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**ELECTRICITY DISTRIBUTION MODERNIZATION PROGRAM (P174650)**

**People's Republic of Bangladesh**

**PROGRAM-FOR-RESULTS**

**ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT (ESSA)**

**OCTOBER 11, 2021**



## ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
ADMS	Advanced Distribution Management System
AiIB	Asian Infrastructure Investment Bank
AIS	Air Insulated Switchgear
AIT	Advance Income Tax
AMI	Advanced Metering Infrastructure
ARIPA	Acquisition and Requisition of Immovable Property Act
BERC	Bangladesh Energy Regulatory Commission
BESS	Battery Energy Storage Systems
BPDB	Bangladesh Power Development Board
BREB	Bangladesh Rural Electrification Board
CHT	Chattogram Hill Tracts
DC	Deputy Commissioner
DLI	Disbursement-Linked Indicator
DoE	Department of Environment
EA	Environmental Assessment
ECA	Environmental Conservation Act
ECC	Environmental Clearance Certificate
ECoP	Environmental Code of Practice
ECR	Environment Conservation Rules
EDMP	Electricity Distribution Modernization Program
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
E&S	Environmental and Social
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System(s)
ESMU	Environmental and Social Management Unit
ESSA	Environmental and Social Systems Assessment
FGD	Focus Group Discussion
FPIC	Free, Prior, and Informed Consent
FYP	Five-Year Plan
GBV	Gender-Based Violence
GHG	Greenhouse Gas
GIS	Gas Insulated Switchgear
GoB	Government of Bangladesh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
HT	High Tension
IEC	Information, Education, and Communication
IEE	Initial Environmental Examination
IMED	Implementation Monitoring and Evaluation Division
IoL	Inventory of Losses
IPF	Investment Project Financing
KIAT	Korea Institute for Advancement of Technology
LMP	Labor Management Plan
LNG	Liquefied Natural Gas
LT	Low Tension
MoEFCC	Ministry of Environment, Forest and Climate Change

MOL	Ministry of Land
MoLE	Ministry of Labor and Employment
MOTIE	Ministry of Trade, Industry, and Energy
NGO	Non-governmental Organization
OHS	Occupational Health and Safety
PAD	Project Appraisal Document
PAP	Program Action Plan
PBS	Palli Bidyut Samiti
PCB	Polychlorinated Biphenyl
PD	Project Director
PDO	Program Development Objective
PforR	Program-for-Results
PGCB	Power Grid Company of Bangladesh
PMU	Project Management Unit
PSMP	Power Sector Master Plan
RAP	Resettlement Action Plan
RET&DP	Rural Electricity Transmission and Distribution Project
RoW	Right-of-Way
SCADA	Supervisory Control and Data Acquisition
SLA	Subsidiary Loan Agreement
SOP	Standard Operating Procedure
SPC	Spun Prestressed Concrete
TPP	Tribal Peoples Plan

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## EXECUTIVE SUMMARY

- 1. BREB in the last decade successfully implemented one of the largest rural electrification programs in the world**, delivering access to more than 90 million people. With the access agenda nearing completion, the Government is keen to focus on BREB's modernization and network transformation.
- 2. The Government has prepared program for *Modernization and Capacity Enhancement of BREB to respond to challenges in electricity distribution***. The program aims to (i) upgrade and enhance capacity of rural electrical distribution network; (ii) meet the projected increase in electricity demand; (iii) provide access to reliable, affordable, and efficient power supply to consumers and (iv) reduce system loss of the distribution system. The Government's program will cover all 80 PBSs in BREB, which together supply about half of the electricity in the country and cover the entire country except Dhaka and some other urban areas. The program comprises of four geographical areas: Dhaka-Mymensingh Division, Chittagong-Sylhet Division, Khulna-Barishal Division and Rajshahi-Rangpur Division, as well as institutional and regulatory strengthening. The program will cover the period from 2021-2026 and will require approximately US\$3.2 billion of investments over the period.
- 3. The proposed Program-for-Results (PforR) operation will support a part of the overall Government program**—with a focus on network strengthening, expansion, and rehabilitation to ease existing constraints and meet the rapidly growing demand in BREB's Dhaka-Mymensingh Division. These network investments will be paired with new and transformative elements such as Supervisory Control and Data Acquisition (SCADA), Advanced Distribution Management System (ADMS), and Advanced Metering Infrastructure (AMI) and distributed energy resources such as rooftop solar, and Battery Energy Storage Systems (BESS) to improve reliability, efficiency, and sustainability of electricity supply. Strengthening of institutional and regulatory activities will be undertaken at the national level.
- 4. The Environmental and Social Systems Assessment (ESSA) provides a comprehensive review of relevant government systems and procedures for addressing environmental and social (E&S) issues associated with the Program**. The ESSA describes the extent to which the Government's E&S policies, legislation, program procedures, and institutional systems are consistent with the six 'core principles' of the World Bank Guidance on Program-for-Results Financing Environmental and Social Systems Assessment<sup>1</sup> and recommends actions to address the gaps and to enhance performance during Program implementation.
- 5. The ESSA has identified potential risks and opportunities and assessed the compatibility of the Program with respect to the core principles**. BREB has considerable experience in executing World Bank-financed projects, with demonstrated capacity in managing E&S risk for similar activities. BREB has Environmental and Social Management (E&SM) Office setup in its permanent organogram. There will be minimal to no land acquisition as BREB will use own or government-owned lands to the extent possible, and no resettlement is anticipated at this stage. The Program will exclude any activity that may have significant adverse E&S impacts and are sensitive, diverse, or unprecedented. No permanent adverse impacts are expected expansion and strengthening of the distribution network.
- 6. The expected E&S impacts are moderate with known mitigation measures available** in the industry and can be mitigated through the implementation of Environmental Code of Practice (ECoP) and Environmental and Social Management Plans (ESMPs). There will be construction-related impacts such as air pollution, noise emissions, waste generation, risks to the health and safety of workers and communities, and exposures to electrical hazards from using tools and machinery. However, For BESS, contractual arrangements with solar panel suppliers will include buying back or taking back used

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<sup>1</sup> Catalogue Number: OPS5.04-GUID.118, Issued: September 18, 2020, Effective: September 18, 2020

batteries for safe disposal; this should ensure proper recycling and reduce risk of lead pollution from unplanned disposal of solar batteries.

7. **An E&S screening was carried out to identify likely E&S impacts** with respect to contextual, institutional, capacity, and reputational risks/ facing the Program. The screening revealed that BREB has the E&SM Office setup in its permanent organogram with 8 (eight) regular staff headed by Director (technical). They are currently implementing the World Bank-financed RET&DP, which includes identification of E&S risks and their mitigation. It is reported that overall compliance status of Environmental Management Plan (EMP) and implementation of Resettlement Action Plan (RAP) at various subproject sites is satisfactory. Stakeholder engagement and grievance management are also satisfactorily complied with through Focus Group Discussion (FGD), personal contact, and Samity Board in every PBS, where local people are represented through election, to address the needs and complaints of the affected people including indigenous people and tribal people. It may be noted that PBS (rural electric cooperatives, 80 in number, dispersed throughout the country) is the lowest tier of BREB setup at the grassroot level and is serving some 26 million consumers in the country.<sup>2</sup>

8. **Overall, the ESSA finds the Program is compatible with the core principles of PforR.** However, the ESSA recommends addressing institutional capacity constraints and gaps across a range of environmental and social management system (ESMS) limitations. These recommendations are summarized as actions to be incorporated in the Program Action Plan (PAP). Specific recommendations were made to address the identified risks, gaps and needs in Section IV of this ESSA. These measures for improvement of the ESMS have been discussed with the implementing agency, BREB. The following table summarizes the main issues and recommended actions to strengthen E&S systems' performance for the entire PAP:

Objectives and issues	Recommended measures/actions
<b>Environmental and social systems management</b>	
Environment and social management instruments	<p>The Environmental and Social Management Framework (ESMF) developed for the RET&amp;DP is deemed adequate to address the safeguard requirement for the proposed Electricity Modernization Program under PforR financing. However, BREB should contextualize the RET&amp;DP ESMF into Electricity Distribution Modernization Program (EDMP) Standard Operating Procedure (SOP) for E&amp;S management to suit the requirements of the current Program and adopt the same framework for E&amp;S screening, impact assessment, and management and monitoring for the Program. Contextualization to include the following:</p> <ul style="list-style-type: none"> <li>• Exclude the requirements related to high-capacity transmission lines, switchgears, and substations that are relevant to Power Grid Company of Bangladesh (PGCB).</li> <li>• Include the provision of cumulative impact assessment in the screening/assessment protocol.</li> <li>• Develop the EDMP SOP on E&amp;S management following the World Bank guidelines and latest government policies and acts including Labor Act 2006 (amendment in 2018) and Labor Rules 2015, Electricity Act 2018 and Electricity Rules 2020, and so on and relevant new environmental policies.</li> <li>• Include frameworks for Labor Management Plan (LMP), Gender and Gender-Based Violence (GBV) Prevention Plan, and Tribal Peoples Plan (TPP), wherever necessary.</li> </ul>

<sup>2</sup> BREB Preliminary Development Project Proposal (PDPP) for Aided Project - Modernization and Capacity Enhancement of BREB Network (Dhaka-Mymensingh Divisions); dated May 27, 2019; page 1.

Objectives and issues	Recommended measures/actions
Strengthening of institutional capacity for safeguards management at the central level	<p>It is envisaged that the BREB E&amp;SM Office will oversee the activities of the consulting firms/individual consultants engaged in E&amp;S management for all projects. Therefore, capacity building (through training on environmental and social management of the personnel in this unit is required.</p> <p>The BREB E&amp;SM Office does not have experience in implementation of projects following PforR. However, BREB has considerable experience in executing World Bank projects, with demonstrated capacity in managing E&amp;S risk for similar activities. All the experts of the E&amp;SM Office along with the top management of BREB need to be trained on relevant E&amp;S guidelines practiced in the World Bank. BREB needs to induct a permanent social and environmental specialist in its E&amp;SM Office or hire required social consultants for this Program. Necessary funding is to be catered for this purpose from the Program fund.</p>
Training at macro and micro (PBS and contractor/subcontractor) level on environmental and social risk and impact mitigation, labor management, GBV issues, stakeholder engagement, and grievance redress service (GRS) issues	<p>BREB has been providing relevant training to its own staff and contractors. However, field-level experience suggests that gaps exist in the implementation of E&amp;S mitigation measures. Therefore, there is a need for continued capacity-building initiatives specifically for the staff engaged in supervision at the PBS level and their contractors and subcontractors involved with the project. Adequate budget has to be planned for this purpose from the Program fund.</p>
Measures to increase accountability for ESMP compliance at the field level	<p>Field-level experience suggests that there are gaps in implementation of E&amp;S issues, especially in areas of Occupational Health and Safety (OHS), working condition of workers, stakeholder engagement, and general housekeeping activities. The following measures are to be adopted for ensuring ESMP compliance:</p> <ul style="list-style-type: none"> <li>• It should be ensured that the subcontractors and labor contractors are sensitized about their obligations related to ESMP compliance. This can be achieved through training, for which budget has to be allocated.</li> <li>• The provisions of ESMP for which compliance needs to be achieved should be reflected in the contractual agreements between BREB and contractors and subcontractors. This needs to be ensured by BREB.</li> <li>• Payment to contractors may be tagged with satisfactory compliance of ESMP including OHS and LMP.</li> <li>• Daily record of site supervision by the safety officer must be made available at the project sites. This should be a contractual obligation between BREB and the main contractors.</li> </ul>
Child labor management and third-party monitoring	<p>Bangladesh Labor Law puts minimum legal age for employment as 14, which is not likely to be hazardous or harmful to the child's health or physical, mental, spiritual, moral, or social development. BREB should ensure that its contractual documents with civil works contractors make specific mention about this matter in the LMP. Appropriate risk assessment tools need to be added with the EDMP SOP on E&amp;S management together with monitoring mechanism.</p> <p>On a need basis, BREB may think of employing a third party under the Program to monitor compliance of child labor-related laws and convention and E&amp;S compliances, negotiated settlement and voluntary land donation procedures, labor influx, OHS, GBV, child labor restrictions, and grievance redress mechanism (GRM) issues.</p>

Objectives and issues	Recommended measures/actions
Land acquisition and resettlement	<p>World Bank Policy on PforR Financing indicates that the ESSA considers to “manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards.”<sup>3</sup> There will be no land acquisition as BREB will use its own or government-owned land to the extent possible. Whenever needed, BREB would purchase land at market price for the substation through negotiated settlement. The EDMP SOP on E&amp;S management under preparation by BREB must include detailed procedures of negotiated settlement and voluntary land donation. Though private land acquisition may not be required, subprojects may take private land through negotiated settlement and PBS is likely to use the land of the Government of Bangladesh (GoB) to construct the substations. However, there might be squatters on the GoB land. Moreover, few trees and crops may be affected during construction of the distribution line. Considering this possible impact, the main text of the ESSA discusses RAP preparation.</p>
Labor influx management and GBV	<p>It is expected that there will be no major construction under this Program. However, contractors will develop site-specific measures and working plan for labor management approved by BREB and the World Bank before the work starts and update them whenever necessary. LMP should include specific clauses on labor influx management, child labor restrictions, and minimizing of GBV. BREB should ensure that contractors develop site-specific LMP and deploy relevant personnel resources before the work starts and update the LMP whenever necessary. Local community, including marginalized, vulnerable, and other stakeholders, should be consulted and consent of the affected tribal community taken while preparing and updating the LMPs. BREB should arrange a strong monitoring system under the Program including engagement of a third-party monitor and creation and operation of a GRM for settlement of labor-related complaints and grievances including GBV. BREB should ensure the following by incorporating these in the contractual documents and physical monitoring:</p> <ul style="list-style-type: none"> <li>• Encourage contractors to employ unskilled workers away from the live electricity network vicinity as much as possible.</li> <li>• Construct labor sheds near the work sites so that presence of migrant workers does not adversely affect local communities and their way of living.</li> <li>• Undertake mandatory and repeated training and awareness program on LMPs for the workforce at site.</li> <li>• Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites</li> <li>• Take adequate measures for gender-friendly workplace environment at all work sites and at the labor sheds.</li> <li>• Ensure addressing of OHS issues at the work sites inclusive of all workers by gender, age, and ethnicity and ensure availability and use of personal protective equipment.</li> <li>• Ensure firefighting and first aid facilities at the work sites and identification and coordination with ambulance services and hospitals for quick evacuation in case of worksite accidents.</li> <li>• Display important telephone contacts such as local emergency services in billboards at the work site and labor shed.</li> </ul>

<sup>3</sup> World Bank Policy on PforR Financing.

