**BANGLADESH ENVIRONMENTAL SUSTAINABILITY AND TRANSFORMATION (BEST) PROJECT**

**ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)**

**Department of Environment (DoE)**

**Bangladesh Bank (BB)**

**Bangladesh Road Transport Authority (BRTA)**

**Bangladesh Hi-Tech Park Authority (BHTPA)**

**November 2021**

**Executive Summary**

**Background**

The Government of Bangladesh (GoB) is currently preparing a five-year Bangladesh Environmental Sustainability and Transformation (BEST) Project (the Project) with funding from the World Bank (WB) to support the GoB in addressing its environmental challenges that threaten the long-term sustainable development of the country. The project will be implemented by the Department of Environment (DoE) of the Ministry of Environment; Forest and Climate Change (MoEFCC) along with the Bangladesh Bank (BB) of the Ministry of Finance (MoF); Bangladesh Road Transport Authority (BRTA) of the Ministry of Road Transports and Bridges (MoRTB); and Bangladesh Hi-Tech Park Authority (BHTPA) of the ICT Division, Ministry of Posts, Telecommunications and Information Technology (MoPT&IT).

The Project Development Objectives (PDO) are ‘to strengthen the capacity of the GoB in environmental management and to reduce pollution discharges from targeted sources. The indicators proposed to measure the achievement of the project’s PDOs are: (a) number of environmental compliance inspections performed; (b) improved daily disclosure of ambient air quality information; (c) reduction in PM2.5 emission from targeted sources; and (d) reduced/avoided greenhouse gas GHG emission from targeted sources.

Project design has prioritized investment needs for environmental management and pollution management based on time and resource available to the project and readiness of specific investment activities. The project’s overall environmental and social (E&S) impacts will be vastly positive and contribute to improvement of the environment and the minor negative impacts can be managed with appropriate mitigating measures. The project will support the following five components:

*Component 1: Environmental governance and infrastructure;*

*Component 2: Green financing for pollution control;*

*Component 3: Vehicle emission control;*

*Component 4: E-waste management infrastructure; and*

*Component 5: Contingent emergency response component (CERC)*

Detailed design of the components and sub-components has been illustrated in **Chapter 2**.

Though broad locations at the district level have been specified for project activities, specific locations and design of BEST sub-projects are yet to be selected. For example, for ***Component 1***—office buildings and laboratory site locations are yet to be identified, though broad-based districts are somewhat known. There are 30 Districts where DoE’s offices are not established and therefore are potential candidates for setting up the offices where number of environmental offices to be constructed, sites and design of which will be done after appraisal. **For Component 2**—borrowers/operators, design and sites for brick kilns, municipal waste recycling etc., will likely be selected after appraisal. Similarly, for **Component 3**–-Vehicle Inspection Centers (VICs) final sites will still be selected after meeting some mandatory criteria like accessibility (access and exit). For **Component 4**—there are several candidates sites for e-waste recycle plant at Kaliakor high tech park. Final site and adopted technology will be selected and operated by engaging private sectors operator under Public Private Partnership (PPP) arrangement which are yet to be selected. Therefore, surrounding environment of exact sites, nature of subproject activities, degree of E&S risks and impacts etc., could not be ascertained with specificities for such subprojects. Hence, it is essential to develop and follow a framework approach of the project’s E&S assessment and management procedure. The Environmental and Social Management Framework (ESMF) was prepared based on the overall assessment of the project components and the areas that might be covered. DoE with the help of Consultant coordinated to prepare the ESMF on behalf of other implementing agencies BB/BRTA/BHTPA so that Implementing Agencies (IAs) could ensure best E&S issue management following the WB ESF during its implementation. Site specific assessment along with management plan will be prepared before implementation in accordance with ESMF as soon as the exact location, layout, detail activities of subproject along with design are finalized.

**Project Beneficiaries**

The project beneficiaries include the population currently affected by pollution sources targeted by the project, participating government agencies, Financial Intermediaries (FIs), and the private sector. Through the BEST Project, it is estimated that about 21 million residents around Dhaka will benefit from reduced releases of air pollutants. Direct beneficiaries include about 20–30 owners of these brick kilns, the operators of the five new VICs, and the operator of the new e-waste management facility that will receive project support. Other direct beneficiaries will be the people employed by the DoE, 20–30 brick kilns, the five VICs and the e-waste management facilities, estimated between 2,500 and 3,000 employees. These people will gain year-round employment and social security. Indirect beneficiaries will also be their families due to reliable income. Assuming an average family in Bangladesh comprises 4.5 people as of 2020, the estimated indirect beneficiaries would be 10,000–12,000.

**Project Location**

The project activities will be implemented in most of geographical area of Bangladesh. For construction of district environmental offices, there are 30 districts that do not have environmental offices (at Barguna, Barisal, Jhalokati, Pirojpur, Khagrachhari, Lakshmipur, Rangamati, Madaripur, Rajbari, Shariatpur, Chuadanga, Jhenaidah, Khulna, Magura, Meherpur, Narail, Jamalpur, Mymensingh, Bogra, Joypurhat, Natore, Chapainawabganj, Sirajganj, Gaibandha, Kurigram, Lalmonirhat, Nilphamari, Panchagarh, Thakurgaon, Sunamganj and Sylhet Districts), which are potential candidates to have environmental offices. For the six Regional/Divisional laboratories (at Khulna, Barisal, Mymensigh, Rajshahi, Sylhet and Rangpur Divisions), the specific sites and design are still to be decided. For constructing five VICs, potential districts are preliminary proposed (at Mymenshing, Noakhali, Faridpur, Comilla, and Rangamati) and improving four existing ones (at Dhaka, Chottogram, Khulna and Rahshahi). However, these sites may be changed because of accessibility and technical requirements and final sites will be decided later. For piloting an e-waste management facility at Kaliakoir Hi-Tech Park, there are proposed some alternate sites, the specific sites and the adopted technology will be fixed during implementation after engaging of private sector. Financing demands for a number of tunnel kilns, HHK (Hybrid Hoffman Kiln) kilns and AAC (Autoclaved Aerated Concrete), municipal waste recycling and composting facilities, clean stove production facilities, and rooftop solar systems are being considered but the locations of which are yet to be finalized.

**Project Activities**

The project will support TA-type activities (environmental policy and regulatory reforms, capacity building, improving transparency and enforcement, etc.) and also small to medium-sized environmental investments aimed at improving environmental management, enforcement, monitoring and supervision. Environmental investments relate to the construction of environmental monitoring laboratories, piloting of GCS that will focus initially on the brick kiln sector and conventional cook stoves aimed at reducing air pollution from the brick sector and promoting technology transformation of the brick sector from high emission and energy intensive to low emission and energy efficient technologies. The CGS will also incentivize private sector investments in (a) municipal waste recycling and composting to reduce GHG and particulate emission from waste management practices; (b) clean stove production to help reduce indoor air pollution; and (c) rooftop solar systems to reduce demands for thermoelectricity and thus avoid GHG and particulate emission from associated thermoelectric generation processes. Other pilot investments will include the development of five new VICs through a PPP arrangement and a pilot investment on proper management and recycling of e-waste for resource recovery. This subcomponent will support BHTPA to develop new e-waste management infrastructure, including an e-waste processing facility for (a) proper collection of e-waste; (b) proper, safe transportation and storage of collected e-waste; (c) proper dismantling and processing of e-waste; (d) extraction of metals and separation of recyclable plastics and other materials; and (f) environmentally sound disposal/storage of the residuals and treated metals and chemicals, in accordance with the new E-waste Management Rules.

**Environmental and Social Risks**

The TA activities are expected to have long term positive impacts in terms of creating stronger enabling policies and regulations, strengthened capacity and staffing to enforce environmental rules and regulations and private sector involvement in environmental management. The environmental investments, which are expected to have long term positive environmental and social impacts, have E&S risks and impacts both during construction and operation but these are deemed to be localized and manageable given their very nature (green investments) and small to medium-sized scale notwithstanding the fact these will be built in public areas and/or existing areas owned by the private sector. Construction-related impacts include potential pollution of air and water quality in environment that is already polluted, noise, occupational and community health and safety, displacement of illegal settlers/squatters (no land acquisition is expected), which would relate to the construction of the environmental monitoring laboratories, VICs, clean stove, municipal recycling and composting facilities and e-waste management facility. Construction-related impacts, however, are expected to be localized, reversible and confined within the construction area premises and can be addressed through implementation of good housekeeping measures and measures embedded into the design of the subprojects. Irreversible and adverse significant impacts during construction are not anticipated given that construction is small scale to moderate many of which take place in existing areas/premises. There will be no land acquisition. At the worst, lands used for investments may have some illegal occupants that need to be relocated if these areas cannot be avoided. Negative impacts during the operation of completed subprojects are outweighed by the positive impacts from improved environmental management. That said, operational impacts may relate to the improper operation and maintenance of municipal recycling and composting facilities, which could be avoided, if not minimized if proper operation and maintenance is implemented and enforced.

**Risk Assessment and Management Approaches**

During preparation participating Districts have been proposed by the Government while some candidate sites for the environmental investments have also been proposed. However, the Districts have yet to be screened and shortlisted based on certain eligibility criteria (e.g., presence of laboratories, land availability, etc.) while specific locations/sites within these Districts and those in the CGS will only come post-Board approval of the project. The design details of the specific investments will be prepared once the specific locations/sites are selected, which will only happen during implementation. That said, the project has adopted a framework approach in terms of E&S risk assessment and management by preparing and disclosing ESMF prior to appraisal to guide the client in the screening of the subprojects for their final locations and the preparation and disclosure of specific assessments and plans, where so required, when the locations and design details are known. The ESMF also includes a negative list of subprojects, including those that would require land acquisition and considered as high-risk investments. Other ESF instruments prepared and disclosed prior to appraisal include the SECDF, LMP, SEP and ESCP. An RPF for the compensation of potential illegal occupants/settlers in areas for the environmental investments will be prepared and disclosed before project negotiations. For the GCS component, which will be implemented by the Bank of Bangladesh, a review of its ESMS has been carried out during preparation. BB has been a long-term client of the Bank and has established its ESMS and has the track record of implementing its ESMS. That said, gaps were found in the Bank’s due diligence. These gaps will be addressed through this project and included in the ESCP.

**Environmental and Social Risk Classification**

The E&S risk classification of the project is Substantial with both environment and social risks rated Substantial. As described above, the E&S risks and impacts of the project are expected to be localized, manageable, reversible and confined to the areas/premises that are already existing and are located in urban and peri-urban areas where these environmental investments will be done. These investments are small to medium-sized with the objective of managing environmental issues and improving environmental management. The E&S risks and impacts are also dispersed since the subprojects will be located in different districts/areas. The environmental risks and impacts in particular would be construction-related but also some operational impacts if some of the completed facilities such as municipal recycling and composting facilities and the pilot e-waste management facility are not operated properly. The social risks and impacts could relate to potential displacement of illegal settlers/squatters in lands where the environmental investments will be located and some health and safety issues during construction. However, social issues are also deemed manageable and small in scale given that the works will be in existing premises and that there will be no land acquisition under the project. The substantial risk rating is largely due to the relatively weak E&S capacity of the implementing agencies, their inexperience on ESF and the wide range of subprojects that can only be assessed, prepared and appraised during implementation.

**Environmental and Social Management Procedures**

General Principle

The ESMF is prepared based on the following principles that can lead the planning and implementation of the project activities:

* + - The National Project Coordinator, PCMU-BEST/MoEFCC at the national level and Project Directors (PD) of PIUs of the Implementing Agencies (IAs) at the project level are responsible for the compliance with national policies, regulations, and WB ESS and Guidelines, as mentioned in this ESMF report. The ESMF will serve as the basis for ensuring ES compliance.
    - PD of PIU/DoE in coordination of the PIUs of BB, BRTA and BHTPA is responsible for obtaining environmental clearance from DoE, local government agencies and WB as required.
    - ESIA and ESMP need to be prepared for subproject activities, after screening, as determined by DoE. In case, requirements of DoE’s ESIA guideline differs from those of WB ESF, the more stringent standards and requirements will apply.
    - If any sub-projects with impacts identified in ESIA which may categorize the project to high risk (according to ESF) will not be eligible for WB’s financing.
    - Activities requiring land acquisition will not be eligible for financing under the project.
    - Activities affecting small ethnic minority communities’ language, culture, residences, and sources of livelihoods that warrant FPIC will not be eligible for funding from the project.
    - Activities with significant environmental impacts, including those that significantly increase greenhouse gas emissions and impact of natural habitats and biodiversity (if any) will not be eligible for WB’s financing.
    - Planning and design of any additional activities should ensure minimal assessment of cumulative impacts.
    - Environmentally sensitive areas, cultural heritage sites, restricted or disputed lands (if identified during project implementation) should be handled with appropriate mitigation or compensation measures during implementation following the chance find procedure.
    - Participation of stakeholders (especially local communities, the vulnerable and the disadvantaged) should be ensured by PIUs in planning, implementation, and monitoring of sub-project activities.
    - PIUs will ensure appropriate institutional set up for implementing ESMP and inter-agency coordination. PIUs will also ensure that bidding/agreement/contract documents for construction contractors, PPP operators and Private Finance Initiative (PFIs/PSI) have specific clauses to ensure implementation of ESMPs, as required.
    - Contractors to be engaged in construction/renovation/expansion/repair and maintenance/operation workers under the project should be conversant with OHS standards, labor laws, SEA/SH issues, incidence response and reporting mechanism.
    - PIUs will inform project stakeholders about project interventions and its potential impacts on the surrounding ES elements.
    - When the environmental fund will be created, PIU/DoE with direct guidance of the PCMU/BEST-MoEFCC will update the ESMF to cover the activities supported under the environmental fund.
    - In case of triggering the CERC, PIU/DoE in coordination of PIUs of other IAs will update the ESMF to cover the activities supported under the CERC. A list of positive and negative activities for CERC is given in **Annex IV**.

**Environmental and Social Assessment and Management Process**

* + - PIU/DoE in coordination of the ES experts of the 4 PIUs will provide technical backstopping and coordination support to the PCMU to perform the ES screening of the BEST project. The relevant ES experts of PIUs will start the task during the initial stage of the project implementation.
    - If ES Screening would identify any activities that requires further ES Assessment, PIU/DoE in coordination of other PIUs will engage an independent ESIA consulting firm to generate a detail ES baseline of the subproject, conduct initial scoping (or Initial Environmental Examination [IEE]) and prepare a ToR for ESIA study.
    - PIU/DoE in coordination of other PIUs will share the scoping/IEE report along with the draft ESIA ToR to respective clearance office of DoE.
    - PCMU with support of the 4 PIUs will review, and clear screening and environmental assessment reports made by environmental consultant before submitting for DoE clearance and provide necessary technical inputs.
    - PCMU through 4 PIUs will conduct verification of some screening and assessment through field visit.
    - PIUs through relevant ES staff will ensure that environmental considerations are given enough attention, weight, and influence over selection of construction sites and improvement of infrastructures all over the country.
    - Bid documents will be prepared by the respective PIUs. ES consultants of PIUs will make sure necessary ES clauses are included in the bidding documents and ESMP implementation should be done by Contractors/PPP operators/PFIs. PIUs consultants and other technical and M&E experts will supervise ESMP implementation and ES compliance.
    - All the activities of BEST project will follow existing Environmental Code of Practices (ECoPs) prepared under ESMF.
    - The project will ensure that ESIA addresses all potential ES direct and indirect impacts of the project throughout its life: pre-project, during project and operation stages; and suggest appropriate mitigation measures. If any additional impacts are identified, ESIA and ESMP should be reviewed and updated.

**Contingency Plan for COVID-19**

BEST will develop a contingency plan following the national and WHO guidelines and the WB 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.

**Guideline for Preparation of Environmental and Social Monitoring Plan**

As one of the key elements of the ESMP, a three-tier monitoring program is proposed comprising compliance monitoring, effects monitoring and third-party 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 environmental parameters.

**Compliance Reporting**

Frequency of ES compliance monitoring reports is appended in the ESCP which will be semi-annually for regular report and 24 hours for any incidence.

**Project Institutional and Implementation Arrangement**

Project Steering Committee (PSC)

A joint PSC will be created under the leadership of Secretary of MoEFCC and representatives of MoF (Finance Division, Financial Institutions Division, Economic Relations Division), PC, BB, MoRTB, MOPTI, MLGRDC, and PM Office (BEZA) who will effectively coordinate stakeholders’ participation in different project activities.

Joint Project Coordination and Monitoring Unit (PCMU)

A joint PCMU will be established under the MoEFCC with an Additional Secretary of MoEFCC to serve as the Project Coordination Director (PCD). This unit will include members from DoE, BB, BRTA and BHTPA and facilitate coordination of all four implementing agencies and provide secretarial support to PSC.

Project Implementation Units (PIUs)

The overall responsibility of environmental performance, including ESMF/ESIA/ESMP implementation of the project, will rest with the four individual PIUs. All four PIUs will have their own PD and Monitoring and Evaluation Specialist, ES Specialist, Financial Management and Procurement Specialist (except Bangladesh Bank).

**Environmental and Social Management Capacity and Capacity Building Plan**

A separate capacity building assessment was carried out of the DoE/BB/BRTA, BHTPA. for implementing the ESMF. DoE has implemented various projects with collaboration with development partners (JICA, ADB, GIZ, WB, SIDA, CIDA etc.) those have contributed to develop capacity of the DoE. BB currently Implementing the IPFF-II project under the WB funding. A separate PMU is responsible for implementing this project. In addition, BB already implemented Asian Development Bank (ADB) green refinancing schemes through selected PFIs. In relevance with this particular project, the Japan International Cooperation Agency (JICA) supported BRTA for the development of vehicle emission centers. In addition, different donor agencies like ADB, has implemented several projects with BRTA following safeguard policies. For each of those project’s separate PMUs were responsible. The BHTPA is implementing the construction of 12 Storied Building of Janata Tower Software Technology Park (STP-2) under the PRIDE project funded by WB following the Bank’s ESF. A dedicated PIU is responsible to execute the project where dedicated experts have been hired to manage the project including ES consultants. Under the designated project level posts to supervise the ES impacts, and for most of the cases were trained to comply with the WB’s ESF. However, to manage ES issues, no dedicated ES cell or unit is available in the DoE/BB/BRTA and BHTPA. For proper assessment and management of the ES risks, DoE, BB, BRTA and BHTPA would be required to appoint ES specialists (with gender experience) in the PIU to facilitate undertaking ESIAs of various sub-projects as per ESMF and to monitor implementation of ESMP.

An indicative ES training plan has been appended in the ESCP based on the burrowers’ capacity assessment. DoE, BB, BRTA and BHTPA will revise the plan during the project implementation as required. During the post project period of the project, these trainings will continue to be conducted by DoE, BB, BRTA and BHTPA staff for all relevant personnel and communities.

**Public Participation and Information Disclosure**

During the preparation of the present ESMF, initial consultations with the identified stakeholders (project affected people, interested parties and the disadvantaged and vulnerable) have been carried out to obtain their views on program interventions. However, extensive consultations with different stakeholders along with project affected or benefited person are not covers at this stage. A Stakeholders Engagement Plan (SEP) has been prepared for BEST project which will be the main guiding document for the DoE, BB, BRTA and BHTPA sub-projects. DoE, BB, BRTA and BHTPA will address gender issues through approaches that are participatory and responsive to the needs of the poor.

Summary of the ESMF and ESIA report along with ESMP will be translated into Bengali language and disseminated locally. In addition, RPF and RAP, if required, LMP, SEP, SECDPF including the ESIA and ESMF full report (in English) will also be uploaded in the website of DoE, BB, BRTA and BHTPA and WB. Hard copy of the ESIA and ESMF with relevant plans will also be available at DoE, BB, BRTA and BHTPA head office as well as divisional and district offices of the sub-project area.

**Grievance Redress Mechanism**

The BEST project has developed a project GRM for addressing grievances and complaints received from the program affected persons due to ES issues. Details of the project level GRM is included in the SEP and the labour GRM in the LMP. Grievance Redress Committees (GRC) will be formed to receive and resolve complaints from the project-affected persons. There will be three-tier grievance mechanism; 1st at subproject level where Representatives from respective DoE/BB/BRTA/BHTPA who is in charge of all construction and other activities at individual work sites will act as convener, 2nd at PIUs level GRC, where PD of DoE/BB/BRTA/BHTPA) will act as convener and 3rd at PCMU Level GRC where Additional Secretary of MoEFCC as the PCD will act as convener.

**Estimated Budget for Implementation of the ESMF**

A budget for the implementation of this ESMF is proposed. Total budget **127.7 million BDT or 1.5 Million USD (84 BDT= 1 USD) where 55 million BDT for DoE, 23 million BDT for BB, 25.5 million BDT for BRTA and 23 million BDT for BHTPA** is estimated for implementation of ESMF for DoE/BB/BRTA/BHTPA, which should be embedded in the proposed total project budget from WB.

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**Acronyms and Abbreviations**

| **Acronyms** | **Definition** |
| --- | --- |
| ACC | Autoclaved Aerated Concrete |
| ADB | Asian Development Bank |
| AIDS | Acquired Immune-Deficiency Syndrome |
| AQM | Air Quality Management |
| A-RAP | Abbreviated Resettlement Action Plan |
| BAP | Best Available Technology |
| BB | Bangladesh Bank |
| BCS | Bangladesh Civil Service |
| BEP | Best Environmental Practices |
| BEST | Bangladesh Environmental and Sustainability Transformation |
| BHTPA | Bangladesh High-Tech Park Authority |
| BIFFL | Bangladesh Infrastructure Finance Fund Limited |
| BNBC | Bangladesh National Building Code |
| BoQ | Bill of Quantities |
| BRTA | Bangladesh Road Transport Authority |
| BRTA | Bangladesh Road Transport Authority |
| CAQMS | Continuous Air Quality Monitoring Station |
| CASE | Clean Air and Sustainable Environment |
| CCB | Cellular Concrete Block |
| CDP | Capacity Development Plan |
| CEA | Country Environmental Assessment |
| CEA | Country Environmental Analysis |
| CEDAW | The Convention on the Elimination of all forms of Discriminations Against Women |
| CERC | Contingent Emergency Response Component |
| CERC | Contingent Emergency Response Component |
| C-ESMP | Contractor’s Environmental and Social Management Plan |
| CFP | Country Financial Parameter |
| CGS | Credit Guarantee Scheme |
| CIA | Cumulative Impact Assessment |
| CIP | Country Investment Plan |
| CoC | Code of Conduct |
| COVID | Corona Virus Disease |
| CPF | Country Partnership Framework |
| CWQMS | Continuous Surface Water Quality Monitoring Station |
| DC | Deputy Commissioner |
| DGHS | Directorate General of Health Services |
| DoE | Department of Environment |
| DP | Development Partner |
| DPP | Development Project Proposal |
| ECA | Environmental Conservation Act |
| ECC | Environmental Clearance Certificate |
| ECoPs | Environmental Code of Practices |
| ECR | Environment Conservation Rules |
| EF | Environmental Fund |
| EHS | Environmental, Health, and Safety |
| EHSG | Environmental, Health and Safety Guidelines |
| EIA | Environmental Impact Assessment |
| EMF | Environmental Management Framework |
| EMP | Environmental Management Plan |
| EMU | Environmental Management Unit |
| EPR | Extended Producer Responsibility |
| ES | Environmental and Social |
| ESA | Environmental and Social Assessment |
| ESCP | Environmental Social Commitment Plan |
| ESF | Environmental and Social Framework |
| ESIA | Environmental and Social Impact Assessment |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| ESMS | Environmental and Social Management System |
| ESRM | Environmental and Social Risk Management |
| ESS | Environmental and Social Standards |
| ETP | Effluent Treatment Plant |
| FCDO | Foreign, Commonwealth and Development Office |
| FCK | Fixed Chimney Kiln |
| FGD | Focus Group Discussion |
| FI | Financial Intermediaries |
| FLFP | Female Labor Force Participation |
| FM | Financial Management |
| FPIC | Free, Prior and Informed Consent |
| FSCD | Fire Service and Civil Defense |
| FWIP | Future-with-project |
| FWOP | Future-without-project |
| GAP | Gender Action Plan |
| GBV | Gender Based Violence |
| GCGS | Green Credit Guarantee Scheme |
| GDP | Gross Domestic Product |
| GHG | Greenhouse Gas |
| GIIP | Good International Industry Practice |
| GoB | Government of Bangladesh |
| GRC | Grievance Redress Committee |
| GRM | Grievance Redress Mechanism |
| HHK | Hybrid Hoffman Kiln |
| HIV | Human Immunodeficiency Virus |
| HR | human resources |
| HTP | Hi-Tech Park |
| IA | Implementing Agency |
| ICT | Information & Communication Technology |
| IDA | International Development Association |
| IDCOL | Infrastructure Development Company Limited |
| IEE | Initial Environmental Examination |
| IFC | International Finance Corporation |
| IMED | Implementation Monitoring and Evaluation Division |
| IPCC | Intergovernmental Panel on Climate Change |
| IPF | Investment Project Financing |
| IPP | Indigenous Peoples’ Plan |
| IT | Information Technology |
| IUCN | International Union for Conservation of Nature |
| IWM | Integrated Waste Management |
| JICA | Japan International Cooperation Agency |
| KII | Key Informant Interview |
| LMP | Labor Management Procedures |
| M&E | Monitoring and Evaluation |
| MIS | Management Information System |
| MLGRDC | Ministry of Local Government, Rural Development, and Cooperatives |
| MoEFCC | Ministry of Environment, Forest and Climate Change |
| MOF | Ministry of Finance |
| MOPTI | Ministry of Post, Telecommunications, and Information |
| MORTB | Ministry of Road Transport and Bridges |
| MoWCA | Ministry of Women and Children Affairs |
| MSPVAW | Multi-Sectoral Program on Violence Against Women |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NDC | Nationally Determined Contribution |
| NGO | Non-Government Organization |
| NPL | Nonperforming Loan |
| O&M | Operation and Maintenance |
| OHS | Occupational Health and Safety |
| OHSP | Occupational Health & Safety Plan |
| PAP(s) | Project Affected Person(s) |
| PBC | Performance Based Conditions |
| PC | Planning Commission |
| PCD | Project Coordination Director |
| PCM | Private Capital Mobilization |
| PCMU | Project Coordination and Management Unit |
| PD | Project Director |
| PDO | Project Development Objective |
| PFI | Private Finance Initiative |
| PIU | Project Implementation Unit |
| PMCU | Project Monitoring and Coordination Unit |
| PPA | Project Preparation Advance |
| PPE | Personnel Protective Equipment |
| PPP | Public Private Partnership |
| PPSD | Project Procurement Strategy for Development |
| PSC | Project Steering Committee |
| R&D | Research and Development |
| RAP | Resettlement Action Plan |
| RCA | Root Cause Analysis |
| RCCE | Risk Communication and Community Engagement |
| RECP | Resource Efficient and Cleaner Production |
| RPF | Resettlement Policy Framework |
| SCAP | Safeguard Corrective Action Plan |
| SEA/SH | Sexual Exploitation and Abuse and Sexual Harassment |
| SEC | Special Environmental Clauses |
| SECDP | Small Ethnic Community Development Plan |
| SECDPF | Small Ethnic Community Development Planning Framework |
| SEP | Stakeholders Engagement Plan |
| SFD | Sustainable Finance Department |
| SFD | Sustainable Finance Department |
| SLB | Sand Lime Brick |
| SMEs | Small and Medium Enterprises |
| SOP | Standard Operational Procedure |
| STEP | Systematic Tracking of Exchanges in Procurement |
| STI | Sexually Transmitted Infection |
| ToR | Terms of Reference |
| UN | United Nations |
| UNDP | United Nations Development Program |
| UNFCCC | UN Framework Convention on Climate Change |
| UNICEF | United Nations Children's Fund |
| UNO | United Nations Organization |
| VIC | Vehicle Inspection Center |
| WB | World Bank |
| WBG | World Bank Group |
| WHO | World Health Organization |
| WQM | Water Quality Management |

# INTRODUCTION

## Background

Bangladesh is one of the world’s most densely populated countries with an estimated 165 million people residing in a geographical area of approximately 144,415 km2. Bangladesh has enjoyed relatively high and stable growth over the last two decades, accompanied by rapid poverty reduction. Gross domestic product (GDP) grew well above the average for developing countries at around 6 percent per year since 2000. The poverty rate dropped by half from 48.9 percent in 2000 to 24.5 percent in 2016. Despite robust growth, the pace of poverty reduction has slowed down, especially in urban areas. With rapid urbanization, the absolute number of urban poor was higher in 2016 than in 2010. The pace of job creation in the formal sector also slowed down. Increases in labor incomes have been a main driver of poverty reduction in the past with the structural shift from agriculture to industry and services, which created new and better paid jobs. However, the pace of job creation in the formal sector has slowed down. Total employment grew only by 1.8 percent between 2011 and 2016, compared with 3.1 percent per year between 2003 and 2010.

Although environmental rules and regulations have been formulated and enforced to some extent, more necessary steps are needed for improving the environmental quality and prevent further deterioration of the environment in Bangladesh. In 2019, Bangladesh’s environmental regulations and enforcement are ranked 101st for stringency and 107th for enforcement among 140 countries evaluated by the World Economic Forum. Weak monitoring and enforcement and low green investments have led to limited public and private infrastructure for pollution control.

In order to focus the attention on the current rate of environmental deterioration and to provide an overall sustainable solution, Bangladesh Environmental and Sustainability Transformation (BEST) Project, has been initiated by the Ministry of Environment, Forest and Climate Change (MoEFCC) with the support of Department of Environment (DoE), Bangladesh Bank (BB), Bangladesh Road Transport Authority (BRTA), Bangladesh Hi-Tech Park Authority (BHTPA) and potential funding from the World Bank (WB). The implementation of the proposed project will be a major step towards the process of achieving the most needed environmental sustainability. The Project Development Objectives (PDOs) are to strengthen the capacity of the Government of Bangladesh (GoB) in environmental management and to reduce pollution discharges from targeted sources. The indicators proposed to measure the achievement of the project’s PDOs are (a) number of environmental compliance inspections performed; (b) Improved daily disclosure of ambient air quality information; (c) reduction in PM2.5 emission from targeted sources; and (d) reduced/avoided greenhouse gases (GHG) emission from targeted sources.

The BEST project encompasses five main components and following sub-component.

**Component 1: Environmental Governance and Infrastructure**

Subcomponent 1.1: Regulatory Reforms

Subcomponent 1.2: Institutional Reforms

Subcomponent 1.3: Capacity Building and Environmental Infrastructure

Subcomponent 1.4: Project Management of MoEFCC/DoE Activities

**Component 2: Green Financing for Air Pollution Control**

Subcomponent 2.1: Green Credit Guarantee Scheme

Subcomponent 2.2: Technical Assistance:

Subcomponent 2.3: Project Management

**Component 3: Vehicle Emission Control**

Subcomponent 3.1: Vehicle Inspection

Subcomponent 3.2: Technical Assistance

Subcomponent 3.3: Project Management

**Component 4: E-waste Management Infrastructure**

Subcomponent 4.1: Pilot E-waste Management Infrastructure

Subcomponent 4.2: Technical Assistance

Subcomponent 4.3: Project Management

**Component 5: Contingent Emergency Response Component (CERC)**

Since the details and locations of the subprojects at this point are not yet finalized, the project has developed this Environmental and Social Management Framework (ESMF) to describe the procedures on screening the environmental and social (ES) risks and impacts of the project activities and provide guidance to the implementing agencies i.e., DoE, BB, BRTA and BHTPA in the preparation of specific ES assessments and plans for the subprojects during implementation, including implementation of any plans.

Description of the project components and their typology are furnished in the **Chapter 2**.

## Sectoral Background

Rapid economic development and population growth in Bangladesh have led to high level of pollution discharges (including GHG) and the degradation of the country’s environmental quality and ecosystems posing high economic costs to the country while threatening its competitiveness for sustained growth in the long run. Globally, the environmental performance of Bangladesh has been ranked very poor over the last decade[[1]](#footnote-2). Amongst all indicators, air quality and heavy metals were the two worst indicators, ranking at 179 and 177, respectively. In addition, Bangladesh’s performance in water and sanitation was ranked 128. These rankings reflect serious pollution challenges that need to be addressed by the nation.

The MoEFCC is the coordinating agency at the national level on all matters related to the environment and sets the climate change strategy for the country. Under the 1995 Environmental Conservation Act (ECA) 1995, its DoE has assumed an official mandate of pollution control and made tangible progress in developing and implementing various environmental protection rules, policies, standards and guidelines to protect the environment through environmental clearance, monitoring and enforcement actions.

With the support of many development partners (DPs), Bangladesh has made great efforts to develop the DoE’s capacity and invest in control of air, water, and waste pollution. Among others, to control air pollution, the WB’s Clean Air and Sustainable Environment (CASE) Project (P098151) has supported the DoE to strengthen its ambient air quality monitoring capacity with 16 continuous air quality monitoring stations (CAQMSs), developed a draft clean air regulation, facilitated the brick sector to transition from highly to a less polluting production technology (zig zag kiln), and supported urban transport infrastructure for safe mobility. In addition, in 2018, the WB’s Private Sector Development Project (P120843) supported the Bangladesh High-Tech Park Authority to analyze e-waste generation and management situations in the country and explore options and models for the development of an e-waste processing facility. Most recently, the BB cooperated with the DoE and successfully financed the development of 19 fired brick kilns with advanced production technologies under the ADB brick kiln project.

