational exposure to carcinogenic substances and agents. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	MoH
Occupational hazards due to air pollution, noise & vibration (Geneva)	1977	Protect workers against occupational hazards in the working environment. Broadly applicable to the construction and	MoH

Treaty	Year	Brief Description/Relevance to the ASSET	Relevant Department
		O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	
Occupational safety and health in working environment (Geneva)	1981	Prevent accidents and injury to health by minimizing hazards in the working environment. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	MoH
Occupational Health services	1985	To promote a safe and healthy working environment. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	MoH
Convention on oil pollution damage (Brussels)	1969	Civil liability on oil pollution damage from ships. Not applicable since no oil carrying cargos are involved in the proposed project.	DoE/MoS
Civil liability on transport of dangerous goods (Geneva)	1989	Safe methods for transport of dangerous goods by road, railway and inland vessels. Broadly applicable to transportation of substances such as fuels during the project construction phase. Appropriate mitigation measures are included in the ESMP.	MoC
Safety in use of chemicals during work	1990	Occupational safety of use of chemicals in the work place. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	DoE
Convention on oil pollution	1990	Legal framework and preparedness for control of oil pollution. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP.	DoE/MoS
UN framework convention on climate change (Rio de Janeiro)	1992	Regulation of greenhouse gases (GHGs) emissions. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP to minimize emissions of GHGs.	DoE

Treaty	Year	Brief Description/Relevance to the ASSET	Relevant Department
Convention on Biological Diversity (Rio de Janeiro)	1992	Conservation of bio-diversity, sustainable use of its components and access to genetic resources. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP for the conservation of biodiversity.	DoE
International Convention on Climate Changes (Kyoto Protocol)	1997	International treaty on climate change and emission of greenhouse gases. Broadly applicable to the construction and O&M activities under the project. Appropriate mitigation and protective measures have been included in the ESMP to minimize emissions of GHGs.	DoE
Indigenous and Tribal Populations Convention	1957	Its primary focus is to recognize and protect the cultural, religious, civil and social rights of indigenous and tribal populations within an independent country, and to provide a standard framework for addressing the economic issues that many of these groups face. Appropriate mitigation and protective measures have been included in the ESMP to minimize impact on SEC.	MoLE
ILO Convention No 29 on Forced Labour	1930	Its object and purpose is to suppress the use of forced labour in all its forms irrespective of the nature of the work or the sector of activity in which it may be performed. Appropriate mitigation and protective measures have been included in the ESMP.	MoLE
ILO Convention no. 182 on Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour	1999	By ratifying this Convention No. 182, a country commits itself to taking immediate action to prohibit and eliminate the worst forms of child labour. Appropriate mitigation and protective measures have been included in the ESMP.	MoLE/ MoWCA
Migrant Workers (Supplementary Provisions) Convention	1975	An International Labour Organization Convention for the rights of migrant workers. Appropriate mitigation and protective measures have been included in the ESMP.	MoLE
Convention on the Elimination of All Forms of Discrimination Against	1979	The Convention has a similar format to the Convention on the Elimination of All Forms of Racial Discrimination, "both with regard	MoWCA

Treaty	Year	Brief Description/Relevance to the ASSET	Relevant Department
Women		to the scope of its substantive obligations and its international monitoring mechanisms". Appropriate mitigation and protective measures have been included in the ESMP.	

Annex 10: CERC Positive and Negative List

A. CERC Positive List

The positive list of works, services, non-consulting services and goods eligible for CERC component is shown in the list below. The works that will be financed under CERC will be those which do not trigger new ESS under the RISE program.