Objectives and issues	Recommended measures/actions
	<ul style="list-style-type: none"> <li>• Access and make use of GRM for any issues of labor influx management for misconduct, illicit behavior, drug abuse and other social crimes, and so on in coordination with the local law enforcing agencies, where required.</li> </ul>
Stakeholder Engagement and GRM	<p>Due to construction of substations, distributions lines, and other Program-related activities, detailed field-level stakeholder engagement, including Free, Prior, and informed Consent (FPIC) of the Garo tribal community and functioning of GRM, is required. Consultation and community participation will be undertaken at subproject identification, planning, design, implementation, and evaluation stages. Consultation and participation involve communities and other stakeholders, which will take place through interpersonal communications, FGDs, and small and large community meetings. Additionally, radio broadcast and other media forms may be used to further disseminate information. PBSs will be the platforms for disclosure and to consolidate feedback from beneficiary communities and other stakeholders. The EDMPP SOP on E&amp;S management should include a detailed guideline to prepare stakeholder engagement plan following World Bank guidelines.</p> <p>Recording of grievances need to be ensured at the field and project level. Both BREB and PBS have a web-based GRM system which needs to be user-friendly and needs to disclose outcome of grievances timely so that people are encouraged to raise their grievances with ease. Necessary budget has to be catered for this purpose from the Program fund.</p>
Integrating local community and grass root leadership in the project	<p>PBS plays an important role in integrating the local community and local leadership. There is a Samiti Board in every PBS. The board is constituted through elections where local people have representation. This way the project-affected people and the complainants can communicate their grievances/complaints easily. This method should be continued. Inclusion of women representative and representative from the indigenous people/tribal people community of the locality in the Samity Board would make it more effective.</p>
Tribal Peoples Plan (TPP)	<p>The project has adopted the exclusion criteria to avoid any negative impact on the tribal Garo community due to undertaking of the project in those areas. The project rather intends to extend the benefits toward their welfare. However, detailed guidelines would have to be prepared, if necessary, for preparing the TPP following the World Bank's latest guidelines to maximize benefits to the tribal people. FPIC of the Garo community must be taken before every stage of the Program activities.</p>

## SECTION I: PROGRAM DESCRIPTION

### 1.1 Introduction

1. Bangladesh has in the last decade made impressive progress in increasing access to electricity and power generation capacity. There has not been a similar improvement in reliability of electricity supply, which is adversely affecting its economic competitiveness and the business environment. Access to reliable, affordable, efficient, and uninterrupted electricity supply is the prime requirement for both economic development and poverty reduction in rural areas of Bangladesh. However, electricity demand in areas served by the Bangladesh Rural Electrification Board (BREB) is expected to increase significantly from 7 GW to 16 GW by 2030, as the consumer mix of BREB changes to encompass 44 special economic zones.

2. To meet the rural electricity demand, The Government has prepared program for *Modernization and Capacity Enhancement of BREB* to respond to challenges in electricity distribution. The program covers all 80 Palli Bidyut Samities (PBSs) of BREB, which together supply about half of the electricity in the country and cover the entire country except Dhaka and some urban areas. The program comprises four geographical areas—Dhaka-Mymensingh Divisions; Chattogram-Sylhet Divisions, Khulna-Barishal Divisions; Rajshahi-Rangpur Divisions— as well as institutional and regulatory strengthening at the national level.

3. The proposed Program-for-Results (PforR) operation will support a part of the overall Government program—with a focus on network strengthening, expansion, and rehabilitation to ease existing constraints and meet the rapidly growing demand in BREB’s Dhaka-Mymensingh Division. These network investments will be paired with new and transformative elements such as Supervisory Control and Data Acquisition (SCADA), Advanced Distribution Management System (ADMS), and Advanced Metering Infrastructure (AMI) and distributed energy resources such as rooftop solar, Battery Energy Storage Systems (BESS), and EV infrastructure to improve reliability, efficiency, and sustainability of electricity supply.

4. BREB plays a central role in delivering reliable and affordable electricity. In the last decade, BREB successfully implemented one of the largest rural electrification programs in the world, delivering access to more than 90 million people. The World Bank has been supporting BREB through its Rural Electricity Transmission and Distribution Project (RET&DP) that closed in June 2021. The program is on track to complete universal electrification by 2021. With the access agenda nearing completion, the Government has developed a program for Modernization and Capacity Enhancement of BREB Network to respond to achieve universal electrification for all by 2021.

5. This Environmental and Social Systems Assessment (ESSA) of the proposed Program was undertaken to meet the requirements the World Bank Program-for-Results (PforR) guidelines. The ESSA reviews government policies and acts and assesses BREB’s existing capacity to manage E&S issues to implement the proposed Program. This ESSA also identifies the existing gaps and proposes capacity-development programs to bridge the gaps in managing E&S risks. The ESSA reviewed the proposed Program activities to evaluate its effects on the environment and potentially affected people. Public consultation was carried out by the World Bank staff virtually during the COVID-19 pandemic with the affected population including representatives from the Garo tribal community and in the presence of BREB staff to identify the risks associated with the Program. The ESSA identifies E&S risks in the proposes measures to address them through the Program Action Plan (PAP).

6. The ESSA development team used various approaches to review the E&S systems that are relevant to the Electricity Distribution Modernization Program (EDMP) of BREB in the light of six PforR core principles and their guiding questions. It included analysis of information and data on previous

assessments and reports on the status of different aspects of their management of E&S issues and national consultations with all key stakeholders related to the Program. The ESSA was developed based on (a) a review of existing policies, development plans, legal and regulatory framework and guidelines of the international development financing institutions working with BREB; (b) meetings and interviews with different stakeholders including BREB and relevant other organs/staff involved in environmental, social, health, safety, and labor issues in development projects at BREB; (c) an assessment of relevant environmental and social management systems (ESMS) at BREB; (d) an assessment of the capacity and performance of BREB relative to its own procedures and processes; (e) development of an action plan to enhance E&S management capacity and performance; and (f) development of performance monitoring and implementation support program. The formulation of the ESSA will be informed by a consultative process involving key national and local stakeholders.

## **1.2 Brief description, geographical scope, and objectives of the Program**

7. With the financial support of the World Bank, BREB is considering network capacity and technology investments in the Dhaka-Mymensingh Division. The Program envisages investment of more than US\$743 million between 2022 and 2026. The Program will strengthen BREB's ability to meet the rapidly growing electricity demand while also supporting the decarbonization of the sector and improving climate resilience of the electricity system. The Program Development Objective is to increase the delivery, reliability and efficiency of electricity supply and strengthen institutional capacity and readiness for its sustainable transformation. The PDO Level Results Indicators are:

- electricity delivery to BREB customers increased (Gigawatt-hour (GWh));
- electricity distribution losses reduced (%);
- people provided improved electricity service including female (Number).
- SCADA and BESS pilot completed in BREB distribution network.

8. To attain these objectives, the scope of work under this Program has been finalized as follows:

- Construction of 33 kV line (new): 1,500 km
- Upgrading of 33 kV line: 500 km
- Construction of 33 kV underground line: 170 km
- Construction of 33 kV submarine cable: 20 km
- Construction of 11 kV line (new/upgrading): 10,000 km
- Insulated conductor: 6500 km
- Conversion of low tension (LT) to high tension (HT) line: 6,000 km
- Construction of 11 kV underground line: 230 km
- Construction of new 33/11 kV substation (1650 MVA): 107
- Construction of 33/11 kV substation augmentation (GIS) (570 MVA): 57
- Construction of river crossing tower: 14
- Installation of fault locator: 6350
- Installation of smart meters and data center
- Integration of SCADA system with the substations
- Cumulative solar capacity connections through net metering

- Connection of BESS to the BREB network (MWh).

9. During ESSA consultations, BREB Program Planning Directorate confirmed that the conversion of LT to HT line will be undertaken along existing right-of-way (RoW) using existing poles. Generally, the poles stand at a height of 25–30 ft from the ground level and therefore would neither adversely affect the population living nearby as there is no inhabitation along the existing RoW nor arrest vertical expansion of other structures.<sup>4</sup>

10. BREB has two new works: (a) cumulative solar capacity development in net metering connections and (b) connection of BESS to the BREB network (MWh). For the cumulative solar capacity development, BREB would inspire and advise the local industrialists at the macro and micro level to install solar panels on the rooftops of their industries either through purchasing solar panels from local market or importing the same from Germany/China. However, the country from where solar panels might be procured must promote sound worker-management relationships, enhance the development benefits of a project by treating the workers fairly and providing safe and healthy working conditions, and prevent the use of all forms of forced labor and child labor. There is no dedicated supply chain of solar panels linked with BREB. BREB would arrange for ‘net metering’ after installation of solar panels. This way the industrialists would use electricity generated from solar panels and sell unused electricity to BREB. Thus, the electricity bill of the industries would be reduced and they would earn a good amount of money by selling unused electricity to BREB.<sup>5</sup> It is pertinent to note that rooftop solar panels together with BESS can substantially reduce distribution losses and potentially defer transmission and distribution investments and improve power quality. Therefore, no land would need to be cleared for solar panel installation.

11. As for the ‘connection of battery energy storage system to the BREB network (MWh)’, BREB is yet to gain experience on battery energy storage since no battery storage is included in any BREB installation till date. Of late, the Government of the Republic of Korea has taken an initiative of piloting this part of the project in two BREB substations with a grant of US\$15 million through the Korea Institute for Advancement of Technology (KIAT) under the Ministry of Trade, Industry and Energy (MOTIE), Korea. The objective of KIAT is to promote industrial technology innovation and support the development of related policies. Since the decision is yet to be finalized, BREB is not aware of the type of battery to be used and thus cannot make specific comments on adequacy of existing recycling facilities and licensing.<sup>6</sup>

12. The economic analysis finds that the Program investments will bring substantial economic benefits to Bangladesh’s economy by helping displace expensive diesel-based self-generation and fossil fuel generation, meet growing demand, and improve the efficiency and reliability of the power system. The baseline economic rate of return of the ‘with Program’ scenario over a 30-year period is 30.3 percent (net present value US\$6.0 billion). The levelized economic cost of electricity served in the ‘with Program’ scenario is US\$7 compared to US\$10 in the ‘without Program’ scenario. Greenhouse gas (GHG) accounting indicates that the Program leads to reduction in emissions of 48 million tons of CO<sub>2</sub>e over its life. The reduction in GHG emissions is on account of displacement of diesel self-generation and fossil fuel generation and reduction in technical losses from the implementation of the Program.<sup>7</sup>

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<sup>4</sup> Discussion with the Director, Program and Planning Directorate, BREB at 1300 hours on March 29, 2021.

<sup>5</sup> Discussion with Director, Directorate of Program Planning, BREB, Dhaka at 2100 hours on August 15, 2021.

<sup>6</sup> Discussion with Director, Directorate of Program Planning, BREB, Dhaka at 2100 hours on August 15, 2021.

<sup>7</sup> Program Appraisal Document for Electricity Distribution Modernization Program (P174650), August 2021, QER version; page 29

### **1.3 Identification of any differences in geographic or thematic scope between the borrower's program and the World Bank-financed Program.**

13. Overall, BREB's program is nationwide while the World Bank's Program is focused on only the Dhaka-Mymensingh Division, part of the whole national program. There is no difference in the thematic scope between the borrower's program and the World Bank-financed Program except the geographical location. The proposed PforR will not support any activities that could cause significant adverse E&S impacts, as indicated in the ESSA and the Program Appraisal Document (PAD).

14. The proposed Program will help create enabling conditions for private sector investments in electricity generation and distributed energy resources. It will allow generation developed by independent power producers to be evacuated efficiently and strengthen BREB's capacity to integrate distributed energy resources, making way for private investments in areas such as rooftop solar and electric mobility. The Program will support the Government's efforts to improve the financial viability and commercial orientation of the electricity sector and make the sector more attractive to private sector investors. BREB will be assisted in its efforts to strengthen the financial performance of poorly performing PBSs and explore options to mobilize commercial and private sector financing to meet its large investment needs.

### **1.4 Key implementing agency of the Program**

15. BREB is the key implementing agency of the Program. Established in 1977 as a means of extending the benefits of electric service to the rural areas of Bangladesh, BREB and its associated 80 PBSs provide electricity to more than 90 percent of the country's districts, three-fourths of the population, and account for close to half of the electricity sales. BREB purchases power in bulk from Bangladesh Power Development Board (BPDB), which is the single buyer in the sector and also owns its own generation and distribution companies and purchases electricity from other generators. BREB is regulated by the Bangladesh Energy Regulatory Commission (BERC).

### **1.5 Description of the borrower's previous experience with implementation of its program**

16. On June 2014, IDA provided a soft loan amounting to US\$600 million credit to the Government of Bangladesh (GoB) to improve the quality of electricity supply for 25 million people in the rural areas of the eastern part of Bangladesh. The credit for the RET&DP supported construction of new lines and new substations while upgrading existing lines in the rural areas of Dhaka, Chattogram, and Sylhet Divisions, to reduce system losses and enhance the capacity of the rural electricity network in Bangladesh. By improving efficiency of the system so that more electricity can reach rural areas, the project will contribute toward increasing economic activity and reducing poverty in the rural areas of Bangladesh.<sup>8</sup>

17. The project reduced technical losses in the rural grid electricity system and made available more energy to consumers, thus improving the quality of supply for 25 million people in rural Bangladesh. This project provided support for upgrading the network as well as strengthening the institutional capacity of the rural electricity service delivery. The project was implemented by BREB and the Power Grid Company of Bangladesh (PGCB) and completed in June 2021.<sup>9</sup>

18. The ongoing RET&DP was run under Investment Project Financing (IPF) to the GoB on standard IDA terms. IDA funds were made available to the implementing agencies (BREB and PGCB) under Subsidiary Loan Agreements (SLAs) with the Finance Division of the Ministry of Finance. For the

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<sup>8</sup> <https://www.worldbank.org/en/news/press-release/2014/06/19/project-signing-bangladesh-receives-600-million-to-improve-rural-electricity-supply-for-25-million-people>

<sup>9</sup> <https://projects.worldbank.org/en/projects-operations/project-detail/P129920>

proposed 'Modernization and Capacity Enhancement of BREB Network Project'/World Bank's 'Electricity Distribution Modernization Program (EDMP)', the PforR instrument is appropriate because it will strengthen sector institutions and link disbursements to achievement of results. The instrument (a) provides stronger focus on accountability for results and outcomes while incentivizing the Government's ownership and implementation of critical reforms and initiatives in electricity distribution, (b) improves the capacity of BREB to deliver the Program through its own systems and procedures, and (c) provides flexibility and efficiency in supporting a large program. The traditional investment approach, with focus on project-based implementation, is less suited to achieving the transformational objectives of the Program.