Despite the advancement, weak monitoring and enforcement and low green investments have led to limited public and private infrastructure for pollution control. In this regard, Bangladesh has only few sanitary landfills and medical waste management facilities and one functioning vehicle inspection center (VIC) for both safety and emission inspection with advanced equipment[[2]](#footnote-3). BRTA is responsible to issue and renew fitness certificate and it is required to inspect the vehicles during this certification process. The Road Transport Act 2018 set a provision that the vehicles should comply with the emission standard set by Bangladesh Government. BRTA is not able to enforce this provision of act due to lack of vehicle emission center with adequate equipment. Therefore, it is inevitable to establish new vehicle emission center with adequate number of modern equipment for vehicle emission testing and maintaining a database.

In Bangladesh e-waste sector is a highly un-organized sector with few informal recyclers having capabilities, and which are predominantly limited to collecting and dismantling the e-waste products. Valuable items and materials are usually extracted from the e-waste products and the rest of it is discarded. The current unsafe practices pose a risk to human health and the environment (Mott Macdonald, 2018). The country does not have formal e-waste recycling operations while its recycling activities on plastics and lead batteries are largely unregulated and become sources of pollution releases that increase the risks of miscarriages and stillbirths among pregnant women[[3]](#footnote-4).

To help address the abovementioned institutional, regulatory, technical, financial, and infrastructure challenges, BEST Project, has been initiated by the MoEFCC with the support of DoE, BB, BRTA, BHTPA and potential funding from the WB to boost the country’s efforts for a green, clean, and low emission development. The proposed project will contribute to the implementation of the Eighth FYP, CIP, and the Delta Plan.

## Rationale of ESMF

To decisively assess ES impacts it is essential that subproject activity design and locations are known. However, BEST project and its sub-projects’ location and design are not known as yet (though Districts of interventions have been selected) therefore, depth and breadth of risks and impacts are not known. Though broad District locations have been specified for project activities, specific locations and design, of BEST sub-projects are yet to be selected. For example, for ***Component 1***—office buildings and laboratory site locations are yet to be identified, though broad-based districts are somewhat known. There are 30 Districts where DoE’s offices are not there and therefore are potential candidates for setting up the offices where number of environmental offices to be constructed sites and design of which will be done after appraisal. For **Component 2**—borrowers/operators, design and sites for brick kilns, municipal waste recycling etc. will likely be selected after appraisal. Similarly, for **Component 3**–-location of VICs final sites will be selected after meeting some mandatory criteria like access and exit roads are yet to be finalized. For **Component 4**—there are several candidates sites for e-waste recycle plant at Kaliakor high tech park, final site and adopted technology will be selected and operated by engaging private sectors operator under PPP arrangement and are yet to be selected.

Therefore, surrounding environment of exact location, nature of subproject activities, degree of ES risks and impacts etc. could not be ascertained with specificities for such subprojects. Hence it is essential to develop and follow a framework approach of the project’s ES assessment and management procedure. The ESMF has been prepared based on the overall assessment of the project components and the areas that might be covered. DoE with the help of Consultant coordinated to prepare the ESMF on behalf of other implementing agencies BB/BRTA/BHTPA as well so that Implementing Agencies (IAs) could ensure best ES issue management following the WB Environmental and Social Framework (ESF) during its implementation. However, following screening, site specific assessment along with management plan will be prepared during implementation in accordance with ESMF as soon as the exact location, layout, detail activities of subproject along with design are known.

## Scope of the ESMF

DoE along with other IAs has prepared the ESMF as a constituent part for guidance in the implementation stage along with other required ES documents for disclosure prior to board approval, consistent with the ESF and the GoB environmental regulatory framework. In addition to the ESMF, the following are the other ES instruments have been developed at the appraisal stage:

1. Stakeholder Engagement Plan (SEP) with a Grievance Redress Mechanism (GRM);
2. Small Ethnic Community Development Planning Framework (SECDPF);
3. Labor Management Procedures (LMP) with labor specific GRM;
4. Environment and Social Management System (ESMS) Review of the BB (FI); and
5. Environmental and Social Commitment Plan (ESCP).

In addition, a Resettlement Plan Framework (RPF) will be prepared befor negotiations.

The preparation of the ESMF considered the following:

* + - Screening of all sub-projects, components, and activities to be implemented under the BEST project based on feasibility study initial reports to make a preliminary assessment of the potential ES issues;
    - Consideration of all applicable ESSs including guidelines and standards prescribed in the WBG’s Environmental, Health and Safety Guidelines (EHSG) and existing GoB’s environmental standards;
    - Assessment of policy implications for the proposed project activities considering WB, GoB and International laws/conventions/practices, and identify policy gaps between WB and the GoB, and suggest options for gap minimization;
    - Development of a framework and guidelines for preparation of subproject specific screening, Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plans (ESMPs) (measures to reduce, mitigate and/or offset adverse risks and impacts) that comply with local ES laws and the WB ESF and Environmental and Social Safeguards (ESSs);
    - Recommendations on institutional implementation and monitoring arrangement including project-specific GRMs;
    - Conduct of stakeholder mapping and subsequent consultations to cover groups/ communities/ stakeholders to elicit their views and suggestions on actions and measures for inclusion in the SEP to ensure inclusion of the potential project affected persons, vulnerable and marginalized groups and ethnic communities including women in the project preparation process;
    - Development of ES capacity building plan that will include a broader ES capacity assessment of DoE, BB, BRTA and BHTPA which will be incorporated as action points in the Borrower’s Institutional ES capacity development plan which has been reflected in the ESCP.
    - A cost table and budget to be adopted in the project budgetary provision to ensure implementation of the ESMF and develop ES management capacity of the partners.

Once details of the project sites are available at later stages of the project, the need for and type of ES assessments and management plans will be reviewed, according to WB policies and GoB legislation and will update accordingly.

## Objectives of the ESMF

The ESMF will be consistent with the requirements of the ESF and will follow all applicable ESSs. The ESMF will also have detail guideline for conducting screening and ESIA along with ESMP of the sub-projects to identify all potentially positive and negative ES risks and impacts in line with the ESF and recommend measures to ensure all negative ES risks and impacts are duly mitigated; and provide achievable alternatives to avoid/minimize potential and adverse ES impacts.

The main objectives of this ESMF are to:

* + - Provide tools and guidelines for risk categorization of all the sub-projects to be implemented under BEST project for which detail information are not available at this stage.
    - Set out the detailed procedures to be followed for various sub-project categories to assess and manage ES risks.
    - Consider in an integrated manner the potential ES risk, benefits and impacts of the program and identify measures to avoid, minimize and manage risks and impacts while enhancing benefits
    - Ensure all relevant ES issues are mainstreamed into the design and implementation of the sub-projects
    - Provide guidance for preparation of various ES instruments
    - Provide guidance for ensuring stakeholder engagement at various stages of sub-project implementation

## Approach and Methodology

The ESMF has been prepared following the standard methodology consisting of the steps listed below, which is also depicted in **Figure 1**.

* + - Review of the project documents and discussion / meetings with the DoE, BB, BRTA, BHTPA and WB;
    - Review of the policy and regulatory requirements;
    - Collect and analyze baseline ES data with the help of secondary literature review and field data collection;
    - Consult with the stakeholders and developing the consultation process;
    - Assess the potential and likely impacts of the project activities;
    - Prepare an outline of the ES management issues according to the requirements of the ESSs of the ESF;
    - Prepare an outline of ESMP; and
    - Compilation of the present ESMF.

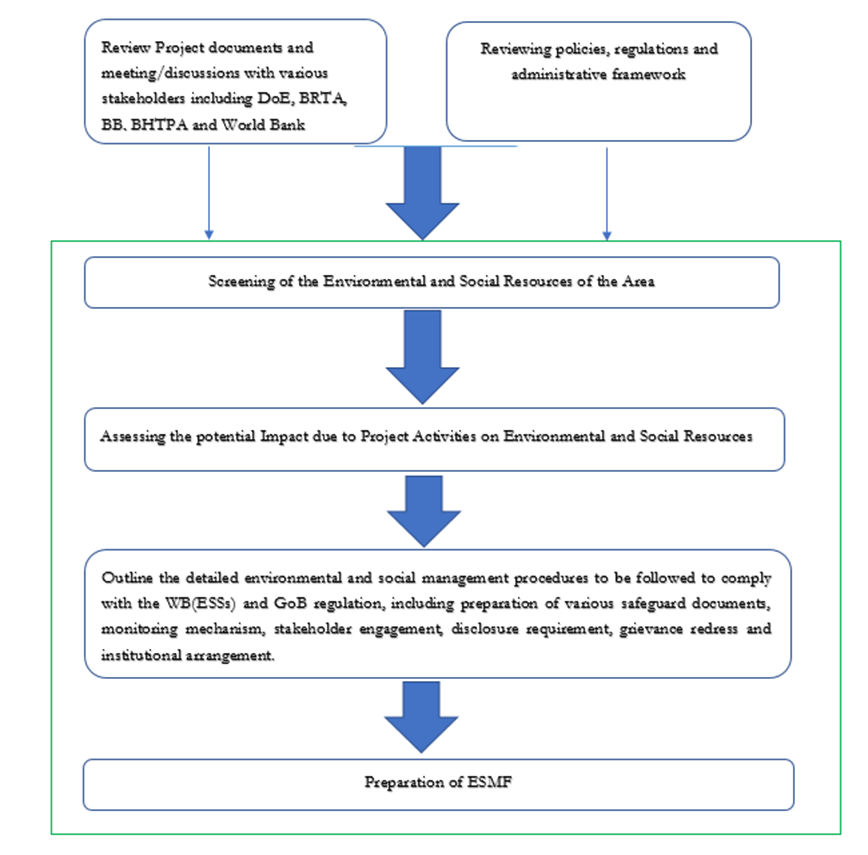


Figure 1: ESMF Preparation Approach

# Project Description

## Project Development Objective

The PDO are 'to strengthen the capacity of the GoB in environmental management and to reduce pollution discharges from targeted sources’.

The indicators proposed to measure the achievement of the project’s PDOs are: (a) Number of environmental compliance inspections performed; (b) Improved daily disclosure of ambient air quality information; (c) Reduction in PM2.5 emission from targeted sources; and (d) Reduced/avoided GHG emission from targeted sources.

## Project Components and Subcomponents

Project design has prioritized investment needs for environmental management and pollution management based on time and resource available to the project and readiness of specific investment activities. The project will support five components:

**Component 1: Environmental Governance and Infrastructure (US$300 million)**

This component will support MoEFCC/DoE to lay concrete regulatory, institutional, financing and capacity foundations for the achievement of its long-term vision of helping the country ‘live in harmony with nature and achieve net zero emissions by 2050’. Specifically, this component will support (a) regulatory and policy reforms to reposition the regulatory mandate of DoE from action-oriented pollution control to goal-oriented protection and improvement of environmental quality and promotion of green growth; (b) institutional reforms to shift DoE’s organizational structure towards specialization and decentralization with improved human and financial resources, essential environmental infrastructure, and capable financing and technical institutions; (c) capacity building to support MoEFCC/ DoE and its key stakeholders develop adequate technical capacity in environmental management and green growth; and (d) project management of MoEFCC/ DoE activities. As women are most affected by climate change and environmental pollution, they will be engaged as critical stakeholders in the implementation of this component and will be offered equal opportunities in the DoE recruitments and capacity-building activities.

*Subcomponent 1.1. Regulatory Reforms (US$ 15 million)*

This subcomponent will support MoEFCC and DoE to modernize its regulatory framework through the amendment of ECA 1995 and associated regulations, rules, standards and guidelines. Proposed ECA amendments include provisions to redefine the services of DoE as a new category of technical/professional cadre under the Bangladesh Civil Service, promote green development/circular economy, strengthen the polluters pay principle, adopt of eco-design, BAT (best available technology)-BEP (best environmental practices) and extended producer responsibility (EPR), mobilize sustainable financing through the establishment of an Environmental Fund (EF) and Public Private Partnership (PPP) promotion, and promote effective information disclosure and citizen engagements. In addition, DoE will develop an Implementation Plan for its 2018 National Environmental Policy.

*Subcomponent 1.2: Institutional Reforms (US$ 120 million)*

This subcomponent will support the DoE to decentralize and increase technical specialization of its organization structure and gradually recruit and retain qualified technical staff, especially women, to fill its existing posts. The specialization actions include the creation of new wings at the headquarter for water quality management, environmental quality monitoring, environmental enforcement, research and environmental technology, and environmental information and disclosure. The decentralization actions will focus on the creation of 30 district offices to ensure full DoE presence in all 64 districts of the country. Six regional/ divisional laboratories will also be financed and established while the existing central and two regional laboratories will receive support for capacity improvement. To create a better career path and thus retain its technical staff, MoEFCC/DoE is working closely with Bangladesh Civil Service (BCS) in the process of integrating the DoE technical staff into BCS as a new professional cadre. By filling DoE’s existing vacancies, it is expected that the DoE’s staff number will be increased from 480 to 1,102 by the end of project implementation. Along with the ECA amendment, the DoE will sponsor the establishment of two new institutions, an environmental research and technology institute and an environment fund. Among others, it is expected that the fund will have three special windows: (a) technology promotion to support the pilot and scaling up of green technologies; (b) waste management to support local governments to invest in integrated waste management infrastructure; and (c) feasibility studies and technical assistance to support Effluent Treatment Plant (ETP) investments.

*Subcomponent 1.3: Capacity Building and Environmental Infrastructure (US$ 150 million)*

Corresponding to project supported regulatory and institutional reforms, this subcomponent will support the DoE to develop essential infrastructure to host its specialized and decentralized technical teams, equip them with advanced monitoring, analytical and IT infrastructure, and improve their technical capacity to properly utilize such new infrastructure to perform its official responsibilities. Specifically, the DoE will develop 30 office buildings for its newly created district offices and divisional laboratories. The DoE will also develop its first network of 22 CWQMSs to collect hourly water quality information from Dhaka rivers and two additional priority rivers of high pollution concerns. In addition, the DoE will pilot a few continuous ETP monitoring stations to develop its capacity in compliance monitoring of industrial effluent discharge. An environmental information system will be developed to help the DoE improve its working efficiency. The DoE has developed a capacity-building program to improve the technical capacity of its existing, new, and future DOE staff to perform the DoE tasks satisfactorily.

*Subcomponent 1.4: Project Management of MoEFCC/DoE Activities (US$ 15 million)*

This subcomponent will support MoEFCC to operate a Project Coordination and Monitoring Unit (PCMU) to support the Project Steering Committee (PSC) to supervise project implementation and the DoE to set a Project Implementation Unit (PIU) to manage Component 1 activities.

**Component 2: Green Financing for Air Pollution Control (US$100 million)**

To meet the raising demands for green financing, this component will support BB to pilot a green credit guarantee scheme (GCGS) to incentivize the financial sector to support green investments in targeted polluting sectors. This scheme will provide partial credit guarantee to cover a share of the default risk that Private Finance Initiatives (PFIs) may face in extending loans to green investments, along with technical assistance to improve the understanding of PFIs and targeted sectors on green technologies and matching grant support to incentivize the targeted sectors to make green investments. Recognizing high health costs of air pollution and high contributions of particulate matters from the brick kiln sector, conventional cook stoves, waste management and thermoelectric generation, this pilot GCGS will first focus on investments to reduce air pollution control from these targeted sectors. In addition, the GCGS will explore effective ways to incentivize private sector investments in (a) municipal waste recycling and composting investments to reduce GHG and particulate emission from waste management practices (b) clean stove production to help reduce indoor air pollution, and (c) rooftop solar systems to reduce demands for thermoelectricity and thus avoid GHG and particulate emission from associated thermoelectric generation processes.

*Subcomponent 2.1: Green Credit Guarantee Scheme (US$90 million)*

This subcomponent will support the BB to develop a GCGS to incentivize PFIs to finance green investments in the four targeted sectors: brick, municipal waste recycling and composting, cookstove, and rooftop solar systems. Two types of matching grants will be created under the GCGS - $6 million results-based and $4 million pilot grants – to better ensure the achievement of the objective of the BEST project. It is estimated that the US$10 million grant can support about 10 new tunnel kilns and about 7-9 Autoclaved Aerated Concrete (AAC) and sand lime brick (SLB) facilities. Given the high concentration of brick kilns in the Dhaka metropolitan area, it is expected that the GCGS will open all brick producers but with a priority to investments in the Dhaka and other major metropolitan areas.

*Subcomponent 2.2: Technical Assistance (US$7 million)*

This subcomponent will provide the much-needed technical assistance to the BB, PFIs, and targeted beneficiaries on concerned green technologies promoted by the project. Such activities will help these actors to better understand technical, financial, ES, and market intricacies of the available investment opportunities ranging from eco-design; Resource Efficient and Cleaner Production (RECP); reduce, reuse, recycle (3R); and technology upgrades to end-of-pipe pollution control, to eliminate, reduce, or control pollution discharges and improve environmental performance. This subcomponent will also support targeted awareness-raising events to reduce the demand from traditional technologies of green products and increase the demand for new production technologies. These will include events for the general public, targeted public and private consumers and their associations, media outlets, industrial associations, research and technical institutes, and civil society.

*Subcomponent 2.3: Project Management (US$3 million)*

This subcomponent will support the BB’s costs to manage the operation of the proposed GCGS.

**Component 3: Vehicle Emission Control (US$50 million)**

This component will support (a) the development of five new VICs through PPP arrangements, (b) technical assistance to improve BRTA’s capacity in vehicle inspection, and (c) project management at BRTA. Implementation of this component will be closely coordinated with the WB’s Road Safety Program, under which four of BRTA’s existing but non-functional VICs will be rehabilitated. With regulatory reforms supported under Component 1.1, it is expected that BRTA will work with DoE to develop a national vehicle inspection system to control not only vehicle emission from the country’s existing fleet but also emission from imported vehicles (new or used) and new vehicles produced in the country. These actions will help Bangladesh gradually remove noncompliance vehicles from its road and thus reduce both GHG and air pollution from its vehicles.

*Subcomponent 3.1: Vehicle Inspection (US$40 million)*

This subcomponent will support BRTA to pilot the development of five new VICs through a PPP arrangement. The five new VICs will be established in Mymensing, Noakhali, Faridpur, Comilla, and Rangamati. The proposed VICs will perform mandatory safety and emission inspections of in-use vehicles at the time of issuing and reissuing the fitness certificates of such vehicles. Under the PPP arrangement, BRTA will provide the workshop area with physical infrastructure, electricity substations, and supply of vehicle testing equipment and prescribe technical parameters for each inspection items for one (or five) private sector operator(s) to install qualified inspection and IT equipment and information management systems, mobilize trained technicians, perform required inspection, submit inspection results to BRTA, and issue proper inspection certificates according to BRTA regulation. Along with these new VICs, this subcomponent will support BRTA to procure and operate 60 sets of vehicle emission testing equipment to enable all of its manual inspection centers to perform their emission inspection tasks with advanced equipment.

*Subcomponent 3.2: Technical Assistance (US$7 million)*

Along with the Road Safety Program, this subcomponent will help BRTA (a) develop its capacity to manage vehicle inspection for both safety and emission control; (b) explore different modalities to support the development and operations of such centers; and (c) based on implementation results of the two projects, develop a strategy and implementation plan to establish a national vehicle inspection system.

*Subcomponent 3.3: Project Management (US$3 million)*

Jointly with the Road Safety Program, this component will support BRTA to set up its PIU to manage Component 3 of the project.

**Component 4: E-waste Management Infrastructure (US$50 million)**

Built on tightened regulatory and enforcement pressures to be created under Component 1, this component will support (a) the development of an e-waste management infrastructure on a pilot basis through PPP arrangements to demonstrate technical, financial, and ES feasibility of e-waste management in line with the newly issued E-waste Management Rules; (b) technical assistance to support proper operations of the pilot new infrastructure and implement other relevant provisions of the new e-waste management rules; and (c) project management at the BHTPA. It is expected that successful piloting of this facility and this modality (including EPR schemes, formalization of value chain, and PPP for waste infrastructure development) will facilitate MoEFCC/DoE to develop an Integrated Waste Management (IWM) strategy and associated investment programs under Component 1.

*Subcomponent 4.1: Pilot E-waste Management Infrastructure (US$40 million)*

This subcomponent will support BHTPA to develop new e-waste management infrastructure, including an e-waste processing facility, and a proper disposal site within the Kaliakair hi-tech park (HTP) through PPP arrangements. The new infrastructure will enable (a) collection of e-waste from both HTPs and outside HTPs with pilot collections centers; (b) proper, safe transportation and storage of collected e-waste; (c) proper dismantling and processing of e-waste; (d) extraction of metals and separation of recyclable plastics and other materials; (e) proper management of hazardous chemicals and metals; and (f) environmentally sound disposal/storage of the residuals and treated metals and chemicals, in accordance with the new E-waste Management Rules. Dependent on the final PPP arrangement, BHTPA will provide land areas and workshop building with utility connections and coordinate with relevant stakeholders inside and outside HTPs in participating in the operation of the e-waste management scheme and the private operator will bring in equipment and well-trained employees to manage the operation of the recycling facility and other properties, working with other operators on collection, transportation, disposal and storage management, if necessary.

*Subcomponent 4.2: Technical Assistance (US$7 million)*

This subcomponent will be implemented in coordination with the policy reform under Component 1. BHTPA will work closely with the DoE to develop (a) a pilot e-waste collection program for national government agencies and public institutions, (b) a pilot eco-design (as a part of EPR) scheme for high-tech firms operating in HTPs managed by BHTPA, and (c) a pilot monitoring program of the operation of the pilot e-waste management infrastructure. To further incentivize e-waste recycling, BHTPA and the DoE will jointly issue formal certificates for the recycled products.

*Subcomponent 4.3: Project Management (US$3 million).*

This subcomponent will support BHTPA to set up its PIU to manage activities under Component 4.

**Component 5: Contingent Emergency Response Component, CERC (US$0 million)**

This component will provide an ex-ante mechanism for the GoB to gain rapid access to WB financing to respond to an eligible crisis or emergency that causes major adverse economic and/or social impacts. Triggers for CERC activation will be clearly outlined in the project implementation manual. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response, and recovery.

**Table 1** provides the subproject activities of each component of the BEST project.

A negative list of subprojects will be excluded from project financing including subprojects and activities that have the following features/characteristics:

1. Subprojects and activities that are screened to have high risk and/or category A type;
2. Subprojects and activities that will involve land acquisition;
3. Subprojects and activities that will involve forced labor, child labor, or other harmful or exploitative forms of labor;
4. Subprojects and activities that will have adverse, significant and irreversible impacts on natural and critical habitats;
5. Subprojects and activities that will have adverse, significant and irreversible impacts on cultural heritage;
6. Subprojects and activities that require obtaining free and prior informed consent (FPIC) from the SECs;
7. Subprojects and 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
8. Any large and complex nature subproject, that is likely to generate a wide range of significant adverse risks and impacts on human populations or the environment (e.g., due to accidents, toxic waste disposal, etc.);

Table 1: Sub-Activities of Each Component of the BEST Project

| **Component/Sub- Component** | **Sub-Activities** |
| --- | --- |
| **Component 1: Environmental Governance and Infrastructure** | |
| Regulatory Reforms | ECA amendment, develop a new Climate Change Act, and amend existing, and develop new, ECA related rules, environmental discharge standards and technical guidelines.  Develop additional policies and strategies during project implementation |
| Institutional Reform | Creation of 30 district DoE offices.  Filling the existing vacancies of DoE stuff  Establishment of an Environmental research and technology institute and an environmental fund  Development of legal, financial and organizational structure of the fund and operating procedure and policy based on domestic best practices. |
| Capacity Building and Environmental Infrastructure | Development of an environmental information system.  Strengthening of DoE’s compliance monitoring capacity  Training program of on-the-job and off-site training programs on various technical issues; Certification program to support the certification of all DOE laboratories through the development and adoption of standard operation procedures and participation in external quality assurance schemes;  Development of an expert pool with identified domestic and international experts;  Targeted training for judges, magistrates, law enforcement and targeted industries on environmental regulations;  development a general environmental curricula of the country’s education system and the curricula of environmental majors at colleges;  Public engagements through online and in-person consultations and awareness raising campaigns; and  Technical training on Air Quality Management (AQM), Water Quality Management (WQM), inventory development, source apportionment/contribution analysis, and air and water modelling and forecasting. |
| Project Management of MoEFCC/DoE Activities | Set up a Project Monitoring and Coordination Unit (PMCU);  Support the Project Steering Committee to supervise and facilitate the implementation of the proposed project; and  Perform most of reform actions by Performance Based Conditions (PBC). |
| **Component 2: Green Financing for Air Pollution Control** | |
| Green Credit Guarantee Scheme | Develop a GCGS to finance in brick sector;  Manage the implementation of this GCGS;  Provide grants in order to ensure the achievement of the objective of BEST project; and  Support BB’s costs to manage the operation of the proposed GCGS. |
| Technical Assistance | Provide much needed technical assistances to BB, PFIs, and targeted beneficiaries on green technologies promoted by the project; and  Support targeted awareness raising events to reduce the demand for bricks produced from traditional technologies and increase the demand for bricks produced from new production technologies. |
| Project Management | Provide support to the BB’s cost to manage the operation of the proposed GCGS. |
| **Component 3: Vehicle Emission Control** | |
| Vehicle Inspection | Support BRTA to pilot the development of five new VICs through a PPP arrangement; and  Perform mandatory safety and emission inspections of in-use vehicles. |
| Technical Assistance | Develop its capacity to manage vehicle inspection for both safety and emission control;  Explore different modalities to support the development and operations of such centers;  Develop a strategy and implementation plan to establish a national vehicle inspection system; and  Support BRTA to develop/revise its road-side vehicle inspection guidelines and carry out effective cooperation with DoE to improve enforcement of vehicle inspections. |
| Project Management at BRTA | Support BRTA to set up its PIU to manage Component 3 of the project;  Support the PIU to review specific technical issues identified during project implementation;  support incremental operating costs incurred by the PIU. |
| **Component 4: E-waste Management Infrastructure** | |
| Pilot E-waste Management Infrastructure | Support BHTPA to develop new e-waste management infrastructure including an e-waste processing facility and a proper disposal site within the Kaliakoir HTP through PPP arrangements. |
| Technical Assistance | Develop a pilot e-waste collection program for national government agencies and public institutions;  Pilot eco-design (as a part of EPR) scheme for high-tech firms operating in hi-tech parks managed by BHTPA, and  pilot monitoring program of the operation of the pilot e-waste management infrastructure; and  Support development of e-waste database to be managed by DoE. |
| Project Management | Support BHTPA to set up its PIU to manage activities under Component 4. |
| **Component 5: CERC** | |
| CERC | Will provide an ex-ante mechanism for the GoB to gain rapid access to Bank financing to respond to an eligible crisis or emergency that causes major adverse economic and/or social impacts. |

## Project Beneficiaries

The project beneficiaries include the population currently affected by pollution sources targeted by the project, participating government agencies, FIs, and the private sector. Through the BEST Project, it is estimated that about **21 million residents** around Dhaka will benefit from reduced releases of air pollutants because of the (a) investment in improved brick production technologies promoted by the project; (b) reduction in the circulation of vehicles that cannot meet the emission inspection requirements; and (c) decrease in road accidents, hence lower mortality rates associated with transportation.

Direct beneficiaries include about 20–30 owners of these brick plants, the operators of the five new vehicle emission inspection centers, and the operator of the new e-waste management facility that will receive project support. Other direct beneficiaries will be the people employed by the DoE, 20–30 brick plants, the five inspection centers, and the e-waste management facilities, estimated between 2,500 and 3,000 employees. These people will gain year-round employment and social security. All industrial jobs will also be safer as there will be less occupational hazards due to better working conditions. Indirect beneficiaries will also be their families due to reliable income.

Potential benefits will also come from the elimination of child labor in kilns and e-waste supply chain. Assuming an average family in Bangladesh comprises 4.5 people as of 2020, the estimated indirect beneficiaries would be 10,000–12,000. Among them, women will especially benefit from better job opportunities and decreased pollution as they bear the brunt of such phenomena. The project will also benefit national and local governments by supporting institutional strengthening activities. In addition, the private sector (about 20 medium enterprises and 5 private financial institutions) will benefit from the project through increased support for green financing (grants/credit enhancements) and market creating and capacity-building activities to promote delivery of green facilities.

## Potential Project Locations

The project activities will cover at different geographical area of Bangladesh. For constructing of district environmental offices there are 30 districts proposed that do not have environmental offices (*at Barguna, Barisal, Jhalokati, Pirojpur, Khagrachhari, Lakshmipur, Rangamati, Madaripur, Rajbari, Shariatpur, Chuadanga, Jhenaidah, Khulna, Magura, Meherpur, Narail, Jamalpur, Mymensingh, Bogra, Joypurhat, Natore, Chapainawabganj, Sirajganj, Gaibandha, Kurigram, Lalmonirhat, Nilphamari, Panchagarh, Thakurgaon, Sunamganj and Sylhet Districts*). However exact location and design are yet to be finalized. Same for 6 Regional/Divisional laboratories (*at Khulna, Barisal, Mymensigh, Rajshahi, Sylhet and Rangpur Divisions*), the specific sites and design are still to be decided. For constructing 5 VICs, 5 potential districts are preliminary proposed *at Mymenshing, Noakhali, Faridpur, Comilla, and Rangamati* and improving 4 existing ones *at Dhaka, Chottogram, Khulna and Rahshahi*). However, these sites may be changed because of accessibility and technical requirement. For e-waste management facility pilot project at Kaliakoir Hi-Tech Park, there are proposed some alternate sites in Kaliakoir, the specific sites and the adopted technology will be fixed during implementation after engaging of private sector. Financing demands for a number of tunnel kilns, HHK (Hybrid Hoffman Kiln) kilns and AAC, municipal waste recycling and composting facilities, clean stove production facilities, and rooftop solar systems are being considered, the locations of which are yet to be finalized.

Tentative locations of each component of the proposed BEST Project are provided in **Figure 2**. This might be changed during implementation based on the site-specific technical requirements.

Map

Description automatically generated

Figure 2: Location Map of the Candidate Project Sites under BEST[[4]](#footnote-5)

# LEGAL AND REGULATORY FRAMEWORK

This Chapter presents a review of the national policy, legal and regulatory framework relevant to the ES aspects of the BEST project. In addition, WB’s ESF and ESSs have also been discussed.



## Review of National Legislations and Treaties

### Relevant National Legislations

All relevant national policies, strategies, plans, acts, rules, and regulations laid out by the GoB pertaining to the environment and social aspects are briefly discussed in **Table 2**. It merely lists some of the most important applicable key GoB acts, rules, and regulations and their relevance to the sub-component of the DoE, BB, BRTA and BHTPA proposed BEST project.