Goods

- Medical equipment and supplies
- Non-perishable foods, bottled water and containers
- Tents for advanced medical posts, temporary housing, and classroom/day-care substitution
- Equipment and supplies for temporary housing/living (gas stoves, utensils, tents, beds, sleeping bags, mattresses, blankets, hammocks, mosquito nets, kit of personal and family hygiene, etc.) and school
- Gasoline and diesel (for air, land and sea transport) and engine lubricants
- Spare parts, equipment and supplies for engines, transport, construction vehicles
- Lease of vehicles (Vans, trucks and SUVs)
- Equipment, tools, materials and supplies for search and rescue (including light motor boats and engines for transport and rescue)
- Tools and construction supplies (roofing, cement, iron, stone, blocks, etc.)
- Equipment and supplies for communications and broadcasting (radios, antennas, batteries, and cell phones)
- Water pumps and tanks for water storage
- Equipment, materials and supplies for disinfection of drinking water and repair/rehabilitate of black water collection systems
- Construction materials, equipment and industrial machinery
- Water, air, and land transport equipment, including spare parts
- Temporary toilets
- Groundwater boreholes, cargos, equipment to allow access to affected site, storage units
- Any other item agreed on between the World Bank and the Burrowers (as documented in an Aide-Memoire or other appropriate formal Project document)

Services and non-consulting services

- Consulting services related to emergency response including, but not limited to urgent studies and surveys necessary to determine the impact of the disaster and to serve as a baseline for the recovery and reconstruction process, and support to the implementation of emergency response activities
- Feasibility study and technical design
- Works supervision
- Technical Assistance in developing ToRs, preparing Technical Specifications and drafting tendering documents (Bidding Documents, ITQ, RFP)
- Non-consultant services including, but not limited to: drilling, aerial photographs, satellite images, maps and other similar operations, information and awareness campaigns
- Non-consultant services to deliver any of the activities described in the "Goods" section of this table (e.g., debris removal, dump trucks, drones survey)

Works

- Repair of damaged infrastructure including, but not limited to: water supply and sanitation systems, reservoirs, canals, roads, bridges and transportation systems, energy and power supply, telecommunication, and other infrastructure damaged by the event
- Re-establish of the urban and rural solid waste system, water supply and sanitation (including urban drainage)
- Repair of damaged public buildings, including schools, hospitals and administrative buildings
- Repair, restoration, rehabilitation of schools, clinics, hospitals
- Removal and disposal of debris associated with any eligible activity

Training

- Conduct necessary training related to emergency response including, but not limited to the implementation of EAP
- Training on rapid needs assessment and other related assessments

Emergency Operating Costs

- Incremental expenses should be borne by GoB source of funds for a defined period related to early recovery efforts arising as a result of the impact of an eligible emergency

B. CERC Negative List

In no case shall the activities for financing under the CERC exceed the environmental and social standards presented in the ASSET PAD, ESMF and RPF prepared prior to project approval. CERC activities will not trigger any new ESS. The following uses of ASSSET resources by the CERC are prohibited:

- Activities that would lead to conversion or degradation of critical forest areas, critical natural habitats, and clearing of forests or forest ecosystems

- Activities affecting protected areas (or buffer zones thereof)
- Land reclamation (i.e., drainage of wetlands or filling of water bodies to create land)
- Land clearance and levelling in areas that are not affected by debris resulting from the eligible crisis or emergency
- River training (i.e., realignment, contraction or deepening of an existing river channel, or excavation of a new river channel)
- Activities that will result in the involuntary taking of land, relocation of households, loss of assets or access to assets that leads to loss of income sources or other means of livelihoods, andinterference with households' use of land and livelihoods
- Construction of new roads, realignment of roads, or expansion of roads, or rehabilitation of roads that are currently located on communal lands but will be registered as government assets after rehabilitation
- Use of goods and equipment on lands abandoned due to social tension / conflict, or the ownership of the land is disputed or cannot be ascertained
- Use of goods and equipment to demolish or remove assets, Unless the ownership of the assets can be ascertained, owners consulted, assets valued, and losses compensated for in line with the program's RPF
- Uses of goods and equipment involving forced labour, child labour, or other harmful or exploitative forms of labour
- Uses of goods and equipment for activities that would affect indigenous peoples, unless due consultation and broad support has been documented and confirmed prior to the commencement of the activities as well as preparation of necessary mitigation and plans compliant with ESS7
- Uses of goods and equipment for military or paramilitary purposes
- Uses of goods and equipment in response to conflict, in any area with active military or armed group operations
- Activities related to returning refugees and internally displaced populations
- Activities which, when being carried out, would affect, or involve the use of, water of rivers or of other bodies of water (or their tributaries) which flow through or are bordered by countries other than the Borrower/Recipient, in such a manner as to in any way adversely change the quality or quantity of water flowing to or bordering said countries.