## **SECTION II: DESCRIPTION OF EXPECTED PROGRAM ENVIRONMENTAL AND SOCIAL EFFECTS**

19. This section presents the E&S benefits, risks, and impacts of the Program. There is no major E&S risk from the project. Moreover, BREB has experience in dealing with similar investments (for example, Upgradation of Rural Electricity Distribution System; Dhaka, Chattogram and Sylhet Division [UREDS, DCSD] Project and RET&DP). The risks are almost similar to those of the EDMP.

### **2.1 Environmental risks and opportunities of the Program**

#### **2.1.1 Potential environmental challenges and risks**

20. The Program will consist of works associated with the erection of spun prestressed concrete (SPC) poles for construction of 33 kV and 11 kV distribution lines and construction of 11 kV/33 kV substations. These are essentially civil works, including design and construction of foundation for structures, boundary walls, guard room, and so on. Electrical works include installation of electrical equipment, including 33 kV and 11 kV auto reclosers, transformers, and construction of terminal structures for 33 kV and 11 kV lines. The Program will also install smart meters, SCADA, battery storage, and distributed solar systems. Ecological impacts of most subprojects would be limited to loss of trees/vegetation due to clearing of RoW by cutting and trimming trees where necessary. Impact on aquatic lives would be due to construction of poles over rivers and water bodies.

21. Possible physicochemical impacts from the subproject activities to be carried out in different locations may include (a) drainage congestion, (b) noise pollution, (c) air pollution, (d) water pollution, and (e) environmental pollution from solid/construction waste and due to storage and disposal of batteries.

22. During execution of civil engineering projects, temporary drainage congestion often results from obstruction to natural flow of drainage water due to the storage of materials, piled-up excavated material/soil, and temporary embankments constructed to keep the work area dry. Such congestion is particularly relevant at the project sites adjacent to low-lying areas. Drainage congestions could create significant discomfort to people living in the project's surrounding areas. Noise pollution could result from a wide range of construction activities, including movement of vehicles (carrying equipment/material to and from site) and operation of construction equipment and generators. Significant noise is generated from operation of pile drivers, bulldozers, dump trucks, compactors, mixing machines, generators, and so on (which could be used for construction of substations and transmission towers). Demolition activities, if required, also generate noise. Such noise may cause discomfort to the people living in the surrounding areas close to the subproject site, especially if such activities are continued during the night. Noise pollution is particularly important for sensitive establishment, for example, hospitals, educational/religious institutions. During construction phase, air pollution may result from emissions from machines and equipment (for example, drilling rig, mixing machines, generators) used for different subproject activities (for example, substation and transmission pole construction) and movement of vehicles (carrying material and equipment) to and from the site. However, adverse impacts of air pollution are likely to be minor and limited to the areas surrounding the subproject sites. Water pollution may result from discharge of wastewater (for example, liquid waste from labor sheds) and spills and leakage of oils/chemical into nearby water bodies (for example, drain, pond, drain, river). Construction debris is likely to be generated from different subproject activities. Solid wastes will also be generated from labor sheds. Improper management of construction debris and solid waste could cause blockage of drainage line/path and environmental pollution. Traffic congestion may result from stock piling of material by the sides of roads and increased movement of people and vehicles carrying material and equipment. Construction of substation and distribution lines in densely populated areas and construction of distribution lines along busy highway could aggravate the existing traffic problem during construction phase.

23. Apart from risks associated with the physical-chemical environment, construction activities also pose risk to worker and public health and safety. The construction workers will be faced with occupational health and safety (OHS) hazards such as minor or major injuries if there is lack of general safety precautions, careless use of equipment and vehicles, and so on. Poorly designed temporary camps and drinking water and sanitation facilities will pose a health threat and nuisance to the workers.

24. The environmental risks also include e-waste generation from solar panels and associated materials, unsafe disposal of worn-out storage batteries, acidic electrolytes, and lead discharge.

25. However, the anticipated adverse environmental effects of the Program are not expected to be significant considering (a) the limited geographic footprint of planned works and (b) the temporary nature of environmental effects which can be addressed through well-known mitigation measures and applying appropriate Environmental Codes of Practice (ECoPs). For BESS, contractual arrangements with solar panel suppliers will include buying back or taking back used batteries for safe disposal; this should ensure proper recycling and reduce risk of lead pollution from unplanned disposal of solar batteries.

### **2.1.2 Potential environmental benefits and opportunities**

26. The proposed Program aims to increase the availability and the reliability of power supply. Thus, the operation of substations and power lines under the proposed Program would improve reliability of power supply, thereby inducing a wide range of socioeconomic benefits.

27. Results Area 2 addresses supporting BREB (through infrastructure upgrades) in integration of distributed solar potential across the country to improve reliability and efficiency of the distribution networks. This will encourage proper utilization of environment-friendly renewable energy, paving the way for sustainable development. Results Area 2 also addresses strengthening BREB's capacity to plan and manage the expected growth of electric vehicles (mainly light-duty three-wheelers) in the country including through development of self-owned or third-party-owned EV charging stations. This will encourage development of low-emission vehicle fleet and generate lesser burden on the environment.

28. One of the areas the Program can aim to strengthen is the improvement of OHS at work sites. Analysis of existing tender documents of the contractors shows that OHS is duly incorporated in the bidding documents. But the basic principles of OHS are sometimes not implemented. At the peak of construction, it is likely to provide employment to considerable personnel and these issues cannot be overlooked. By stringent monitoring and sensitizing the contractors for adopting these codes of practice, visible changes in this area can be made. Results Area 3 addresses human resource planning, training and upgrade, supervision and enforcement of regulations, and many of these OHS issues can be built into the capacity-building programs. Results Area 3 also addresses preparation of new policies, sector road maps and regulations on smart grid development, renewable energy, energy efficiency, storage, digitization, and so on from which the road map for earning environmental dividends can be envisaged.

29. Use of electricity instead of fossil fuel for running the water pumps in the farmlands would reduce emission of CO<sub>2</sub> and CO in the area.

## 2.2 Social risks and opportunities of the Program

### 2.2.1 Potential social challenges and risks

30. The Program will focus on strengthening and expanding existing distribution networks, and the works involved will be small to medium scale. Construction-related key activities associated with the proposed Program include construction of 11 kV/33 kV substation, SPC tower/pole, and distribution line/conductor stringing; establishing of access to the distribution line route; installation of smart meters; integration of SCADA system with the substations; connection of BESS to the BREB network; and so on.

- Temporary impacts may be foreseen through loss of crops during the construction of distribution lines. However, most of the distribution line will follow the existing road side and construction will avoid crop season.
- There always remains risk when electric poles could bend/get damaged during heavy storm/tornadoes/severe floods and thus localized damages could be caused to people and cattle head upon contacting live wires.
- There may be need for tree trimming or felling of some trees at certain places. Distribution line does not have any specific RoW; however, the construction-related damages may occur within a width of 7 m. Augmentation and additional bays will be constructed within the existing facilities without having any impacts.
- The RoW of distribution line would follow existing lines. For newer distribution lines, BREB would consult with the stakeholders and ensure least adverse effect to private land, topography, livelihood, land use, vegetation, and so on. According to Electricity Act 2018, BREB is not required to pay compensation for erecting distribution lines through private land.
- Local staff and their associates may illegally charge more money than officially required from the new subscribers of BREB electricity connection.
- BREB meter readers may not be familiar with smart meter reading.

31. In a few recent projects with Asian Development Bank (ADB), BREB has taken 'willing buyer and willing seller' approach. During construction of SPC poles, BREB normally uses roadside or available empty government land. However, if government land is not available, poles and towers are constructed on private land with adequate consultation with landowners. According to Electricity Act 2018, BREB does not pay any compensation to the landowners for construction of towers and poles. Rehabilitation and augmentation work will be confined to the existing facilities without having any additional impacts. As far as construction of 33 kV and 11 kV distribution lines is concerned, the design suggested for pole-based lines will follow mostly along the existing road. As a standard practice, the route of distribution line will be finalized to avoid or minimize impacts toward temporary damages on crops/trees/structures, if any, coming in the RoW during construction in the detailed design stage.

32. **Labor influx in the construction sites.** During the construction, there are possibilities of risk and impacts due to labor influx. However, other than construction of 11 kV/33 kV substations, the rest of the subprojects are likely to involve a small number of migrant skilled workers, and thus the adverse footprint will be minimum. However, a large number of different type of workers will be required during the construction of substations and the adverse impacts may include the following:

- Influx of migrant skilled workers at the substations and 11/33 kV tower construction sites may put moderate pressure on the local market and civic facilities.

- There are possibilities of social rift owing to unsocial activities of some members of the labor force in the form of drug abuse, gambling, and prostitution.
- Accommodation for the workers and construction-related office in the locality where separate construction yard is not planned would put pressure on the local housings. Renting of houses by the staff and workers when separate facility at the work site is not available will have moderate risk on the local residents in the form of theft, noise, and movement of unknown persons in the locality.
- There might be adverse effects on the crop harvested and felling of fruit bearing trees and trees with timber value near the construction site. In case of any unavoidable impacts on loss of crops or trees, the same will be compensated.
- The contractors or their representatives may employ child labors at a lower wage to reduce construction cost and increase profiteering.
- It is yet to be ascertained what effect the transmission and distribution lines would have on the Garo tribe populated areas. It is a necessity that free, prior, and informed consent (FPIC) of the tribal community must be taken before planning a project in the tribal area.

### **2.2.2 Potential social benefits and opportunities**

33. There are many potential social benefits and opportunities of the Program. Some of the opportunities include the following:

- New distribution line will benefit the rural people through providing uninterrupted electricity. People who had been using local generator services or kerosene oil lit lanterns at the homestead and small rural shops and diesel operated irrigation pumps due to absence of BREB distribution lines in the past would volunteer willingly and now be able to get more reliable and dependable full-time electricity connection from BREB at a fair price and could control the bill through appropriate usage. This would also reduce carbon and GHG emission and rural people can breathe cleaner air. Thus, respiratory diseases among the children, pregnant women, and elderly would be reduced.
- The new users would benefit from BREB electricity connection considering cost-benefit analysis as local generator services are costlier, time bound, and price dependent on the number of appliances used and damage electronic devices due to sudden surge/fall of voltage by the generators.
- BREB needs to ensure that there is total transparency in providing electricity connection and billing the new users and complaints of corruption by BREB staff and employees at PBS are addressed readily. BREB should undertake information, education, and communication (IEC) measures to attract new subscribers and provide them with transparent service regarding connection fees, cost of each unit of electricity and ceiling of usage based on unit cost, and so on for users to plan their usage of electricity.
- It will ensure electricity in rural areas for development of industries including the small and cottage industries, poultry farm, pisciculture, employment creation, health, education, women development, and community services. People from remote and disadvantaged areas will benefit from potential economic activities. Increment of economic activities will create job opportunities and health, nutritional intake, and livelihood of the rural people will be improved.

- The Garo tribal community, the poor, and vulnerable people including the adolescents, single mothers, and women-led homesteads that suffer most from lack of electricity would benefit most from reliable electricity connection which would improve their livelihood and also their security by night.
- Local farmers would be able to run their water pumps using uninterrupted electricity for watering their farmlands and orchards. There would be more production of crops/vegetables and fruits at a lesser cost which they could sell in the market and benefit financially.
- Local farmers and petty businessmen would get a better price for their products by selling their goods and services to the project workforce, thus reinvigorating the local economy.
- Unskilled labor force of the locality including women can find jobs at the construction sites for a prolonged period. The 'contractual obligations' developed by BREB have made specific provision of employing certain percentage of women in unskilled and maintenance work. This will also assist in skill development of the locally hired unskilled workers involved with the construction site.
- Local residents can rent out fallow private land and vacant/unused homestead near the construction site to the BREB workforce.
- There is an opportunity to supply locally available construction material—bricks, timber, sand, cement, and other goods—thus improving the quality of these products.
- Sustained interaction among various parties involved with the construction—BREB representatives, contractors and their representatives, and the local leadership and business community of the area—will act as a strong base to solve any construction-related problem and upheld community interest amicably. This would also work as an effective grievance redress mechanism (GRM).
- Uninterrupted electricity would improve quality of the services in the religious and educational institutions such as madrasas, schools, colleges; community service facilities such as community clinics and healthcare centers and hospital; and local markets including restaurants, tailor shops, flour mills, sawmills, internet-based service centers, and so on.
- It will enhance 'gender mainstreaming' by creating equal opportunity for the local unskilled laborers at the construction site through contractual obligations in the bidding documents with the civil works contractors. Thus, many local unemployed women would find jobs that will improve their financial condition.
- Uninterrupted electricity would reduce household consumption of kerosene oil for cooking and lighting, thereby reducing household fuel expenditure and improving air quality.
- Construction of new substations will create new employment opportunities for some people. The existing substations include office, housing, and rest house facilities within the compound. This will attract opportunities of other commercial activities for vendors, shop owners, and so on near the newly constructed substations.

- Property value of an area is expected to rise due to its proximity to a new and dependable power distribution line. Once the proposed power line is constructed, no new restrictions on land use is generally expected within the existing RoW. However, urban or industrial land capability/value may be reduced due to restriction on building of certain types of structures around new substations.
- No social conflict is envisaged from the project. Everyone from the project area would benefit immensely from uninterrupted and quality electricity supply by BREB.
- New job opportunities as smart meter readers will be created at BREB. Existing BREB meter readers and new recruited meter readers will receive capacity-building training.
- BREB will provide opportunity to sell electricity through net metering connections to solar plants owned by customers.