Table 2: List of Relevant Environmental and Social Regulations of GoB

| **S/N** | **Legislations** | **Key Provisions** | **Relevance to BEST** |
| --- | --- | --- | --- |
|  | Bangladesh ECA 1995 | 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. | Applicable, ECC is required for the BEST project under Component 1 (DoE’s new office buildings and laboratories, Component 2 (Green brick production), Component 3 (VIC center construction) and Component 4 (E-waste management facility construction) and PIUs of DoE under component 1 is responsible for get approval of the ECC from the DoE. |
|  | Bangladesh Environmental Conservation Rules (ECR), 1997 | 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 ECC from the DoE for different types of proposed units or projects. | Applicable, Due to the planned project interventions and the nature of activities, i.e. Component 1 (DoE’s new office buildings and laboratories, Component 2 (Green brick production i.e. tunnel kiln, AAC and SLB through fund), Component 3 (VIC center construction) and Component 4 (E-waste management facility construction), the BEST project is categorized as Red by DoE. So, ESIA and ESMP will have to be approved by the DoE prior to depositing prescribed fees under Schedule 13 for the attainment of ECC and get renewal accordingly. |
|  | The Brick Burning Control Act, 1989 (Amendment Act, 1992 and 2001) | The act is about control of brick burning, the legal procedure to brick production, restriction of the use of wood as fuel in brick production. | Applicable, under component 2, as a Financial Intermediary BB will funding the Brick Manufacturing Units for installation of improved technology (tunnel kiln technology, also two non-fired production technologies autoclaved aerated concrete AAC and SLB) in selected brick kilns through eligible PFIs is a part of the proposed project. |
|  | Brick Manufacturing and Kiln Construction (Control) Act 2013 | Enacted to reduce emissions from brick kilns. Brick Manufacturing and Kiln Construction (Control) Act 2013 has been enacted to reduce emissions from brick kilns. The purpose was to:   * control environmental pollution; * save arable land and forest. | Applicable, under component 2, as a Financial Intermediary Bangladesh Bank will funding the Brick Manufacturing Units for installation of improved technology (tunnel kiln technology) where environmental pollution control should be ensured as well as site selection should be avoided arable lands and forests. |
|  | Biodiversity Act, 2017 | It provides for the creation of the National Committee and the Biodiversity Management and Surveillance Committees at local levels (i.e. Districts, Upazilas, Municipalities, and Unions). In general, all these committees are mandated to assist the Government in implementing the National Biodiversity Strategy and Action Plan (NBSAP) and to visit the biodiversity enriched areas in their respective territories; and monitor the progress of implementation of the NBSAP. | ESS6 is not relevant to the project. However, impact of the sub-projects on the surrounding biodiversity will be reassessed during implementation. Under the component-1 and component-3, during construction of infrastructures for DoE, and BRTA (at Khagrachari and Rangamati), the PIUs need to consult with existing committees. |
|  | National 3R Strategy for Waste Management, 2020 | Deals with Sustainable Resource-Efficient Economy with zero waste policy with 3Rs practices (Reduce, Reuse and Recycling). | Yes, under the Component 4.1 BHTPA will set up e-waste management system to deals with E-waste through installing improved technology in e-waste management where metals and separation of recyclable plastics and other materials will be extracted and managed. |
|  | 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 the safety of workmen during construction. | Yes, the proposed project will include construction of different types of infrastructure, e.g., (a) Construction of DoE office building and establishment of regional laboratories; (b) conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks (or other alternatives); (c) Construction and operations of VIC center; (e) construction and operations of e-waste management facilities. The designs of the construction activities must follow the specification of the building code to ensure structural integrity. |
|  | The Noise Pollution Control Rules, 2006 | The Noise Pollution Control Rules have been established to manage noise-generating activities which have the potential to impact the health and wellbeing of workers and the surrounding communities. | Applicable since minor to moderate noise emission is expected from project activity during construction phase under the component 1, component 3 and component 4. |
|  | Constitutional Rights of the Tribal People | The Constitution of Bangladesh ensures affirmative action for small ethnic communities and prohibits discrimination inter alia on the grounds of race, religion, or place of birth, Article 23A of which provides, “the State shall take steps to protect and develop the unique local culture and tradition of the tribes, minor races, ethnic sects, and communities.” It also spells out in Article 28 (4), “nothing in this Article shall prevent the State from making special provision in favor of women or children or for the advancement of any backward section of citizens.” | Applicable, under the component 2, for the implementation of the construction work in different districts locations and component 3, construction of VIC at Rangamati (if technical feasible), there is a possibility of the tribal community being affected due to the project activities. |
|  | Bangladesh Labor Act, 2006 | It provides the guidance of the employer’s extent of responsibility and workmen’s extent of the right to get compensation in case of injury by accident while working. | Applicable during construction phase of the project components. The PIUs (DoE, BB, BRTA and BHTPA) will ensure through its contractors that basic amenities are provided to the labors. Project proponent through its contractors should also ensure all vendors employed should have valid labor license. Compensation to workers (own and vendors) should not be below daily wage rate as specified by Government. Employee ID card must be issued (own and vendors). Safety, health and welfare measures of building and construction workers as mentioned in the act needs to be complied with. |
|  | 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. | Applicable. Even though Component 3.1 (5 VIC centers initially proposed for feasibility test at Mymensingh, Cumilla, Faridpur, Noakhali and Rangamati) and Component 4.1 (e-waste management facilities at few sites of the Kaliakoir Hi-Tech Park) will be undertaken in the existing premises of BRTA and BHTPA respectively, so not expected to involve land acquisition. But component 1.3 under DoE, construction of DoE office buildings at District level and establishment of regional laboratories, which broader locations are not final yet, may require land acquisition for some of its planned infrastructure. |
|  | Road Transport Act 2018 (Proposed amendment 2021) | The Road Transport Act 2018 (Proposed amendment 2021) formulated the provisions for mitigating pollution from vehicle emissions. Overall, this act suggested establishment of vehicular emission standard in the line of Environment Conservation Act 1995 and its subsequent rules. The act also prohibits the operation of vehicles causing over standard emissions. The main features of the act related to vehicular pollution control (section 46) are given below:   * Government can formulate the emission standard for vehicle maintaining the consistency with Environment Conservation Act 1995 and subsequent rules. * Any vehicle with over standard emission cannot be operated on the road. * Any vehicle cannot use any parts or equipment, which cause environmental pollution. * It is prohibited to operate or to provide approval of operation any faulty, risky, unfit and or banned vehicles on roads and highways. | Yes, this Act is applicable under the Component 3.1 setting up VICs at 5 locations. The project will need to comply with the requirement as stated in the Act. |
|  | Draft Air Pollution Control Rules 2021 | The Draft Air Pollution Control Rules 2021 is prepared by mostly accommodating the previously prepared Draft Clean Air Act 2017. In case of vehicular emission, this rule set the emission standards more explicitly for passenger car, light commercial car, heavy duty vehicle, motorcycle, three-wheelers, and in-use motor vehicle (spark ignition engine, compression ignition engine, motorcycle, and three-wheelers). This rule established emission standards for carbon monoxide, hydrocarbon, oxides of nitrogen, and particulate matter for both petrol and diesel operated engines. Moreover, the rules set separate emission standards for new and in-use vehicles. Since this rule contain the most updated emission standard and measuring instructions in the country, it will be used as governing rules for vehicular pollution control once the rules is finalized. | Applicable since minor to moderate air emission is expected from the construction phases under Component 1.3 (Construction of DoE office building and establishment of regional laboratories) Component 2.1 (conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks (or other alternatives); Component 3.1 (Construction and operations of VIC centers and Component 4.1 (construction and operations of e-waste management facilities) |
|  | Hazardous Waste (E-Waste) Management Rules, 2021: | DoE has published the Hazardous Waste (E-waste) Management Rules, 2021 under the Bangladesh Environmental Protection Act, 1995. It covers the products listed in the Schedule (home appliances, monitoring and control equipment, medical equipment, automatic machines, IT and communication equipment), and establishes obligations for producer, dealers, assemblers, collectors, sellers, and consumers of the products. The main provisions of this regulation.   * Defines the roles of individual stakeholders involved in the E-waste management procedure * Regulates the import export and handling of E-wastes * Provides an appropriate documentation process in order to facilitate the overall E-waste Management implementation. | Applicable for the Component 4.1: E-waste Management Infrastructure at the Kaliakoir Hi-Tech Park during construction and operation phase. During the construction, wastes, spent oils, lubes, will be used for the civil work involved. The operation phase of the E-waste management will result in collection, transportation and storage of collected e-waste, dismantling and processing of e-waste extraction of metals and separation including proper management of hazardous chemicals and metals |
|  | National Information and Communication Technology (ICT) Policy 2015 | The objective of the National ICT policy defines in the section D9 that steps will be taken for the reduction of risk on climate change. By the innovation of environmentally friendly green technology initiatives will also be taken for safe e-waste management, climate, and disaster management. In addition to that the policy in section E defines strategic themes. The section describes the five strategies for environment, climate, and disaster management. Of this provision under sub-section E9 clearly mentions about safe management of electronic waste. Action plan of this policy includes that industry ministry will establish a plant for reuse of extract metal from refurbish PC device and other ICT gadgets. | Applicable for the Component 4.1, where HTPA need to comply with the requirement as stated in the policy.  Applicable for the Component 4.1, where the HTPA need to comply with the requirement as stated in the policy for managing E-waste processing system. |
|  | National Industry Policy 2016: | Chapter 14 of National Industry Policy 2016 highlighted environment friendly Industry management. The policy stated that Government will provide all sorts of co-operation and incentives to the local and foreign entrepreneur for managing and processing industry waste. Besides, industry entrepreneur must be influenced to follow 3R (Reduce, Reuse and Recycle) strategy for waste management. | Applicable for the Component 4.1, where the HTPA need to comply with the requirement as stated in the policy for managing E-waste processing system. |
|  | National Women Policy, 2011 | The policy aims at ensuring human rights and fundamental freedom of women ensuring the active role of women and their equal rights in all the  national economic activity and elimination of all forms of abuse against women. | Applicable, PIUs (DoE, BB, BRTA and BHTPA) will ensure compliance. Women will play important roles in this project. |
|  | National Health Policy, 2019 | We are ensuring quality healthcare facilities to everyone (including emergency health care), exclusively to the rural communities, without any discrimination on the basis of gender and economic status. | Applicable, PIUs (DoE, BB, BRTA and BHTPA) will ensure compliance. People will be engaged directly with this project as both Project Affected Persons (PAPs) and workers. Their health issues are one of many key issues in consideration during the project implementation. |
|  | Child Labor Elimination Policy, 2010 | The main objectives of the policy are as follows:  They are withdrawing working children from different forms of occupations, e.g., hazardous work and the worst forms of child labor; Providing special emphasis for indigenous and physically challenged children to bring them back to the congenial environment; Planning and implementing different short-, medium-, and long-term strategies and programs to eliminate various forms of child labor. | Yes, PIUs (DoE, BB, BRTA and BHTPA) should ensure that no child labor will be engaged at site for construction or operation works either directly or by the sub-contractors. PIUs should include a clause in the subcontractor agreements prohibiting employment of child labor. |
|  | Rights & Protection of Persons with Disabilities Act, 2013 | Deals with disability issues from a human rights perspective and covers people with disabilities based on their impairments. Protection of people with disabilities from violence, abuse, and discrimination, as well as establishing their rights and freedoms. | Applicable, PIUs (DoE, BB, BRTA and BHTPA) will ensure compliance |
|  | Women and Children Repression Prevention Act, 2010 | It addresses the physical, psychological, sexual, and economic abuses women face and aims to provide medical and legal services to the victims and assisting them in seeking shelter and rehabilitation. | Applicable. Women and children are identified in this project as PAP or as labor. In case of handling any situation that originated from GBV, this act has relevance with the project. PIUs (DoE, BB, BRTA and BHTPA) will ensure compliance. |
|  | Public Procurement Rule 2008 | This rule applies to the Procurement of Goods, Works or Services by any government, semi-government or any statutory body established under any law. The Public Procurement Rule 2008 requires contractors to take all reasonable steps to: (i) safeguard the health and safety of all workers working on site and other persons authorized to be in it; (ii) to keep the site in an orderly state; and (iii) to protect the environment on and off the site; to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation. | Applicable for all the components (1-4). PIUs of DoE, BB, BRTA and BHTPA should follow the Public Procurement Rules 2008 while procuring any kind of Goods, Works or Services under the BEST project. |

### Relevant International Conventions, Treaties, and Protocols

Bangladesh has signed most international treaties, conventions, and protocols on the environment, pollution control, biodiversity 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. An overview of the relevant international treaties signed by GoB is shown in **Table 3**.

Table 3: Relevant International Treaty or Conventions and the Responsible Agency

| **International Policy** | **Year** | **Description** |
| --- | --- | --- |
| Convention of Biological Diversity | 1993 | EIA must be introduced to any proposed development projects that are likely to have significant adverse effects on biodiversity, with a view to avoiding or minimizing such effects, and where applicable allow for public participation in such procedures;  Appropriate arrangements must be introduced to ensure that environmental consequences of its programs and policies, that are likely to have significant adverse impacts on biodiversity, are duly taken into account;  Bangladesh is obliged as a contracting party to provide EIA of projects that are likely to have significant adverse effects on biological diversity (art. 4). |
| International Plant Protection Convention | 1951 | This convention was arranged at Rome in 1951. Bangladesh has ratified this convention. Under the convention, Bangladesh has to secure actions to prevent the introduction of plants pests from project work or construction materials, and to promote appropriate measures for their control. It is governed by the Commission on Phyto-sanitary measures, which adopts international standards of this measure. |
| Ramsar Convention (Convention on Wetlands of International Importance especially as Waterfowl Habitat) | 1971 | There are 127 Parties with 1085 wetland sites designated as Wetlands of International Importance. This is an intergovernmental treaty, which provides direction for the conservation and wise use of all wetlands and wetland habitats through local, regional, and national actions and international cooperation. The Convention includes marine wetlands (wetlands up to a depth of six meters at low tide), islands, lakes, and rivers. Not relevant with BEST project |
| UN Framework Convention on Climate Change (UNFCCC) | 1992 | UNFCCC sets out a legal framework for stabilizing atmospheric concentrations of GHGs to avoid “dangerous anthropogenic interference with the climate system”. Together with mitigation, adaptation and loss and damage have been adopted as policy planks to address climate change and its impacts. Because of her disadvantaged geographical location, Bangladesh is regarded as one of the most vulnerable countries in the world. |

Except the treaties related to climate change (e.g. UNFCCC), none of the above agreements are linked to project development or operation due to the nature and location of BEST. In compliance with the requirement of UNFCCC, BEST will be designed, constructed and operated with consideration to reduction in GHG emissions and that all infrastructure be built as climate resilient.

## World Bank’s Environmental and Social Framework (ESF)

Since October 2018, all WB-funded Investment Project Financing (IPF) are required to follow the ESF consisting of ten (10) ESSs. These ESSs set out their requirement for the DoE, BB, BRTA and BHTPA’s identification and assessment of environmental and social risks and impacts associated with any project. The ESSs support the DoE, BB, BRTA and BHTPA’s in achieving good international practice relating to ES sustainability, assist them in fulfilling their national and international ES obligations, enhance transparency and accountability and ensure sustainable development outcomes through ongoing stakeholder engagement. **Table 4** summarize the ESS requirements and their relevance to the BEST project/ sub-project.

Table 4: ESS Requirements and Relevance to BEST Project Activities

| **WB ESS Policies, Standards, Directives** | **Objectives** | **Requirements** | **Extent of Relevance to the sub-projects/project** |
| --- | --- | --- | --- |
| ESS 1  Assessment and Management of Environmental and Social Risks and Impacts | Identify, assess, evaluate, and manage environmental 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. | PIUs to develop an ESMF, LMP, SEP and ESCP during preparation stage and site specific ESIA along with ESMP at implementation stage before processing of subprojects at all levels of the governmental organizations. | Relevant. The proposed projects risk has been rated as ‘substantial’ for the following activities: (a) Construction of DoE office buildings and establishment of regional laboratories (3); (b) conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks by selected PFIs of BB; (c) Construction and operations of VIC centers (5 different locations); (e) construction and operations of e-waste management facilities (at Kaliakoir Hi-Tech Park). Environmental risks and impacts related to the proposed project investments are largely construction, operation and maintenance (O&M) related, reversible, and localized, and for which known engineering, technical and housekeeping measures are available and can be developed and implemented. The building (office and laboratories) construction works are small scale and expected to follow standard methods in existing built-up areas (disturbed environments). The proposed new monitoring stations will have minimal footprints but will provide very useful information (including data from new monitoring vehicles and vessels) that will help strengthen enforcement and compliance, which are expected to have positive environmental outcomes. Similarly, the investments supported by BB through GSGS will contribute to reducing pollution from industrial sources. The small-scale construction of new VICs can have short-term localized negative impacts during the construction works. The proposed e-waste management facility will be a pilot recycling facility to be operated under good environmental management by a qualified private sector service provider.  All these investment activities would be carried out on existing facilities of DoE, BRTA and BHTPA, therefore land acquisition would not be required, however, few squatters or affected people may exists in the sites. Construction activities may cause traffic congestions and other negative ES impacts related to construction works in VICs (and e-waste management facility.  To comply with the ESMF ESIA and ESMP will be prepared where required. |
| ESS 2  Labor and Working Conditions | Promote safety and health at work. Promote fair treatment, non-discrimination, and equal opportunity for 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 collective bargaining of project workers in a manner consistent with national law. Provide project workers with accessible means to raise workplace concerns. | 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 worker’s organizations. Provisions on child labor and forced labor. Requirements on occupational health and safety, in keeping with the World Bank Group (WBG’s) Environmental, Health, and Safety Guidelines. | Relevant. During the construction and operation of DoE office infrastructures and regional laboratory (component -1); conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks (Component-2); Construction and operations of VIC center (component -3); and construction and operations of e-waste management facilities (component -4), the project will involve the employment of direct workers and contracted workers.  The project has developed a separate Labor Management Procedure, which covers the issues and concerns of laborers and workers employed/likely to be employed by the PIUs. |
| 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 the 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 water efficiency where a project has high water demand. | With respect to Resource Efficiency, the project preparation and the ESMF process will identify feasible measures for efficient (a) energy use; (b) water usage and management to minimize water usage during construction, conservation measures to offset total construction water demand and maintain balance for the demand of water resources; and (c) raw materials use by exploring the use of local materials, recycled aggregates, use of innovative technology so as to minimize project’s foot prints on finite natural resources.  Requires an estimate of gross greenhouse gas emissions resulting from project (unless minor), was technically and financially feasible. Requirements on the management of wastes, chemical and hazardous materials, and contains provisions to address historical pollution. ESS 3 refers to national law and good International Industry Practices. | Relevant. The project activities will promote RECP technologies and implement pollution control investments under analytical laboratories for DoE (Component-1.3), conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks (Compoent-2.1), implementation of VICs (Component-3.1) and e-waste management by BHTPA (Component 4.1).  With respect to Resource Efficiency, the site specific ESMP will identify feasible measures for efficient (a) energy use; (b) water usage and management to minimize water usage during construction. |
| ESS 4  Community Health and Safety | Anticipate or avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from routine and non-routine circumstances. Promote quality, safety, and climate change considerations in infrastructure design and 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. | Requirements on infrastructure, considering 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. 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. | Relevant. Construction of DoE offices with Laboratory (Component-1.3), Conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks (Component-2); Construction and operations of VIC center (component -3.1); and construction and operations of e-waste management facilities (component -4), may expose communities to health and safety risks, especially those communities that are immediately close to the project facilities. The transportation of construction, e –waste collection and disposal materials may create mitigable negative impact on the community. Similarly, labour employed during the construction phase, especially outskirt of the Dhaka metropolitan areas, may affect the local community.  Hence, community health and safety measures will be prepared, adopted, and implemented under the project addressing community health and safety issues as well addressing the need for COVID-19 protocol application. A COVID-19 Standard Operational Procedure (SOP), and A Laboratory Safety Protocol will be developed by the project. Further, a GRM will also be enacted to address issues with grievances by all stakeholders and will be included in the ESCP. |
| 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 the 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 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 the provision of adequate housing, access to services and facilities, and security of tenure. Conceive and execute resettlement activities as sustainable development programs. | Applies to permanent or temporary physical and economic displacement resulting from different types of land acquisition and restrictions on access. 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 ESS 5). Requires 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. | The project will not acquire any private land and all construction activities will be on public land. However, squatters may be present in the project area who may need to resettle. Their presence will be confirmed through screening. A Resettlement Policy Framework (RPF) will be developed before negotiations to guide development of site-specific RAPs and Abbreviated Resettlement Action Plan (A-RAP) to address the issue mentioned. |
| 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 for BEST, as most of the activities will be in the existing premises, urban and peri-urban areas which are already disturbed areas. So, the project activities are not expected to affect any biodiversity or habitat. |
| ESS 7  Indigenous Peoples | Ensure that the development process 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 (IP), and provide them with an opportunity to adapt to changing conditions in a manner and in a timeframe acceptable to them. | Applies when the Indigenous People are present or have a 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 WB 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. | Relevant. There is the possibility of the presence of small ethnic communities in the project areas especially component 3 under BEST, VIC center at Rangamati (if site is technical feasible) and component 1 DoE office building at Khagrachhori (upon final selection), whose presence and scale will be assessed during the social assessment, including the risk and impacts of the project activities on these communities. A separate SECDPF has been prepared to address issues of the ethnic minorities whose presence will be determined through screening. Any activity requiring FPIC will not be approved. |
| ESS 8  Cultural Heritage | Protect cultural heritage from the 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. | Requires a chance finds procedure to be established. 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 the commercial use of cultural resources. Provisions of archaeological sites and materials, built heritage, natural features with cultural significance, and moveable cultural heritage. | Relevant. Since locations of the subproject are yet to be known, thus there may be likelihood of presence of Cultural Heritages (tangible, intangible etc.) Basing on the screening, their presence will be determined, and a Chance Finds Procedure will be appended to bidding and contract document to illustrate actions to be taken on finding any cultural heritages. |
| ESS 9  Financial Intermediaries | Sets out how Financial Intermediaries (FI) will assess and manage ES risks and impacts associated with the subprojects it finances. Promote good ES management practices in the subprojects which the FI finances. Promote good environmental and sound human resources management within the FI. | FIs to have an ESMS, a system for identifying, assessing, managing, and monitoring the ES 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. | Relevant. The project component 2 will involve the Bangladesh Bank to select FIs to finance RECP and pollution control investments to targeted industries, especially in the alternative non-fired brick kilns fields, rooftop solar, municipal waste management and stove production. PFIs (Including the Bangladesh Bank) will put in place and maintain an ESMS to identify, assess, manage, and monitor the ES risks and impacts of FI subprojects on an ongoing basis.  Given the involvement of financial intermediaries (BB and PFIs), an ESMS review has been completed. Bangladesh Bank’s Environmental and Social Risk Management (ESRM) is comprehensive to address most ES risks and impacts that may emanate from project interventions. The recommendations are provided in **Annex VII**. |
| ESS 10  Stakeholder Engagement and Information Disclosure | Establish a systematic approach to stakeholder 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 considered 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. | Requires stakeholder engagement throughout the project life cycle and preparation and implementation of a 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. | Relevant. Each of the four different PIUs at the DoE, BB, BRTA, and BHTPA has its own agenda and scope to implement various subprojects. A SEP has been developed for all the PIUs to illustrate various stakeholders and ways to engage them and close the feedback loop. The Stakeholder Engagement Plan has detailed different GRM and grievance redress committees for the PIUs to address issues and concerns for the project. |

## 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 ES capacity assessment of the BEST in light of the *Overview Assessment of Bangladesh's Country Framework for Addressing Environmental Risks and Impacts of Development Projects (September 2021)*. The results of the gap analysis indicated the Bangladesh EIA System has a few material gaps with respect to the WB ESS1.

Foremost among these are: (i) it does not cover many of the issues relating to other WB ESS; (ii) the stakeholder engagement during the EIA study is almost non-existent or very limited, needless to say, that there is no requirement to engage stakeholders during construction; (iii) it does not emphasize the application of mitigation hierarchy in selecting mitigation measures; (iv) it recognizes only Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) and does not provide for other assessment instruments, particularly SEA, REA and cumulative assessment; and, (v) it does not require analysis of alternatives. It has also a few problems of its own when compared to a standard EIA system, including: (i) it does not provide any formal definition of the projects to be required the Environmental Clearance--the law only refers to "industry" and "industrial units"; (ii) the screening process is inadequate--there is no procedure or criteria for determining which category a project would fall into; and (iii) it does not have formal procedure for compliance monitoring and reporting. Although there are suggestions in the EIA Guidelines on these issues, the Guidelines does not have the same compelling effect as the force of law or regulation. 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 ESMP. For the management of project related ES risks of FIs, DoE has no provision in existing policy ECA 1995 or ECR 1997 and subsequent amendments. The eminent domain land acquisition system for example does not require the preparation of Resettlement Action Plan (RAP). There are some gaps between the existing land acquisition law of the country and WB ESSs on Involuntary Resettlement and on indigenous peoples in terms of identification of affected persons and compensation packages and participation of community groups of diverse interests and vulnerabilities. The projects are also not required to formulate their own Labor Management Procedures/Plans (LMP).

Suggested gap-filling measures are given in **Table 5**. Given the gaps, this ESMF will follow the most stringent standards and requirement.

Table 5: Gap Analysis of GoB Laws and World Bank ESSs

| **WB ESF Standard** | **Equivalent National Environmental Policy and Regulation** | **Gap Analysis** | **Gap Minimization** |
| --- | --- | --- | --- |
| ESS-1: Assessment and Management of Environmental and Social Impacts and Risks | The Environment Conservation Act, 1995 and subsequent amendments until 2010,  ECR 1997 and subsequent amendments in 2002, 2003 and 2010 | The Bangladesh EIA System has a few material gaps with respect to the WB ESS1. Foremost among these are: (i) it does not cover many of the issues relating to other WB ESS; (ii) the stakeholder engagement during the EIA study is almost non-existent or very limited, needless to say, that there is no requirement to engage stakeholders during construction; (iii) it does not emphasize the application of mitigation hierarchy in selecting mitigation measures; (iv) it recognizes only IEE and EIA and does not provide for other assessment instruments, particularly SEA, REA and cumulative assessment; and, (v) it does not require analysis of alternatives. It has also a few problems of its own when compared to a standard EIA system, including: (i) it does not provide any formal definition of the projects to be required the Environmental Clearance--the law only refers to "industry" and "industrial units"; (ii) the screening process is inadequate--there is no procedure or criteria for determining which category a project would fall into; and (iii) it does not have formal procedure for compliance monitoring and reporting. Although there are suggestions in the EIA Guidelines on these issues, the Guidelines does not have the same compelling effect as the force of law or regulation.  In terms of the other WB ESS, the gaps are generally benign with almost full conformance on labor and working conditions, pollution control and, on biodiversity conservation and sustainable management of living natural resources. | ESMF has suggested following the ESS-1 requirements, given in the relevant sections of environmental management procedures. In case, DoE rules/ regulations do not cover the ESS requirements, and relevant clauses should be added in the financial agreements and project appraisal document to follow the more stringent safeguard requirements according to WB ESF. |
| ESS-2: Labor and Working Conditions | Bangladesh Labor Law, 2006,  Bangladesh Labor Act, 2013 and Bangladesh Labor Rules, 2015  Industrial Policy, 1999 | The Labor Act 2006 adequately addresses basic workers' rights, child labor, and women's needs, although it did not have explicit provisions about equal opportunity and non-discrimination, except for discrimination based on union memberships. The Labor Act's sections on occupational health and safety regulations also did not mention provisions of appropriate protective equipment for workers. | Under this project, a central LMP has been prepared to regulate working conditions and management of worker relations including workers specific GRM, terms and conditions of employment, non-discriminations and equal opportunity, protection of work force, prohibition of child/forced labor and provision of occupational health and safety (OHS). |
| ESS-3: Resource Efficiency and Pollution Prevention and Management | ECA 1995  Sustainable and Renewable Energy Development Authority Act 2012  Water Act 2013  Water Supply and Sanitation Act, 1996  The Ground Water Management ordinance, 1985  National Water Bodies Protection Act, 2000  National 3R Strategy for Waste Management, 2020  The National Water Act, 2013  Noise Pollution (Control) Rules 2006  Road Transport Act 2018  The Brick Burning Control Act, 1989 (Amendment Act, 1992 and 2001)  Draft Air Pollution Control Rules 2021  Hazardous Waste (E-Waste) Management Rules, 2021:  National Information and Communication Technology (ICT) Policy 2015 | The ECA 1995 and its implementing rules adequately provides for the control of environmental pollution. Energy efficiency is also being promoted at the user or individual project levels through the Energy Conservation Rules 2014. There is currently no regulation or program to encourage conservation of water at the individual companies/projects. Also, there is still no regulation or policy encouraging individual companies/projects to minimize GHG emission. | ESMP to be developed for BEST component 1, 2, 3 and 4 will address this issue and incorporate mitigation measures for efficient use of water resources. |
| ESS-4: Community Health and Safety | National Building Code 1993  National Building Code 1993  (RHD Geometric Design Standards 2005)  Road Transport Act 2018  Bangladesh Standards and Testing Institute Act 2003  Food Safety Act 2013 (Various Laws)  ECA 1995  Pesticide Act 2009  National Water Bodies Protection Act, 2000  Noise Pollution (Control) Rules, 2006  National Strategy for Waste Management Bangladesh National Building Code (BNBC), 2006 | The more serious issues are observed in the community health and safety. The country has no policy or standards for dam safety or even for water infrastructure safety and there is still no comprehensive legislation on hazardous wastes and substances, although the ECA 1995 already empowers the DoE to determine safe procedures for the use, storage and transportation of hazardous substances. Expectedly, there is no clear requirements and agency responsible for ensuring community health and safety in development projects during planning, except those that have been traditionally covered in the EIA with DoE as the agency responsible. There is a serious lack of enforcement in almost every aspect of community health and safety, and this is probably worse in terms of the building code, in the regulations of food safety, and the operational aspect of road safety (i.e., traffic rules, licensing, etc.). | The gaps are addressed through suitable provisions in ESMP. In addition, contractor, PFIs and PPP/Facility operators will be responsible to prepare and implement the Contractor Environmental and Social Management Plan (C-ESMP) regarding community health and safety which includes OHS plan, traffic and road safety management plan etc. |
| ESS-5: Land Acquisition, Land Use Restriction, and Involuntary Resettlement | The Acquisition and Requisition of Immovable Property Act, 2017  National Land Use Policy, 2001 | * Does not require the preparation of RAP; * Does not provide compensation or assistance to those who do not have a formal legal claim to the land; Does not provide transitional allowances for restoration of livelihoods for informal settlers; relies on cash compensation, no developmental objectives; * no provision to give special attention to the vulnerable groups * valuation of lost asset is not based on "replacement cost' standard | The project will not acquire any private land and all construction activities will be on public land. However, squatters may be present in the project area who may need to resettle. Their presence will be confirmed through screening. A RPF will be developed before negotiations to guide development of site-specific RAPs/A-RAPs to address the issue mentioned. |
| ESS-6: Biodiversity Conservation and Sustainable Management of Living Natural Resources | ECA 1995  Disaster Management Act 2012  Biodiversity Act 2017  National Integrated Pest Management Policy 2002  Marine Fisheries Act 2021  Forest Act 1927  Protection and Conservation of Fish Act 1950  National Biodiversity Strategy and Action Plan (2004)  Wildlife Conservation (Protection and Safety) Act, 2012  Bangladesh Biodiversity Act, 2017 | The biodiversity conservation regulations in Bangladesh focuses on identification of critical habitat areas and placing them under protected status. Given the protected status, development projects are generally not permitted in these areas, except when they are part of the protection plan for the area itself. Hence, there are no encompassing rules or guidelines in terms of managing projects' impacts and influence in these areas, such as the hierarchy rule in applying mitigation measures. However, the ECA 1995 does place liability to persons/companies for damages inflected on ecosystem and provides that compensation for the damage will have to be determined by an expert.  It should be noted that regulatory systems relevant to the other WB ES Standards are generally not formally linked with the EIA. This is because these laws are not intended to be applied in the planning stage of a project. They impose requirements to be met during operations of business establishments or facilities. Thus, the challenge for the implementation of ES Standards in development projects in Bangladesh is to bring these laws to bear with project planning and vetting. | Not relevant for BEST, as most of the activities will be undertaken in the existing premises. |
| ESS-7: Indigenous People | Constitutional Rights of the Tribal People | No equivalent requirements on:   * coverage of IP impacts in the ESIA; * special treatment or differentiated approach to IPs and vulnerable groups; * conduct of FPIC; * development of IP Plan. | A separate SECDPF has been prepared following the ESS7 requirements. |
| ESS-8: Cultural Heritage | - | No equivalent requirements on:   * the application of the hierarchy of measures; * the development of Cultural Heritage Management Plan; the development and adoption of project-specific Chance Find Procedures; and * the engagement of cultural heritage experts. | Since locations of the subproject are yet to be known, thus there may be likelihood of presence of Cultural Heritages (tangible, intangible etc.) Basing on the screening, their presence will be determined and a Chance Finds Procedure will be appended to bidding and contract document to illustrate actions to be taken on finding any cultural heritages. |
| ESS-9: Financial Intermediaries | - | Not applicable to the country system. Project proponents, regardless of funders, are subject to the same country's laws. | The ESMS (named as ESRM or Environmental and Social Risk Management, in BB’s perlance) has been reviewed and recommendations made in **Annex VII**. |
| ESS-10: Stakeholder Engagement and Information Disclosure | Right to Information Act, 2009  Women and Children Repression Prevention Act, 2010  The Convention on the Elimination of all Forms of Discriminations Against Women Convention Bangladesh, 2015  Rights & Protection of Persons with Disabilities Act, 2013  National Women Policy, 2011 | The ECA/ ECR does not specifically require consultation, but the ESIA guidelines issued by DoE and other agencies recommend public consultations during scoping and the preparation of the ESIA. There is also no provision for any stakeholder engagements during project implementation. | Under this Project, a combined SEP has been developed for all the PIUs to illustrate various stakeholders and ways to engage them and close the feedback loop. The SEP has detailed different GRM and grievance redress committees for the PIUs to address issues and concerns for the project. |

## Classification of the Project According to the Environment Conservation Rules (ECR) and Requirement for Environmental Clearance Certificate (ECC)

The legislations relevant for environmental assessment for BEST components are the ECA 1995 and the ECR 1997, amended 2010. In order to set an illustrative directive for abiding by the act, Bangladesh Government through the ECR 1997 and its subsequent amendments, as specified in rule 7(2), lists the different types of industrial projects into four categories namely, Green, Orange A, Orange B, or Red, based on severity of its potential environmental impacts. Environmental clearance can be granted at various tiers depending on the category of project to which an industrial activity belongs. 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, DoE, BB, BRTA and BHTPA of the BEST project is obliged to abide by all these acts and rules, in addition of other GoB acts, rules or guidelines.

As per ECR 1997 amended 2010, due to the planned project interventions and the nature of activities, the BEST project falls under Red category and ESIA will be required for DoE offices & laboratories (Component 1.3); conversion of existing clay-fired brick kilns to the production of non-fired concrete blocks and municipal waste recycling and composting facilities (Component 2.1); VICs Centers for BRTA (Component 3.1) and e-waste management (Component 4.1) for BHTPA. *It is the responsibility of the PIUs i.e. DoE, BB, BRTA and BHTPA to conduct ESIA in accordance with the ESMF and get ECC from DoE. ESIA study and Environment clearance will be obtained by the PIU of DoE on behalf of BB, BRTA and BHTPA from the DG, DoE.*

The environmental clearance procedure for Red 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.

## Guidance Related to COVID-19

Due to ongoing COVID-19 pandemic, World Health Organization (WHO) and Directorate General of Health Services (DGHS), under the Ministry of Health and Family Welfare, provided guidelines for infection prevention and control. The government has incorporated the life-threatening novel corona virus in 'The Communicable Diseases (Prevention, Control and Eradication) Act, 2018’. With the notification of the gazette the government has a legal basis to take action against the people not following the government’s direction that relates to COVID-19.

ESF/Safeguards Interim Note: Covid-19 considerations in construction/civil works projects by WB is applicable to all activities of project during COVID-19 pandemic. 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 place of other guidance that has been provided to date.

# IDENTIFICATION OF POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

## Impact Assessment and Prediction

### Potential ES Risks and Impacts

Risks and impacts related to the proposed project investments include those that are construction related, O&M of municipal and e-waste management facilities, operation of new and technically advanced non-fired brick kilns, construction and operation of VICs, operation of various laboratories etc. The activities will generate construction related wastes, including wastes that will generate from the O&M of the facilities that may impact air, water, soil quality and nearby communities. It is to be noted that poorly operated and maintained municipal waste recycling and composting centers and e-waste management facilities may lead to the accumulation of solid wastes in the area of operation, including issues with final disposal of residual wastes if not properly disposed and may affecting health and safety of workers, community and public health. The project will use resources (water, energy and raw material). After screening, subproject level ES assessment and management plans will be developed so that resources are used efficiently and recycled where possible. Waste Management Plans for e-waste management facility, municipal waste management facility and brick kilns will be developed by PIUs to document how to address waste management issues so that they are disposed of or recycled and environmental and community harms are addressed. The Project activities is not likely to affect any biodiversity, habitat and living natural resources.

Thus, the project’s overall environmental benefits will far exceed the negative impacts, those are reduction in Particulate Matter (PM) and GHG emission (i.e., by about 80%), elimination of topsoil use, minimization of land footprint for the production facilities, improvement in job quality in non-fired brick kilns and reduced exposure to air pollution, reduction of vehicular emission through enforcement of emission standards, increased safety and reduction of accident though fitness examination, Improvement of vehicular maintenance and reduction in fuel consumption as well as the haphazard disposal of e-waste materials. The proposed new CWQMS will have minimal footprints but will provide very useful information on water quality that will help strengthen enforcement and compliance, which are expected to have positive environmental outcomes.

Environmental and Social Risk Classification (ESRC) of the BEST has been rated as ‘Substantial’ Environmental and Social Assessment (ESA) study i.e. ESIA should further assess the exact depth of risks and impacts, based on the evidence, professional judgment and public consultations. A preliminary categorization of the project components/sub-components based on their ESA requirement is given in **Table 6** following the new WB ESF/10 ESSs.

The projected impacts of the BEST project on the key ES parameters that have been identified as part of the ESMF are listed in **Table 7**, which has also been analyzed in according to the ESS1 risk categories based on the significance of each impact. In the subsequent sections, these impacts are discussed and guidelines for mitigation included for the ESMF of the BEST project. The potential ES impacts and mitigating measures is given in **Table 8**.

Table 6: Categorization of BEST Activities Based on Key Predicted Impacts and ESS Requirements

| **Component** | **Sub- Component** | **Activities/ Investments** | **Location** | **Design** | **Potential Impacts** | **Risk Category** | **ESSs Requirement** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Component 1: Environmental Governance and Infrastructure | 1. Regulatory Reforms | ECA amendment, develop a new Climate Change Act, and amend existing, and develop new, ECA related rules, environmental discharge standards and technical guidelines.  Develop additional policies and strategies during project implementation | No physical activities under component 1.1. | No physical activities under component 1.1. | No physical activities under component 1.1. This component will positively contribute to regulatory reforms by new regulations, policies, standards, guideline and strategies that can result in improved ES conditions. | Moderate | E&S Screening, Integration of E&S requirements in the ToRs, SEP, GRM, COVID-19 safety protocol |
|  | 1. Institutional Reforms | Creation of 30 district DoE offices.  Filling the existing vacancies of DoE stuff  Establishment of an Environmental research and technology institute and an environmental fund  Development of legal, financial and organizational structure of the fund and operating procedure and policy based on domestic best practices.  Among others, it is expected that the fund will have three special windows: (a) technology promotion to support the pilot and scaling up of green technologies; (b) waste management to support local governments to invest in integrated waste management infrastructure; and (c) feasibility studies and technical assistance to support ETP investments. | No physical activities under component 1.2. | No physical activities under component 1.2. | No physical activities under component 1.2. This component will cover institutional reforms of DoE organization structure and increase in DoE staff number.  Potential risks of discrimination to disadvantaged and vulnerable communities, groups and individuals including women will be addressed by providing equal career opportunities in DoE’s recruitment process;  The environmental research and technology institute will assist the DoE in policy research, identification, and promotion of green technologies and technical training within and beyond the DoE;  The Environment Fund will help DoE mobilize sustainable financing to strengthen its ability of working with different stakeholders on concrete environmental conservation actions such as policy studies, Research and Development (R&D) and technology pilots, and citizen engagements during and beyond project implementation. | Moderate | E&S Screening, Integration of E&S requirements in the ToRs, SEP, GRM, COVID-19 safety protocol |
|  | 1. Capacity Building and Environmental Infrastructure | Improve technical capacity of DoE’s existing, new and future staff  Environmental monitoring capacity enhancement of DoE.  DoE will construct 15 number office building and 3 divisional laboratories.  Development of CWQMSs and  Continuous ETP monitoring stations  potential confounding for ETP in the industrial zones  Development of an Environmental Information System  Upgradation of IT infrastructure of DoE’s  Provide Training to different Stakeholder Group, including:  Training program of on-the-job and off-site training programs on various technical issues; Certification program to support the certification of all DOE laboratories through the development and adoption of standard operation procedures and participation in external quality assurance schemes;  Development of an expert pool with identified domestic and international experts;  Targeted training for judges, magistrates, law enforcement and targeted industries on environmental regulations;  development a general environmental curricula of the country’s education system and the curricula of environmental majors at colleges;  Public engagements through online and in-person consultations and awareness raising campaigns; and  Technical training on AQM, WQM, inventory development, source apportionment/contribution analysis, and air and water modelling and forecasting. | Office Building: Will be set up in some of the 30 Districts, the selection of which will be made after appraisal;  Laboratories: Will be set up in 6 Divisions, the location of which will be confirmed after appraisal; | Will not be done before appraisal | Component 1.3 will have potential ES impacts because of construction activities , impacts include, among others,  noise, vibration and Air pollution;  Water pollution & drainage congestion;  Land filling and soil contamination;  Solid waste generation;  traffic / mobility / access;  impacts to physical cultural resources; Impact on disposing accidental chemical waste from laboratories;  Labor related risk (Occupational and Community health and safety;  Presence of ethnic communities and associated risks and impacts on them; and issues related to the COVID-19 pandemic;  Positive impacts are:  However, this component will expand DoE’s institutional capacity and enforcement of environmental regulations all over the country;  Proposed new monitoring stations will provide very useful information (including data from new monitoring vehicles and vessels) that will help strengthen enforcement and compliance; | Substantial | E&S Screening, Integration of E&S requirements in the ToRs, ESIA, ESMP, LMP, SEP, OHP, EHS (GIIP); GRM, SECDPF, RPF, Lab Safety Protocol, C-ESMP, COVID-19 safety protocol |
|  | 1. Project Management of MoEFCC/DoE Activities | Set up a Project Monitoring and Coordination Unit (PCMU) at MoEFCC and PIU at DoE  Support PSC to supervise and facilitate project implementation.  Perform reform actions by PBC | No physical activities under component 1.4. | No physical activities under component 1.4. | No environmental or social impacts are envisaged  Adequate ES staff and resources will be a part of the PCMU and PIUs to implement the ESMF | N/A | Excluded from ES Assessment |
| Component 2: Green Financing for Air Pollution Control | 1. Green Credit Guarantee Scheme | Develop a GCGS to finance in the four targeted sectors: brick manufacturing, municipal waste recycling and composting, cookstove, and rooftop solar systems;  Manage the implementation of this GCGS;  Provide grants in order to ensure the achievement of the objective of BEST project; and  Support BB’s costs to manage the operation of the proposed GCGS. | Brick Kilns: These will be built on existing land of old brickfields. Location and borrowers are yet to be known;  Municipal Waste Recycling: Location and likely operators are yet to be selected;  Clean Stove Production: Production location not yet determined;  Rooftop Solar: Not defined yet; | Will not be done before appraisal | Component 2.1 will have potential ES impacts because of construction activities , impacts include, among others,  Noise, vibration and Air pollution;  Land filling and soil contamination;  Solid waste generation;  Labor associated risk (Community health and safety; pre4sence of ethnic community, community health and safety  and issues related to the COVID-19 pandemic);  However, Brick Sector Transformation will have beneficial impacts during its operation:   * + Drastic reduction in direct PM and GHG emission (i.e., by about 80%)   + Elimination of topsoil use   + Minimization of land footprint for the production facilities for same production due to round the year production;   + Improvement in job quality and reduced exposure to air pollution;   + Use of waste material such as coal ash as filler; and   + No hazardous materials involved. | Substantial | BB’s ESMS review and strengthening; ESIA, ESMP, LMP, SEP, OHS, EHS (GIIP); GRM, SECDPF, RPF, C-ESMP, COVID-19 safety protocol |
|  | 1. Technical Assistance | Provide much needed technical assistances to BB, PFIs, and targeted beneficiaries on green technologies promoted by the project; and  Support targeted awareness raising events to reduce the demand for bricks produced from traditional technologies and increase the demand for bricks produced from new production technologies. | No physical activities under component 2.2. | No physical activities under component 2.2. | No physical activities under component 2.2. This component will positively contribute to systemic management of emission control by introducing non fire brick kiln other green investments that can result in improved ES conditions. | Low | E&S Screening, Integration of E&S requirements in the ToRs BB’s ESMS review; SEP, GRM, SECDPF, COVID-19 safety protocol |
|  | 1. Project Management | Support BB’s cost to manage the operation of the proposed GCGS support BB to set up its PIU | No physical activities under component 2.3. | No physical activities under component 2.3. | No environmental or social impacts are envisaged  Adequate ES staff and resources will be a part of the PCMU and PIUs to implement the ESMF | N/A | Excluded from ESA |
| Component 3: Vehicle Emission Control | 1. Vehicle Inspection | Support BRTA to pilot the development of five new VICs through a PPP arrangement; and  Perform mandatory safety and emission inspections of in-use vehicles. | Vehicle Inspection Centers: Location needs set criteria including entrance and exit for vehicles. A number of candidates sites have been proposed but exact criteria yet to be met. Will be done after appraisal; | Will not be done before appraisal | Component 3.1 will have potential ES impacts because of construction activities, impacts includes, among others,   * + Noise, vibration and Air pollution;   + Land filling and soil contamination;   + Solid waste generation;   + Labor associated risk (Occupational and Community health and safety and   + issues related to the COVID-19 pandemic)   + Presence of ethnic communities and impact on them   However, VICs will have beneficial impacts during its operation:   * + Reduction of vehicular emission through enforcement of emission standards   + Increased safety and accident reduction though fitness examination   + Improvement of vehicular maintenance and reduction in fuel consumption   + No hazardous materials involved | Substantial | E&S Screening, Integration of E&S requirements in the ToRs, ESIA, ESMP, LMP, SEP, OHS, EHS (GIIP); GRM, SECDF, RPF, C-ESMP, COVID-19 safety protocol |
|  | 1. Technical Assistance | Develop its capacity to manage vehicle inspection for both safety and emission control;  Explore different modalities to support the development and operations of such centers;  Develop a strategy and implementation plan to establish a national vehicle inspection system; and  Support BRTA to develop/revise its road-side vehicle inspection guidelines and carry out effective cooperation with DoE to improve enforcement of vehicle inspections. | No physical activities under component 3.2. | No physical activities under component 3.2. | No physical activities under component 3.2. This component will positively contribute to systemic management of emission control that can result in improved ES conditions. | Low | E&S Screening, Integration of E&S requirements in the ToRs SEP, GRM, SECDPF, COVID-19 safety protocol |
|  | 1. Project Management at BRTA | Support BRTA to set up its project management unit (PIU) to manage Component 3 of the project;  Support the PIU to review specific technical issues identified during project implementation;  support incremental operating costs incurred by the PIU. | No physical activities under component 3.3. | No physical activities under component 3.3. | No environmental or social impacts are envisaged  Adequate ES staff and resources will be a part of the PCMU and PIUs to implement the ESMF | N/A | Excluded from ES Assessment |
| Component 4: E-waste Management Infrastructure | 4.1. Pilot E-waste Management Infrastructure | Support BHTPA to develop new e-waste management infrastructure including an e-waste processing facility and a proper disposal site within the Kaliakoir HTP through PPP arrangements, | E-Waste Management Facility: Location will be at Kaliakoir HTP. A number of potential sites have been earmarked but not selected yet. Will be done after appraisal. Also, private sector selection will be done during implementation; | Will not be done before appraisal | Component 4.1 will have potential ES impacts because of construction activities impacts include, among others,  Noise, vibration and Air pollution;  Land filling and soil contamination;  Solid Waste generation;  Labor associated risk (Occupational and Community health and safety; SEA/SH and issues related to the COVID-19 pandemic);  The environmental benefits of establishing a new pilot e-waste management infrastructure are:   * + Haphazard disposal of e-waste materials will be reduced with associated health risks reduction   + Through recovery and recycling of electronic components and valued materials (e.g., Gold) economic benefits will be derived * The terms and condition of the PPP shall clearly mention requirement of appropriate due diligences of environmental of the recycling facility will introduce technically sound management where Good International Industry Practice (GIIP) is followed for waste management as well. | Substantial | ESIA, ESMP, LMP, SEP, OHSP, EHS (GIIP); GRM, SECDPF, RPF, SEP, GRM, C-ESMP, COVID-19 safety protocol |
|  | 4.2. Technical Assistance | Develop a pilot e-waste collection program for national government agencies and public institutions;  Pilot eco-design (as a part of EPR) scheme for high-tech firms operating in hi-tech parks managed by BHTPA, and  pilot monitoring program of the operation of the pilot e-waste management infrastructure; and  Support development of e-waste database to be managed by DoE. | No physical activities under component 4.2. | No physical activities under component 4.2. | No physical activities under component 4.2. This component will positively contribute to systemic management of e-waste that can result in improved ES conditions. | Low | E&S Screening, Integration of E&S requirements in the ToRs SEP, GRM, SECDPF, COVID-19 safety protocol |
|  | 4.3. Project Management | Support BHTPA to set up its PIU | No physical activities under component 4.3. | No physical activities under component 4.3. | No environmental or social impacts are envisaged  Adequate ES staff and resources will be a part of the PMU and PIUs to implement the ESMF | N/A | Excluded from ES Assessment |
| Component 5: CERC Contingency Emergency Response Component | Not defined, Zero allocation | Will provide an ex-ante mechanism for the Government of Bangladesh to gain rapid access to Bank financing to respond to an eligible crisis or emergency that causes major adverse economic and/or social impacts. | Not defined, Zero allocation | Not defined, Zero allocation | If CERC triggered, potential impacts should be measured through preparing separate ESMF. | N/A | Updated ESMF; A list of Positive and Negative List for CERC is given in **Annex IV**. |

### Potential Environmental and Social Impacts Related to Project Siting

**Loss of natural vegetation and trees**

All civil /infrastructure works i.e. construction of DoE district offices, regional laboratories; construction of BRTAs VIC centers, construction of BHTPAs e –waste management facilities at Kaliakoir and BB’s FI funded green brick kilns upon selection of the specific sites may require cutting of trees and removal of natural vegetation due to site clearance (clearing of the site so that it becomes accessible for further works), vegetation loss (mainly grass/shrubs but also possibly some trees).

**Impacts on vulnerable and disadvantage groups/communities/individuals**

To address the gaps in women’s employment in green growth-related jobs, the project will implement actions to increase women’s recruitment and retainment in the headquarters and district offices. Out of the 1,102 new recruitments targeted, 36 percent will be reserved for women. In addition to the specified quota for hiring women, the project will support capacity building at the DoE to (a) carry out targeted outreach, (b) improve working conditions by setting up mechanisms to report workplace sexual harassment, and (c) provide childcare support. Beyond the DoE, at the PFI’s brick kilns, IWM, opportunity will minimize gender gap in terms of skilled and unskilled employment generation, remuneration, training and knowledge, and occupational sex segregation in higher skill tier assignments will be reduced and addressed.

### Potential Environmental and Social Impacts During Project Implementation

**Air Pollution**

Localized and temporary air pollution may generate due to the construction activities at 15 district offices and 3 equipped divisional laboratories for DoE; BRTA VIC centers at potential locations of Noakhali, Faridpur, Cumilla, Faridpur and Rangamati, E-waste management facility at Kaliakoir HTP from earthworks (e.g., excavation, filling), movement of vehicles, and operation of machines and equipment. The air pollution generated from these activities is likely to be localized (affecting the immediate surroundings of the emission source/ project site). If construction equipment, such as stone (aggregate) crusher, is used at the site, this may result in significant emission of particulate matter during its operation.

**Noise Pollution**

Noise pollution is likely to result from various construction activities at the district offices and equipped divisional laboratories for DoE, 5 BRTA VIC centers, E-waste management facility of BHTPA, including the movement of vehicles carrying construction materials, equipment to and from the site, and different construction activities. The main sources of noise during the construction period will be site preparation works, excavating, piling, transportation and handling of materials and equipment, other engineering works like riveting, hammering, cutting, welding, etc. Operation of concrete mixers, excavators, construction vehicles, fabrication, handling of equipment and materials, etc., would generate a considerable amount of noise. This high level of noise would have a significant impact on the population residing nearby. Sensitive receptors such as hospitals, schools, religious places, and crowded market areas are particularly vulnerable to increased noise levels.

**Impacts of Land Filling (at new construction site)**

During the construction of district offices and equipped divisional laboratories for DoE; for BRTA VICs; and for BHTPA E-waste recycling facility, green brick kiln, municipal waste recycling and composting, etc., land filling is required. Potential impacts that can arise from the proposed construction/ civil works at new sites may involve land filling querying earth from elsewhere. Land filling activity must avoid collection of topsoil from crop fields, hills cuttings and illegal sand mining from riverbeds.

**Soil Contamination**

Soils in the construction 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 other construction material storage sites and their handling are also the potential sources for soil pollution. Improper siting, storage and handling of fuels, lubricants, chemicals, and potential spills from these will severely impact the soil quality and also cause safety and health hazards.

**Generation of Solid Waste**

Solid waste generated during the construction phase includes construction wastes, excess construction materials 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 may also be generated mainly from the vehicle and facility maintenance activities (liquid fuels; lubricants, hydraulic oils; chemicals, such as anti-freeze; contaminated soil; materials used to absorb oil and chemical spillages for spill control; machine/engine filter cartridges; oily rags, spent oils and filters, contaminated soil, sharps as in broken tools and others). It is imperative that such waste is responsibly disposed of off to avoid adverse ES, 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.

**Site Clearance and Restoration**

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.

**Impact on labor, working conditions and labor risks**

The project will involve the employment of direct workers and contracted workers. Most labor will be locally hired, with the exception of skilled workers who may not be found in the program areas. However, potential labor related risks include unscrupulous and discriminatory labor practices, OHS issues, issues related to Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH), working in pandemic situation etc. Risks associated with child labors or forced labors will need to be monitored with due diligence. A separate LMP including labor GRM has been prepared to address these issues.

**Gender and GBV/SEA/SH**

The risk associated GBV/SEA/SH for the project has been rated as Low, as per SEA/SH risk rating tool. SEA/SH risks can intensify within local communities when there is presence of labors during the construction period at the construction sites. The issues can be addressed by raising community awareness, sensitizing PIUs, training workers and signing of code of conduct (CoC), mapping SEA/SH service providers and developing a GRM that can address SEA/SH issues.

**Occupational Health and Safety (OHS)**

Given the nature of civil work, the workers may subject to various construction related incidence including fire, electrocution, stuck by machines, fall, lack of PPE, lack of OHS related training etc. A risk hazard assessment must be carried out before commencing work, following the law of proportionality, by the Contractor. Contractors must engage a minimum of one safety representative. Smaller contracts may permit for the safety representative to carry out other assignments as well. The safety representative ensures the day-to-day compliance with specified safety measures and records of any incidents. Minor incidents shall be reported to respective PIUs on a monthly basis, serious incidents shall be reported immediately. Minor incidents will be reflected in the quarterly reports to the WB, major issues will be flagged to the WB immediately. The reporting criteria will follow ESCP guideline (notice within 24 hours of occuring) and the Contractor will carryout a Root Cause Analysis (RCA) as well as develop and implement a Safeguard Corrective Action Plan (SCAP) with the assistance of the repective PIU. The Contractor is required to follow international best practices on OHS (for example ILO OSH 2001 - Guidelines on occupational safety and health management systems, ILO Code of Practice Safety and Health in Construction 1991).

**Impacts on Small Ethnic Communities (Impacts on Indigenous People)**

There may be presence of small ethnic communities in the subproject areas. However, the exact location of various activities (brick kilns, vehicle inspection centers, laborratories, environmental offices, e-waste managent facilities) will confirm the presence of the ethnic minorities meeting the criteria of ESS7. If there any, they will be consulted as per their cultural and social norms the modalities of that have been detailed in the SECDPF which will be referred to in preparing the Small Ethnic Community Development Plan (SECDP) as soon as the site location, presence of ethnic communities and the impact on them are known. The project activities will exclude any activities that may warrant obtaining FPIC from SECs.

**Impact on Cultural Heritage**

Given all the locations of subprojects are yet to be identified, the presence of various types of cultural heritage (tangible, intangible, movable, static, location specific etc.) cannot be ruled out. Therefore, a Chance Finds Procedure, depicting actions to be taken on discovery of cultural heritage will be included in all bid documents and contract agreement and the Contractors will be legally bound to implement specifics of the procedure. Further, ongoing SE consultations will identify cultural heritage in collaboration with communities in project intervention areas.

### Impact During Post-Project Operational Period

**Reduce GHG Emission and Climate risks**

Under component 1, at the policy level, the development of the Climate Change Act and associated rules and standards will help the GoB effectively integrate climate mitigation and adaptation actions into its development actions. The amendment of the ECA and associated rules and standards will help the GoB promote upstream interventions that can effectively reduce pollution including GHG from sources.

Under Component 2, the brick technologies supported by the project will have much lower emission levels of GHG and other pollutants than the two prevailing technologies (FCK and zigzag) in the country. By eliminating the needs of topsoil in brick production, new non-fired brick production technologies supported by the project will protect the country’s agricultural ecosystem under a changing climate. In addition, the GCGS will explore effective ways to incentivize private sector investments in (a) municipal waste recycling and composting investments to reduce GHG and particulate emission from waste management practices (b) clean stove production to help reduce indoor air pollution, and (c) rooftop solar systems to reduce demands for thermoelectricity and thus avoid GHG and particulate emission from associated thermoelectric generation processes.

In addition, under component 3, by targeting high emission vehicles, VICs will contribute to the Government’s efforts to reduce GHG emissions from the transport sector. Moreover, all infrastructure developed under the project will be climate resilient to ensure sustainable operation of such facilities under a change in climate. Finally, the project will support operations and management of all project-financed infrastructure to improve their technical capacity so that they can properly manage climate risks and respond to operational disruptions related to climate and geophysical hazards.

**Air Pollution**

Due to the implementation of the BEST project such as regulatory and policy reform, institutional infrastructure development of DoE, Green Financing, Vehicle Emission Control will improve the current air quality status directly and indirectly.

**Management of E-waste and Solid waste**

The project aims to promote and invest in the sustainability of the environment to improve e-waste management practices and municipal waste management at selected localities of Bangladesh. Without this proposed project, the current waste management condition is expected to be further degraded, and severe waste pollution will continue damaging the human health and ecosystems of Bangladesh. Based on the current project design, the project activities are not expected to lead to the generation and release of any additional pollutants; rather, it provides the mechanisms to reduce the generation and release of pollutants and thus bring down health hazard risks associated with such pollutants. The terms and condition of the PPP for e-waste recycle plant management shall clearly mention requirement of appropriate due diligences of environmental of the recycling facility will introduce technically sound management where GIIP is followed for waste management as well.

**Employment Generation and Economic Benefit**

The project aims to promote and invest in the sustainability of the environment to improve ambient air and waste management practices at selected localities of Bangladesh. Further, this will have overall positive impacts on the natural resources through improved resilience and livelihoods and pollution prevention, which would contribute to the overall economy. Direct beneficiaries of the BEST project include about 20-30 owners of brick plants, the operators of the five new VICs, the operator of the new e-waste management facility that will receive project support. Other direct beneficiaries will be the people employed by DoE, 20-30 brick plants, the five inspection centers and the e-waste management facilities have been estimated between 2,500-3,000 employees. These people will gain year-round employment and social security. Female employment will also positively affect Female Labor Force Participation (FLFP) of the communities.

Table 7: Summary of Potential Environmental and Social Impacts and their Significance

| **Potential Impacts** | **Type** | **Duration** | **Spatial** | **Reversible** | **Likelihood** | **Intensity** | **Sensitivity** | **Significance without mitigation** | **Significance with**  **Mitigation** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pre-construction phase** | | | | | | | | | |
| Loss of natural vegetation and trees | Direct | Long term | Local | Yes | Likely | Minor | Moderate | Moderate (-) | Low (-) |
| Impact on vulnerable and disadvantage groups/communities/ individuals | Direct | Long term | Local | Yes | Likely | Moderate | Moderate | Substantial (+) | Low (-) |
| **Construction Phase** | | | | | | | | | |
| Air Pollution | Direct | Short term | Local | Yes | Certain | Minor | Minor | Moderate (-) | Low (-) |
| Noise Pollution | Direct | Short term | Local | Yes | Certain | Moderate | Minor | Moderate (-) | Low(-) |
| Impact of land filling | Direct | Short term | Local | Yes | Certain | Moderate | Minor | Moderate (-) | Low (-) |
| Soil Contamination | Direct | Short term | Local | Yes | Certain | Moderate | Minor | Moderate (-) | Low (-) |
| Generation of Solid waste | Direct | Short term | Local | Yes | Certain | Moderate | Moderate | Moderate (-) | Low (-) |
| Site Clearance and Restoration | Direct | Short term | Local | Yes | Certain | Moderate | Moderate | Moderate (-) | Low (-) |
| Labour and Working Conditions | Direct | Short term | Local | Yes | Certain | Moderate | Moderate | Substantial (-) | Low(-) |
| Occupational Health and Safety | Direct | Short term | Local | Yes | Certain | Moderate | Moderate | Substantial (-) | Low (-) |
| Impacts on Small Ethnic Communities | Direct | Short term | Local | Yes | Less likely | Minor | Minor | Moderate (-) | Low (-) |
| Impact on Cultural Heritage | Direct | Short term | Local | Yes | Less likely | Minor | Minor | Moderate (-) | Low (-) |
| **Operation Phase** | | | | | | | | | |
| Reduce GHG and Climate risk | Direct | Long term | Local | Yes | Likely | Moderate | Moderate | High (+) | Moderate (-) |
| Air Pollution | Direct | Long term | Local | Yes | Likely | Moderate | Moderate | High (+) | Moderate (-) |
| E-waste and Solid waste Management | Direct | Long term | Local | Yes | Certain | Moderate | Minor | High (+) | Moderate (-) |
| Employment Generation & Economic Benefit | Direct | Long term | Local | Yes | Certain | Moderate | Minor | Substantial (+) | Low(-) |

Table 8: Potential Environmental and Social Impacts and Mitigating Measures

| **Issues/Activities** | **Potential ES Impacts** | **Proposed Mitigation Measures** | **Responsibility** | |
| --- | --- | --- | --- | --- |
| **Implementation** | **Supervision** |
| **Preconstruction** | | |  |  |
| Loss of natural vegetation and trees | Site Clearance (clearing of the site so that it becomes accessible for further works) Vegetation loss (mainly grass/shrubs but also possibly some trees) lead to Potential increase in soil erosion Air Pollution due to vehicular movement, and dust emissions from debris stockpiles | * Restrict site clearance to the required extent as part of the design * Preserve trees, if present, as far as practicable * Water sprinkling compaction of soil covering of debris and waste stockpiles | Contractors | PIUs |
| Impacts on Vulnerable and disadvantage group/ communities/ individuals | Limited job opportunities for disadvantaged people who suffer high cost of pollution | * Equal opportunities for vulnerable groups participation in capacity building, citizen engagements and job recruitments | PIUs | PCMU |
| **Construction** | | |  |  |
| Air Pollution | Construction equipment:   * Air quality can be adversely affected by emissions from construction machinery and combustion of fuels;   Construction activities:   * Dust generation from earth excavation, earth & sand stockpiles during dry period. | * Maintenance of vehicles and construction equipment in good working condition, including regular servicing; * 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; * Stored materials such as excavated earth, dredged soil, gravel and sand shall be covered and confined; * Establish adequate locations for storage, mixing and loading of construction materials in a way that dust dispersion is prevented because of such operations; | Contractors | PIUs |
| Noise Pollution | Construction equipment:   * Noise and vibration will have an impact on adjacent surrounding residents.   Construction activity:   * Noise will have an impact on adjacent residents. | * Create a noise barrier and consider the minimum noise levels at sensitive receptor sites (e.g. dense residential areas, schools, mosques, health centers etc.); * Stone breaking machine should be confined within a temporary shed, so that noise pollution is reduced; * Protection devices (earplugs or earmuffs) 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; | Contractors | PIUs |
| Solid Waste | Improper storage and handling of construction & general waste onsite, and potential spills from these may harm the environment and health of construction workers.  Improper storage and handling of construction & general solid wastes. | * Any wastes should be dump into the designated waste dumping area; * Accidental spillage of hazardous waste should be managed by spreading wood powder on the surface of the oil * Provide appropriate PPE to the construction personnel for handling construction materials; * Make sure all containers, drums and tanks that are used for storage are in good condition; | Contractors | PIUs |
| Labor employment | Communicable diseases may spread;  SEA/SH issues  Unscrupulous and discriminatory labor practices | * Recruit as much as local labor possible * Working conditions and terms of employment will be fully compliant with the Bangladesh labor laws. * Train the workers by providing health and safety training on communicable diseases; * No child and/or forced labor will be employed by the contractor; * Signing of Code of Conduct and training on SEA/SH | Contractors | PIUs |
| Risk of potential transmission of COVID-19 | * Conducting pre-employment health checks; * Control entry and exit from site/workplace; * Rearrange work tasks or reduce numbers on the worksite to allow social/physical distancing, or allow workers to work in shifts through a 24-hour schedule; * Quarantine immediately any suspected COVID-19 employees; * Contractor should undertake a COVID-19 risk assessment prior to commencement of site work. | Contractors | PIUs |
| Occupational Health and Safety | 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 | * Safe and reliable water supply; * Hygienic sanitary facilities and sewerage system. | Contractors | PIUs |
| 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 sexually transmitted infections (STI) and HIV information, education and communication for all workers on a regular basis; * Regular mosquito repellent spraying during monsoon periods. |
| Construction work may  pose health and safety risks to the construction workers and site visitors, leading to severe injuries and deaths.  Lack of first aid facilities  and health care facilities in the immediate vicinity will aggravate the health conditions of the victim. | * Provide the workers with 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 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, religion and security before the commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters. |
| Community Health and Safety | Accidents on the approach road and construction site;  Noise and dust pollution;  Communicable diseases can spread among the local community.  SEA/SH issues | * Prior to starting the construction activities contractor will be informed the local community; * Instruct the drivers and limit the speed of the vehicles; * Regular health check-ups of the workers and awareness training about the communicable diseases; * Proper lighting at the project site during the night time; * Avoid unnecessary noise pollution; * Spraying water on 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. * Raise community awareness about SEA/SH, GRM to address SEA/SH, map SWEA/SH service provide and sensitize the PIUs | Contractors | PIUs |
| Squatters on Public Land | Need for resettlement; | * Provide job opportunity and relocation assistance | ES specialist of DoE/BB/BRTA/BHTPA PIUs | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| Archaeological/  Historical/ Social/ Cultural/ Religious Sites | Negative impact on cultural heritage may destroy its value and the loss will be irreparable | * Avoid Archaeological/Historical/Social/Cultural/ Religious sites during the site selection * Provide Chance Finds Procedure in bidding document | Contractors | PIUs |
| Post-construction clean-up | Risk of soil, water, waste impacts from residuals left after project completion | * Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; * The construction camp is to be checked for spills of substances such as used container/water bottles, paint, etc. and these shall be cleaned up. | Contractors | PIUs |
| **Operation phase** | | |  |  |
| Reduce GHG Emission and Climate risks | The project will support operations and management of all project-financed infrastructure to improve their technical capacity so that they can properly manage climate risks and respond to operational disruptions related to climate and geophysical hazards. | * The amendment of the ECA and associated rules and standards will help the GoB promote upstream interventions that can effectively reduce pollution including GHG from sources * By eliminating the needs of topsoil in brick production, new non-fired brick production technologies supported by the project will protect the country’s agricultural ecosystem under a changing climate. * VICs will contribute to the Government’s efforts to reduce GHG emissions from the transport sector | DoE, BRTA, BB and BHTPA | Relevant Ministries |
| Air Pollution | Due to the implementation of the project activities of the BEST project such as regulatory and policy reform, institutional infrastructure development of DoE, Green Financing, Vehicle Emission Control will improve the current air quality status directly and indirectly. Implementation of these activity have the potential to bring positive impact to the existing air quality of the proposed project area and their surrounding areas. | * O&M of DoE office building & laboratory; Green financing project, VIC is required | DoE, BRTA, BB and BHTPA | Relevant Ministries |
| Generation Laboratory Waste | Operation of DoE laboratory will generate different chemical and hazardous waste, improper handling of these waste has the potentiality to adversely impact the surrounding environmental features (air, soil, water, and eco-system) of the proposed project areas | * need special handling, transport, and final disposal. A SOP for laboratory chemical handling should be in place. A sample SOP of Laboratory Chemical Handling is provided in **Annex V**. | DoE | MoEFCC |
| E-waste management | May contain heavy metal, toxic wastes, if not appropriately disposed of has the potential to contaminate soil and water resources, thus negatively affecting communities as well as natural habitats | * need special handling, transport, and final disposal. A SOP for e-waste management should be in place following IFC’s EHS GIIP. | BHTPA | MoPCICT |
| Community Health & Safety | Improper health and safety policy maintained at the project area during the operational phase may lead to the outbreak of different diseases to the surrounding communities through the sick staff and personnel working in the project area as well as from visitors visiting the center | * Proper e-waste dumping following the SoP * But if the proposed project components are implemented properly then the improved environmental conditions will show positive impact. For example, reform of existing environmental legislation, improved air quality as a result of VIC will ensure community health and safety through improving the existing environmental condition by decreasing in road accidents, hence lower mortality rates associated with transportation. | DoE/BB/BRTA/BHTPA | Relevant Ministries |
| Employment Generation and Economic Development | Direct beneficiaries have been estimated between 2,500-3,000 employees. These people will gain year-round employment and social security. | * Equal opportunities for women, disadvantaged and vulnerable group participation in capacity building, citizen engagements and job recruitments | DoE/BB/BRTA/BHTPA | Relevant Ministries |
| Note: Specific Mitigation/enhancement measures and cost will be determined during the site specific Environmental and Social Impact Assessment of individual sub-projects. | | | | |

## Environmental and Social Monitoring

A tentative effects monitoring plan proposed for the BEST is presented in **Table 9**. It can be used as guideline to prepare the sub-project specific monitoring plan. However, this tentative monitoring plan is not indicating the limitation of work rather it can be modified based on project circumstances and depends on the sub-project specific activities. If any changes are needed, it would be done with the consent of ES specialist/PIU of DoE/BB/BRTA/BHTPA and the WB.