34. BREB has faced similar social issues in the RET&DP. Therefore, BREB is confident that these risks could be addressed through ongoing mitigation measures. However, BREB will ensure screening of all potential sites to identify impacts and risks. BREB needs to ensure that all the relevant stakeholders are consulted during the site selection and finalization of the sites. The existing BREB E&S specialist needs to ensure that E&S screenings are done adequately.

## **SECTION III: ASSESSMENT OF BORROWER'S ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS**

35. This section describes the existing ESMS of the GoB, an overview of the policy and legal framework, and BREB's capacity to effectively manage the E&S risks and impacts expected from the project. This includes a profile of the key institutions and their role in managing E&S aspects of the Program. An assessment of the country ESMS related to Electricity Modernization Program against PforR principles and elements is provided in the following paragraphs.

### **3.1 Description of borrower's environmental and social management systems**

36. Bangladesh has several policies, instruments, and laws that support E&S management and the E&S assessment processes. The Ministry of Environment, Forest, and Climate Change (MoEFCC) is responsible for ensuring sustainable environment and optimal management of forests. The Department of Environment (DoE) established in 1977 under the Environment Pollution Control Ordinance, 1977, has been placed under the MoEFCC as its technical wing and is statutorily responsible for the implementation of the Environmental Conservation Act (ECA) 1995. The ESSA reviewed the existing regulations and policies, their legal and practical applicability at the Program level as well as the institutional capacity, and the effectiveness of implementation in practice. The key tenets of the various applicable policies are detailed in the following subsections.

#### **3.1.1 Policy and legal framework**

37. The GoB's relevant laws, policies, instruments, and so on are deemed adequate for protection, safety, and social security; inclusiveness of the populace; and conservation of environmental resources although enforcement capacity needs to be improved significantly. These are presented in subsequent paragraphs.

#### **Bangladesh Environmental Conservation Act (ECA) 1995, amended 2002**

38. This umbrella act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. It is currently the main legislative framework document relating to environmental protection in Bangladesh. The provisions of the act authorize the Director General of the Department of Environment (DoE) to undertake any activity that is deemed fit and necessary to conserve and enhance the quality of environment and to control, prevent, and mitigate pollution. The main highlights of the act are as follows:

- Declaration of ecologically critical areas
- Obtaining of environmental clearance certificate (ECC)
- Regulation for vehicles emitting smoke that is harmful for the environment
- Regulation of development activities from environmental perspective
- Promulgation of standards for quality of air, water, noise, and soil for different areas and for different purposes
- Promulgation of acceptable limits for discharging and emitting waste
- Formulation of environmental guidelines relating to control and mitigation of environmental pollution and conservation and improvement of environment.

### **Environment Conservation Rules (ECR) 1997 amended 2003**

39. ECR 1997 is the first set of rules promulgated under the ECA 1995. Among other things, these rules set (a) the national environmental quality standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust, and so on; (b) requirement for and procedures to obtain environmental clearance; and (c) requirements for initial environmental examination (IEE)/environmental impact assessment (EIA) according to categories of industrial and other development interventions. Any proponent planning to set up or operate an industrial project is required to obtain an 'environmental clearance certificate' from the DoE, under the ECA 1995, amended in 2002. ECR 1997 contains the drinking water quality standards which need to be maintained while providing water supply to workers. Also construction of electricity transmission distribution network will require environmental clearance from the DoE, the procedures and formalities of which are delineated in the ECR 1997. Under the ECR, projects are classified as 'Green', 'Orange A', 'Orange B', and 'Red' to determine the level of environmental assessment (EA) required.

40. According to Schedule 1 of ECR 1997, 'Water, power and gas distribution line laying/relaying/extension' is considered as 'Red' category for which EIA reports need to be prepared. This categorization does not distinguish between different types of power lines. The subprojects to be implemented under the proposed Program do not appear to pose risk of significant adverse environmental impacts. In the RET&DP implemented by BREB, the overall project was categorized as 'Category B', according to World Bank project classification, due to its limited scale impacts. Also, construction and rehabilitation of 33 kV/11 kV substations are not listed in ECR 1997, the impacts of which are similar in nature. The Environmental and Social Management Framework (ESMF) developed for the RET&DP states that first environmental/social screening of all subprojects will be carried out, based on which the ESIA requirements will be determined. The proposed PforR operation will follow the similar protocol for screening and assessment as stated in the ESMF of the RET&DP.

41. The act was amended in 2006 (SRO No. 175-Act/2006 dated August 29, 2006) on collection and recycling of used/nonfunctional batteries for conservation of environment, improving environmental standard and control and prevention of environmental pollution. According to this amendment, no recycling of battery will be permitted without environmental clearance of the DoE. This also restricted the improper disposal of used batteries or any parts of used battery in open place, water bodies, waste bins, and so on. All used batteries must be sent to the DoE-approved battery recycling industry at earliest convenience. No financial transaction was allowed for used and nonfunctional batteries. However, the act was amended on the same issue again in 2008 (SRO No. 29-Act/2008 dated February 11, 2008) to allow financial transaction on mutually agreed fixed cost.

### **Water Act 2013**

42. The Water Act 2013 mentions that no person or organization shall, without permission of appropriate authority, stop natural flow of any water course or create obstacles to such flow or divert or attempt to divert the direction of any water course by constructing any structure, whether it is on the bank or not, of any water source, or by filling any water source or by extracting sand or mud from any water source.

### **Public Procurement Rule (PPR) 2008**

43. This is the public procurement rule of Bangladesh and it shall apply to the procurement of goods, works, or services by any government, semi-government or any statutory body established under any law. The rule includes adequate measures regarding the 'safety, security, and protection of the environment' in the construction works. This clause states that mainly, the contractor shall take all reasonable steps to (a) safeguard the health and safety of all workers on the site and other persons

entitled to be on it and keep the site in an orderly state and (b) protect the environment on and off the site and 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 contractor's methods of operation.

### **Bangladesh Labor Act 2006 (amendment 2018)**

44. Labor law of Bangladesh was originally framed in 2006 and was radically amended in 2013 to protect worker's right and increase productivity. The law was later amended in 2018. The key features of the act are described below.

- Classification of workers according to nature and condition of work: apprentice, *badli*, casual, temporary, probation, and permanent.
- The act outlined different types of leaves and holidays of the worker.
- It prescribed the punishment for conviction and misconduct. The act also described the procedure of punishment as well.
- In chapter VI of this act safety precautions regarding explosive or inflammable dust and drugs, protection of eyes and protection against fire, works with cranes, and other lifting machinery are described elaborately.
- In chapter VIII provisions of safety measures such as the appliance of first aid, maintenance of safety record book, children room, and housing facility are illustrated.
- The act also strictly prohibits the employment of children in any occupation or establishment.

### **Bangladesh National Building Code**

45. The basic purpose of this code is to establish minimum standards for design, construction, quality of materials, use and occupancy, location and maintenance of all buildings within Bangladesh to safeguard, within achievable limits, life, limb, health, property, and public welfare. The installation and use of certain equipment, services, and appurtenances related, connected, or attached to such buildings are also regulated herein to achieve the same purpose.

46. Chapter 3, Part 7, of the code clarifies the issue of safety of workmen during construction and, with relation to this, sets out the details about the different safety tools of specified standard. In relation to the health hazards of the workers during construction, this chapter describes the nature of the different health hazards that normally occur in the site during construction and at the same time specifies the measures to be taken to prevent such health hazards. According to this chapter, exhaust ventilation, use of protective devices, medical checkups, and so on are the measures to be taken by the particular employer to ensure a healthy workplace for the workers.

47. Section 1.4.1 of Chapter 1, Part 7, of the Bangladesh National Building Code states the general duties of the employer to the public as well as workers. According to this section "All equipment and safeguards required for the construction work such as temporary stair, ladder, ramp, scaffold, hoist, run way, barricade, chute, lift etc. shall be substantially constructed and erected so as not to create any unsafe situation for the workmen using them or the workmen and general public passing under, on or near them."

48. Chapter 1, Part 7, of the Bangladesh National Building Code 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. According to Section 1.2.1 of Chapter 1, Part 7, "in a construction or demolition work, the terms of contract between the owner

and the contractor and between a consultant and the owner shall be clearly defined and put in writing. These however will not absolve the owner from any of his responsibilities under the various provisions of this Code and other applicable regulations and by-laws. The terms of contract between the owner and the contractor will determine the responsibilities and liabilities of either party in the concerned matters, within the provisions of the relevant Acts and Codes (e.g.) the Employers' Liability Act, 1938, the Factories Act 1965, the Fatal Accident Act, 1955 and Workmen's Compensation Act 1923." (After the introduction of the Bangladesh Labor Act 2006, these acts have been repealed.)

49. To prevent workers falling from heights, the code in Section 3.7.1–3.7.6 of Chapter 3, Part 7 sets out the detailed requirements on the formation and use of scaffolding. According to Section 3.9.2 of the same chapter "every temporary floor openings shall either have railing of at least 900 mm height or shall be constantly attended. Either a railing with toe board or a hinged cover shall guard every floor hole. Alternatively, the hole may be constantly attended or protected by a removable railing. Every stairway floor opening shall be guarded by railing at least 900 mm high on the exposed sides except at entrance to stairway. Every ladder way floor opening or platform shall be guarded by a guard railing with toe board except at entrance to opening. Every open sided floor or platform 1.2 meters or more above adjacent ground level shall be guarded by a railing on all open sides except where there is 39 entrance to ramp, stairway or fixed ladder. The precautions shall also be taken near the open edges of the floors and the roofs."

### **The Electricity Act 2018**

50. The Electricity Act enacted on February 12, 2018, repealed the former Electricity Act of 1910 with amendments to develop and reform the sectors of power generation, transmission, supply, and distribution and for better service delivery to consumers and to meet the increasing demand for electricity. The act specifies the role of licensees in the supply of energy and construction of lines for energy transmission. The key features of the act are as follows:

- If any licensee is permitted to lay power supply lines within the area of supply or, subject to the terms of his/her license, beyond the area of supply, the licensee may, as soon as may be, do necessary civil works, with intimation to the concerned person or the local authority, as the case may be, for supplying electricity to that area. Licensee must take consent from all affected parties. However, if any power supply line or civil works creates any obstacle to proper execution of legitimate authority of any person, the licensee may shift the site for power supply line or civil works.
- If any road, railway, underground drain, sewer, or tunnel is damaged in consequence of civil works, the part excavated shall have to be filled up by soil, the part damaged shall have to be repaired, and the garbage shall have to be removed immediately after such works.
- If any damage, harm, or inconvenience is caused while doing civil works under this act, the licensee shall, in such manner as may be prescribed by rules, pay compensation to the person affected or the owner of the land affected for acquiring land for construction of electricity towers.
- For laying power supply lines or doing civil works under this act, the licensee shall reserve the RoW over the land and the space above or underground thereof, provided that the licensee shall inform the landowner in writing before laying of power supply lines and doing civil works within a reasonable time.
- If acquisition of land is required for establishment of power generation plant or substation, it shall be deemed to have been necessary for public interest and the existing laws and regulations on acquisition of land shall have to be followed. If any private

company holding license requires land for constructing a connection line with power station, substation, or grid substation, the licensee may purchase or acquire such land from the concerned landowner in accordance with the existing laws and regulations regarding land acquisition.

- If any accident occurs or any risk arises due to power generation, transmission, supply, or distribution or due to power supply line or any other work, the person affected or the person having knowledge of it, as the case may be, may give notice in writing to the authority of such incidence or damage.

### **Bangladesh Electricity Rules, 2020**

51. This is the new rule which allows compensation payment at replacement cost to the landowners who are affected due to construction of towers for the transmission line. However, it is not mandatory to acquire the affected land. The owner will be able to use the land without damaging any structures and under the instruction of the requiring body.

### **Renewable Energy Policy of Bangladesh, 2008**

52. The renewable energy policy of Bangladesh has been approved on December 18, 2008, with the target of developing renewable energy resources. The policy provides an overall guidance of (a) institutional arrangements; (b) resource, technology, and program development; (c) investment and fiscal incentives; and (d) regulatory policy. The policy promotes appropriate, efficient, and environment-friendly use of renewable energy.

### **BREB ESMF for the EDMP**

53. BREB and PGCB jointly prepared an ESMF based on an overall E&S assessment, which includes (a) the general baseline at project's area, (b) evaluation of potential E&S impacts of different project components and subcomponents, and (c) assessment of environmental practices in different ongoing and completed projects under the World Bank-financed RET&DP. BREB is advised to develop SOP for environment and social management for its overall Program based on the RET&DP ESMF.

### **Constitution of the People's Republic of Bangladesh**

54. The fundamental rights under the constitution indicate the general guidelines for a policy on resettlement/rehabilitation of citizens adversely affected (whatever be the mechanism) due to any activity of the state. Article 15, *Provision of basic necessities*, of the constitution makes it the fundamental responsibility of the state to attain, through planned economic growth, a constant increase of productive forces and a steady improvement in the material and cultural standard of living of the people, to secure for its citizens

- (a) The provision of the basic necessities of life, including food, clothing, shelter, education and medical care;
- (b) The right to work, that is the right to guaranteed employment at a reasonable wage having regard to the quantity and quality of work;
- (c) The right to reasonable rest, recreation and leisure; and
- (d) The right to social security, that is to say, to public assistance in cases of undeserved want arising from unemployment, illness or disablement, or suffered by widows or orphans or in old age, or in other such cases.

55. The contents of Article 15 are particularly important for the squatters (floating people migrating from rural areas to the cities/towns looking for jobs and/or landless people that construct shanty huts and small temporary business facilities in government land for survival).

56. Article 20 of the constitution (*Work as a right and duty*) states the following:

- (1) Work is a right, a duty and a matter of honor for every citizen who is capable of working, and everyone shall be paid for his work on the basis of the principle “from each according to his abilities to each according to his work.”
- (2) The State shall endeavor to create conditions in which, as a general principle, persons shall not be able to enjoy unearned incomes, and in which human labor in every form, intellectual and physical, shall become a fuller expression of creative endeavor and of the human personality.