Table 9: Effects Monitoring Plan

| **Parameter** | **Purpose** | **Means of Monitoring** | **Location** | **Frequency** | **Implemented By** | **Supervised By** |
| --- | --- | --- | --- | --- | --- | --- |
| **Implementation Stage** | | | | | | |
| ***Soil Quality*** | Restoration of changes due to construction activities | Soil quality test report  Parameters for testing are Organic Matter, Zn, Sulphur, Lead and Nitrate | In the work site | Once during pre-construction  Twice during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Air quality*** | Evaluation of effect of the mitigation measure towards air pollution | Visual inspection & consultation with local people  Air quality test report  Parameters are PM10, PM2.5, SOx, NOx, and CO | In the work site | Once during pre-construction  Visual monitoring on a daily basis.  The parameters would be tested twice in each year during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Noise & Vibration*** | Evaluation of effect of the mitigation measure towards noise pollution | Visual inspection & consultation with local people  Noise level test report LAeq (Day & Night) Vibration level test | In the work site | Once during pre-construction  Twice during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Waste Pollution*** | Evaluation of effect of the mitigation measure for waste | Record of kinds and quantity of waste, and the disposal method | In the work site Workers camp | Continuous, during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Aesthetics*** | Evaluation of effect of the mitigation measure | Visual inspection & consultation with local people | In the work site | Continuous, during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Traffic Congestion*** | Evaluation of effect of construction schedule | Visual inspection & consultation with local people  Record of accidents  Record of numbers of construction vehicles | In the work site | Continuous, during construction period | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Inclusion of disadvantaged and vulnerable*** | To determine the level of inclusion of the disadvantaged group in the project activities | Consultation with local people | In the project area | Continuous, during implementation | PIUs of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Community health and safety including SEA/SH*** | Evaluation of effect of the work safety plan | Field inspection & consultation with local people  Record of accidents | In the project area | Continuous, during Implementation | PIUs of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Workers health and safety*** | Evaluation of effect of the work safety plan | Visual inspection & consultation with worker  Record of accidents | In the work site | Continuous, during construction period | PIUs  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Post-construction clean-up*** | Evaluation the implementation of ESMP | Visual inspection & consultation with local people  Reporting | In the work site | At the end of construction period along with the ESMP implementation report | Contractor of  DoE/BB/BRTA/ BHTPA | ES specialist of DoE/BB/BRTA/BHTPA PIUs |
| ***Submission of ESMP implementation report*** | Evaluation the implementation of ESMP | Record of report submission | MDSC/PMU | At the end of construction period | Contractor | ES specialist /PIU |
| **Operation Phase** | | | | | | |
| ***Air Quality*** | Visual inspection, and consultation with local | O&M budget for periodic monitoring | In the project area | During operation period | PIUs of DoE/BB/BRTA/BHTPA | DoE/BB/BRTA/BHTPA |
| ***Noise Level*** | Visual inspection, and consultation with local | O&M budget for periodic monitoring | In the project area | During operation period | PIUs of DoE/BB/BRTA/BHTPA | DoE/BB/BRTA/BHTPA |
| ***Health & Safety*** | Visual inspection, and consultation with local | O&M budget for periodic monitoring | In the project area | During operation period | PIUs of DoE/BB/BRTA/BHTPA | DoE/BB/BRTA/BHTPA |

# ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURES

## General Principle

Due to the nature of some of the proposed activities under BEST project and their potential ES impacts, the project falls under ‘Orange B or Red’ category according to ECR, 1997 and also rated as ‘Substantial’ as per the WB ES risk classification, which requires initial ES screening, in some cases detail ESIA and execution of ESMP. Therefore, the ESMF is prepared based on the following principles that can lead the planning and implementation of the project activities.

* + - The National Project Coordinator, PCMU-BEST/MoEFCC at the national level and Project Directors (PD) of PIUs of the IAs at the project level are responsible for the compliance with national policies, regulations, and WB ESSs and Guidelines, as mentioned in this ESMF report. The ESMF will serve as the basis for ensuring ES compliance.
    - PD of PIU/DoE in coordination of the PIUs of BB, BRTA and BHTPA is responsible for obtaining environmental clearance from DoE, local government agencies and WB as required.
    - ESIA and ESMP need to be prepared for activities upon screening. In case, requirements of DoE’s ESIA guideline differs from those of WB ESF, the more stringent standards and requirements will apply.
    - If any sub-projects with impacts identified in ESIA which may categorize the project to High risk (according to ESF) will not be eligible for WB’s financing.
    - Activities requiring land acquisition, will not be eligible for financing under the project.
    - Activities requiring Free, Prior, Informed Consent (FPIC) from small ethnic communities will not be eligible for funding from the project.
    - Activities with significant environmental impacts, including those that significantly increase greenhouse gas emissions and impact of natural habitats and biodiversity 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 heritage sites, restricted or disputed lands (if identified during project implementation) should be handled with appropriate mitigation or compensation measures during implementation following the chance find procedure.
    - Participation of stakeholders (especially local communities) should be ensured by PIUs in planning, implementation, and monitoring of sub-project activities.
    - PIUs will ensure appropriate institutional set up for implementing ESMP and inter-agency coordination. PIUs will also ensure that bidding/agreement/contract documents for construction contractors, PPP operators and PFIs/PSI have specific clauses to ensure implementation of ESMPs, as required.
    - Contractors to be engaged in construction/renovation/expansion/repair and maintenance/operation workers under the project should be conversant with OHS standards, labor laws, SEA/SH issues, incidence response and reporting mechanism.
    - PIUs will inform project stakeholders about project interventions and its potential impacts on the surrounding ES elements.
    - When the EF will be created, PIU/DoE with direct guidance of the PCMU/BEST-MoEFCC will update the ESMF to cover the activities supported under the EF.
    - In case of triggering the CERC, PIU/DoE in coordination of PIUs of other IAs will update the ESMF to cover the activities supported under the CERC. A list of Positive and Negative activities for CERC component is given in **Annex IV**.

## Environmental and Social Assessment and Management Process

* + - PIU/DoE in coordination of the ES experts of the 4 PIUs will provide technical backstopping and coordination support to the PCMU to perform the ES screening of the BEST project. The relevant ES experts of PIUs will start the task during the initial stage of the project implementation.
    - If ES Screening would identify any activities that requires further ES Assessment, PIU/DoE in coordination of other PIUs will engage an independent ESIA consulting firm to generate a detail ES baseline of the project, conduct initial scoping (or IEE) and prepare a ToR for ESIA study.
    - PIU/DoE in coordination of other PIUs will share the scoping/IEE report along with the draft ESIA ToR to respective clearance office of DoE.
    - PCMU with support of the 4 PIUs will review, and clear screening and environmental assessment reports made by Environmental consultant before submitting for DoE clearance and provide necessary technical inputs.
    - PCMU through 4 PIUs will conduct verification of some screening and assessment through field visit.
    - PIUs through relevant ES staff will ensure that environmental considerations are given enough attention, weight, and influence over selection of construction sites and improvement of infrastructures all over the country.
    - Bid documents will be prepared by the respective PIU. ES consultants of PIUs will make sure necessary ES clauses are included in the bidding documents and ESMP implementation should be done by Contractors/PPP operators/PFIs. PIUs consultants and other technical and M&E experts will supervise ESMP implementation and ES compliance.
    - All the activities of BEST project will follow existing Environmental Code of Practices (ECoPs) prepared under ESMF.
    - The project will ensure that ESIA addresses all potential ES direct and indirect impacts of the project throughout its life: pre-project, during project and operation stages; and suggest appropriate mitigation measures. If any additional impacts are identified, ESIA and ESMP should be reviewed and updated.

The flow chart in **Figure 3** outlines the necessary ES assessment procedures.

Time

ES Screening Checklist and WB review

Sub-project Identification

Outline Design Preparation

Detailed Design Preparation

Tendering

Construction

Environmental Audit (during O&M phase) of sub-projects

Decommissioning

Preparation of safeguard Documents for sub-project based on risk categorization during screening i.e. ESIA and WB review

Incorporation of ESMP items in Tender (Bidding) Documents

ESMP Implementation Start (mitigation measures, monitoring and reporting)

ESMP Implementation End

Evaluation and selection of Sub-Project Contractor’s

Tender Award

C-ESMP

Figure 3: Overall ES Management Procedure

### Screening

The screening matrix will help to determine the eligibility of subprojects and activities and 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 significant, adverse and irreversible damage to the area or may violate an existing rules or regulations, including those generating hazardous waste will be included in the negative list of activities the project will not finance (See list of Negative List of Subprojects above). For instance, any activities that may encroach into an ecologically critical area or a national/ global heritage site will be rejected by the respective PIU. PCMU/BEST through its PIUs must confirm that the findings of the screening carried out by the ES experts. 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. Sample ES screening forms have been attached at **Annex I** and **II**, which will be further developed during the implementation stage.

### Baseline Data Collection

ES baseline information of the project sites will be collected through field visits, surveys and intensive consultation with local people. Environmental baseline in the sub-project areas of influence will be established both from primary and secondary sources, including assessment of natural and critical habitats. The data collection will include all relevant bio-physical aspects of the environment including air, water, noise, soil, land, hydrogeology/geo-morphology, covering all environmental vulnerabilities, assessment of different habitats, biodiversity and ecosystem. This will also include the establishment of environmental quality (air, water, noise, and vibration) monitoring with an adequate number of samples, as established on a sampling network to provide a representative picture of pollution levels. Additional data on sensitive environmental receptors, if any, shall be collected to analyze and predict possible risks and impacts to acceptable standards. Socio-economic and cultural baseline will also be collected relevant to the risk and impact assessment and preparation of management plans. Identification of disadvantaged and vulnerable groups will be conducted.

### Environmental and Social Impact Assessment

**Initial Environmental Examination (IEE)**

If any ES Screening exercise of a particular project activities recommend further ES Assessment, then the IEE study will be conducted under the PIU/DoE in coordination of the respective PIU. 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:

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

**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 ES consequences of the proposed study before action is taken. Early identification and characterization of critical ES 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.

In the initial phase of the BEST project, the ESIA shall achieve the following objectives:

* + - To establish the ES baseline in the study area, and to identify any significant ES issues;
    - 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 4**:

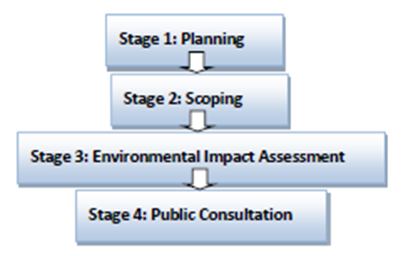


Figure 4: Impact Assessment Process

Impact Assessment

The impacts of the project activities on the ES components will be identified through evidential judgement, consultation with experts and local communities. 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.

### Environment and Social Management Plan (ESMP)

This section presents the outline ESMP of the BEST project. A more detailed version of ESMP must be included in ESIA.

Scope and Objectives of ESMP

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

* + - Identify the mitigation measures against each identified negative impacts; and facilitate implementation of those during implementation by PIUs;
    - Maximize and sustain potential sub-projects benefits and control negative impacts;
    - Draw responsibilities for project proponents, contractors, operators, consultants, and other members of the project team for the ES management of the project;
    - 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.

### Inclusion of Relevant Components of ESMP in Contract Documents

The 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 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/operators 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 ES components of the program. In addition, ESIA will ask to submit a C-EMP 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.

### Payment Milestones

Payments to contractors/operators would be linked to environmental performance, measured by completion of the prescribed ES mitigation measures. Contractors/operators 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 project. For effective implementation of the proposed mitigation and monitoring measures they would attract trained and experienced environmental management staff.

### Guideline to Incorporate Environmental and Social Management in Bid Documents and Project’s Operational Manuals

PIUs will be responsible to incorporate environmental management requirements in the bidding documents and the different operational manuals of the project activities, with the assistance of the ES consultants or other responsible staff. The generic guidelines to incorporate ES 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 ESIA.

* + - Prepare cost estimates, to be incorporated in Bid Documents.
    - Contractor version of the ESMP 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 (as per addendum to Clause 17.2 Contractor‘s Care of the Works).

### Environmental Codes of Practice (ECoPs)

The 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 ES issues. The contractors 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 III**.

* + - ECoP-1: Waste Management
    - ECoP 2: Water Resources Management
    - ECoP-3: Noise and Vibration
    - ECoP-4: Air Quality Management
    - ECoP 5: Occupational Health and Safety
    - ECoP 6: Road Transport and Road Traffic Management
    - ECoP 7: Construction Camp Management
    - ECoP 8: Water and Sanitation Facilities for Labors
    - ECoP 9: Potential Risk of Transmitting COVID-19

### Contingency Plan for COVID-19

BEST will develop a contingency plan following the WHO guidelines and the WB 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. The COVID-19 health and safety guidelines are provided in **Annex IX**.

### Consultation and Participation Plan

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

### Labor Management Procedures

A stand-alone LMP has been prepared to fulfil the requirement of ESS2 and will be disclosed by DoE/BB/BRTA/BHTPA.

### Small Ethnic Community Development Planning Framework

A standalone SECDPF has been prepared to fulfil the requirement of ESS7 and will be disclosed by DoE/BB/BRTA/BHTPA prior to appraisal of the project by the WB.

### Resettlement Policy Framework

A standalone RPF will be prepared before negotiations to address squatter resettlement issues and guiding the subsequent RAP/A-RAP preparation.

## Guideline for preparation of Environmental and Social Monitoring Plan

### Monitoring Program

As one of the key elements of the ESMP, a three-tier monitoring program is proposed comprising compliance monitoring, effects monitoring and third-party 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 environmental 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 in a timely implementation. This monitoring will generally be carried out by the ES Specialist of PIUs/BEST with the help of checklists to be prepared on the basis of the Mitigation Plan.

**Effects monitoring**: is a very important aspect of environmental management to safeguard the protection of the environment. While the contractors are responsible for effect monitoring during the project implementation, PIUs/BEST are responsible during operation for effects monitoring. 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.

**Third Party Monitoring**: DoE/BB/BRTA/BHTPA may engage an independent consulting firm to conduct external and independent monitoring of the ESMP implementation. The main purpose of the external monitoring will be to ensure that all the key entities including ES specialist of PIUs, PIUS and contractors are effectively and adequately fulfilling their designated role for ESMP implementation, and that all the ESMP requirements are being implemented in a timely and effective manner.

### Performance Indicators

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

Separate performance indicators for each ES issues will be specified in the mitigation plans for the DoE/BB/BRTA/BHTPA and included in the associated ESIA. To measure the overall ES performance of the project, an additional list of performance indicators is given below.

* + - Number of inspections carried out by ES specialist of PIUs per month.
    - Number of non-compliances observed by ES Specialist of PIUs
    - Availability of environmental office 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 affected.
    - Timely implementation of resettlement schedule.
    - Number of grievances received and resolved.
    - Number of consultations carried out
    - Number of constructions related accidents.
    - Number of women, disadvantaged and vulnerable people employed

### Monitoring Frequency

Contractor EHSS Officers would be on site daily or otherwise defined in the ESMP’s mitigation measures to inspect active work sites and verify compliance with all applicable mitigation measures for the work phase. DoE/BB/BRTA/BHTPA PIU’s ES expert shall monitor the site on a biweekly/monthly basis during civil works, depending on the sub-project scope. More frequent monitoring may be conducted if needed to ensure compliance with the mitigation measures and resolution of any issues that are noted.

### Compliance Reporting

**Monthly ES Compliance Monitoring Report**

During the construction period, environmental reporting will be required monthly, which will be prepared by the contractor. The monthly reports will consist of a completed environmental compliance checklist developed using the EMP and approved by the ES Specialist of PIUs of DoE/BB/BRTA/BHTPA and WB such that actions necessary for each relevant mitigative action are identified and a summary of all actions recorded. Where a monthly report is coincident with a quarterly and semi-annual report, such monthly report shall be required but may be included with the respective quarterly and annual report.

**Quarterly ES Compliance Monitoring Report**

During the construction period, environmental inspections and reporting will be prepared quarterly by the contractor. The quarterly report shall consist of a completed environmental compliance checklist developed using the EMP and approved by the ES Specialist of PIUs of DoE/BB/BRTA/BHTPA together with a summary of significant items from the current and previous two monthly reports with an indication of trends, either positively or negatively. Where a quarterly report is coincident with the semi-annual report, such quarterly report shall be required but may be included with the respective semi-annual report. The ES Specialist reserves the right to increase the frequency of sampling subject to a review, which may be carried out at any time during the Construction period, and which could result in additional work for the contractor. If the additional sampling indicates that the contractor’s activities have caused the need for additional sampling, then there will be no additional payment to the contractor. If it is determined by the ES Specialist that the contractor is not responsible for the need for additional sampling, then payment will be made from EMP monitoring budget. Where a quarterly report is coincident with the semi-annual report, such quarterly report shall be required but may be included with the respective semi-annual report.

**Semi-annual ES Compliance Monitoring Reports**

During the construction period, the ES Specialist of PIUs of DoE/BB/BRTA/BHTPA will prepare a Semi-Annual Report to include details of all environment related activities together with a summary of all tests and monitoring activities and conclusions to include assessment of effectiveness of current monitoring activities, possible changes in construction methodologies and any other thing(s) which may contribute to a reduction in environmental impact. This report is mandatory and must be submitted to WB.

The biannual report should include the following information for the period:

* + - Key recommended follow up issues, actions, time frame and responsibility center.
    - An introduction, Reporting period and monitoring locations
    - Summary of completed construction activities
    - Estimate of remaining construction and schedule
    - Summary of compliance activities
    - Progress to date in implementing the ESMF, including key aspects monitored: such as waste management, health and safety practices, dust management, water quality, other environmental incidents and accidents, environmental awareness and training undertaken, etc.
    - Updated list of all ESHS incidents that occurred during the project, including attached notices of non-compliance that were issued
    - Follow up information from any past issues that are still being resolved

# Grievance Redress Mechanism

The various stakeholders including PAPs, other interested parties, aspirant job seekers, contractors/vendors and suppliers, research organizations, CSOs CBOs and the common people may wish to communicate suggestions, comments, or complaints at any time by using the project’s GRM. Owing to the involvement of four IAs namely MoEFCC/DoE, BB, BRTA and BHTPA in the project, individual IA would need to develop its own GRM with capacity to address SEA/SH and GBV related issues. Separate Labor related GRM has to be developed by IAs where labor and construction work would be involved. The overall objectives of the GRM are to:

* + - Provide a transparent process for timely identification and resolution of issues affecting the project and people, including issues related to the social and environmental impact. Strengthen accountability to the beneficiaries, including project-affected people.
    - Decrease the risk of poor management of construction activities due to early-warning mechanism.
    - Address GBV/SEA/SH related grievances.

The GRM will be accessible to all Internal, external, and international stakeholders, including project affected people, community members, civil society, media, vulnerable and disadvantaged groups and other interested parties. External stakeholders at the international level could use the GRM to submit complaints, feedback, queries, suggestions, or even compliments related to the overall management and implementation of the BEST Project. The GRM is intended to address issues and complaints in an efficient, timely, and cost-effective manner. A separate mechanism will be available for the workers working under contractors and sub-contractors at different sub-project sites throughout the country as per the guidance of ESS2. The GRM would also be made available online so that grievances could be submitted without the need for physical interaction, especially during the time of COVID-19 pandemic.

Four IAs would be involved with the implementation of the project components and the GRM must be suited basing on the ground realities. DoE, being responsible ofperforming M&E activities at the project level, should be kept in the loop to record all the grievances received by different IAs. Individual PIUs of the IAs would be responsible for the GRM for their component related grievances and feed DoE PIU with all the grievance related information and the outcome so that DoE as the coordinator of GRM for the project has all the information from other PIUs. For effective functioning of the GRM, IAs to define various levels of the Grievance Redress Committees (GRCs) and composition of the committees and modus operandi of lodging a complaint and the timeframe and hierarchy of addressing those suiting the activities of various components of the project. There is a necessity to have a field level GRM wherever construction related works are planned, be it DoE offices at District HQs and laboratories at the Region/Division HQs, modernization of 20-30 brick kilns, construction of 5 VICs or e-waste management Infrastructure at Kaliakair HTP.

The GRM should be user friendly and easily accessible, particularly by the physically and mentally disabled, marginalized and the vulnerable groups including the ethnic minorities.

## Subproject level GRM

A GRC should be formed for each sub-project site where the local community, CSOs, CBOs, local NGOs working on Gender and GBV issues, contractors, suppliers etc. when aggrieved, could lodge their complaints for immediate redressal in situ. The IAs should form such GRCs ensuring acceptability of the members, and easy accessibility by the affected persons. The Secretariat for local GRC will be at the office of the sub-project. The GRC 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, the GRC will ask the concerned female representative from the community/local NGO to participate in the hearings. Members of the GRCs will be nominated by the by the IAs through consultation with their staffs in the sub-project sites and the local administration/local leadership. A grassroot level GRC should have a Convener, a member-secretary and 3-5 members where at least two could be female members. The GRC members should be respectable and impartial educated personalities. A suggested GRC at subproject level is given in **Table 10**.

Table 10: GRC composition at Subproject level

|  |  |
| --- | --- |
| 1. Senior Field Level Officer responsible for the sub-project | Convener |
| 2. Local UP Member/Ward Councilor | Member |
| 3. An SMC member/Teacher from Govt. Primary School | Member |
| 4. Representative from Local Women’s Group /Local NGO | Member |
| 5. Community Leader from the PAP/ VG/ethnic community, when available | Member |
| 6. A field level officer nominated by the Convener | Member-Secretary |

All complaints will be received at the office of the sub-project site. A ‘Complaint Box’ should be kept at the site for ease of submission of written complaints. All cases at the subproject level will be heard and solved **within 10 days of their receipt**. The ES Specialists at the PIUs will make periodic visit to the subproject sites, interact with the communities and affected persons, and pick up issues of concerns, complaints and suggestions to register with the GRM books. 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. If a decision at Subproject Level is unacceptable to the aggrieved person(s), the Subproject Level GRC should refer the case to the GRC at the PIU with the minutes of the hearings.

## Composition at PIU and PCMU level

PD or his representative would be the convener and social management specialist at the PIU will be the secretary for the PIU level GRC. A member from the affected community under the PIU will also be made a member. The PIU level GRC is provided in **Table 11**.

Table 11: PIU Level GRC

|  |  |
| --- | --- |
| PD of PIUs | Convener |
| Social Specialist | Member Secretary |
| One female representative from PIUs (DoE/BB/BRTA/BHTPA) | Member |
| A representative from affected community | Member |

Convener/member secretary of the field level GRC would present the case at the PIU level GRC. At the PIU level, decisions on unresolved cases, if any, will be made in **no more than 15 days** from receipt of the complaint by an official designated by the PD. A decision agreed with the aggrieved person(s) at any level of hearing will be binding upon the IA. There will be budgetary allocation for Subproject Level GRC members to participate in the PIU level GRC meetings.

If a person who submits a grievance is not satisfied with the resolution at the subproject level, he or she may request it be elevated to the PIU level GRC. If they are not satisfied with the ultimate resolution by the PIU, they may elevate it to PCMU level who will solve the issues in 15 days. The Project Coordinating Director will be Convenor of such PCMU level GRC with the Social Specialist of the particular PIU will act as secretary. A representative of the aggrieved community will also be made a member of PCMU level GRC. In case such solution is not accepted, the complainant may pursue legal remedies in court or pursue other avenues. Throughout the entire process, DoE PIU at the Project Level will maintain detailed record of all deliberations, investigations, findings, and actions, and will maintain a summary log that tracks the overall process. The GRC member at PCMU level is provided in **Table 12**.

Table 12: GRC Members at PCMU Level

|  |  |
| --- | --- |
| Additional Secretary of MoEFCC as the Project Coordination Director (PCD) | Convener |
| Social Specialist of concerned PIU | Member Secretary |
| Gender Focal Person of MoEFCC | Member |
| Representative of affected people | Member |

The composition of GRC at the PIU and subproject level should be communicated through project website, billboard at the sub-project site and other locations of public gathering in the vicinity, posters, flyers and through social media in Bangla and English indicating name of the contact person, location, contact number, email address etc.

The following steps will be followed for the successful implementation of GRM:

* + - **Step 1**: Project stakeholders will be able to provide feedback and report/record complaints through several channels: in person at offices (DoE, BB, BRTA and BHTPA), complaint box located at the sub-project sites, and to the Convener by mail, telephone, and email. There could be occasions when the complainant might shy away from identifying oneself. In such cases most of the complaints could be of common nature affecting a group/ indicating corruption in the implementation by some quarter etc. and not affecting an individual. These complaints should also be addressed in the same manner as if the complainant has an identity and if found correct, appropriate measures be taken and communicated to all concerned.
    - **Step 2**: Complaints and feedback will be compiled in each level and recorded in a register. He or she will place the grievances to the committee and the complained person with the goal to resolve complaints within ten days of receipt at Subproject level.
    - **Step 3**: As soon as the complaint is received, the responsible person will communicate with the complainant and provide information on the likely course of action and the anticipated timeframe for resolution of the complaint. This step involves gathering information about the grievance to determine the facts surrounding the issue and verifying the complaint’s validity, and then developing a proposed resolution. Depending on the nature of the complaint, the process can include site visits, document reviews, a meeting with the complainant (if known and willing to engage), and meetings with others (both those associated with the project and outside) who may have knowledge or can otherwise help resolve the issue. All activities taken during this and the other steps will be fully documented, and any resolution logged in the register. If complaints are not resolved within ten days, the responsible person will forward the complaint to the PIU GRC along with relevant documents for action at PIU GRC’s end. The complainant must be informed about this matter immediately.
    - **Step 4**: All efforts must be made to come to some amicable solution by PIU level GRC within 15 days from receipt of the complaint from subproject level. This step involves informing those to submit complaints, feedback, and questions about how issues were resolved, or providing answers to questions. Whenever possible, complainants should be informed of the proposed resolution in person. If the complainant is not satisfied with the resolution, he or she will be informed of further options, which would include elevating the complaint to PCMU level which would take 15 days to provide a solution. Data on grievances and/or original grievance logs will be made available to WB missions on request, and summaries of grievances and resolutions will be included in periodic reports to the WB.

It is to be noted that the Project level GRC will have provisions to address grievances related to ethnic communities and SEA/SH and therefore should use members conversant with gender and ethnic minority issues and should be trained as such.

**SEA/SH at the Project sites and Addressing Them**

From the likely activities of the ‘BEST Project (P172817)’, SEA/SH related risk is assessed as ‘Low’. The project will try to recruit most of the labors locally. However, any labor employment may give rise to SEA/SH and GBV related issues at local level. To reduce the chances, labor/workers may be selected at the local level as much as possible without compromising the efficiency of the work and thus reducing labor influx.

Furthermore, the project will raise awareness in the community level about SEA/SH issues, sensitize staffs at PIU and PCMU levels, ensure contractor’s workers are trained on SEA/SH issues and sign a Code of Conduct, arrange for mapping service provider and coordinate closely with the government officials and other development organizations, involved in GBV response services, who have standard rules and follow protocol for GBV response that is consistent with the WB Good Practice Note on Gender-based Violence. All these factors benefit the project by reducing the GBV risks for service providers, service recipients and the surrounding communities.

The Toll-Free Number **(109)** for receiving GBV related complaints under Ministry of Women and Children Affairs (MoWCA’s) Multi-Sectoral Program on Violence Against Women (MSPVAW) program have telephone operators round the clock who can speak in Bangla and English so that the complainants feel at ease while communicating. This number is not BEST project specific, nonetheless can be used to report any SEA/SH related complaints. GBV victims can use this Toll-Free Number for lodging complaints. The ‘Toll-Free Number’ should be displayed at different sites within the project area so that all are aware of this supporting tool.

## Grievance logs

As noted previously, the PIUs will maintain a grievance log. This log will include at least the following information:

* + - Individual reference number
    - Name of the person submitting the complaint, question, or other feedback, address and/or contact information (unless the complaint has been submitted anonymously or is GBV related)
    - Details of the complaint, feedback, or question/her location and details of his / her complaint.
    - Date of the complaint.
    - Name of person assigned to deal with the complaint (acknowledge to the complainant, investigate, propose resolutions, etc.)
    - Details of proposed resolution, including person(s) who will be responsible for authorizing and implementing any corrective actions that are part of the proposed resolution
    - Date when proposed resolution was communicated to the complainant (unless anonymous)
    - Date when the complainant acknowledged, in writing if possible, being informed of the proposed resolution
    - Details of whether the complainant was satisfied with the resolution, and whether the complaint can be closed out
    - If necessary, details of various GRC levels, referrals, activities, and decisions
    - Date when the resolution is implemented (if any).

Grievance resolution will be a continuous process in sub-project level activities and implementation of those. The PIUs 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 PIUs will also prepare periodic reports on the grievance resolution process and publish these on their website while DoE to publish a consolidated report encompassing all the PIUs.

## Monitoring and Reporting on Grievances

Details of monitoring and reporting are described above. Day-to-day implementation of the GRM and reporting to the WB will be the responsibility of the IAs. To ensure management oversight of grievance handling, the PCMU will be responsible for monitoring the overall process, including verification that agreed resolutions are actually implemented.

## Points of Contact

Information on the project and future stakeholder engagement programs will be available on the project’s website and other places as mentioned at paragraph 4.3. Information can also be obtained from the PIUs. All the PIUs must indicate a dedicated point of contact for recording project related complaints at every level (including SEA/SH related complaints) and passing those to the GRC for necessary action at their end.

The point of contact regarding the stakeholder engagement program and GRM at various levels of the concerned IAs should be informed to the stakeholders and local community. The information provided in **Table 13** must be provided for ease of communication.

Table 13: GRM Points of Contact

|  |  |
| --- | --- |
| *Description* | *Contact details* |
| Name and position/organization: |  |
| Address: |  |
| Email: |  |
| Telephone: | Mobile Number: |
| Address of GRM Website when developed: |  |

# STAKEHOLDER CONSULTATION AND DISCLOSURE

A standalone SEP has been prepared for BEST project which will be the main guiding document for the project in managing stakeholders’ engagement. The following sections are summarizing the ESS10 requirements for stakeholder’s consultations and information disclosures.



## Stakeholder Consultations and Information Disclosure

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 meetings. The project affected parties include individuals, groups, local communities and other stakeholders that are directly or indirectly affected by the Project, with particular focus being accorded to those directly and/or adversely affected including those who are more susceptible to changes associated with project activities. The other interested parties 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.

Considering the context of the COVID-19 pandemic, field surveys, consultations with different stakeholders, focus group discussions (FGDs) that were carried out to develop this ESMF of BEST sub-projects, are not enough considering the project area and dimension of the stakeholders. Extensive field visits are required at the 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. Findings of the ESIA will also be presented in local language going back to the same stakeholders. Consultation meetings are necessary to identify issues and problems to enable DoE, BB, BRTA and BHTPA to include corrective measures and to identify lessons and opportunities to enhance program implementation mechanism.

### Methodology and Tools for the Consultation

The consultation and participation process in preparing and disclosing the ESMF was limited to selected stakeholders both at the project area and at the regional and national level, since specific sub-projects 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 sub-projects level once they are identified and will be more inclusive irrespective of gender, profession, religion and age groups during conducting ESIA. 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 ESIA, consultation meetings and FGDs will be carried out in all selected Unions (lowest administrative unit) and local level workshops will be organized in all selected Upazilas (sub-district) to ensure a comprehensive coverage of the entire program area and provide them specific list of interventions.

During preparation of ESMF, DoE has conducted 5 consultations with different stakeholders during COVID-19 pandemic using virtual web-based platform. The discussion and the concerns and responses are extensively documented in the standalone SEP. A summary outcome of the consultation meetings has been given in the **Annex VI**.

## Consultation and Communication Guideline

Consultations with the key stakeholders will need to be carried out throughout the project life. These will include consultations and liaison with communities and other stakeholders during the project implementation and extensive consultations with the grass-root as well as institutional stakeholders during the ESIA study. The framework for the future consultations and stakeholder map is provided in **Annex VII**.

### Public Consultation and Stakeholder Engagement Under the Outbreak and spread of COVID-19

These restrictions have implications for WB-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:

* + - Risk Communication and Community Engagement (RCCE) Action Plan Guidance Preparedness and Response;
    - RCCE readiness and response;
    - COVID-19 risk communication package for healthcare facilities;
    - Getting your workplace ready for COVID-19;
    - A guide to preventing and addressing the 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>. 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, considering the current COVID-19 situation under the BEST project:

* + - Avoid public gatherings (considering 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;
    - Be sure that everyone involved in stakeholder planning articulate and express their understandings on social behaviors and good hygiene practices and that any stakeholder engagement events be preceded with the procedure of articulating such hygienic practices;
    - Diversify means of communication and rely more on social media and online channels. Where possible and appropriate, create dedicated online platforms and chat groups appropriate for the purpose, based on the type and category of stakeholders;
    - Where direct engagement with project-affected people or beneficiaries is necessary, identify channels for direct communication with each affected 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;
    - However, in situations where none of the above means of communication is considered adequate for required consultations with stakeholders, PIUs should discuss whether the project activity can be rescheduled to a later time. Where it is not possible to postpone the activity or where the postponement is likely to be for more than a few weeks, PIUs should consult WB Teams to obtain advice and guidance.

## Information Disclosure

The draft ESMF report of BEST 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 ES aspects of BEST to the key stakeholders. In addition, stakeholders’ meetings will be held at sub-project areas to disclose the results of ESIA, following COVID-19 protocols mentioned earlier. The workshops will also help to resolve conflicting issues among stakeholders. Besides, FGDs and personal interviews will be carried out at all selected sites of the BEST project area to generate communities’ views and concerns.

**Availability of the Document**: Summary of the ESIA and ESMF report along with ESMPs will be translated into Bengali language and disseminated locally. The full report (in English) and the summary (in Bengali) will also be uploaded to the website of DoE, BB, BRTA, BHTPA and WB. A hard copy of the ESIA, ESMF, SEP and LMP will also be available at the DoE, BRTA and BHTPA District offices of the project area.

# Project Institutional and Implementation Arrangement

Through extensive consultations during project preparation, MoEFCC/DoE has agreed with all stakeholders on the implementation arrangements shown in **Figure 5**.

## Project Implementation Team

**Project Steering Committee (PSC)**

A joint PSC will be created under the leadership of Secretary of MoEFCC and representatives of Ministry of Finance (Finance Division, Financial Institutions Division, Economic Relations Division), PC, BB, Ministry of Road Transport and Bridges, MOPTI, MLGRDC, and PM Office (BEZA) who will effectively coordinate stakeholders’ participation in different project activities.

The PSC will meet twice a year to:

* + - review implementation results of a given year;
    - proposed implementation plans for the next year at the end of an implementation year;
    - review implementation progress and approve adjustments needed in the middle of an implementation year

**Joint Project Coordination and Monitoring Unit (PCMU)**

A joint PCMU will be established under the MoEFCC with an additional secretary of MoEFCC to serve as the project coordination director (PCD). This unit will include members from DoE, BB, BRTA and BHTPA and facilitate coordination of all four implementing agencies and provide secretarial support to PSC. A project management firm will be recruited to support PCMU in managing these tasks. The PCMU will:

* + - coordinate inter agency and harmonize actions;
    - get all necessary technical support from all implementing agencies;
    - coordinate with other GoB stakeholders and DPs on all project related issues;
    - collect project implementation information from all four implementing agencies;
    - prepare consolidated project implementation progress reports on a quarterly basis; and
    - submit quarterly reports to the PSC and the WB for review

**Project Implementation Units (PIUs)**

The overall responsibility of environmental performance, including ESMF/ESIA/ESMP implementation of the project, will rest with the four individual PIUs. All four PIUs will have their own PD and Monitoring and Evaluation Specialist, ES Specialist, Financial Management and Procurement Specialist (except BB). Additional technical experts will be mobilized to support the PIU as needed. DoE PIU will also recruit a project management firm during the initial years to support Component 1 implementation.

Also, the PIU will engage independent consultants to supervise the contractors assuring ES management requirements and measures on their execution of construction-related, infrastructural development and other activities that have significant environmental impacts identified in the ESMF/ESIA. The PIU will ensure adherence to the monitoring parameters, including quality requirements, as well as all ESMP measures.

Figure 5: Organizational Setup for Environmental and Social Management

## Key Organizations

**Ministry of Environment, Forest and Climate Change (MoEFCC)**

The MoEFCC is the umbrella agency in Bangladesh undertaking the conservation and improvement of the environment, control of environmental pollution (air, soil, water etc.), conservation and management of the forest resources, conservation of wildlife, biodiversity and protected areas. The overall responsibility of the ministry comprises the coordination with the other ministry for finalization, including budget allocation for the project implementation related to different pollution issues. Outside the government, MoEFCC and DoE has also closely worked with few industrial associations on the pilot and scaling up of resource efficient and cleaner production (RECP) technologies to control industrial pollution.

**Department of Environment (DoE)**

The DoE under the 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 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 under the ECA/ECR.

**Bangladesh Bank (BB)**

BB is the central bank of Bangladesh which is fully owned by the Government of Bangladesh. The bank is active in developing green banking which is also first in the world that has issue ‘Green Financing Policy’. Key activities of the Bangladesh Bank are:

* + - Formulating monetary and credit policies;
    - Managing currency issue and regulating payment system;
    - Managing foreign exchange reserves and regulating the foreign exchange market;
    - Regulating and supervising banks and financial institutions;
    - Advising the government on interactions and impacts of fiscal, monetary and other economic policies;
    - Issuance of currency notes;
    - Refinancing schemes to promote green investments;
    - Management of the country's international reserves.

**Bangladesh Road Transport Authority (BRTA)**

BRTA is a regulatory body to control, manage and ensure discipline in the road transport sector of Bangladesh, as well as to maintain road safety. It works under the Ministry of Communication to carry out the purposes set out for it under the Motor Vehicle Ordinance. Activities and Services BRTA executes are:

* + - Controlling and regulating road transport by executing motor vehicle acts, issuing route permits, and fixing rates and fares of buses and trucks;
    - Conducting regular activities like: Issuing driving license, fitness certificates, registration certificates and Driving Instructor's licenses;
    - Organizing and conducting workshop seminars for delivering information regarding safe driving and traffic regulations;
    - Making research and development for developing ideas and methodologies for safe road transport and traffic system;
    - Vehicle registration, Issue fitness, tax token, rout permit, number plate and driving license.

**Bangladesh Hi-Tech Park Authority (BHTPA)**

The GoB has declared ‘Vision 2021’ with a target to make Bangladesh as a middle income country by using ICT and by developing favorable business environment for Hi-Tech industries. To fasten up the economic development of the country, BHTPA has been established under the 'Bangladesh Hi-Tech Park Authority Act-2010' with the objective of creating an investment-friendly environment and creating employment through the development and growth of high-tech industries in the country. BHTPA is responsible for the establishment and expansion along with management, operation and development of Hi-Tech Parks within the country. Since its inception, the BHTPA has been working for socio-economic development by establishing Hi-Tech Parks/Software Technology Park /IT Training and Incubation Centers in different parts of the country to ensure employment of the country's huge youth and create skilled human resources. So far, Kaliakoir Hi-Tech Park, Jessore Software Technology (IT) Park, Sylhet Hi-Tech Park, Mohakhali IT Village, Janata Tower Software Technology Park established and designed as an important and priority project which would be the milestone for development of IT sector as well as industrialization of Bangladesh.

**ES Consultant**

There are many experienced environmental consultancy (national and international) firms working with environmental aspects in different development projects. As agreed in the PAD, DoE will appoint a qualified consultancy firm or individual consultant to carry out environmental assessment studies. Four individual Environmental Consultants and four individual Social Consultant (for DoE, BB, BRTA and BHTPA) also be engaged to carry out environmental monitoring of the ESMP. The consultants will be responsible for supervising all environmental safeguard measures that are outlined in the ESMP. They will also be responsible for verifying all safeguards that are reflected accordingly in the bidding documents, Bill of Quantities (BoQs) and in work contracts.

**Contractor**

Contractors will need to prepare and implement site specific ESMPs. Contractors will need to follow the LMP, a stand-alone document, to cover all requirements of ESS2. Contractors need to address issues such as child labor, forced labor, gender and GBV issues, occupational health and safety specified in the bidding and contract documents as well as ensuring required training and awareness program. Adequate OHS protections in accordance with EHSGs and GIIP in relation to protection from COVID-19 will also be required to be implemented by contractors. To ensure the health and safety of workers during the construction contractors will be required to prepare and implement Occupational Health & Safety Plan (OHSP) following the WBG Environment, Health and Safety Guidelines and local legislations.

For efficient and smooth implementation of the project, suitable institutional arrangements are necessary to manage and implement the ESMF and other relevant document. At local level, DoE, BB, BRTA and BHTPA officials would be responsible for overall implementation of the ESMF with assistance from the consultants and contractors engaged for different project activities.

Table 14: Roles and Responsibilities of ESMF Implementation

| **Organization** | **Responsibility** |
| --- | --- |
| Project Implementation Units (PIUs) | Project Implementation Unit, the BEST PIU will be put in place, which will be responsible for   * planning, coordination, implementation, and monitoring of project activities; * procurement and FM; * capacity building at various levels; * awareness campaign and communication; * reporting on project progress and * implement the Environmental screening and ESIA for sub-projects and ESMP. * prepare quarterly progress reports on implementation schedules, disbursement as per commitments, status of project indicators as per agreed targets |
| ES Specialist (Environment and Social Specialists) | * Assist PIU in execution of the ES aspects of the project; * Responsible for preparing ES documents; * Provide trainings to PIU, relevant staffs and contractors and consulting firms, on implementing ESMF; * Administer screening of subprojects for ES issues, review and clearance of subprojects to monitoring the implementation of the ESMP with support of ES Management Committee; * Providing guidance to the PMU regarding any ES issues which may arise during Project implementation; * Closely coordinate with other agencies, consultants, local office staffs and community people to support implementation of ESIA and ESMP; * Assist PIU monitoring of the implementation of ESIA and ESMP; * Keep track of contractor’s day to day activities, their commitment for implementation of ESMP, quality of work, adherence to safety guidelines and method statements; * Ensure that all the project activities are carried out in environmentally sound and socially acceptable manner; * Prepare and disseminate guidelines to deal with emergency situation for project activities; * Monitor and administer activities related to women inclusion and SEA/SH * Providing training on ESMF, ESIA and ESMP, including screening to local level project staffs, consultants and contractors. |
| Construction Contractors | * The contractor shall develop site specific C-ESMP before construction, as part of their method statement and submit to PIUs for reviewing and approval * The contractor has to submit a monthly report on ES issues, mitigation, and results throughout the construction period. In case of unexpected problem, the contractor will consult PIU * Ensure that the construction work complies with the approved ES Instruments and the site ESIA/ ESMP * Control and minimize environmental impacts * Ensure COVID-19 protocol is maintained * Ensure no social risks/impacts emanate from their workers * Ensure that all staff and workers understand the procedure and their tasks in the ES management program; * Ensure safe working condition. |

## Capacity Assessment

A careful assessment of DoE, BB, BRTA and BHTPA has been made with the help of questionaries survey with key persons, which shows that there is no defined institutional setup to supervise the safeguard activities under the project. For long term sustainable solution to manage ES risks and impacts of projects, capacity building activities need to be included in the project design. An ES unit should be set up in DoE, BB, BRTA and BHTPA with adequate number of specialists to oversee implementation of ESMP and ESCP during the project period and co-ordinate all the ES activities during operation phase. Besides, a separate review of the BB’s ESMS has been done as a standalone document, based on which a ES capacity building plan for BB has been proposed.

### Capacity Assessment of DoE

**Roles of DoE under the BEST Project:**

In this project the Component 1 (Environmental Governance and Infrastructure) will support DoE to modernize regulatory frameworks (Subcomponent 1.1) and institutional reforms (Subcomponent 1.2). To increase the specialization and decentralization of its organization structure and gradually recruit and retain qualified technical staff, especially women, to fill its vacant posts new wings at the headquarter will be created for water quality management, environmental quality monitoring, environmental enforcement, research and environmental technology, and environmental information and disclosure. On the other hand, the decentralization actions will focus on the creation of 30 district offices to ensure full DoE presence in all 64 districts of the country. To fill up gap against existing vacancies, DoE’s staff number will be increased from 480 to 1102 by the end of the project implementation.

**Past Experience of Collaborative Project Management:**

DoE has implemented various projects with collaboration with development partners (JICA, ADB, GIZ, WB, SIDA, CIDA etc.) those have contributed to develop capacity of the DoE. Among others, to control air pollution, the Bank’s CASE project has supported DoE to strengthen its ambient air quality monitoring capacity, developed a draft clean air regulation, facilitated the brick sector to transition from highly to a less polluting production technology (zig zag kiln), and supported urban transport infrastructure for safe mobility. In addition, the ADB funded the Financing Brick Kiln Efficiency Improvement Project supported DoE and BB to promote more advanced fired-brick production technologies (hybrid Hoffman kiln [HHK] and tunnel kiln) through concessional lending of PFIs.

**Assessment of Capacity of DoE:**

At the institutional level, the Bank’s 2018 Country Environmental Assessment (CEA) has identified that the DoE has limited human resources (HR), technical capacity and monitoring, analytical and information technology (IT) infrastructure to properly monitor environmental quality and pollution discharges from industrial and municipal sources and disseminate such information to its population. With limited budget allocation, DoE is carrying out environmental conservation and pollution control activities across the country with a manpower of 431 against an approved manpower of 1,102. Currently DoE has established its offices in 34 out of the country’s 64 districts. Its existing divisional and district offices are seriously understaffed and could only process environmental clearance with delays and perform minimal monitoring and enforcement actions. The fact that DoE staff at divisional and district offices must work on both environmental clearance and environmental monitoring and enforcement at the same time undermines the accountability of the DoE. In addition to staffing issues, many of DoE’s technical wings cover more than one environmental issue.

To manage ES issues, no dedicated ES cell or unit is available in the DoE. It’s worth mentioning that the DoE has its inbuild Grievance Redress System as per the Grievance Redress System Guidelines, 2015 (Revised 2018).

### Capacity Assessment of BB (a separate review of the BB ESMS and capacity building plan has also been prepared)

**Roles of BB under the BEST Project:**

The BB will contribute to mitigate air pollution occurred in the Brick Sector. The BB will develop new green financing instruments to incentivize the financial sector and the brick sector to invest advanced fired-brick and non-fired brick production technologies. Specifically, it will support (a) a GCGS and two types of matching grants to support advanced brick production, municipal waste management, clean stove and solar productions technologies; (b) technical assistance to PFIs in new technologies; and (c) management of this component. BB will disburse this matching fund through selected eligible PFIs. Besides under this BEST project subcomponent 2.2 Technical Assistance will be provided to the BB, PFIs, and targeted beneficiaries on various green technologies promoted by the project. This subcomponent will also support targeted awareness-raising events to reduce the demand for bricks produced from traditional technologies and increase the demand for bricks produced from new production technologies.

**Past Experience of Collaborative Project Management:**

Bangladesh Bank currently Implementing the IPFF-II project under the WB funding. A separate PMU is responsible for implementing this project. In addition, BB already implemented ADB green refinancing schemes through selected PFIs.

**Assessment of Capacity of BB:**

An assessment of Bangladesh Bank’s capacity to monitor and implement environmental, social and health safety issues has been made that revealed that as an FI BB executed WB funded projects along with other donor funded projects (JICA, ADB etc.). The BB has experience WB funded project in IPFF-II where dedicated PMU is available with ES consultants under the project cell. Under the ESRM, a separate Sustainable Finance Department (SFD) at the BB is available for proper implementation compliance of ESRM and ESMS. The ESMS of BB has been reviewed and the recommendations have been appended in the **Annex VIII**.

### Capacity Assessment of BRTA

**Roles of BRTA under the BEST Project:**

Vehicle Inspection (3.1) under this component the BRTA will suppot to pilot the development of five new VIC in Mymenshing, Noakhali, Faridpur, Comilla, and Rangamati. BRTA will provide the workshop area with physical infrastructure, electricity substations, and supply of vehicle testing equipment and prescribe technical parameters for each inspection items.

**Past Experience of Collaborative Project Management:**

In relevance with this particular project, the Japan International Cooperation Agency (JICA) also supported BRTA for the development of vehicle emission centers. In addition, different donor agencies like Asian Development Bank (ADB), has implemented several projects with BRTA following safeguard policies. For each of those project’s separate PMUs were responsible.

**Assessment of Capacity of BRTA:**

The BRTA’s Vehicle Inspection (3.1) component will be managed by a dedicated PIU. Through other development projects, the BRTA has the experience to manage ES risks and impacts but not in a manner with the WB’s ESF requirements. There is no dedicated social and environmental cell or unit in BRTA. As a result, a dedicated Environmental, Social and Communication cell is recommended under the PD. However, the BRTA does not have any in-built GRM process, therefore, it is recommended to setup a dedicated GRM for the authority.

### Capacity Assessment of BHTPA

**Role of BHTPA in the BEST Project**

Pilot E-waste Management Infrastructure (Component 4.1) for proper management and recycling of e-waste as per resource recovery as well as environmental conservation. BHTPA will develop new e-waste management infrastructure, including an e-waste processing facility, and a proper disposal site within the Kaliakair HTP. The PIU of BHTPA will support to establish infrastructure for collection e-waste from other HTPs as well as outside HTPs, ensure proper, safe transportation and storage of collected e-waste; proper dismantling and processing of e-waste, extraction of metals and separation of recyclable plastics and other materials including proper management of hazardous chemicals and metals.

**Past Experience of Collaborative Project Management:**

The BHTPA is implementing the Construction of 12 Storied Building of Janata Tower Software Technology Park (STP-2) under the PRIDE project funded by WB following the Bank’s ESS. A dedicated PIU is responsible to execute the project where dedicated experts have been hired to manage the project including Environment and Social Consultants. Under the designated project level posts to supervise the ES impacts, and for most of the cases were trained to comply with the WB’s ESS.

**Assessment of Capacity of BHTPA:**

An assessment of BHTPA capacity to monitoring and implementing environmental, social and health safety issues has been made that reflects that there is no dedicated institutional setup to supervise the safeguard activities under the project. There is no dedicated social and environmental cell or unit in BHTPA for monitoring and managing social, environmental and health and safety risks for the development projects. As a result, a dedicated Environmental, Social and Communication cell is recommended under the PD (BHTPA). However, the BHTPA does not have any in-built GRM process, therefore, it is recommended to setup a dedicated GRM for the authority.

## Action Plan to Strengthen Staffing, Capacity, Systems and Implementation

**DoE**: To increase capacity, a capacity building program has been developed to improve the technical capacity of existing, new and future DoE staff to perform DoE tasks satisfactorily. The program includes (a) a training program of on-the-job and off-site training programs on various technical issues; (b) a certification program to support the certification of all the DoE laboratories through the development and adoption of standard operation procedures (including quality assurance and quality control process) and participation in external quality assurance schemes; (c) development of an expert pool with identified domestic and international experts, especially female experts, on priority environmental topics; (d) targeted training for judges, magistrates, law enforcement agencies, and targeted industries on environmental regulations; (e) development of a general environmental curricula of the country’s education system and the curricula of environmental majors at colleges; (f) public engagements through online and in-person consultations and awareness-raising campaigns; and (g) technical training on air quality monitoring, water quality monitoring, inventory development, source apportionment/ contribution analysis, and air and water quality modelling and forecasting.

A PMCU to support the PSC to supervise and facilitate implementation of the overall project and the DoE to set a PIU to manage MoEFCC/DoE activities. The PIU will have the following key staff members: (a) PD; (b) monitoring and evaluation (M&E) specialist; (c) procurement specialist; (d) financial management (FM) specialist, and (e) ES and Gender specialist. Additional technical experts will be mobilized to support the PIU to review specific technical issues identified during project implementation.

**Bangladesh Bank**: Technical assistance will be provided to the BB, PFIs and targeted beneficiaries on green brick, solar, stove and municipal waste recycling technologies to help better understand technical, financial, ES and market intricacies of the available investment opportunities for these sectors. Besides these activities will support to upgrade technologies to end of pipe pollution control, to eliminate, reduce or control pollution discharges and improve environmental performance. Besides under this component awareness-raising events to reduce demand for brick produced from traditional technologies and increase the demand for bricks produced from new production technologies. To manage this project Bangladesh Bank will appoint a PD, and M&E specialist, ES specialists to support the Credit Grantee Unit to perform project related activities. If required additional technical experts will be mobilized to support the Bangladesh Bank to review specific technical issues identified during the project implementation stage. **Annex VIII** includes the BB ESMS assessment and recommendations. BB will also make good on the recommendations of ESMS review.

**BRTA:** Vehicle Inspection (3.1) under this component the BRTA will support to pilot the development of five new VICs in Mymensing, Noakhali, Faridpur, Comilla, and Rangamati. BRTA will provide the workshop area with physical infrastructure, electricity substations, and supply of vehicle testing equipment and prescribe technical parameters for each inspection items for one (or five) private sector operator(s) to install qualified inspection and IT equipment and information management systems, mobilize trained technicians, perform required inspection, submit inspection results to BRTA, and issue proper inspection certificates according to BRTA regulation.

For successful implementation of this component (VIC’s) the BRTA will set up a PIU with following member of staffs (a) PD, (b) M&E specialist, (c) procurement specialist, (d) FM specialist, and (e) ES and Gender specialist. Additional technical experts will be mobilized to support the PIU to review specific technical issues identified during project implementation.

**BHTPA:** A dedicated PIU will be set-up for BHTPA under this sub-component (4.1) with following key staff members: (a) PD, (b) M&E specialist, (c) procurement specialist, (d) FM specialist, and (e) ES specialist. In addition, technical experts will be mobilized to support the PIU to review specific technical issues identified during project implementation. In addition, for the ESMP require, OHS aspects and safe collection, transportation, storage, dismantling, extraction of hazardous metals and disposal. The PIU of BHTPA will be responsible to provide on job training for e-waste shorting, storing, collection and transportation will be required. Dedicated SOPs would be required for each stage of e-waste collection from other HTPs as well as outside HTPs, safe transportation and storage, proper dismantling and processing of e-waste, extraction of metals and separation of recyclable plastics and other materials including proper management of hazardous chemicals and metals.

**Staff Recruitment for DoE, BB, BRTA and BHTPA**

At the DoE, BB, BRTA and BHTPA the staff provided in **Table 15** is required to support the PIUs in implementing the program ESMF.

Table 15: Staff Recruitment for DoE, BB, BRTA and BHTPA

| **Staff** | **Quantity** | **Time/month** |
| --- | --- | --- |
| ***At the PIU of DoE*** | | |
| Environmental Specialist | 1 | 60 month over the period of 5 years |
| Social Specialist with Gender experience | 1 | 60 month over the period of 5 years |
| ***At the PIU of BB*** | | |
| Environmental Specialist | 1 | 60 month over the period of 5 years |
| Social Specialist with Gender experience | 1 | 60 month over the period of 5 years |
| ***At the PIU of BRTA*** | | |
| Environmental Specialist | 1 | 60 month over the period of 5 years |
| Social Specialist with Gender experience | 1 | 60 month over the period of 5 years |
| ***At the PIU of BHTPA*** | | |
| Environmental Specialist | 1 | 60 month over the period of 5 years |
| Social Specialist with Gender experience | 1 | 60 month over the period of 5 years |

**Action Plan to Strengthen Project Personnel’s with Training**

PIU should ensure that the job specific training and EHS Induction training needs should be identified based on the specific requirements of ESMF and existing capacity of site and project personnel (including the contractors and sub-contractors). Special emphasis shall be placed on traffic management, stakeholder’s engagement and grievance redressal. General environmental awareness shall be increased among the project’s team to encourage the implementation of environmentally sound practices and compliance requirements of the project activities. This will help in minimizing adverse environmental impacts, ensuring compliance with the applicable regulations and standards, and achieving performance beyond compliance. The same level of awareness and commitment shall be imparted to the contractors and sub- contractors prior to the commencement of the project.

During the project period, the ES consultants will have to be deployed in PIU. Training shall be imparted, on a regular interval, to the DoE, BB, BRTA and BHTPA officials and Staff on Safeguard Issues. The ESMF document will be used as training material for capacity building of DoE, BB, BRTA and BHTPA officials/ staff, and the environmental & social specialists will act as facilitators for the capacity building sessions. If the ES consultants do not feel confident in their subjects, the ESIA consultants will initiate training for the DoE, BB, BRTA and BHTPA officials as a Training of Trainers (ToT) course on safeguard issues. Later on, the DoE, BB, BRTA and BHTPA officials and Consultants will train up the Contractors and operators on safeguard compliances.

On-the-job training is essential for the capacity building of Contractors (Supervisors and Labour Supervisors of contractors and operators). DoE, BB, BRTA and BHTPA with the support of third-party resources as needed (independent experts, NGOs, etc.), will design and implement training for targeted groups involved in the Project to improve their awareness of risks and mitigate the impacts of the project. The action plan to strengthen project personnel with training is elaborated in Table 11.

Table 16: Action Plan to Strengthen Project Personnel’s with Training

| **Seminar** **Topic/Training** **Module** | **Prospective** **Attendees** | **Training/consultation on regular basis. Time** **Frame** |
| --- | --- | --- |
| 1. Introduction to WB ESF guidelines and ESMF | PSC, PCMUC, PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1 to Year 5 |
| 2. Labor and working conditions | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1 and Year 2 |
| 2. Occupational Health & Safety: | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 2 to Year 4 |
| 3. Community Health and Safety | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 2 and Year 3 |
| 4. Stakeholder Engagement | PIUs (DoE, BB, BRTA, BHTPA | Year 1 and Year 2 |
| 5. Preparation of ESIA under ESMF | PIUs (DoE, BB, BRTA, BHTPA | Year 2 and Year 3 |
| 6. Preparation and review of ESMF, RPF, RAP, and SECDP | PIUs (DoE, BB, BRTA, BHTPA | Year 1, Year 2 and Year 3 |
| 6. ESMP compliance monitoring and audit | PIU (DoE, BRTA, BHTPA) staff and Field Engineers | Year 2 to Year 5 |
| 9. Issues related to COVID-19: use of  PPE; working in COVID-19  environment; WHO, CDC and national  guidelines on quarantine; compliance  with local rules and regulations. | DoE staff, PIU of DoE, BB, BRTA and BHTPA, Contracted Workers | Year 1 to Year 5 |
| 10. Screening and preparation of ESIA under ESMF | PSC, PCMUC, PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1 to Year 5 |
| 11. ESMS implementation by BB and PFIs | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 2 to Year 4 |
| 12. Efficient use of resources and prevention of pollution | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1, Year 2 and Year 3 |
| 13. Emergency procedure and response | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1 to Year 5 |
| 14. SOPs of VIC, waste management and laboratory facilities including ES issues management | PIUs (DoE, BB, BRTA, BHTPA), operators and contractors | Year 1 to Year 5 |

### Monitoring and Evaluation of Capacity Development

To keep track of the progress and outcomes of the implementation of the Capacity Building Plan, the management of the DoE, BB, BRTA and BHTPA will periodically monitor and evaluate the sets of indicators in **Table 17**. The Capacity Building Plan Monitoring and Evaluation Reports should be provided to and discussed with the WB task team during each supervision mission.

Table 17: Capacity Development Indicators

| **Actions** | **Indicator** | **Method of Collection** |
| --- | --- | --- |
| **Inputs** |  |  |
| Staff Recruited at  BEST 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 (MC) 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 BEST projects | Reports and Staff Interview |
| **Results/Performance** |  |  |
| Project preparation | No. of projects/subprojects prepared by under the new ESF compliant system | ES unit records |
| Review and approval  of projects | Number of RPF RAP reviewed and approved  under the new ESF compliant system | ES unit records |
| Environmental and  Social Auditing | Number of subprojects audited under new  ESF compliant system | ES unit records |
| Awareness of ESF | Percentage of DoE, BB, BRTA and BHTPA staff that are aware of the new ESF | Staff Interviews |

## Estimated Budget for Implementation of the ESMF

Estimated cost will be prepared for all the mitigation and monitoring measures to be proposed in the site specific ESIA and compliance required for 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 experts (if required).

The Development Project Proposal (DPP) of PIUs i.e. DoE, BB, BRTA and BHTPA for the proposed project should reflect the ESMP activities with a budget for successful environmental management of the program.

A budget for the implementation of this ESMF is proposed below in **Table 18**. This budget does not include the cost of land acquisition and resettlement. **127.7 million BDT or 1.5 Million USD (84 BDT= 1 USD) where 55 million BDT for DoE, 23 million BDT for BB, 25.5 million BDT for BRTA and 23 million BDT for BHTPA** is estimated for implementation of ESMF for DoE/BB/BRTA/BHTPA, which should be embedded in the proposed total project budget from WB.

Table 18: Cost Estimates for ESMF implementation of the PIU/BEST

| **SN** | **Description** |  | **Cost (in million Tk.)** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **DoE** | **BB** | **BRTA** | **BHTPA** | **Total** |
|  | Contractor’s Budget for development of C-ESMP, staff, training, etc. | Will be included in civil work contract | 1.0 | 0.0 | 0.2 | 0.1 | 1.3 |
|  | Monitoring (Noise, water, soil and air quality monitoring) during construction by contractors/operators | Will be included in the civil work contract | 2.0 | 0.2 | 0.5 | 0.2 | 2.9 |
|  | Independent Consultants to prepare ESIA and ESMP including SECDP, RAP | Will be included in the DPP | 20.0 |  |  |  | 20 |
|  | Environment consultant, Social Consultant | Will be included in the DPP | 30 | 20.0 | 20.0 | 10 | 80 |
|  | Capacity building and institutional strengthening | Will be included in the DPP | 10.0 | 2.0 | 4.0 | 2.0 | 18 |
|  | SEP and Grievance handling cost (from SEP) | Will be included in the DPP |  |  |  |  | 15.4 |
|  | **Total (million BDT)** |  |  |  |  |  | **137.6** |
|  | **Total (million US$) (1 USD=84BDT)** |  |  |  |  |  | **1.6** |

# Annex

## Annex I Sample Environmental Screening Form

Project Name:

Project Details in Brief:

Project location/s:

|  |  |  |
| --- | --- | --- |
| **Project Details** | | |
| **SI No.** | **Components** | **Details** |
| 1 | Project Components |  |
| 2 | Details of Components (main components including construction activities) |  |
| 3 | Location of the Project Sites &  Current Land use (provide information for all sites involved in the project), any historic land use (related to heritage or contamination)  Site Survey No:/s (with ownership), Geographical co-ordinates of the site |  |

**Proposed** **Resource** **Use**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Resource Use** | | | | |
| **SI No.** | **Proposed Resources** | **Area** | **Unit** | **Details** |
| 1 | Land area proposed to be used: Location wise (in sq km / sq m) |  |  |  |
| 2 | Estimated energy consumption for the project activities – Source wise |  |  |  |
| 3 | Estimated usage of water quantity for the project: Ground Water and Surface water? |  |  |  |

**Baseline Environmental Conditions**

| **SI No.** | **Environmental Aspects** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 1 | Is the project site located on or adjacent to any of the following (provide information for all sites and mention distance to these features in meters/kilometers) |  |  |  |
| 1.1 | Critically vulnerable areas, eco-sensitive areas |  |  |  |
| 1.2 | Cultural heritage site, protected monuments |  |  |  |
| 1.3 | Natural forests / protected areas Is the project eco-sensitive or adjoining an eco-sensitive area?  If Yes, provide details. |  |  |  |
| 1.4 | Any other wetlands/ mangrove/ estuarine region? |  |  |  |
| 1.5 | Any natural habitat areas, areas with natural features? |  |  |  |
| 1.6 | Any other sensitive environmental components? |  |  |  |
| 1.7 | Any residences, schools, hospitals, sensitive receptors? |  |  |  |
| 1.8 | Any culturally – socially important paths, areas/religious occupancies, burial grounds, tourist or pilgrim congregation areas, etc.? |  |  |  |
| 1.9 | Any drinking water source, upstream and downstream uses of rivers, |  |  |  |
| 1.10 | Are any low-lying areas prone to flooding/areas of tidal influence? |  |  |  |
| 1.11 | Any areas affected by other disasters? |  |  |  |
| 2 | Is the site in critical / over exploited condition? |  |  |  |
| 3 | Is the area disaster-prone? if yes; list all disaster zone categories applicable |  |  |  |
| 4 | Describe the soil and vegetation on site | n/a | n/a |  |
| 5 | Is the site area and condition suitable for the proposed development? |  |  |  |
| 6 | Describe existing pollution or degradation in the site(s) | n/a | n/a |  |
| 7 | Any other remark? |  |  |  |

**Anticipated Environmental Impacts: Impacts on Land, Geology and Soils**

| **SI No.** | **Impacts** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 8. | Will the proposed project cause the following on land / soil? |  |  |  |
| 8.1 | Impact on surrounding environmental conditions including occupation on low lying lands/flood plains |  |  |  |
| 8.2 | Substantial removal of topsoil (mention area in sqm) |  |  |  |
| 8.3 | Any degradation of land / eco-systems expected due to the project? |  |  |  |
| 8.4 | Loss or impacts on cultural/heritage properties |  |  |  |
| 8.5 | Does the project activity involve cutting and filling/ blasting etc.? |  |  |  |
| 8.6 | Will the project cause physical changes in the project area (e.g., changes to the topography) due to earth filling, excavation, earthwork or any other activity? |  |  |  |
| 8.7 | Will the project involve any quarrying/ mining etc.? |  |  |  |
| 8.8 | Will the project / any of its components contaminate or pollute the land? |  |  |  |

**Impacts on Water Environment**

| **SI No.** | **Impacts** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 9 | Will the subproject or its components cause any of the following impact on water sources (quantity or quality): |  |  |  |
| 9.1 | Will the activities have proposed at the site(s) impact water quality (surface or underground) and water resource availability and use? will this sub-project involve the dredging of water bodies, sea, canals, etc. |  |  |  |
| 9.2 | Impacts on water resources |  |  |  |
| 9.3 | Pollution of water bodies/groundwater nearby or downstream |  |  |  |
| 9.4 | Will the project affect the river /cannel flow pattern, stream pattern or any other irrigation canal? |  |  |  |
| 9.5 | Will the project result in the stagnation of water flow or bondage, or weed growth |  |  |  |

**Impacts on Biodiversity and Host Communities**

| **SI No.** | **Environmental Impacts** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 10 | Will the subproject or its components cause any of the following impacts on biodiversity or the neighborhood? |  |  |  |
| 10.1 | Will the project necessitates cutting? trees / loss of vegetation |  |  |  |
| 10.2 | Will the project result in health & safety risks in the neighborhood, including the release of toxic gases, accident risks |  |  |  |
| 10.3 | The potential risk of habitat fragmentation due to the clearing activities? (e.g. hindrance to the local biodiversity like disturbing the migratory path of animals/ birds etc.) |  |  |  |
| 10.4 | Potential noise and light pollution or disturbance to surrounding habitats/communities |  |  |  |
| 10.5 | Potential disruption to common property, accessibility, traffic disruptions, conflicts or disruption to the local community within the subproject area? |  |  |  |

**Impacts due to Storage and Wastes: Pollution and Hazards**

| **SI No.** | **Type** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 11 | Will the subproject or its components cause any impact due to the storage of materials, wastes or pollution due to releases during various project activities |  |  |  |
| 11.1 | Will the project use or store dangerous substances (e.g., large quantities of hazardous chemicals/ materials like Chlorine, Diesel, Petroleum products; any other? |  |  |  |
| 11.2 | Will the project produce solid or liquid wastes, including construction/demolition wastes (including dredging, de-weeding wastes, muck/silt, dust); polluted liquids? |  |  |  |
| 11.3 | Will the project cause or increase air pollution or odor nuisance? |  |  |  |
| 11.4 | Will the project generate or increase noise levels that will impact surrounding biodiversity or communities? |  |  |  |
| 11.5 | Will the project generate increase visual blight or light pollution? |  |  |  |
| 11.6 | Will the project cause water pollution? (waterbodies/ groundwater)? |  |  |  |
| 11.7 | Will the project involve dangerous construction activities which may be a safety concern to workers/ host communities |  |  |  |
| 11.8 | Is there a potential for the release of toxic gases or accident risks (e.g. potential fire outbreaks) |  |  |  |
| 12 | Describe any other features of the project that could influence the ambient environment |  |  |  |

**Suggested Environmental Enhancement Measures**

| **SI No.** | **Enhancement Measures** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| 13 | Has the subproject design considered the following enhancement measures? |  |  |  |
| 13.1 | Energy conservation measures/ energy recovery options incorporated in subproject design |  |  |  |
| 13.2 | Considered waste minimization or waste reuse/recycle options |  |  |  |
| 13.3 | Rainwater harvesting, water recycling and other water resource enhancement measures |  |  |  |
| 13.4 | Considerations for extreme events, drought, flood, other natural disasters |  |  |  |
| 13.5 | Others (Mention) |  |  |  |

This Screening sheet must be completed for each of the proposed subprojects and forwarded to the Environment Specialist in Respective PIU along with the following enclosures.