57. Article 40 of the constitution, *Freedom of profession or occupation*, states that “Subject to any restrictions imposed by law, every citizen possessing such qualifications, if any, as may be prescribed by law in relation to his profession, occupation, trade or business shall have the right to enter upon any lawful profession or occupation, and to conduct any lawful trade or business.” This means that every citizen has the right to practice any lawful occupation, which implies that anything that impedes such right (a) should not be done or (b) there should be supplementary measures to make good the losses incurred by the citizen. Resettlement and rehabilitation of adversely affected people due to infrastructure projects clearly falls within this requirement for supplementary measures.

58. However, Article 42, *Rights to property*, states the following:

- (1) Subject to any restrictions imposed by law, every citizen shall have the right to acquire, hold, transfer or otherwise dispose of property, and no property shall be compulsorily acquired, nationalized or requisitioned save by authority of law.
- (2) A law made under clause (1) shall provide for the acquisition, nationalization or requisition with compensation and shall either fix the amount of compensation or specify the principles on which, and the manner in which, the compensation is to be assessed and paid; but no such law shall be called in question in any court on the ground that any provision in respect of such compensation is not adequate.
- (3) Nothing in this article shall affect the operation of any law made before the commencement of the Proclamations (Amendment) Order, 1977 (Proclamations Order No. I of 1977), in so far as it relates to the acquisition, nationalization or acquisition of any property without compensation.

59. Thus, according to subclause 2, no law with provision of compensation for acquisition of land can be challenged in a court on the ground that such compensation has been inadequate.

### **National Land Use Policy, 2001**

60. The GoB has adopted National Land Use Policy, 2001. The salient features of the policy objectives relevant to the Program are as follows:

- To prevent the current tendency of gradual and consistent decrease of cultivable land for the production of food to meet the demand of expanding population
- To ensure that land use is in harmony with natural environment

- To use land resources in the best possible way and to play supplementary role in controlling the consistent increase in the number of landless people and toward the elimination of poverty and the increase of employment
- To protect natural forest areas and prevent river erosion and destruction of hills
- To prevent land pollution
- To ensure the minimal use of land for construction of both government and nongovernment buildings.

### **The Acquisition and Requisition of Immovable Property Act 2017**

61. The Acquisition and Requisition of Immovable Property Act (ARIPA) 2017 Act requires that compensation be paid for (a) land and assets permanently acquired (including standing crops, trees, houses) and (b) requisition of land. The act also provides for the acquisition of properties belonging to religious organizations such as mosques, temples, pagodas, and graveyards if they are acquired for public interest. The Ministry of Land (MOL) has the overall responsibility of enforcing land acquisition. The MOL delegates some of its authority to the Commissioner at the divisional level and to the Deputy Commissioner (DC) at the district level. DCs are empowered by the MOL to process land acquisition and pay compensation to the legal owners of the acquired property. The burden to establish his/her legal rights to the acquired property to be eligible for compensation under the law is on the landowner. The DC is empowered to acquire a maximum of 50 standard bigha (16.50 acres) of land without any litigation for which s/he would obtain the approval of the Divisional Commissioner. Acquisition of land exceeding 16.50 acres has to be approved by the central land allocation committee headed by the prime minister of Bangladesh. In the case of acquiring khas land (government-owned land), the land will be transferred through an inter-ministerial meeting following an acquisition proposal submitted to the DC or the MOL.

62. Under the ARIPA 2017, the DC determines the value of the acquired assets as at the date of issuing the notice of acquisition under Section 4(1) of the act. DCs thereafter enhance the assessed value by 200 percent for land and another 100 percent premium for loss of standing crops, structures, and income due to compulsory nature of the acquisition. The compensation such determined is called the cash compensation under law. If the land acquired has standing crops cultivated by a tenant (bargadar) under a legally constituted written agreement, the law requires that compensation money be paid in cash to the tenants as per the agreement. Households and assets moved from land already acquired in the past for project purposes and/or government khas lands are not included in the acquisition proposal and therefore excluded for compensation under the law. Lands acquired for a particular public purpose cannot be used for any other purpose. ARIPA 2017, Section 4 (2) also facilitates the private organizations to request the Government to acquire the land for their development activities. Furthermore, the new act under its Section 15 provides for the acquisition of entire houses/buildings if their owners request to acquire the entire house or building against partial acquisition. The Government is obliged to pay compensation for the assets acquired.

### **Laws and Policies on Adivasis/Ethnic Minority**

63. Tribal/indigenous people/Adivasi population (the terms Indigenous/Adivasi is not officially recognized by the GoB) are culturally distinct societies and communities. The land on which they live and the natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, and their physical and spiritual well-being. They hold vital ancestral knowledge and expertise on how to adapt, mitigate, and reduce risks from climate change and natural disasters. Tribal people are disproportionately vulnerable to the impacts of climate change since they often live in

environmentally sensitive ecosystems and frequently depend on surrounding biodiversity for subsistence as well as cultural survival.<sup>10</sup>

64. In Bangladesh, there are about 45 different tribal groups spread across the country. The proportion of the tribal population in the 64 districts varies from less than 1 percent in majority of the districts to 56 percent in Rangamati, 48.9 percent in Kagrachari, and 48 percent in Bandarban in the Chattogram Hill Tracts (CHT). The tribal groups belong to different ethno-lingual communities, profess diverse faith, have unique cultures, which are different to mainstream culture, and are at varied/different levels of development (economically and educationally). Most of them inhabit hard-to-reach areas such as hilly terrains or the forest areas where access is generally difficult. Moreover, many of these tribal groups are also characterized by slow/low growth rate compared to the mainstream population.<sup>11</sup>

65. The Constitution of Bangladesh does not mention the existence of the cultural and ethnic minorities in Bangladesh. The only protective provision for the ethnic minorities that the policy makers often refer to in the context is Article 28 (4) which states “Nothing shall prevent the state from making special provision in favor of women and children or for the advancement of any backward section of the citizens. The above provision is an ambiguous one and it does not define who or what constitutes ‘backward’. However, the Government recognizes existence of ‘tribal peoples (TP)’ and the need for special attention and in general TP are essentially viewed as backward, poor and socioeconomically & culturally inferior. Towards this end a special program was initiated in 1996-97 by the Prime Minister’s Secretariat aimed at improving the socio-economic situation of the ethnic minority/tribal people of Bangladesh, resident outside the Chattogram Hill Tracts.”

66. The Chattogram Hill Tracts Regulation, 1900 (Regulation I of 1900), is the regulatory framework for state sovereignty over the traditional rights of the tribal people living in the CHT region. They are governed through revenue circle chiefs who are local revenue collectors vide an *amalnama* (authorization by the Government). The DC and the Commissioner from the central government reserve the authority to settle land to the hill-men or non-hill residents or lease out land (nontransferable) for rubber plantation or establishing industries in the CHTs. The CHT districts comprise the reserved forests, the circle of the three chiefs—the Chakmas Chief, the Bohmong Chief and Mogh Chief—and the Maini Valley (rule 35). The circle chiefs form the advisory council to the DC for administration of their respective circles and exercise their authority as chiefs to promptly enforce all orders of the DC in the mouzas of their circles.

67. The acquisition of any land or forest area in CHT districts requires consent under the Chattogram Hill Tracts (Land Acquisition) Regulation 1958, the CHT Regional Council Act 1998, and the Forest Act 1927. The Chattogram Hill Tracts (Land Acquisition) Regulation, 1958, has been updated as Chattogram Hill Tracts (Land Acquisition) Regulation (Amendment) Act 2019, where compensation paid is same as ARIPA 2017.

68. The National Parliament of Bangladesh in May 24, 1998, passed the Peace Accord 1997 as the Chattogram Hill Tracts Regional Council Act 1998 (Act 12 of 1998). In addition to reestablishing peace, the accord recognized the ethnic people’s right to land, culture, language, and religion. The accord sets out detailed provisions for strengthening the system of self-governance in the CHT and redressing the most urgent land-related problems. A Ministry of CHT Affairs was established by appointing a minister from among the tribal people of CHTs. Advisory council from the CHT region assists this ministry. It may be noted that tribal people/indigenous people living in the plains are less than 1

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<sup>10</sup> <http://www.worldbank.org/en/topic/indigenouspeoples>

<sup>11</sup> Tribal/Ethnic Health Population and Nutrition Plan for the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011 to 2016, April 2011: p 1

percent of the mainstream population. There is a strong demand for extending the scope of the Ministry of CHT Affairs to include the tribal population in other areas of the country.

69. The Program activities will cover two administrative divisions: Dhaka and Mymensingh covering all 17 districts<sup>12</sup> including the Garo-inhabited districts of Mymensingh, Netrokona, Jamalpur, and Sherpur.<sup>13</sup> Whenever any subprojects including their screening are planned in Garo-held areas, Mymensingh Division, FPIC will be taken by PBS staff at each stage of the project at the local level through focus group discussions (FGDs) and physical contact and their inputs will be sent to macro level for planning purpose.<sup>14</sup>

### **Chattogram Hill Tracts (Land Acquisition) Regulation (Amendment) Act 2019**

70. Chattogram Hill Tracts (Land Acquisition) Regulation (Amendment) Ordinance, 2018 was updated in 2019. The main updates added market value of the land to keep it consistent with the ARIPA 2017. The DC shall, in every case, award a sum of 200 (two hundred) per centum for public purpose and 300 (three hundred) per centum for private purpose on such market value, considering the compulsory nature of the acquisition.

### **GoB 8th Five-year Plan (2021–2025)**

71. The 8th Five-year Plan (FYP) will focus on improving the investment climate for domestic and foreign private investment to offset the lackluster private sector investment performance in the 7FYP. The short-term unemployment resulting from COVID-19 including retrenchment of overseas workers will present an immense challenge in the very first year of the 8FYP. Job creation accordingly will be a top priority of the 8FYP.

72. The 8FYP will put stronger focus on these aspects of power and energy sector development. The 8FYP power and energy strategy will continue the ongoing good work and strengthen the strategy in several areas. First, the Power Sector Master Plan (PSMP) 2016 will be updated and power expansion programs will be based on updated demand projections, better use of existing capacity, and selection of least-cost options for new generation. Second, emphasis will be placed on renewable energy through proper fuel-oil pricing and other incentives. Third, the power and energy sector finances will be improved through institutional reforms and pricing policies. Fourth, energy conservation and efficiency improvements will be promoted through proper operation and maintenance of power facilities, adoption of energy-efficient technology, and pricing and taxation of energy consumption.

### **Power System Master Plan 2016**

73. The Power System Master Plan (PSMP) 2016 aims to assist Bangladesh in formulating an extensive energy and power development plan up to 2041. The plan is guided by five principles. The first principle is the efficient development and utilization of domestic natural resources (gas and coal). Another important principle is maximization of green energy and promotion of its introduction and construction of a robust and high-quality power network. The PSMP will help achieve the Sustainable Development Goals. The PSMP has suggested developing liquefied natural gas (LNG) import infrastructure including an LNG import and regasification terminal and connecting pipeline to the

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<sup>12</sup> Confirmed by Mr. Moshir Rahman, Assistant GIS Specialist, E&SM Office, BREB on March 24, 2021.

<sup>13</sup> [https://en.wikipedia.org/wiki/Indigenous\\_peoples\\_in\\_Bangladesh#Garos](https://en.wikipedia.org/wiki/Indigenous_peoples_in_Bangladesh#Garos)

<sup>14</sup> Email sent by BREB E&SM Office Head, Superintendent Engineer Mr. Md. Shahidul Islam on the matter on March 10, 2021.

existing transmission and distribution infrastructure needs to be constricted urgently to fill the supply and demand gap.

### **3.1.2 Institutions for environmental and social management systems**

#### **Ministry of Environment, Forest and Climate Change (MoEFCC)/Department of Environment (DoE)**

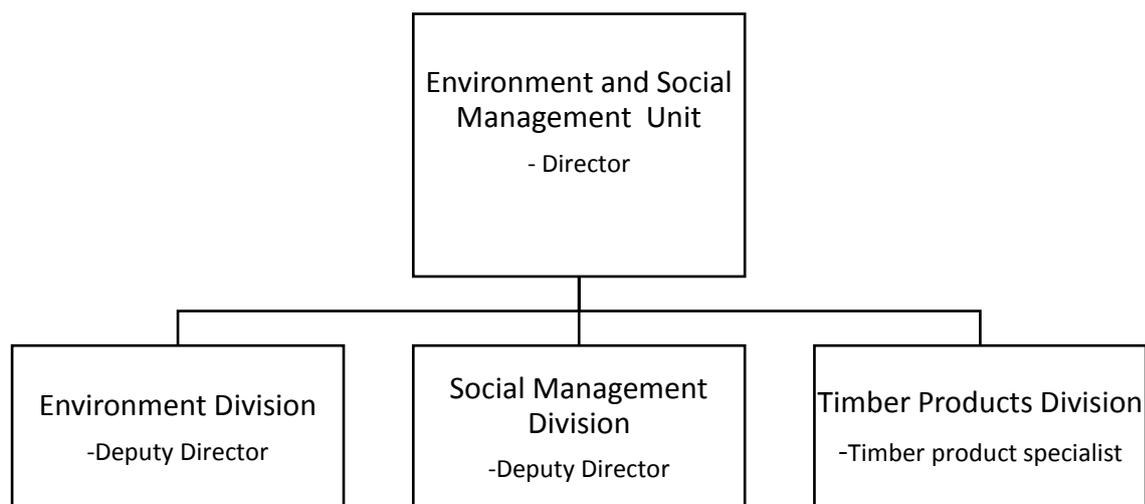
74. The DoE under the MoEFCC is the main environmental regulation and enforcement agency. Under the provision of the ECA 1995, it is responsible for awarding ECCs to development projects, monitoring compliance and enforcement of environmental standards, preventing activities that are likely to cause environmental degradation, and carrying out various other advisory and research activities. Wide powers have been given to the Director General of the DoE by the ECA 1995, such as the power to do anything he/she considers necessary to meet the objectives of the act including direct immediate closure of any polluting industrial plant and monitoring of environmental quality standards. The DoE is also mandated to coordinate the activities of any authority or agency (including other line ministries or their respective departments) relating to the adherence to basic principles of ECA 1995 and ECR 1997. The DoE is set up in six divisional headquarters and 21 district (out of the 64 districts of Bangladesh) offices. When the DoE issues the ECC for a project, the project proponent is required to follow the conditions prescribed by the ECC related to the implementation of mitigation measures and monitoring program.