**Enclosures:** Provide maps with the geographical location of the project; and an appropriately scaled map clearly showing the project area and project sites with land use, existing buildings, infrastructure, vegetation, adjacent land use, utility lines, access roads and any planned construction, and any other information to describe the project, locations and possible impact as required.

**Project Categorization and Need for Environmental and Social Instruments, Oversight**

|  |  |  |  |
| --- | --- | --- | --- |
| Project Category | | □ Low □ Moderate □ Substantial □ High | |
| Key Reasons | |  | |
| Environmental and Social Instruments Required | | □ Detailed ESIA and ESMP  □ ESA  □ RAP  □ Site-specific ESMP | |
| Status | Agency / Official | | Name, Signature with Date and Seal | |
| Prepared by | Social Specialist | |  | |
| Social Expert / in–charge | |  | |
| Checked and Categorized by | PIU | |  | |
| Environmental Specialist | |  | |
|  | | | | |
| Reviewed & accepted by | PIU | |  | |
| Environmental Specialist | |  | |

## Annex II Sample Social Screening Form

Project Name ………………………………..

Project Location ………………………………..

| **SI No.** | **Components** | **Yes** | **No** | **Details** |
| --- | --- | --- | --- | --- |
| Land Use, Resettlement, and/or Land Acquisition (Any subproject requiring private land acquisition will be screened out) | | | | |
| 1 | Does the subproject involve the acquisition of private land? |  |  |  |
| 2 | Presence of squatters/hawkers in project land? |  |  |  |
| 3 | Number of squatters structures, both authorized and/or unauthorized to be acquired/ cleared |  |  |  |
| Welfare, Employment, and Gender | | | | |
| 1 | Is the subproject likely to provide local employment opportunities, including employment opportunities for women, disadvantaged and the vulnerable? |  |  |  |
| 2 | Is the subproject being planned with sufficient attention to local poverty alleviation objectives? |  |  |  |
| 3 | Is the subproject being designed with sufficient local participation (including the participation of women and disadvantaged) in the planning, design, and implementation process? |  |  |  |
| Labor Issues | | | | |
| 1 | Likely labors who are not local |  |  |  |
| Historical, Archaeological, or Cultural Heritage Sites | | | | |
| 1 | Cultural heritage site(s) found near or around subproject sites that will be impacted due to activities? |  |  |  |
| Ethnic Community | | | | |
| 1 | Presence of ethnic community as per ESS7 definition? |  |  |  |
| Beneficiaries | | | | |
| 1 | Population proposed to be benefitted by the proposed project | Approx. no.: | |  |
| 2 | No. of Females proposed to be benefitted by the proposed project | Approx. no.: | |  |
| 3 | Vulnerable households /populations to be benefitted | Approx. no.: | |  |
| 4 | Job created, disaggregated by gender | Approx. no.: | |  |

This Screening sheet must be completed for each of the proposed projects by the respective social team and forwarded to the Social Specialist in Respective PIU along with the following enclosures.

**Project Categorization and Need for Standard Instruments, Oversight**

|  |  |
| --- | --- |
| Subproject Category | □ Low □ Moderate □ Substantial □ High |
| Key Reasons |  |
| Environmental and Social Instruments Required | □ Detailed ESIA and ESMP  □ ESA  □ RAP  □ Site-specific ESMP |

|  |  |  |
| --- | --- | --- |
| Status | Agency / Official | Name, Signature with Date and Seal |
| Prepared by | Social Specialist |  |
| Social Expert / in–charge |  |
|  | | |
| Checked and Categorized | PIU |  |
| Social Specialist |  |
|  | | |
| Reviewed & accepted by | PIU |  |
| Social Specialist |  |

## Annex III Details of the ECoPs

**ECoP-1: Waste Management**

| **Project Activity** | **Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Waste generated from construction activity | Soil contamination, water pollution and drainage congestion from the improper management of wastes and excess materials from the construction yards.  Waste storage, and burn/burial at project sites may damage the topsoil. | The Contractor shall:   * Prepare a proper 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 BEST PIU for approval. * Minimize the production of waste following 3R (Reduce, Recycle and Reuse) approach. Segregate and reuse or recycle all the wastes, wherever practical. * Provide dedicated covered waste collection bins at appropriate locations to ensure safe storage. * Remove collected wastes for dispose in approved waste disposal sites. * Prohibit burning of solid waste at construction site. * Use appropriate PPEs before handling wastes (gloves, mask, apron, safety boots). * Training on safe handling, collecting, storing and safe disposal’ |
| Hazardous Waste | Pose health hazards and cause soil contamination due to improper waste management practice | The Contractor shall:   * Provide sufficient numbers of containers (200 sealed containers) for collecting chemical wastes, appropriately labelled for safe transport to an approved chemical waste depot. * Store, transport and handle all chemicals avoiding potential spillage. * Ensure availability of Material Safety Data Sheets (MSDS) for all materials on-site during construction in local language. * Provide secondary container/construct concrete or other impermeable flooring to prevent seepage/spills of lube oil, machine oil and lubricants. Store at approved locations before safe transportation for off-site recycle, ruse or treatment via approved vendors. * Provide appropriate PPEs during handling wastes (gloves, mask, apron, safety boots). |
| Construction Wastes | Lack of or improper waste management practice may hazard for the workers, generates air and water pollution and other environmental impacts. | The contractor shall:   * Either re-use or dispose the waste generated during construction depending upon the nature of waste. * Dispose of the wastes in designated place that could not be re-used safely. * Waste mapping and inventory should be conduct by the contractor and submitted to the PIU in every quarter. * The waste management practices adopted by the contractor shall be reviewed by the PIU during the progress of construction. * Arrange sufficient amounts of PPEs (gloves, mask, apron, safety boots) for workers during handling construction wastes. * Impart waste management (sorting, storing, segregation, transport and dispose off) related trainings to the construction workers. |

**ECoP-2: Water Resource Management**

| **Project Activity** | **Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Discharges from construction activities | Water resource- surface and groundwater  quality may be deteriorated due to earth moving, removal of vegetation, waste disposal from construction work. | 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. * Collect generated wastewater into the confined chambers/temporary sedimentation tanks. * Install temporary sediment basins, where appropriate, to capture sediment laden run-off from site. * Store stockpile materials and construction materials away from drainage lines. * Minimize of sediments, oil and grease, litter, debris and any other form of wastes. * Prevent all solid and liquid wastes entering waterways by collecting solid waste, oils, chemicals and wastewaters from brick and concrete 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 bounded 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. |
| 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 wastes management guidelines proposed in ECoP-1. * Minimize the generation of sediment, slurry, oil and grease, organic matter, litter, debris and any form of waste (particularly petroleum and chemical wastes). |
| 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   * Ensure that roads used by construction vehicles are swept regularly to remove sediment. * Spray water on material stockpiles, access roads and bare soils at required basis to minimize dust. * Increase the watering frequency during periods of high risk (e.g. high winds, high temperature, etc.). |

**ECoP-3: Noise and Vibration**

| **Project Activity** | **Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Noise and vibration can be caused by machinery and vehicles movement | Noise and vibration may have an impact on  people, property, fauna,  livestock and the natural environment | The contractor shall:   * Maintain all vehicles in order to keep it in good working order in accordance with manufactures maintenance procedures. * Ensure all drivers will comply with the traffic codes concerning maximum speed limit, driving hours, etc. * Organize loading and unloading of trucks, and handling operations for the purpose of minimizing construction noise on the work site. * Modify equipment to reduce noise (for example, noise control kits, lining of truck trays or pipelines). * Install acoustic enclosures around generators to reduce noise levels. * Fit high efficiency mufflers to appropriate construction equipment. * Employ best available work practices on-site to minimize occupational noise levels. * Provide trainings on noise limits, use of horns and sirens. Insert signage to aware on noise pollution. * Ensure use of protective gears (ear mufflers/ ear plugs to protect from noise). |

**ECoP-4: Air Quality Management**

| **Project Activity/** | **Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Air or dust may generate due to improper management of construction vehicular traffic | Working area air quality can be adversely affected by the 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. * Procure safe and clean fuel to reduce air pollution from emissions. * 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. * Service all vehicles regularly to minimize emissions |
| Air and dust can be generated from construction machinery | Air quality can be  adversely affected by  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:   * Increase watering frequency during periods of high risk (e.g. high winds). * Arrange spray water on bare soils, unpaved roads and stockpiles to prevent dust impacts on air quality. * Focus special attention on containing the emissions from generators. * Service all equipment regularly to minimize air or dust emissions. * 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. * Provide filtering systems, dust 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. * Execute wet-crushed or performed with particle emission control systems prior crushing of rocky and aggregate materials. |

**ECoP-5: Occupational Health and Safety**

| **Project Activity/** | **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, wastewater, vector transmitted diseases etc.), (and (ii) road accidents from construction traffic. | The contractor shall:   * Implement suitable safety standards for all workers and site visitors which should not be less than those laid down on the international standards (e.g. International Labor Office guideline on ‘Safety and Health in Construction; WBG’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 protective equipment (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. * 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. |
| Injuries due to major or minor accidents | Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victims | The contractor shall:   * Provide health care facilities and first aid facilities are readily available. Appropriately equipped first-aid stations should be easily accessible throughout the place of work. * Document and report occupational accidents, injuries, diseases, and incidents. * Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, 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 adequate lighting in the construction area and along the roads. |
| 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 should   * Provide portable toilets at the construction sites, if about 25 people are working the whole day for a month. * Ensure the location of portable facilities at least 6m away from storm drain system and surface waters. These portable toilets should be cleaned once a day and all the sewerage should be pumped from the collection tank once a day and should be brought to the common septic tank for further treatment. * Provide bottled drinking water facilities to the construction workers at all the construction sites. |

**ECoP-6: Road Transport and Road Traffic Management**

| **Project activity** | **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 PIU for approval at least 30 days before commencing work on any project component involved in traffic diversion and management. * 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 to be used during construction, which shall clearly show the following information in local language (Bangla):   + Location and types of construction of ongoing works   + Duration of construction period   + Period of proposed detour/alternative route   + Suggested detour route map   + Name and contact address/telephone number of the concerned personnel   + Name and contact address/telephone number of the Contractor   + Inconvenience is sincerely regretted. |
| Accidental release or spillage of fuels and chemicals | The contractor shall:   * Restrict truck deliveries, where practicable to daytime working hours. * Restrict the transport of oversize loads. * Operate road traffics/transport vehicles, if possible, to non-peak periods to minimize traffic disruptions. * Enforce on-site speed limit. |

**ECoP-7: Construction Camp Management**

| **Project Activity/ Impact Source** | **Environmental and Social Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Location of construction camps | Construction workers campsites are the potential sources of significant environmental and social impacts such as workers health hazards as well as hazards on local resources and infrastructure of nearby communities. | The contractor shall:  Select or locate construction camps such that permanent adverse environmental effects can be avoided or mitigated. Prior to locating and developing construction camps, the detailed layout plan of the construction camps, including locations of temporary buildings and other facilities like solid waste management areas, waste dumping areas, toilets, fuel storage areas and drainage systems, should be submitted to the DoE BEST Project PIU for approval.  Select construction campsites such that mitigation measures stipulated in this ECoP can be implemented with reasonable facility.  Consider the location of construction camps away from communities in order to avoid social conflict in using natural resources such as water or to avoid the possible adverse impacts of the construction camps on the surrounding communities.  Be duly informed about health, religion and security from the local authority on the set up of camp facilities to maintain effective surveillance over public health, social and security matters. |
| Construction camp facilities | Lack of or poor infrastructure facilities (housing, water, sanitation and waste management) will increase pressure on local services and cause health hazards to the workers | The contractor shall:  Provide adequate housing facilities for all workers.  Provide adequate sanitary facilities and sewerage system. Toilet and domestic wastewater should be collected through common sewerage. Provide separate toilets and bathing places for males and females with total isolation by a wall or by location.  Treatment facilities for sewerage of toilet and domestic wastes.  Develop a stormwater drainage system to discharge all surface runoff from the campsite to a silt retention pond which shall be sized to provide a minimum of 20 minutes of retention for stormwater flow from the whole site that will be generated by a 20-year return period rainfall having a duration of at least 15 minutes. The run-off coefficient to be used in the calculation of the silt pond volume shall be 0.9. Silt ponds shall be maintained in an efficient condition for use throughout the construction period, with trapped silt and soil particles being regularly removed and transported and placed in waste material disposal areas as per ECoP1.  Provide in-house community/common entertainment facilities. Dependence of local entertainment outlets by the construction camps to be discouraged/prohibited to the extent possible.  Maintained all camps in a safe, clean and or appropriate condition throughout the construction period. |
| Disposal of generated wastes | Improper waste management leads to environmental impacts | The contractor shall:  Ensure proper waste management to collect, segregate, store and disposal solid waste in the construction camps.  Insist waste separation at sources into separate bins for organic and inorganic wastes at the construction camps.  Dispose of organic wastes in a designated safe place on a 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.  Locate the garbage pit/waste disposal site min 500 m away from the residence so that people are not disturbed by 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 from entering and playing with.  Do not establish site-specific landfill sites. All solid waste will be collected and removed from the work camps and disposed of in approved waste disposal sites. |
| Health and  Hygiene | Inadequate health and safety practices pose potential diseases to be  transmitted including malaria | The Contractor shall:  Provide adequate health care facilities within construction sites.  Maintain communication with local hospitals/ clinics. Provide ambulance facility for the laborer during an emergency to be transported to nearest hospitals. Maintain emergency contact numbers of hospitals and doctors.  Ensure first aid facilities at the camp round the clock. Maintain stock of medicines in the facility and appoint full-time designated first aider or nurse.  Perform initial health screening of the laborer 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.  Carry out short training sessions on best hygiene practices to be mandatorily participated in by all workers.  Place display boards at strategic locations within the camps containing messages on best hygienic practices. |
| Safety | Inadequate 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 into the camp area.  Maintain register to keep track of a headcount of persons present in the camp at any given time.  Encourage the 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 windstorms/cyclones.  Provide the appropriate type of firefighting equipment suitable for the construction camps.  Conduct a fire drill at the construction camps with the help of local Fire Service and Civil Defense (FSCD) or trained fire safety personnel.  Display emergency contact numbers clearly and prominently at strategic places in camps.  Communicate the roles and responsibilities of laborer in case of emergency in the monthly meetings with contractors. |
| Construction campsites restoration | Restoration of the  construction camps to  the 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 laborer before demolishing their camps/units.  Maintain the noise levels within the national standards during demolition activities.  Hire different contractors to demolish different structures to promote recycling or reuse of demolished material.  Reuse the demolition debris to a maximum extent.  Dispose of remaining debris at the designated waste disposal site.  Handover the construction camps with all built facilities as it is if an agreement between both parties (contractor and landowner) 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 laborer for future employment in O&M of the project. |

**ECoP-8- Water and Sanitation Facility for Labors**

|  |  |  |
| --- | --- | --- |
| **Project Activity/ Impact Source** | **Environmental and Social Impacts** | **Mitigation Measures/ Management Guidelines** |
| Lack of WASH facility for laborer can cause inconvenience to the user and affect their personal hygiene | Spreading sewage water cause negative impacts on ground and surface water. Besides, sewage water may create vector borne diseases. | The contractor shall:   * Arrange a proper hygienic toilet facility. * Manage toilet wastes properly. * Ensure clean water and soap for toilets. * Adequate lighting and ventilation for toilets. * Separate toilet for male and female. |
| Drinking water | Groundwater at shallow depths is contaminated with arsenic and hence not suitable for drinking purposes. | The contractor shall:   * Ensure pumping of groundwater from deep aquifers (more than 300 m) to supply arsenic-free water. Safe and sustainable discharges are to be ascertained prior to the selection of pumps. * Install tube wells 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. |

**ECoP-9: Potential Risk of transmitting COVID-19**

| **Project Activity/ Impact Source** | **Environmental and Social Impacts** | **Mitigation Measures/ Management Guidelines** |
| --- | --- | --- |
| Setting up labor shed for the accommodation of labor, conducting disinfecting activities, possible interaction of labor force with the local community. | Lack of awareness and knowledge in  health care among laborer pose a risk of transmitting COVID-19 | The contractor shall:   * Conduct all types of construction activities as per plan to minimize risks. * Provide personal protection equipment (PPE), such as safety boots, masks, gloves, protective clothing, goggles etc. * Enforce health and hygiene protocols: hand washing, wearing a mask for all workers and labourers. * Provide adequate ventilation facilities at all working areas and construction camps. * Ensure safe and reliable water supply. Water supply from deep tube wells that meets the national standards. * Hygienic sanitary facilities and sewerage system; * Follow the wastes management guidelines proposed in ECoP 1 and ECoP-2. * Implement suitable safety standards for all sub-project labourers, which shall not be less than those laid down on the international standards (WHO and CDC guidelines). |
| Child and pregnant labor | * Not hire children of less than 14 years of age and pregnant women or women who delivered a child within eight preceding weeks, in accordance with the Bangladesh Labor Code, 2006 |

## Annex IV 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 BEST 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 WB 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)
* 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 ES standards presented in the BEST PAD, ESMF and RPF. CERC activities will not trigger any new ESS. The following uses of BEST 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, and interference 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 labor, child labor, or other harmful or exploitative forms of labor
* 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.

## Annex V Sample SOP- DoE Laboratory Chemical Handling

**(Lab Safety Protocol)**

|  |  |  |  |
| --- | --- | --- | --- |
| **CONTACT INFORMATION** | | | |
| **Location** | Building: | | Room: |
| **Street Address:** |  | | |
| **Lab Safety Contact:** | Name: | | |
| Lab Phone: | Office Phone: | |
| **Emergency Contact** | Name: | Phone: | |
| **TYPE OF STANDARD OPERATING PROCEDURE** | | | |
| Indicate which type of Standard Operating Procedure applies  Specific Process or Equipment  Specific Hazardous Chemical  Hazard Class for a Group of Chemicals | | | |
| **DESCRIBE PROCESS/EQUIPMENT, HAZARDOUS CHEMICAL or HAZARD CLASS** | | | |
| Sample preparation, perform laboratory test, analysis of test result and finalize data and report preparation | | | |
| **HAZARD SUMMARY** | | | |
| Improper use and disposal of chemicals after analysis. These may result in human exposures or contamination.  **Inhalation:** Remove person to fresh air and loosen tight clothing if needed. Give artificial respiration if necessary. Do not use mouth-to-mouth resuscitation. Call a POISON CENTER or doctor/physician if you feel unwell.  **Skin Contact:** Wash immediately with water (15 minutes)/shower. Soap may be used. Remove contaminated clothing. Consult a doctor/medical service if irritation or rash occurs.  **Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor/medical service immediately.  **Ingestion:** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately consult a doctor/medical service. Drink water if possible.  **Fire**  In case of fire: Use CO2, dry chemical, or foam for extinction. | | | |
| **SPECIAL HANDLING AND STORAGE REQUIREMENTS** | | | |
| Use laboratory standard glassware as per the test is required. Routinely inspect glassware and remove from service items that are damaged, starred, cracked, or chipped. Make sure lighting is adequate and the workspace is not crowded for the task at hand. Be alert at all times when handling chemicals that have potentiality to cause human health hazard. Don’t look away or become otherwise distracted while handling test samples and chemicals. Use gloves if practicable. In some cases, heavy rubber gloves (i.e., glassware washing) or double gloving (when manual dexterity is important) may be appropriate. Do not operate this product near volatile or flammable materials. Do not heat or stir volatile or flammable materials. | | | |
| **CONTROLING MEASURES** | | | |
| Ensure labelling practices for different chemicals and materials. Select rounded or blunt end devices with higher heat when practicable. Broken glass must be discarded into a plastic-lined container with the label “Broken Glass”, unless it is contaminated with biological materials. Broken glass contaminated with biological materials must be discarded in a red sharps disposal container. Do not leave unprotected sharp object near human sight. Use protective shields, cases, Styrofoam blocks, tube holders, etc. Handle chemicals by ensuring proper safety. Be conscious while passing chemicals from one person to another. If not feasible, use verbal communication when passing. Use proper equipment (e.g. Gas Syringe, dropper, Pipet etc.) while handling chemicals with potential hazardous characteristics. Keep separate disposal container or box. Do not overfill these containers. Do not try to retrieve items from disposal containers. | | | |
| **PERSONAL PROTECTIVE EQUIPMENT** | | | |
| **PPE Requirements:**  Long pants or clothing that covers all skin below the waist  Shoes that cover the entire foot  Gloves; indicate type: Cut resistant if practical  Inspect gloves before use. Use proper glove removal technique to avoid skin contact with outer surface of glove. Wash hands after removing gloves.  Safety goggles  Safety glasses  Face shield  Lab coat  Flame-resistant lab coat  Other:  If the use of an N95, half mask, or full-face respirator is requested, the individual and/or their supervisor must first contact Environmental Health & Safety for a consultation to determine if respirator use is necessary. If EH&S determines the use of a respirator is necessary, the individual must wear the safety kit properly. This includes a medical evaluation; respirator fit test, and training. | | | |
| **EMERGENCY PROCEDURES** | | | |
| In case of fire or large and/or extremely hazardous chemical releases pull the fire, alarm and evacuate the area if someone is seriously injured or unconscious  **Call emergency response team**  From a safe place, provide as much information as possible to the emergency responders including chemical name, volume, hazards, injuries, and location.  **Chemical Exposure**  Remove any contaminated clothing, and IMMEDIATELY flush contaminated skin with water for at least 15 minutes following any skin contact. For eye exposures, IMMEDIATELY flush eyes with water for at least 15 minutes. Consult SDS for guidance on appropriate first aid. Where medical attention is required, bring the SDS(s) of chemical(s) to aid medical staff in proper diagnosis and treatment.  **Evacuation Procedure**   * Immediately evacuate the building via the nearest exit when the fire alarm is activated. * If unable to evacuate due to a disability, shelter in the area of rescue / refuge, typically a stairwell landing, and wait for assistance from drill volunteers or emergency responders. * Instruct visitors and students to evacuate and assist them in locating the nearest exit. * Do not use elevators to exit the building during an evacuation as they may become inoperable. * Carry only those personal belongings that are within the immediate vicinity. * Close doors to limit the potential spread of smoke and fire. * Terminate all hazardous operations and power off equipment. * Close all hazardous materials containers. * Remain outside of the building until the building is released for reentry. * Do not restrict or impede the evacuation. * Convene in the designated grassy gathering area and await instruction from emergency responders or drill volunteers. Avoid parking lots. * Report fire alarm deficiencies, (e.g., trouble hearing the alarm) to facilities personnel for repair. * Notify evacuation drill volunteers or emergency responders of persons sheltering in the areas of rescue/ refuge. * Never assume that an alarm is a “false alarm”. Treat all fire alarm activations as emergencies. Get out of the building!   **Incident and Near Miss Reporting**  Report any incident that occurs in any laboratory or field research. An incident means any unplanned event within the scope of a procedure that causes, or has the potential to cause, an injury or illness and/or damage to equipment or the natural environment. Due to medical privacy concerns, no personal identifying information of the person involved in the incident shall be collected and submitted to the HSE responsible personal. | | | |
| **WASTE DISPOSAL** | | | |
| All chemical waste generated within laboratories is considered both hazardous and non-hazardous waste and must be disposed of in accordance with national, international and WB standards. | | | |
| **TRAINING REQUIREMENTS** | | | |
| All individuals working with chemicals in laboratories must take EH&S’s Laboratory & Research Safety Training.  This procedure may warrant additional safety training per the PI, EH&S, or an authorizing unit such as the Biosafety or Radiation Safety programs. Check training requirements for this activity below:  Research Specific Training from the PI/Lab Supervisor or their designee  EH&S Laboratory & Research Safety Training  EH&S Safety and Compliance in the Arts  EH&S Respirator Fit Test  EH&S Biomedical Waste  EH&S Hazardous Waste Pharmaceutical Training  EH&S Fire Prevention Safety  EH&S Slips, Trips, and Falls  EH&S Biosafety  Other:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| **PRIOR APPROVALS** | | | |
| This activity requires prior approval from the PI/designee.  If this box is checked, working alone is not allowed. | | | |

## Annex VI Outcome of Consultation Meetings (Details in SEP)

**Stakeholders’ Consultation with DoE (Date: 6 June 2021)**

* + - DoE faces serious challenges to control environmental pollution due to limited human resources (HR), technical capacity and monitoring, analytical and information technology (IT) infrastructure to properly monitor environmental quality and pollution discharges from industrial and municipal sources and disseminate such information to its population.
    - DoE have limited budget allocation; DoE is carrying out environmental conservation and pollution control activities across the country with a manpower of 431 against an approved manpower of 1,102. Currently DoE has established its offices in 34 out of the country’s 64 districts.
    - DoE’s existing divisional and district offices are seriously understaffed and could only process environmental clearance with delays and perform minimal monitoring and enforcement actions.
    - DoE staff at divisional and district offices have to work on both environmental clearance and environmental monitoring and enforcement at the same time undermines the accountability of the DoE. In addition to staffing issues, many of DoE’s technical wings cover more than one environmental issue.
    - DoE has yet to have independent directorates on water quality and waste management has limited the DoE’s capacity to properly manage such issues. Systematically, technical capacity of DoE staff needs to be strengthened to perform their tasks properly.
    - Technical staff of DoE has high turnover rate as their positions are not included in the cadre system of the Bangladesh Civil Services and thus have limited career development opportunities.
    - At the regulatory level, DOE is positioned as the “pollution control” agency with limited enforcement capability largely against individual polluters and unclear mandates on environmental quality control (except for drink water quality)
    - DoE needs to improve the transparency of the environmental clearance process through stronger requirements for public consultation and environmental information disclosure.
    - DoE needs to strengthen environmental quality standards and complementary limits for pollutant discharges.
    - DoE needs to develop a legal framework for HWM, which is up to now under-regulated.
    - DoE needs to set high enough environmental penalties to discourage environmental noncompliance.
    - Environmental courts in all districts needs to be established that will allow the public to file lawsuits directly, and provide institutional assistance to environmental victims.

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Figure 1: Consultation Meeting with DoE Officials

**Stakeholders’ Consultation with BRTA (Date: 19 August 2021 and 05 September 2021)**

* + - For improvements in air quality, the implementation of stringent emission standards for the new vehicles alone is not enough. In order to obtain maximum air quality benefits introduction of high technology, low emission vehicles are needed
    - The service life has to be ensured through implementation of vehicle emission inspection and maintenance (I/M) program. A Central Vehicle Emission Control Overseeing Agency needs to be established for a better QA and QC of inspection, vehicle information system, enforcement and compliance, and management of financial resources.
    - Currently BRTA does not have the capacity to cope with the volume of vehicles that require vehicle inspections for the initial registration process and periodic roadworthiness inspections (CoF)
    - Under an ADB project, five semi-automatic vehicle inspection centers were established two in Dhaka and one each in Chittagong, Khulna, and Rajshahi. Among these 5 vehicle inspection centers only one is still operating in Mirpur. There is a plan of establishing 21 VIC’s by GoB.
    - The BRTA currently has only 41 inspectors who face the enormous task of examining the fitness of more than two million vehicles in the country. Both the manpower and the rate of inspection is quite low.
    - Currently Emission Standard is being reviewed for different transport vehicles (e.g. new, reconditioned and old) with support from DoE. The amended standard would decrease the currently raised problem for the vehicles with different lifetime.
    - Staff shortages, skill deficiencies, and long lines for service have resulted in vehicle inspections inefficiency. From the previous experience of running VIC in different areas it has been found that capacity development is a must to ensure proper inspection and monitoring.
    - Training of Inspectors for Inspection Centers is a must for the vehicle emission inspection and maintenance (I/M) program.

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Figure 2: Consultation Meeting with BRTA Officials

**Stakeholders’ Consultation with BHTPA (Date: 22 August 2021 and 06 September 2021)**

* + - There is data deficiency of current generation and management of E-waste management. As E-waste management have a scope of resource recovery. So, valuation of the data regarding this sector required for the current scenario in Bangladesh. Bangladesh Bureau of Statistics (BBS) can take initiative to acquire data regarding E-waste.
    - `Interaction between different governmental organization is needed e.g. support from DoE to enforce relevant regulation to manage E-waste.
    - As the informal sector plays a major role in the recycling and resource recovery from MSW including E-waste. So, appropriate interaction needs to be set up with this sector from waste pickers to organization that handles the management of E-waste all over the country.
    - As per the plan of BHTPA to manage E-waste initially they require human resource development for implementation of this objective.
    - Proper planning is required to follow all of the management procedure of E-waste including waste collection to transportation to final disposal.
    - Financing would be required to implement the required waste management procedure with maximum efficiency.
    - BHTPA would develop proper guidance about sustainable procurement of Electrical and Electronics Equipment that have minimum potential of causing adverse environmental impact.
    - All of the good practices will be followed in the initial segregation of E-waste to the recycling as much as Electrical and Electronics Equipment’s (EEE) possible
    - All of the E-waste management will be operated through a single point of contact (waste contractor/facilitates manager) which will ensure proper communication throughout the implementation phase.
    - Proper monitoring system needs to be developed in BHTPA’s E-waste management procedure. The monitoring data will also be stored accordingly throughout regular analysis and categorizing by the categories in the E-waste rules. It will provide a good understanding of the likely treatment options.
    - BHTPA will develop their waste management policy for all of the E-waste that will be managed. The policy will clearly set out the specific roles of all parties involved in the E-waste management of BHTPA.