#### **Bangladesh Rural Electrification Board**

75. The Program will be implemented by BREB, the largest power distribution organization in Bangladesh, which has 461 sub-districts on grid. BREB has significant experience in working on World Bank-supported projects, particularly through its RET&DP. BREB had 80 PBSs up to June 30, 2019. The E&S safeguards aspects of the Electricity Modernization Program PforR will be covered by the ESMF developed by the RET&DP. According to the ESMF, an E&SM Office at the project level will be responsible for environmental screening and assessment. The ESMU under the leadership of a Project Director (PD) (Superintending Engineer) will assist the Project Management Unit (PMU) of BREB on issues related to E&S management. Relevant PBSs with support from the individual consultant as engaged by BREB will carry out 'environmental and social screening' and 'analysis of alternatives' during site selection process, following the guidelines contained in the ESMF. This kind of setup has been formulated at the project level for the RET&DP.

76. At the central level, BREB has set up an Environmental and Social Management Unit (ESMU) headed by a Director (Technical), a Superintendent Engineer, who reports to the Chief Engineer (Planning and Development). This unit has three divisions: (a) Environment Division, (b) Social Management Division, and (c) Timber Products Division. The Environment Division consists of a Deputy Director (Tech.) and an Assistant Engineer. The Social Management Division consists of a Deputy Director (Admin) and an Assistant Director (Admin). These divisions have been set up at the central level to address E&S issues and conduct supervision and monitoring of project interventions under implementation for BREB.

**Figure 1. ESMU at the BREB organogram**



77. The organogram and hierarchy of the E&SM Office is sufficient to monitor and mitigate the risks from the project. Though the E&SM Office is not adequately staffed, the office can easily contact and communicate with PBSs in the project area to mitigate the E&S risks. Besides, BREB has a plan to hire consultants/specialists to meet the purpose. For effectively mitigating the E&S risks of the project, BREB demands that there should be enough training on coordination of World Bank Policy and local environmental rules and regulation.<sup>15</sup>

### **Planning Commission**

78. The Bangladesh Planning Commission is the central planning organization of the country. It determines objectives, goals, and strategies of medium- and short-term plans within the framework of long-term perspective and formulates policy measures for the achievement of planned goals and targets. Its activities include the following elements of development planning:

- **Policy planning.** Determination of goals, objectives, priorities, strategies, and policy measures for development plans
- **Sectoral planning.** Identification of the role of the various sectors of the economy in the context of the plan objectives and goals
- **Program planning.** Formulation of detailed resource allocation to realize the plan objectives and goals
- **Project planning.** Appraisal of projects embodying investment decisions for the implementation of the sectoral plans
- **Evaluation.** Impact analysis of projects, programs, and plans on the people's living standard.

79. The Implementation Monitoring and Evaluation Division (IMED) under the Ministry of Planning Strategic Plan examines the link between financial allocations and equitable economic growth by defining and verifying the relationships between expenditure and eventual development results. Analysis of the performance of ministries and sectors against agreed targets is provided to

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<sup>15</sup> Email sent by BREB E&SM Office Head, Superintendent Engineer Mr. Md. Shahidul Islam on the matter on March 10, 2021.

Executive Committee of the National Economic Council, line ministries, and other concerned parties whenever necessary. Wherever possible IMED seeks to explain why sector or ministry performance targets have not been met by careful analysis of Program outcomes. This analysis is provided to the relevant bodies so that they can improve their performance if necessary. IMED evaluates the performance of BREB during and upon completion of a project and provides necessary guidance to BREB for further improvement.

### **The Ministry of Labor and Manpower (MoLE)/Department of Labor**

80. The MoLE is responsible for policy formulation and overall supervision of the departments and offices under it. Among its directorates, the Department of Labor focuses on welfare of labor including labor under non-agricultural employment; industrial unemployment and insurance; trade unions, industrial and labor disputes, labor courts, wages boards, and industrial workers' wages commission; labor statistics; administration of labor laws; labor research including compilation of labor statistics; and dealings and agreements with international organizations in the field of labor and manpower.

### **Bangladesh Energy Regulatory Commission (BERC)**

81. BERC is a regulatory agency that regulates the gas, electricity, and petroleum products in Bangladesh. The commission was created in 2004 and is responsible for setting gas and electricity prices in Bangladesh. It also arbitrates disputes in the energy industry. Its approval is needed for any changes in the price of electricity. The Energy Security Fund is under this agency.

## **3.2 Assessment of borrower systems against core principles and planning elements**

### **3.2.1 Assessment of existing policy and legal framework in relation to PforR principles**

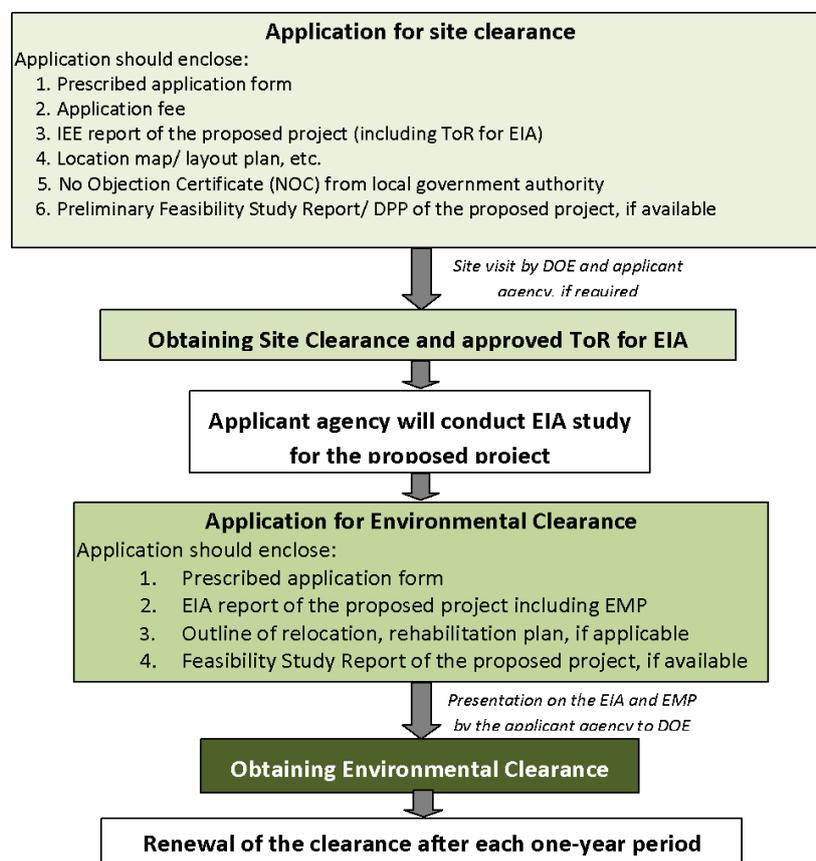
82. The GoB's legal policy framework on E&S impact management consists of a set of national policies, acts, strategies, directives, guidelines, and management frameworks. The existing government policy and legal framework on the management of social and environmental impacts generally reflects, to various extents, the following general principles of World Bank Policy on PforR Financing:

- Avoid, minimize, or mitigate against adverse impacts.
- Promote E&S sustainability in Program design.
- Promote informed decision-making relating to a Program's E&S effects.

83. Two of the main objectives of the Bangladesh Environment Policy 2018 are to maintain ecological balance and overall development through protection and improvement of the environment and ensure environmentally sound development in all sectors. This has been done through establishment of dedicated institutions and regulatory framework, framing new laws and amending old laws to establish E&S management process and procedures and making the EA transparent and effective to mitigate the adverse effects of development on the natural and social resource base. The ECA 1995 and ECR 1997 is an umbrella environmental act and rule, respectively, in the country for the protection of natural environment. The ECA and ECR combined with other acts, policies, and guidelines (as discussed in the previous section) encompass most of the key principles defined in Program for Results Financing Policy and Directive. They provide guidance and directions for avoiding, minimizing, or mitigating potential adverse impacts on natural resources and important natural habitats. The ECR has provisions for declaring ecologically critical areas to restrict development activities and applying polluter's pay principle to charge compensation to polluting industries—all for the protection of natural environment. Laws related to forest and fisheries protection, wildlife

conservation, and protection of antiquities are adequate for the preservation of natural habitats of fish species and protection of physical cultural resources. Worker health and safety during construction have also been addressed in a number of legislations and rules (Bangladesh National Building Code 2006, Labour Act 2013, Public Procurement Rule 2008, and so on). The ECA and ECR do not permit implementation of a development activity or project without approval of the respective IEE or EIA, whichever required. ECR 1997 provides clear directions on obtaining ECCs and Schedule 1 elaborates the classification of industrial units or projects based on its location and impact on environment. According to Schedule 1 of ECR 1997 'Water, power and gas distribution line laying/relaying/extension' is considered as 'Red' category for which EIA reports need to be prepared. In the RET&DP implemented by BREB, the overall project was categorized as 'Category B', according to World Bank project classification, due to its limited scale impacts. Environmental clearance from the DoE was obtained as per procedures stated in the ECR 1997 for 'Red' category projects. For the Electricity Modernization Program, environmental clearance will be sought from the DoE and its procedures are clearly laid out in the ECR.

**Figure 2. Procedure and requirements for obtaining site and environmental clearance for 'Red' category projects as per ECR 1997**



84. Public participation or consultation is not a condition to obtain environmental clearance according to ECR 1997; however, the DoE prefers the proponent to engage in public participation during EIA preparation as stated in the 'EIA guidelines for Industries' (DoE 1997). Opportunities for the public to review the EIA report are under the discretion of the Director General of the DoE. The DoE does not disclose EIA report findings publicly in its website unless the implementing agencies of projects do that either on their own accord or subject to disclosure requirement of donor agencies (World Bank, ADB).

85. The EIA system has one procedural loophole which probably renders the analysis of alternatives in the EIA report redundant. The DoE approves site clearance for the project before issuing the ECC, which is issued after the EIA report has been reviewed. As per ECR 1997, the project proponent is allowed to invest its resources and develop the land on the project site when the site clearance is issued. This undermines the importance of the ECC and any analysis presented in the EIA (or any analysis of alternate sites) would only be there to justify the site already selected for the project. This greatly diminishes the value of any analysis of alternatives specially for 'Red' category projects. The analysis of alternatives should be done at an early stage of the EA process such as during preparation of IEE. Since the Program under PforR operation will have a protocol for screening of impacts during site selection, there is scope for conducting an alternate analysis (for both location of substations and routes for electricity transmission). However, this needs to be ensured during initial screening and assessment.

86. Apart from issues with public consultation and analysis of alternatives, the umbrella legislation ECA/ECR does not explicitly cover the process and procedures for E&S management regarding protection of public and worker safety against the potential risks associated with (a) occupational and community health and safety or (b) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards. These can be addressed through developing generic guidelines or standard operating procedure (SOP) for E&S management for a particular project.

#### **Acquisition and Requisition of Immovable Property Act 2017 (ARIPA 2017)**

87. It is the key instrument for land acquisition and requisition. There is no adequate regulatory framework against the principles of PforR to guide social impact assessments at the Program level. The constitutional obligations are the primary laws that transcend onto other relevant laws/regulations of different ministries/agencies incorporating social assessment good practices that include early screening of potential effects, consideration for site alternatives including the 'no action' alternative, and identification of measures to mitigate social impacts that cannot be avoided and/or minimized. There exist relevant laws concerning land acquisition, compensation to displaced persons for land, properties, crop damage, loss of business, and so on, including supplementary livelihood improvement owing to the execution of a Program.

88. ARIPA 2017 has made some improvements in reducing gaps regarding the requirement of the World Bank on involuntary resettlement. The resonance and key gaps between the country land acquisition system and the requirements of the World Bank are summarized as follows:

- There is a compulsion in the country land acquisition system of paying compensation to owners of acquired property before taking possession. This is in conformity with the World Bank requirements on involuntary resettlement. However, the country system has provision for taking possession of property before payment of compensation in situations such as unavailability of persons interested in the property.
- The law on land acquisition in Bangladesh considers market price of property when acquired for public purposes, which is enhanced by 200 percent for government agency and 300 percent for private organizations. However, the World Bank requires ensuring replacement cost of acquired property to the persons affected by compulsory acquisition based on current market price at the time of dispossession.
- The country system conforms with the World Bank standards on involuntary resettlement of minimizing acquisition and avoids physical displacement and productive lands. However, in unavoidable circumstances the country system does not provide any mitigation or compensation measures as required under the World Bank standards except for resettlement of physically displaced residential households.

- The national law recognizes only the legal owners in possession of acquired land and does not consider restriction on land use or the formal or informal users of existing land dispossessed for project civil works, as opposed to the World Bank requirements on land acquisition, restrictions on land use, and involuntary resettlement including loss of livelihoods irrespective of title.
- The GoB realizes advance income tax (AIT) on compensation money for land acquisition. With the increase in compensation amount on land, the Government proposed to increase the AIT on compensation money. However, the compensation as per the World Bank requirement is for replacement of affected assets acquired involuntarily. The AIT can be factored as transactions costs for the purpose of replacement cost.
- The country system has provision for participation of landowners in the initial assessment and planning process and there is limited scope of objection against land acquisition and compensation rates. This is not in conformity with the World Bank requirements of continuous process of consultation and grievance resolution.
- Relocation, livelihood impact, and vulnerability are not considered for support under the country system while there are specific requirements under the World Bank safeguards/standards on land acquisition/involuntary resettlement.
- ARIPA 2017 does not recognize negotiated settlements or voluntary land donation. However, BREB will detail the procedures of negotiated settlements and voluntary land donation in the updated ESMF for this Program.

#### **Willing buyer and willing seller principles applicable to the project**

89. It is a normal practice for BREB to purchase land on a 'willing buyer willing seller' basis for the construction of substations. Respective PBS normally identifies land through consultation with the different sellers. However, there is no specific policy for the negotiated settlement in the existing BREB ESMF. The land acquisition following ARIPA 2017 takes at least two years. Thus, a willing buyer and willing seller mechanism is the most feasible option for BREB. The following procedures are suggested to follow if the negotiated settlement procedures are taken for this Program.

- PBS finds the locality where a substation shall be located and identifies several slots.
- PBS researches the ownership status of the slots and consults with owners to check their will for negotiation and selling.
- Once the owners confirm their will, then the negotiation will start. Meanwhile, PBS collects market rate and recent transaction details around the area.
- Through the negotiation, the contract details and amount to be paid for purchasing land are decided.
- PBS pays advance to the seller and a land purchase intention deed (baina deed) is prepared, if necessary, and registered with the local land office. This baina deed is valid for three months.
- Within three months, a sale deed is prepared and registered with land registration office. During registration, the remaining amount is paid through cheque to the seller and the amount shall be transferred to the owners after verification of the ownership documents.
- PBS receives the sale deed from the land registration office. This deed is kept at the PBS local office. Later the Land Department updates its records. From then on land belongs

to the concerned PBS. The 'necessary fees' referenced in this paragraph to register the deed will be paid by PBS.

90. Respective PBSs should ensure that price of the land needs to be at least equal to the prevailing and actual market price in the area or three times of the registration value whichever is higher. The PBS also needs to verify the landownership, possession, interested parties, documents, and so on, with the help of land office. After completion of verification, both PBS and seller will communicate this decision to Land Office, Department of Land. The seller with the assistance of surveyor from local registration office gets the land surveyed and demarcated in the presence of adjoining landowners. Disputes and claims, if any, will be resolved then and there. After verification, the PBS calls for a meeting with the seller where all the information about the land is shared and discussed and if the seller agrees, the PBS will proceed further to purchase the land. The entire process of consultation, negotiation, agreement, transfer of land documents will be recorded by the PBS and will be available for review by the ESMU at BREB. It is important that sellers have the right to refuse to sell and if the seller refuses to sell, the PBS needs to identify another land.

### **3.2.2 Assessment of the country environmental and social management system**

91. Bangladesh's ESMS that apply to the Electricity Modernization Program consists of national legal policies and guidelines that are broadly consistent with World Bank Policy on PforR Financing. However, some gaps do exist compared to the basic principles of World Bank Policy on PforR Financing as elaborated in the previous section. BREB has bridged these gaps and provided specific guidance in these lacking areas for its program through developing an ESMF. The ESMF that was developed for the World Bank-supported RET&DP outlines procedures to address E&S issues associated with the electricity transmission and distribution (implemented by both PGCB and BREB) and is also applicable to the proposed Program. The ESMF describes detailed procedures and formats for E&S screening, assessment of E&S impacts, and preparing of site-specific Environmental Management Plans (EMPs) and/or Tribal Peoples Development Plan (TPDP) where necessary. It also provides a clear institutional framework for monitoring safeguard activities and carrying out environmental due diligence. The ESMF was developed in line with relevant World Bank safeguard policies, addressed gaps in the national legal framework for dealing with environmental impacts, and will serve to guide the Electricity Modernization Program to manage environment issues in accordance with World Bank Policy on PforR Financing principles.

#### **Environmental Elements**

92. The environmental assessment and management process as formulated in the ESMF developed for the RET&DP is delineated in figure 3. The figure shows activities and institutional responsibilities for overall implementation of the RET&DP by BREB. It is noted that BREB has already set up a formal Environmental and Social Management Unit/Cell with qualified staff in the regular organogram. For an interim measure, BREB set up a project-specific ESMU under the PMU. BREB (with support from PBS officials) will be responsible for carrying out 'environmental/social screening' and 'analysis of alternatives' following the ESMF. According to the institutional arrangement stated in the ESMF, BREB will employ individual/supervision/DSM (Demand side Management) consultant, who would support BREB in overall environmental management. The ESMU of BREB will review the documents and be responsible for implementation of EMP (as well as Resettlement Action Plan [RAP] and Tribal Peoples Plan [TPP]) and preparation of quarterly reports, with support from supervision consultant. BREB will hire a non-governmental organization (NGO) with requisite experience in implementing resettlement programs (if needed) and working in tribal areas for the field-level implementation of the TPPs under the direct supervision of the ESMU and in close coordination with the contractor. The supervision consultant will have environmental as well as social specialists in its team. Since the overall responsibility of environmental management lies with the PBS/BREB, it needs

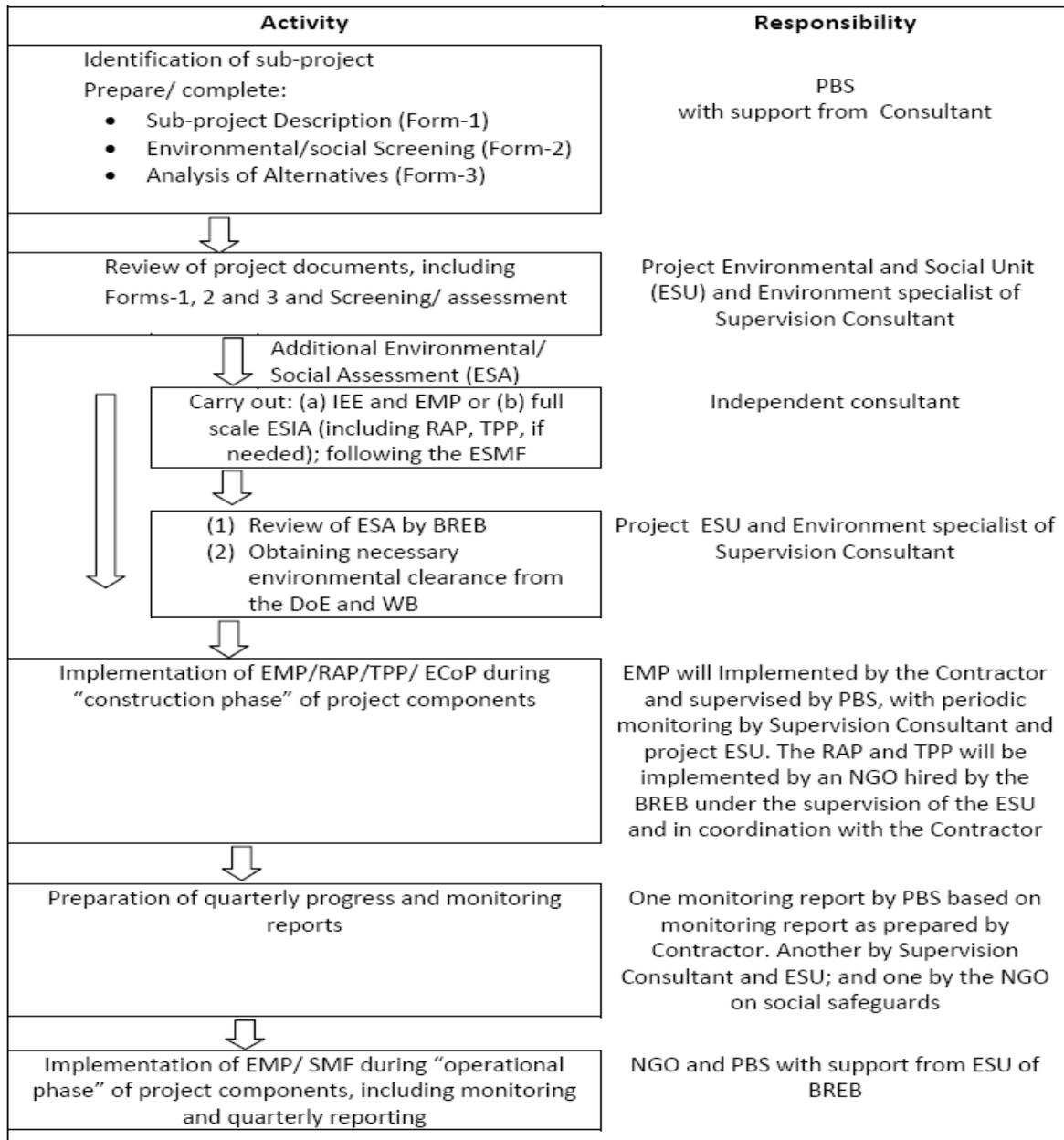
to ensure that the consultants are carrying out their responsibilities properly. A similar arrangement is envisaged for the proposed Electricity Modernization Program. Therefore, the ESMF developed for the RET&DP needs to be contextualized and adopted by BREB for the proposed Program as a SOP for E&S management.

93. The environmental elements pertaining to the core principles of Program for Results Financing Policy and Directive are discussed below in light of the RET&DP ESMF. The objective is to assess whether the ESMF developed for the RET&DP could be applicable to the proposed Program under the PforR operation.

94. **Early screening of potential effects.** Environmental screening identifies the consequence of the proposed projects in broader sense based on similar project experiences, stakeholder's perceptions, and expert judgment, without having detailed investigation. Critical issues are also identified through screening, which needs detailed investigation. Based on the extent of environmental impacts, obtained from the environmental screening, the decision for further environment impact assessment will be taken. According to the RET&DP ESMF, all project components or subprojects to be implemented under the proposed project will be subject to an environmental/social screening. The responsible BREB/PBS engineers/officials will carry out a reconnaissance survey surrounding the subproject areas/routes to identify important environmental features (for example, human settlements, educational/religious/historical establishments, water bodies) close to the subproject location/route by filling in the 'Environmental/Social Screening Form 2a (for substation)/ 2b (for power line)' presented in Appendix B of the RET&DP ESMF (Volume I).

95. **Consideration of strategic, technical, and site alternatives (including the 'no action' alternative).** The GoB's environmental system considers analysis of alternatives (including no-project scenario) as an essential part of the EA process as stated in the DoE Guidelines for Industries (1997). According to the RET&DP ESMF, analysis of alternatives is carried out during screening and focuses on (a) alternative location (for substation) or route (for power line), (b) alternative design and technology, (c) costs of alternatives, and (d) no subproject scenario. Important considerations in analysis of alternatives routes (for new power lines) include avoiding homestead areas, crossing of rivers/hills/bamboo groves/cash-in trees, private land, ecologically or socially critical areas for construction of substation, as much as possible. Among alternative technologies, use of GIS instead of AIS is preferred. For power lines, use of axially bundled cables or insulated cables instead of the conventional separate cables would prevent pilferage of power through illegal connections. A format for analysis of alternatives is presented in Appendix C (Form 3a for substation, Form 3b for power line) of the ESMF.

**Figure 3. Institutional setup, including major activities and assignment of responsibility for their execution, for implementation of the RET&DP by BREB**



96. **Explicit assessment of potential induced, cumulative and transboundary impacts.** As stated in the DoE EIA guidelines, the country system explicitly requires identification and prediction of the potential direct and indirect environmental impacts in the project site and its immediate surroundings: the scope of impacts include physical, biological, socioeconomic, and cultural environments. According to Chapter 4 of the RET&DP ESMF, all the potential long-term and short-term environmental impacts are identified. The impacts will be categorized qualitatively (insignificant, moderate, significant) to identify major impacts and relevant components during screening. Chapter 4 of the RET&DP ESMF also lists all possible environmental impacts during construction and operation phases. However, assessment of the cumulative and transboundary impacts of bridge projects is not explicit in the RET&DP ESMF . Since all new construction is going to take place within the geographical boundary of the country, transboundary impacts are not expected. However, the screening and assessment protocols can be modified to incorporate the provision of assessing cumulative impacts.

97. **Identification of measures to mitigate adverse environmental impacts that cannot be otherwise avoided or minimized.** The RET&DP ESMF has made provisions for the identification of measures to mitigate the perceived adverse environmental impacts with list of potential mitigation measures. Chapter 4 of the RET&DP ESMF lists all possible mitigation measures for specific impacts associated with electrification project during construction and operation. Besides these, the ECoP has been designed to be used during the construction of the substations, rehabilitation of the transmission/distribution lines, and construction of the new transmission/distribution lines by PGCB and BREB. The ECoP is available in Appendix H of the RET&DP ESMF .

98. **Responsiveness and accountability through stakeholder consultation.** It is mentioned earlier that the EA system of the country does not explicitly require dissemination of information and stakeholder consultations at different stages of a project needing IEE or EIA. However, this gap is filled by providing specific guidance in the ESMF of the RET&DP. It is recognized that consultations with the key stakeholders will need to be carried out throughout the Program life. These will include consultations and liaison with communities and other stakeholders during the construction phase and also extensive consultations with the grassroot as well as institutional stakeholders during the EA process. A consultation framework has been developed in the Section 5.4.4.3 of the RET&DP ESMF. Appendix I of the RET&DP ESMF also presents guidelines for carrying out public consultations at different stages of a subproject cycle.

99. **Grievance redress measures.** The RET&DP ESMF requires establishment of GRM particularly related to the land acquisition and compensation issues. Redress for environmental issues such as pollution, nuisance, obstruction of access, and so on will be sought under the same mechanism and a separate grievance redress cell for environmental issues will not be required.

100. **Early identification and screening of potentially important biodiversity and cultural resource areas.** One of the screening criteria in the early phase of project identification as per the RET&DP ESMF is the presence of protected area, key biodiversity area along the route of power (Ref: Forms 2a and 2b of the RET&DP ESMF [Vol-II] under Annex B). Forms 1a and 1b of the RET&DP ESMF (Vol-II) under Annex A incorporate questions for obtaining information on historical or culturally important sites, and ecologically sensitive areas. So the early identification and screening of potentially important biodiversity and cultural resource areas are incorporated in the screening process.

101. **The Program avoids the significant conversion or destruction of natural habitats.** Tree felling may be required within the RoW of electricity transmission corridor. River crossing of poles may be necessary; however, foundation works are carried out usually in the dry season when there is no or minimal flow in the canal and typically that is not the breeding season for fish species. Mitigation measures stated in ECoP 3 (tower/pole erection in water bodies), ECoP 12 (water bodies), ECoP 18 (vegetation management), and ECoP 19 (natural habitats) address these issues.

102. **Proactive protection, conservation, maintenance, and rehabilitation of natural habitats.** Proactive protection, conservation, maintenance, and rehabilitation of natural habitats are addressed in generic mitigations measures in Chapter 4 of the RET&DP ESMF as well as ECoP 19 (natural habitats).