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Figure 3: Consultation Meeting with BHTPA Officials

**Stakeholders’ Consultation with Brick Kiln Workers (Date: 04 Nov 2021)**

* + - Current fire brick sector workers aware about the severe environmental damage due to this current practice, which have potential negative impacts on their health, population’s health around the area, and occupational hazards. They want better job environment and job profile.
    - Due to pollution control, a number of brick field is sealed which impact on their livelihood due to lack of other employment opportunities.
    - Current fired bricks sector employees (for example, firemen) are afraid of losing their jobs and spreading untrue information of the inefficiency and inferiority of new technologies



Figure 4: Consultation with Brick Kiln Workers

## Annex VII Framework for the Future Consultations and Stakeholders Map

**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. | PCMU, BEST; Contractors; PIUs | During Project Implementation | Project Specific Location of interventions and impacted area. |
| Consultations with communities and other stakeholders during ESIA study | Sharing ESIA ToR | PIUs, BEST; and ESIA team | uring scoping stage of ESIA | Consultation meeting at all selected Sites; FGD at all selected Sites |
| Dissemination of information on project and its key impacts and proposed mitigation measures; soliciting views, comments, concerns, and recommendations of stakeholders | PIUs, BEST; and ESIA team | During ESIA study (once draft analysis is available for discussion and feedback) before submission to DoE | Consultation meeting at all selected Upazillas; FGD at All selected Sites;  National Stakeholders’ Consultation; |
| Consultations with communities | Liaison with communities and project beneficiaries | PCMU, BEST/  PIUs | Post Project Period | As and when necessary |

**Stakeholder Map for Future Consultation**

| **SI No.** | **Stakeholders** | **Location** | **Purpose** |
| --- | --- | --- | --- |
| **Stakeholder** **Group 01: Directly/Indirectly Project Affected Parties** | | | |
|  | Project Affected Parties (Directly/Indirectly Affected) | Areas located within the Project’s footprint at  BRTA-Mymensingh, Faridpur, Cumilla, Noakhali, Rangamati  BHTPA-Kaliakoir-Gazipur and  DoE- selected district office and regional laboratory setup location | Provide a brief of the proposed project and collect their feedback and concern regarding the proposed project. |
|
| **Stakeholder Group 2: Interested Parties (Government Officials)** | | | |
|  | Director General, | DoE Office, | Introduce the Project and seek cooperation and assistance in requesting the relevant government departments under its jurisdiction to support the Project assessment process. |
| Department of Environment (DoE) | Dhaka |
|  |  |
|  | Director, Planning and PD of BEST Project, DoE | DoE Office, | Seek Project Authorization Letter and, where required, specific support at all levels. |
| Dhaka |
|  | Director, Climate change, DoE | DoE Office, | Introduce the Project and collect any available relevant data and discuss potential impacts and proposed mitigation measures relevant to climate change |
| Dhaka |
|  |
|  | Director, Natural Resources Management, DoE | Department Office, | Introduce the Project and discuss general approach, methodology. Discuss potential impacts and proposed mitigation measures relevant to natural resources management |
| Dhaka |
|  |
|  | Director, Enforcement, DoE | Department Office, Dhaka | Introduce the Project and project activities and their potential impacts along with the proposed mitigation measures. Seek for his opinion regarding the proposed project. |
|
|  | Director, Air Quality, DoE | Department Office, Dhaka | Introduce the Project and seek opinion and suggestions regarding the implementation of the proposed project. Collect any available relevant data. |
|
|  | Director, Environmental clearance, DoE | Department Office, Dhaka | Present the Project and collect feedback, opinion or suggestion regarding the proposed project. |
|
|  | Director, Law, DoE | Department Office, | Introduce the Project with relevant law and policy that will be followed throughout the project’s life cycle and seek for his/her opinion and suggestion to the successful implementation. |
| Dhaka |
|  |
|  | Director, Dhaka Region, DoE | Department Office, | Present the Project and collect feedback, opinion or suggestion regarding the proposed project. |
| Dhaka |
|  | Director, Laboratory, DoE | Department Office, | Present the proposed project and seek information about the current laboratory facilities and the possibility of occurring any health hazard from it. |
| Dhaka |
|  | Director, Waste and Chemical Management, DoE | Department Office, | Introduce the overall Project and the sub-components and ask for suggestion about the mitigation measure for minimizing the impacts (both ES). |
| Dhaka |
|  | Deputy Director | Department Office | Present the Project summary and collect any opinion or suggestion for the proposed project. |
| Moulovibazar, Chandpur, |
| Chattogram, |
| Gazipur, |
| Narayangang, |
| Jashore, Rangpur, Kishoreganj |
|  | Managing Director, Bangladesh Hi-Tech Park Authority | BHTPA Office, Dhaka | Present the project and obtain current data and methodology of current E-Waste management practices and challenges and possible risk may raise along with the overcome procedure to mitigate them. |
|
|  | Director, Technical, Bangladesh Hi-Tech Park Authority |
|  | Deputy Director, Planning, Bangladesh Hi-Tech Park Authority |
|  | Deputy Director, O&M, Bangladesh Hi-Tech Park Authority |
|  | Deputy Director, BRTA | BRTA Dhaka Office | Provide a summary about the proposed project and seek information regarding the existing VIC of BRTA, the probable impact may raise from their current experience and the procedure to minimize them while implementation of the proposed project activities. |
|
|  | Asst. Engg Civil, BRTA | BRTA Dhaka Office |
|
|  | Deputy Director, O&M, BRTA | BRTA Dhaka Office |
|
|
|  | General Manager, sustainable finance department, Bangladesh Bank | BB, Dhaka Office | Present the Project and seek for their concern and suggestion regarding the project |
|
|  | Executive Director, sustainable finance department, Bangladesh Bank | BB, Dhaka Office |
|  | Deputy Governor, sustainable finance department, Bangladesh Bank | BB, Dhaka Office |
| **Stakeholder Group 3: Interested Parties (Non-Government Organization)** | | | |
|  | E-Waste producer i.e. Mobile operator such as Robi, Grameen phone, exporter and electronics manufacturing company such as Walton | Dhaka region | Present the Project, collect any relevant information’s and data on their current E-Waste management procedure and obtain feedback on the Project including concerns and potential impacts. |
|  | AZIZU Trading CO | Narayonganj Office |
|  | JR Enterprise | Dhaka Office |
|  | Techno Fair | Dhaka, Agargaon |
|  | M/s. Yousuf Enterprise | Dhaka, Notun Bazar |
|  | Informally E-waste Managing Vangari shops | Dhaka | Information about their current managing procedure, what can be done to maximizing the managing capability and identify the most profitable options |
| **Stakeholder Group 4: Interested Parties (Service Receiver)** | | | |
|  | BRTA Existing VIC at Mirpur | Mirpur BRTA VIC | Seek information of their satisfaction level and the improvement they seek. |
|
|  | Current Users of VIC (e.g. Bus and Truck Malik Somiti and others) | Dhaka, Comilla, Noakhali, Mymensingh, Faridpur, and Rangamati | Seek information of their current satisfaction level and the improvement they seek. |
|

## Annex VIII Bangladesh Bank ESMS Review

**Introduction**. Bangladesh Banks Environmental and Social Risk Management (ESRM) calls for all banks and financial institutions to develop and follow an ES Management System which is a set of policies, procedures, tools and internal capacity to identify, monitor and manage a Bank/FI's exposure to the ES risks of its clients. It states that an ES Management System is a Bank/FI’s commitment to ES management, explains its procedures for identifying, assessing and managing ES risk of financial transactions, defines the decision-making process, describes the roles, responsibilities and capacity needs of staff in doing so and states the documentation and recordkeeping requirements. It also provides guidance on how to screen transactions, categorize transactions based on their ES risk, conduct ES due diligence and monitor the client’s ES performance.

**ESS9 - Review and Assessment of FI ESMS.** As per ESS9, any Financial Intermediaries, receiving funds from WB to implementing projects must have following aspects addressed in their ESMS:

* ES **policy**; (ii) clearly defined **procedures** for the identification, assessment and management of the ES risks and impacts of subprojects; (iii) **organizational capacity** and competency; (iv) **monitoring** and review of ES risks of subprojects and the portfolio; and (v) external **communications** mechanism.

**Organogram of Bangladesh Bank ES.** The Sustainable Finance Department (SFD) is responsible to look after, administer and institutionalize the ESRM of Bangladesh Bank which is headed by a General Manager. Under the SFD there are three wings—Green Financing, Corporate Social Responsibility (CSR) and Refinancing wings. All the wings are headed by a Deputy general Manager. The Green Financing Wing oversees client bank/FIs ES system and assess funding potential with respect to ES commitment and obligations. It provides policy, procedures and guidelines to other Banks/FIs so that BB funding and implementation meets certain ES standards and criteria.

**Environmental and Social Policy.** Bangladesh Bank’s ESRM calls for establishing Bank’s/FIs Environmental and Social Policy that includes

* Incorporating ES risk considerations into all financing activities
* Setting strategic ES objectives such as offering new products that address ES sustainability
* Excluding financing clients whose business activities do not meet the Bank/FI’s principles
* Establishing ES requirements for clients such as complying with national ES regulations and international standards
* Communicating ES expectations to all staff, clients and other external stakeholders

**Organizational Structure.** Bangladesh Bank’s ESRM states that for an ESMS to function properly, it is essential that roles and responsibilities for carrying out the necessary procedures and making decisions are clearly defined. The following staff/ human resources of a Bank/FI are to be involved with implementing different aspects of the ESMS:

* **Relationship Officials (RO).** ROs are responsible for identifying ES risks in a client’s operation by talking to the client/ relevant officials, site visits, collecting documents, permits relevant for the proposed transaction. ROs are responsible for filling out the ES Due Diligence checklist in consultation with the client at approval stage, collect additional information and respond to credit queries if necessary, also follow up with client if there are any pre disbursement actions to be completed. ROs also negotiates with the client in finalizing action plans and timelines where necessary.
* **Official in CRM Division.** Official in Credit/Investment Risk Management (CRM/IRM) Division is the first point of contact for any transaction once the ESDD has been conducted by the ROs. Based upon the risk rating the official escalates the transaction to Head of CRM/IRM. There must be a separate unit within CRM/IRM division for ESRM with at least 01 (one) dedicated official.
* **Head of CRM.** Head of CRM/IRM is responsible for ensuring that in each transaction no critical ES issues were overlooked, there is adequate documentary evidence to support client’s ES performance and to ensure enough measures have been taken to manage identified risk.
* **Senior Management / Board of Directors.** The Senior Management are to be responsible for the Bank/FI’s overall commitment to ES objectives. For Banks/FIs in Bangladesh, the Managing Director (MD) and the Board represents the senior management. Senior Management establishes the Bank/FI’s ES requirements and conditions for clients. In cases of unresolved ES issues or non-compliance associated with a transaction that cannot be resolved by the Head of CRM/IRM, Senior Management determines the appropriate course of action to follow to reduce the Bank/FI’s potential exposure to ES risk.
* **Legal Department.** The Legal Department ensures that the Bank/FI’s ES requirements are incorporated in legal agreements for each transaction. The Legal Department may advise if a client’s non-compliance with ES clauses constitutes a breach of contract and is considered an Event of Default under the terms of the legal agreement that requires follow up by Senior Management.
* **Sustainable Finance Unit (SFU):** SFU is responsible for coordination with different departments, branches of the Bank/FI for ensuring the compliance of ESRM and proper implementation of ESMS. This unit is responsible for updating the Board/RMC through Sustainable Finance Committee on the current status of the Bank/FI’s portfolio regarding ESRM, facilitating the Board/RMC’s decision-making process where there are unresolved ES issues or non-compliance. The SFU is also responsible for tracking latest ES issues in the media and support transaction teams in identifying and managing ES risks in lending.

**Risk Category.**

The ESRM states that to determine the extent of ES due diligence which will be required for a particular transaction, an ES risk category should be assigned to each financial and business transaction. To help a Bank/FI to determine the extent of ES due diligence that will be required for a particular transaction, Bank/FI staff should assign an ES risk category to each transaction. This provides an initial assessment of the ES risk associated with the transaction. Together with the findings of the ES due diligence, this ES risk category can be incorporated into the overall risk assessment of a transaction and factored into the decision-making process. The ESRM calls for considering DoE categories of Green, Orange A, Orange B and Red.

**Due Diligence.**

The ESRM calls for carrying out ES Due Diligence for carrying out investment related transaction. It states that conducting ESDD on transactions is a critical component of a Bank/FI's ESMS and its outcome should be factored into the decision-making process for proceeding with a transaction. The purpose of the ESDD is to review any potential ES risks associated with the business activities of a potential client ensure that the transaction does not carry ES risks, which could present a potential liability/risk to the Bank/FI. The content of the ESDD is stated as:

* Identify and assess potential ES impacts and issues, both adverse and beneficial, associated with a proposed investment project;
* Conduct a gap analysis to define areas of project noncompliance with the requirements of the national laws
* Assess the commitment and capacity of the client to manage identified impacts and define remedial measures as needed;
* Assess the quality and adequacy of the client’s ES management systems and practices to avoid, minimize, or mitigate adverse impacts, and define remedial measures as needed;
* Identify measures to avoid, minimize, mitigate, or offset/compensate for adverse impacts on workers, affected communities, and the environment;
* Design an Environmental and Social Action Plan (ESAP or Action Plan) addressing all deficiencies and non-compliances discerned during the appraisal containing specific tasks designed to close all significant gaps;
* Ensure that the investment contracts (e.g., loan documentation) include appropriate definitions, covenants, clauses and associated elements to obligate the client to comply with all ES laws and regulations, the ESAP, and applicable sections of general and sector- specific checklists; and stipulate progress and performance reporting obligations;
* Identify opportunities (e.g., clean production and energy efficiency) to improve ES
* performance
* Conceptualize specific reporting needs for the supervision phase to ensure Banks/FIs clear understanding of client performance, behavior, and achievement of sustainability in operations.

The ESDD also has a checklist guiding Banks/FIs to conduct ESDD.

**Monitoring.**

The ESRM describes monitoring as to assess existing and emerging ES risks associated with a client's operations during the transaction. Once a transaction has been approved, the Bank/FI needs to monitor the client’s ongoing compliance with the ES clauses stipulated in the legal agreement. ESRM requires that a Bank/FI’s ESMS should explain the process for systematic monitoring on a periodic basis, such as by implementing procedures for verifying compliance with ES requirements including implementation of any corrective action plans to resolve non-compliances. The frequency and extent of monitoring will depend on the complexity of ES issues associated with a client’s operations. The monitoring process generally involves a review of periodic ES performance reports submitted by the client and regular site visits of the client’s operations. If Bank/FI staff identifies ES issues, such as a client’s non-compliance with the ES clauses stipulated in the legal agreement, they should follow up with the client to resolve these in a reasonable timeframe. Depending upon the complexity of the ES issues associated with a client’s operations, Bank/FI staff should require a new corrective action plan and/or periodic reports on ES performance throughout the duration of the transaction. The reporting frequency should be tailored to each individual transaction and should be based on self-monitoring by the client or monitoring by independent third parties and/or regulatory authorities. ESRM also has a monitoring checklist for documenting findings during the monitoring process.

**External Communication.**

The ESRM requires that a Bank/FI's ESMS should include periodic reporting on the ES performance of transactions and measures taken to reduce its overall exposure to ES risk. Bank/FI staff should compile all ES findings from monitoring clients and aggregate findings at the portfolio level. By analysing this information, the Bank/FI can have a better understanding of its overall exposure to ES risk through its portfolio. ES performance reports typically include information on:

* Portfolio breakdown by business line, industry sector and ES risk category
* Overall exposure to ES risk and performance
* High-risk transactions and ES due diligence process prior to transaction approval
* Major ES risks of individual transactions, including cases of non-compliance
* Significant ES accidents or incidents related to a transaction
* Implementation and changes in the Bank/FI’s ESMS

ESRM states that a Bank/FI may have internal and external reporting requirements regarding the ES risks and impacts associated with its portfolio.

**Exclusion List.**

The ESRM includes an exclusion list, a list of activities that the ESRM screens out before financing. The list includes:

* Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under the Convention on International Trade in Endangered Species (CITES).
* Ship breaking/ trading activities which include:
  + Ships with prevalent asbestos use (for e.g. passenger cruise);
  + Ships listed on the Greenpeace blacklist\*;
  + Ships not certified “gas free” for hot work
* Drift net fishing, deep sea bottom trawling, or fishing with the use of explosives or Cyanide
* Operations impacting UNESCO World Heritage Site and/or Ramsar site
* Illegal logging, and logging operations or conversion of land for plantation use in primary tropical moist forests
* Production or activities involving forced labor/ child labor
* Production or trade in:
  + Weapons and munitions
  + Tobacco
  + Gambling, casinos
  + Pornography (goods/stores/web-based)
* Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples

**Detail ES List under Consideration in Bangladesh Bank’s ESRM,**

The ESRM delineates a number of risk issues that should be considered before investment where ESDD must be carried out the implications of financing. This area appended below:

* **Air emissions and air quality.** Where possible, a client’s operations should avoid, minimize and control adverse impacts to human health, safety and the environment from emissions to air. A Bank/FI can help a client to identify areas for reductions in air emissions and to identify environmental business opportunities.
* **Water use and conservation**. Where possible, a client’s operations should reduce overall water use at the facility level by managing the water consumption associated with specific production processes to avoid excess costs. A Bank/FI can help a client to identify areas for reductions in water use and new environmental business opportunities.
* **Wastewater and water quality**. A client's operations generate wastewater, which is treated on site and/or discharged either to the municipal sewage system for treatment or directly to the environment (surface water) without prior treatment.
* **Wastes**. A client's operations may generate, store, or handle any quantity of hazardous or non- hazardous waste across a range of industry sectors. Where possible, a client’s operations should implement sound waste management practices at the facility. A Bank/FI can help a client to identify environmental business opportunities.
* **Land contamination.** Land can become contaminated due to releases of hazardous materials, wastes, or oil, including naturally occurring substances. A client’s operations should implement the necessary measures to prevent releases of hazardous materials, waste, or oil to the ground. A Bank/FI can help a client to identify environmental business opportunities.
* **Labor and Working Conditions.** A client’s commitment to establishing a sound worker-management relationship encompasses the following aspects:
  + Human resources policy. A client should adopt a policy appropriate to its size and workforce, which sets out its approach to managing employees.
  + Working conditions and terms of employment. A client should document and communicate to all employees and workers (including contract workers) their working conditions and terms of employment.
  + Workers’ organizations. Where permitted by law, employees should be granted the right to associate freely and to bargain collectively, by forming and joining workers’ organizations or through alternative means.
  + Non-discrimination and equal opportunity. A client should not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements but rather on the principle of equal opportunity and fair treatment.
  + Grievance mechanism. A client should provide all employees with a mechanism to raise reasonable workplace concerns, confidentially or anonymously if needed, so that concerns can be addressed promptly at the management-level without any retribution.
  + Child labor and forced labor. A client cannot employ children in a manner that is economically exploitative or is likely to be harmful to the child or to interfere with the child’s education. A client cannot employ forced labor, which consists of any work or service not voluntarily performed by an individual but executed under threat of force or penalty.
  + Supply chain. A client should pay attention to unfair labor practices of its suppliers, especially in instances where low labor cost is a factor in the competitiveness of supplies and ensure that this is not due to harmful labor practices.
* **Community Health, Safety and Security.** A client’s operations often bring benefits to communities including employment, services, and opportunities for economic development. However, these operations can also increase the potential for community exposure to risks and impacts arising from accidents, structural failures, and releases of hazardous materials. It is the client’s responsibility to avoid or minimize these risks and impacts that may arise from operations. This includes implementing the following actions:
  + Consultation and grievance channels. The client should conduct consultations and establish a line of communication with the impacted community in order to understand and monitor potential impacts. An appropriate consultation and grievance mechanism can help manage and minimize potential risks, avoid reputational issues and reduce the risk of conflicts with the community.
  + Infrastructure and equipment safety. The client needs to ensure that operations are conducted to prevent potential injury to the surrounding community, especially if aspects of the operations are accessible to the community.
  + Hazardous materials safety. The client needs to prevent or minimize the potential for community exposure to hazardous materials that may be released during operations.
  + Community exposure to disease. The client needs to prevent or minimize the potential for community exposure to water-borne or vector-borne disease, and other communicable diseases that could result from operations.
  + Increase in traffic. Traffic, especially movement of heavy vehicles increases especially during construction phase. This can lead to possible accidents/incidents which need to be minimized. There is a need for traffic management plan and training of staff to manage and minimize accidents/incidents.
  + Emergency preparedness and response. The client needs to inform surrounding communities of potential hazards associated with operations and collaborate with the community and local government agencies in preparing to respond effectively to emergency situations.
  + Use of security personnel. A client may retain security personnel to safeguard its operations, which may pose risks to the surrounding community if not managed properly. This includes ensuring that security personnel have not been implicated in past abuses, have been adequately trained in the use of force (including firearms, if necessary) as well as in the conduct toward workers and the local community.
* **Land Acquisition and Resettlement.** Involuntary resettlement should be avoided or at least minimized. However, where it is unavoidable, appropriate measures to mitigate adverse impacts on displaced persons and host communities should be carefully planned and implemented with appropriate disclosure of information, consultation, and the informed participation of affected persons. This includes implementing the following actions:
  + Compensation and benefits for displaced persons. When displacement cannot be avoided, the client will offer displaced persons and communities’ compensation for loss of assets at full replacement cost and other assistance to help them improve or at least restore their standards of living or livelihoods.
  + Grievance mechanism. The client needs to ensure that a grievance mechanism is in place to receive and address specific concerns about compensation and relocation that are raised by displaced persons or members of host communities.
* **Indigenous Peoples.** A client should ensure that during the course of operations, the identity, culture and natural resource-based livelihoods of Indigenous Peoples are respected and exposure to impoverishment and disease is prevented. The client should avoid the relocation of Indigenous Peoples from their traditional lands. Given worldwide concern for the well-being of Indigenous Peoples, there are significant reputational risks for a client if Indigenous Peoples issues are not managed appropriately.
* **Cultural Heritage.** Consistent with the requirements of the Convention Concerning the Protection of the World Cultural and Natural Heritage, a client is required to avoid significant damage to cultural heritage due to their business activities. If a client’s operations are initiated and conducted without consideration for cultural heritage, there are significant legal and reputational risks. A systematic approach concerned for cultural heritage issues throughout a client’s operations, including additional investments in the enhancement of cultural heritage, can bring significant reputational advantage to a client at both the local and international level.

**Corrective Action Plan and Procedure to Address ES Impact and Risks.**

The ESRM also has a template so that ES risk and impact assessment can be used to generate a ES management plan or corrective action plan. The template provides a number of examples as guideline:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ES concern as depicted in ESDD** | **Corrective Actions required** | **Timeframe** | **Action completion indicator** | **Responsibility** |
| Evidence of land  pollution due to  discharge of untreated  effluent | Action plan may include:  Removal and treatment of contaminated ground soil  Construction of sewage system for industrial wastewater  Construction of wastewater treatment facility and discharge system for treated water | Six months | Installation of Effluent Treatment Plant (ETP). The ETP should be operational, and the qualitative parameters of treated effluent should be within limits  The discharge of treated effluent should be through the constructed discharge system and no other modes of discharge and leakages  Qualitative parameters of treated contaminated ground soil should be within limits | Board |
| Absence of GRM | Establish and publicize info about GRM | Two Months | Well established grievance redress mechanism which is appropriately communicated to the external stakeholders | Management |

**Monitoring Checklist and ESMS Template.**

The ESRM provides a sample monitoring checklist with indicators and a suggested ESMS template for Banks/FIs to follow.

**Assessment of Bangladesh Bank’s ESRM**

Bangladesh Bank’s ESRM is comprehensive to address most ES risks and impacts that may emanate from project interventions. It has experience in working with WB as well as a number of Banks/FIs to address ES risks and impacts. However, following recommendations may be addressed to finetune the ESRM which should be a continuous process of upgradations from lessons learnt from practical project implementation.

|  |  |  |
| --- | --- | --- |
| **Scope** | **Present Status** | **Recommendations** |
| ES Policy | BB’s ESMS (or ESRM) touches upon the need of an ES Policy and its usage which is defined, separate and management endorsed. It illustrates BB’s philosophy and strategy on ES commitment focused and expressed through their projects and subprojects. | Update the ES policy, endorsed by the BB’s senior management periodically and create a lesson learnt database garnered from practical implementation in the field depicting what works and what needs modification. |
| ES Procedure | BB’s ESMS has procedures and mechanism to address risks and impacts associated with:  *Environmental and Pollution*  *Employment issues (including recruitment, retrenchment etc.)*  *Community Health Safety*  *Land Acquisition*  *Indigenous People*  *Cultural Heritage*  *Biodiversity* | FPIC commitment with respect to Indigenous People should be developed  GRM (including those that deal with SEA/SH and ethnic community people) system should be well explained and an effective, web based GRM with GRCs at all levels need to be setup.  The consideration for a comprehensive Training Policy, assessment of competence and training modules are required.  Periodic reporting mechanism, including reporting channel and frequency needs mentioning.  Requirement to develop OHS measure as per Good International Industry Practices (GIIP)  The ESMS also has risk categorization system in line with GoB’s risk categories (4 categories—Green, Orange A/B, Red). However, in place the ESMS has also used 3 risk categories (Low, Med, High), which may be synced and streamlined (recommendation is for 4 levels of risk categories). The categorization system will take into account (i) the nature and magnitude of ES risks and impacts of subprojects; (ii) sectoral and geographical context; and (iii) type of financing.  Creation of gender and PWD-sensitive workplace environment (including Universal Access) should be detailed  A format for screening of applicants for project beneficiary would add to the transparency mechanism while selecting beneficiaries including women, people with disability and the vulnerable.  Assessment and Management instruments and their formats (ES impact assessment and framework, various plans for community safety, land acquisition, OHS measures) may be developed and formats may be attached as annexes. |
| Organizational  Capacity | BB’s ESRM has different layers and structure of officers assigned for assessment and management of ES related risks and impacts | ***The ESRM may illustrate the organizational structure of BB SFD (Sustainable Finance Department) taken from the terms of references of Green Financing wing.***  Training policy and competency assessment for all ES staffs including stakeholders (other wholesale and retail FIs’).  Clear Job Description and Job requirement for each position (summarizing from the terms of references). |
| Monitoring and Review | BB’s ESMS has in place a monitoring mechanism including checklist and review system. | The need and scope for using TPM (Third Part Monitoring) and associated assessment (for projects with high ES risks and impacts)  The types and periodicity of reports including the reporting channel. Report format as Annexures would be helpful  Use of remote monitoring system (*Kobo Toolbox* and other available medium), given COVID-19 and other potential emerging situation. |
| External Communication | The ESMS touches upon the issues of External Communication system rather summarily. Stakeholder analysis, review, development of external GRM system, need for stakeholders input needs extensive focus. It needs a comprehensive re-assessment and update. | Procedure for assessment and identification of various stakeholders (including disadvantaged)  Communication procedure with various stakeholders including meaningful consultation (keeping in mind differentiated measures for the disadvantaged), and consideration for their input for project design  A format for stakeholder engagement may be annexed |
| Miscellaneous |  | The GM of the SFD is overall responsible for ESRM. Besides present organizational structurer, BB may designate a representative of the senior management to have overall accountability for ES performance of the subprojects. |

**Memorandum of Understanding (MoU)**

For Green Financing towards Pollution Control under BEST project

Department of Environment (hereinafter referred to as DoE) is the government regulatory and technical organization of the Ministry of Environment, Forest and Climate Change in Bangladesh working towards conservation of overall environment of the country and improvement of environmental quality having its address at E-16 Agargaon, ShereBanglanagar, Dhaka-1207, Bangladesh AND

Bangladesh Bank is the Central Bank of the Government of Bangladesh (hereinafter referred to as “BB”), dedicated to play the role of central bank of the Government including Sustainable Financing and Green Financing to promote green growth in the country and having its address at *Bangladesh Bank*, Head Office (Level-11, Annex-II Building), Motijeel C/A, Dhaka, Bangladesh.

The Department of Environment, Ministry of Environment, Forest and Climate Change is going to receive a Loan from WB to implement the Project “Bangladesh Environmental Sustainability and Transformation (BEST) with the objective of transformative changes in environmental governance and pollution control.

On the other hand, Bangladesh Bank is interested to participate in the BEST project with the aim to promote and implement Green Financing Products for Pollution Control ensuring participation of the PFIs and engagement of relevant private and public sector actors. To meet the expected raising demands for green financing from polluting sectors, BB would undertake activities to pilot a green credit guarantee scheme (GCS) that will provide partial credit guarantee to cover a share of the default risk that PFIs are facing in extending loans to green investments of the private sector. Recognizing high health costs of air pollution and high contributions of particulate matters from the brick kiln sector, conventional cook stoves, waste management and thermoelectric generation, this pilot GCGS will first focus on investments to reduce air pollution control from these targeted sectors.

**Objective of the MoU**

To raise expected demands for green financing for polluting sectors through strengthened cooperation between Bangladesh Bank and the Department of Environment,

1. Responsibility of Department of Environment
2. The DoE as the lead implementing agency will take all necessary steps to bring the BEST project onboard.
3. The DoE will also act as coordinating agency to coordinate all the implementing agency to submit all necessary reports to WB in timely manner.
4. The DoE will facilitate disbursement and re-imbursement of fund to the potential PFIs and borrowers through ensuring EIA, ESIA and ESMF whichever is applicable for the entrepreneurs or the proponents in line with the WB/IDA Guidelines, as well as the Environmental Rules-Regulations of Bangladesh
5. DoE will provide technical support, training and capacity building on the issues relating to environmental policy, management, cleaner production and practices to the BB, PFIs and Entrepreneurs those are associated in and interested with Green Credit and Green Credit Guarantee Schemes
6. DoE will ensure environmental quality monitoring of the sub-projects under the green credit on a periodic basis
7. DoE will enhance consumer awareness-raising activities on accessing to Environment Fund supported under Component 1 and the BB’s existing green refinancing schemes towards creating a complete green financing ecosystem to mitigate or remove regulatory, technological, financial, capacity and market barriers that have prevented the polluting private sector from investing in green technologies and achieving environmental compliance.
8. Responsibility of Bangladesh Bank
9. The BB will ensure to pilot a green credit guarantee scheme (GCS) that will provide partial credit guarantee to cover a share of the default risk that PFIs will face in extending loans to green investments focusing, primarily, on the air polluting private sector including brick kiln sector (to promote non-fired CCB and Hollow Bricks through tunnel kiln to reduce the dependency on fertile soil and enhance energy efficiency with clean coal in Tunnel Kilns); conventional cookstoves (clean stove production to help reduce indoor air pollution), waste management (municipal waste recycling and composting investments to reduce GHG and particulate emission from waste management practices) and thermoelectric generation (rooftop solar systems to reduce demands for thermoelectricity and thus avoid GHG and particulate emission from associated thermoelectric generation processes), this pilot GCGS will first investments to reduce air pollution control from these targeted sectors.
10. The BB will work on expanding GCGS to private sector investments in additional polluting sectors outside air polluting sector during and beyond project implementation.
11. The BB will ensure smooth and dynamic mobilization of the Green Credit (GC) to the sub-projects following the principles and practices of Green Credit Guarantee Schemes (GCGS)
12. The BB will Establish Legal and regulatory framework to manage the GC and GCGS so that the businesses could operate, transparently, under the ambit of all the applicable laws, rules-regulations of the land
13. The BB will ensure oversight and supervision of the PFIs and Sub-projects supported by GC and GCGS with a proven mechanism to keep the businesses under compliance of rules-regulations-guidelines of BB, WB and DoE
14. The BB will ensure internal control framework to safeguard the operational integrity of the PFIs and Sub-projects supported by GC and GCGS
15. The BB will adopt an effective and comprehensive risk management framework to avoid or abate the risks in various phases of implementation of GCGS
16. The BB will ensure preparation of clear guidance on eligibility and qualification criteria for SMEs, lenders, and credit instruments for GCs and GCGSs and that will be outreached to all the potential investors
17. The BB will ensure that the guaranteed delivery approach balances additionality and financial sustainability of GCs and GCGSs.
18. The BB will ensure designing and implementation of an efficient, clearly documented, and transparent claim management processes to be followed by the concerned parties of GCs and GCGSs
19. The BB will ensure set of rigorous financial reporting requirements and externally audit financial statements and publicly disclose non-financial information and environmental quality management related information to be followed by the concerned parties of GCs and GCGSs
20. The BB will be undertaking awareness activities for marketing and branding of GC and GCGS
21. The BB will ensure evaluation of performance of the Sub-projects those are offered with the green credit and publicly disclose the findings of the performance
22. The BB PIU will provide monthly financial reports to the SFD and DoE. The BB PIU has to submit semi-annual progress reports and external audit reports on an annual basis to the WB and DoE.
23. Relationship Between the Parties.

Each Party acknowledges and agrees that the negotiations are being conducted on a non – exclusive basis, unless and to the extent otherwise stated in this MoU.

## Annex IX COVID-19 Health and Safety of the Workforce

The PIUs 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. PIUs 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.

1. **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.
2. **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.

1. **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](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-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](https://www.ifc.org/wps/wcm/connect/60593977-91c6-4140-84d3-737d0e203475/workers_accomodation.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-60593977-91c6-4140-84d3-737d0e203475-jqetNIh), 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.

1. **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](https://www.who.int/publications-detail/water-sanitation-hygiene-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.

1. **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.

1. **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](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)). 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](https://apps.who.int/iris/bitstream/handle/10665/331492/WHO-2019-nCoV-HCF_operations-2020.1-eng.pdf)). 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.

1. **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.

1. Among all countries analysed by the Environmental Performance Indicator Reports, Bangladesh was ranked at the 115th out of the 169th out of 178 countries rated in 2014; and the 173rd in 2016, the 179th in 2018, and the 162nd in 2020 out of 180 countries rated (https://epi.yale.edu/). [↑](#footnote-ref-2)
2. All other VICs are visual inspections only. In 1999, ADB financed the development of five VICs with advanced equipment in Ekuria/Dhaka, Mirpur/Dhaka, Chattogram, Khulna, and Rajshahi. Currently, the Mirpur VIC is the only one operating after being rehabilitated around 2017 with a grant from the Korean International Cooperation Agency. On a daily basis, the Mirpur VIC’s inspection system can only inspect 70–80 vehicles with an additional 400–600 vehicles being inspected visually. [↑](#footnote-ref-3)
3. World Bank. 2018. Clean and Resilient Growth in Bangladesh. https://www.worldbank.org/en/news/feature/2018/09/16/clean-and-resilient-growth-in-bangladesh. Recycling of scrap and secondhand electrical equipment is largely done by the informal sector whose workers are directly exposed to health risks. According to a DoE study, only 3 percent of used electrical goods are recycled in Bangladesh and the rest is released into landfills, rivers, and open environment. Crude forms of dismantling may often lead to toxic emissions. The e-waste recycling activities are mainly concentrated in old parts of Dhaka (Islambag, Nimtoli, Chankharpool, Waizghat, and Kamrangir Char). Open burning of wires/cables to recover copper is practiced by the informal sector. This burning activity produces extremely harmful toxic compounds, such as dioxins and furans, and causes air pollution. Moreover, these recyclers mostly dismantle and then export overseas as they do not have a facility to recover value metals. [↑](#footnote-ref-4)
4. Locations shown in the map at the potential districts are tentative, these might be changed during implementation based on the site-specific technical requirements. [↑](#footnote-ref-5)