103. **Takes into account potential adverse effects on physical cultural property.** The RET&DP ESMF requires screening of a proposed project for its effects on physical/cultural resources/sites. The RET&DP ESMF states that contractors will be responsible for familiarizing themselves with the 'chance finds procedures' in case culturally valuable materials are uncovered during excavation or any project activities and sets out a list of activities which would be followed if such materials are found. These include stopping work immediately following the discovery of any materials with possible archeological, historical, paleontological, or other cultural value; announcing findings to project manager and notifying relevant authorities; and restarting construction works only upon the

authorization of the relevant authorities. 'Chance find procedures' for protection of cultural resources are stated in Appendix G of the RET&DP ESMF .

104. **Promotes community, individual, and worker safety.** OHS hazards specific to electric power transmission and distribution projects primarily include (a) live power lines, (b) working at height, and (c) electric and magnetic fields. ECoP 20 of the RET&DP ESMF provides OHS guidelines pertaining to these issues. The general OHS requirements for construction, operation, maintenance, and decommissioning of electric power distribution projects are similar to those of large industrial facilities, and their prevention and control is discussed in Chapter 4 of the RET&DP ESMF. It highlights contractors' obligations, best practices for worker safety, accident prevention, and provision for safe water supply and sanitation services at the site. Besides these, ECoP 21 addresses community health and safety issues such as electrocution, electromagnetic interference, visual amenity, noise and ozone, and aircraft navigation safety.

105. **Promotes use of recognized good practice in the production, management, storage, transport, disposal of hazardous materials generated through Program construction or operations.** Improper storage and handling of fuels, lubricants, chemicals and hazardous goods/materials onsite and potential spills from these goods may harm the environment or health of construction workers. There is possible polychlorinated biphenyl (PCB) contamination from dismantling of old transformers with PCB. ECoP 17 (material transport, storage, and handling) of the ESMF provided a range of preventive, mitigative, and compensatory measures for the management of hazardous materials (for example, paints, solvents, transformer oil, fresh concrete, and admixtures) generated through Program construction or operations. ECoP22 (PCB) of the ESMF describes the management and handling of PCBs.

106. **Measures to avoid, minimize, or mitigate community, individual, and worker risks when Program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather.** Specific provisions have not been detailed for the projects located within areas prone to natural hazards; however, according to the RET&DP ESMF, it is suggested to perform alternate analysis in earlier stages of the EA process to determine alternate alignment or designs for infrastructures located in particular areas. However, risks to natural hazards are managed during the design phase when necessary building codes are adopted in the design of poles and substation structures. For example, it is mentioned in Chapter 4 of the RET&DP ESMF that substations and power lines should be designed considering maximum flood level and considering wind speed and earthquake load suggested in the Bangladesh National Building Code.

107. The preceding discussion shows that the environmental policy, legal framework, and guidelines applicable to the proposed PforR are consistent with Program for Results Financing Policy and Directive. The BREB's ESMF for the RET&DP has been found adequate to bridge the gaps in the existing policy and legal framework. However, since the ESMF was developed as a joint document of PGCB and BREB, the impacts due to high-capacity transmission lines as well as other components have been included, which might not be relevant for the proposed intervention by BREB. So, the RET&DP ESMF may be contextualized for the proposed Program, keeping its environmental elements unchanged.

## **Social Elements**

108. As the Program involves improving rural electricity distribution connectivity through reconstruction, rehabilitation, and maintenance of existing lines and construction of new distribution lines along with the substations, it will benefit all including the vulnerable and disadvantaged groups. During the social assessment, vulnerable communities including the disabled, female-headed households, marginal groups, and people living under the poverty line will be consulted and their

opinion will be considered during selection of lines and substation. The issues of concern are explained below.

109. **Social screening.** The ESMF prepared for the RET&DP has detailed the screening procedure. However, screening forms attached in Appendix B (Forms 2a and 2b) do not follow the principles of census and inventory of losses (IoL) survey. It also needs to add the project location and tower landownership. Census and IoL survey need to be conducted with all affected households to identify the significance of impact. During screening, BREB also needs to ensure that the proposed project does not cause any restriction in the adjacent community. Updated EDMP SOP on E&S management needs to follow the World Bank guidelines to finalize the census and IoL forms. Categorization is suggested to be renamed as high significance, moderate, and low.

110. **Avoid or minimize land acquisition and related adverse impacts and involuntary resettlement issues.** BREB and PBS screen all the subprojects including substation and distribution line while selecting the sites to avoid land acquisition. During consultation with BREB and PBS officials, it is identified that BREB prefers land purchase. In such cases, voluntary lands are also used. EDMP SOP on E&S management should therefore contain guidelines on 'willing buyer and willing seller' and update the 'voluntary land donation' form following World Bank guidelines.

111. Electricity Rule 2020 guarantees compensation for the affected land due to construction of towers which needs to be included and procedures for replacement cost for the tower land need to be included in the EDMP SOP for E&S management.

112. Certain subprojects (for example, a substation) may require land that would be met through BREB's own land or government land handed over to BREB. 'Willing buyer and willing seller' and 'voluntary land donation' issues are also practiced by BERB. No land acquisition and population displacement are anticipated. Though private land acquisition may not be required, the subproject may take private land through negotiated settlement and PBS is likely to use GoB land to construct the substations. However, there might be a presence of squatters on the GoB land. Moreover, few trees and crops may be affected during construction of the distribution line. Considering this possible impact, the main text of ESSA discusses RAP preparation.

113. **Issues of updated land-related policies.** The RET&DP ESMF is prepared based on ARIPO 1982, Hill Tracts Act 1958, and Electricity Act 1910 which needs to be replaced with ARIPA 2017, Chattogram Hill Tracts (Land Acquisition) Regulation (Amendment) Act 2019, and Electricity Act 2018 and Electricity Rules 2020, respectively. However, EDMP SOP on E&S management may do without Chattogram Hill Tracts (Land Acquisition) Regulation (Amendment) Act 2019 and adopt updated compensation amount and procedures offered by the GoB.

114. **Restore or replace public infrastructure and services and community services and provide compensatory arrangements if the Program imposes new heightened restriction in resource use.** Where the Program activities cause community-wide impacts affecting community facilities and services, BREB and respective PBS will rebuild them with their own resources and/or provide alternatives in consultation with the user communities.

115. **Public/stakeholder consultation.** Consultation and community participation will be undertaken at subproject identification, planning, design, implementation, and evaluation stages. Consultation and participation involve communities and other stakeholders, which will take place through interpersonal communications, focused group discussions (FGDs) and small and large community meetings. Additionally, radio broadcast and other media forms may be used to further disseminate information. PBSs will be the platforms for disclosure and consolidate feedback from

beneficiary communities and other stakeholders. EDMP SOP on E&S management should include a detailed guideline to prepare stakeholder engagement plan following World Bank guidelines.

116. **Tribal Peoples Plan (TPP).** The project has adopted the exclusion criteria to avoid any negative impact on the tribal Garo community due to undertaking of the project in those areas. The project rather intends to extend the benefits toward their welfare. However, detail guidelines have to be prepared, if necessary, for preparation of TPP following the World Bank's latest guidelines to maximize benefits to the tribal people. FPIC of the Garo tribal community must be taken before every stage of the Program activities.

### **3.3 Assessment of borrower practices and performance records**

117. From the discussion in the preceding sections, it is evident that the GoB's policy and legal framework are broadly aligned with the PforR principles. The gaps in the legal and policy framework have been found to be adequately addressed through the ESMF. However, at the operational level the ESMF application has faced some lapses, which are highlighted below. The information obtained below are from review of documents, monitoring reports, and discussion with project officials and concerned stakeholders.

#### **3.3.1 Management of environmental impacts at the operational level**

118. BREB as an implementing agency is familiar with preparing and implementing ESMFs. World Bank-financed projects such as the RET&DP required preparation and implementation of ESMFs. Under this project, BREB has been preparing quarterly monitoring reports and an insight into the performance of BREB in implementing ESMF can be gained through these reports.

119. In the RET&DP, the PMU has assigned a focal person for E&SM Office (a Superintending Engineer of BREB) who reported to the PD. Activities (construction of substations, switching stations, and transmission and distribution lines) were carried out by two main contractors (Energypac Engineering Ltd and Siemens) and their subcontractors. A management and supervision consultancy firm was engaged by the PMU in 2016 who assisted in the environmental screening, assessment, and impact management as per the ESMF. The firm prepared quarterly environmental monitoring reports detailing the observations in the field and recommendations for improvement. These observations and recommendations were based on site inspection and examination of all environmental compliance issues detailed in the site-specific EMP. The firm developed a checklist for monitoring compliance of the Environmental and Social Management Plan (ESMP) separately for each subproject (that is, substations, switching stations, and river crossings). A system is set up where the contractor is to record at site regarding ESMP compliance on a daily basis.

120. The supervision and management consultant continued the follow-up throughout the project period. In addition to these, the staff of BREB, Energypac Engineering Ltd, and Siemens were trained in several occasions on orientation of the ESMF, implementation and monitoring (that is, ESMP compliance data collection on a daily basis and record keeping), compliance of ESMP in implementation. An individual environmental consultant was also hired by BREB, who was entrusted with (a) reviewing of reports submitted by the supervision and management consultant firm and (b) training of staff and other relevant personnel.

121. The macro-level interactive meeting involves the staff of E&SM Office and project offices. Most of the sessions are informal. The E&SM Office advises the project office to mitigate the environmental risk. Moreover, there are also frequent meetings with the environmental consultants with E&SM staff of BREB. Besides, BREB also assists the consultants to execute public hearings and FGDs in the project area with the help of PBS at the micro level.

122. The DoE is understaffed to perform operational monitoring of such projects and its role is limited to primarily provide environmental clearance based on IEE/EIA reports. Eventually the environmental management and operational monitoring is the responsibility of BREB. And BREB has been doing that with the help of consultants and consulting firms on a project-by-project basis. Similar evidence has been found in projects supported by other donors (for example, Kreditanstalt für Wiederaufbau [KfW]) as well as GoB projects. Since 2018, BREB has established a permanent ESMU. For future projects and programs, it is envisaged that this unit will take an active role in overseeing the activities of consulting firms/individual consultants engaged in E&S management for all projects. Therefore, there is requirement for capacity building (through training on E&S management) of the personnel in this unit.

123. Experience from field visits of different subprojects shows that there are several gaps in ESMF implementation, which is evidenced by various levels of ESMP compliance from site to site.

- Safety supervision at site is often found lacking, resulting in checklists not being filled on a routine basis, safety banners often not being in place, infrequent site visit by the safety supervisor of the contractor, and so on. Personal protective gears are available at site but the workers are often found negligent in wearing these (for example, not wearing gloves while cutting and working with electrical equipment, waist belts when working on heights)
- Worker accommodation arrangement at site is often substandard (lack of ventilation) and sanitation facilities are often not hygienic (lack of handwashing soaps, unclean toilets, and so on).
- Proper housekeeping activities are often absent (brick, chips, sand, dug-earth, bamboo pieces, and in some cases transformer oil barrel, packed transformer, packed battery, and others packed haphazardly and in a disorderly manner). Loose construction materials are often left uncovered causing dust pollution. Lack of waste bins is also observed.

124. One of the reasons for noncompliance is that there is a lack of harmonization between contractors and subcontractors. Training and awareness activities have so far focused on BREB officials and main contractors, while their subcontractors have remained largely outside these capacity-building activities. Awareness and knowledge regarding ESMP compliance becomes low when the responsibility is transferred from contractors to subcontractors. ESMP obligations must be made aware to subcontractors, their safety supervisors, and labor contractors (foreman).

### **3.3.2 Management of social impacts at the operational level**

125. In the RET&DP, BREB has satisfactorily implemented the RAP. BREB has hired RAP preparation, implementation, and monitoring firm to mitigate the social impacts. BREB has successfully compensated 348 out of 349 Affected Persons (APs) as recorded in the RAP. During the implementation, BREB has managed the grievances and kept all the records. BREB has adequately conducted consultations with all relevant stakeholders.

126. Contractors with the support of BREB's Project Implementation Units have taken all the necessary steps for the COVID-19 management following guidelines of the World Bank and the GoB. If any labor or staff is found COVID-19 affected, necessary steps would be taken to isolate and treat the individual. The World Bank will be informed within 24 hours on such matter. Besides, the WHO and GoB protocols of managing the spread of COVID-19 in the form of physical distancing, wearing mask, washing hands, and so on should be strictly adhered to.

127. BREB is updating the existing RET&DP ESMF and developing EDMP SOP for E&S management which will be followed during the implementation of EDMP. BREB will prepare Indigenous Peoples Plan and other E&S documents if required and implement accordingly. The PMU will monitor the E&S implementation and report to the World Bank half yearly.

### **3.4 The grievance redress mechanism**

128. A two-level Grievance Redress Committee (GRC) will be formed to address grievances. One GRC will be formed at the project level and the other at the PBS level as was done in the RET&DP. This system was found to be effective. The GRC will be the forum where people will exercise their right of participation in the project cycle through suggestions and complaints. GRCs will also be para-legal court of the project to address local problems and complaints related to social and environmental impacts. A PBS-level GRC will be formed for subproject-related subdistrict headed by the chairman/mayor of relevant area. Members will represent the communities and other stakeholders including representative of local administration, officials from the respective PBS, school teachers, local NGOs, women, and ward-level elected representatives. Members of the GRC will be nominated by the chairman/mayor. The chairman/mayor will form the GRC and forward the composition to the PD of the subproject. In addition to the PBS-level GRC, a project-level GRC will be formed where the PD will be the convener, E&SM Office member will be the secretary, and independent personnel will be the member of the committee. Moreover, BREB monitors its projects on a regular basis and is flexible and, therefore, have the capacity to modify the mechanism if it needs to be addressed in an emergency. For encouraging new users, BREB needs to ensure that there is total transparency in providing electricity connection and billing and complaints of corruption by BREB staff and employees at the PBS and grassroot level, if any, are addressed readily. BREB may plan to have public consultation with the new users in presence of the Samiti Board and explain them the cost of getting connection to avert all forms of corruption.

129. The proposed project is to establish a GRM to answer queries, receive suggestions, and address complaints and grievances about any irregularities in applying the guidelines adopted in the ESMF and assessment and mitigation of environmental/social impacts. The mechanism will assist in resolving issues/conflicts amicably and quickly, saving the aggrieved persons from having to resort to expensive, time-consuming legal action. The mechanism will, however, not deprive a person of his/her right to go to the courts of law. Grievance response focal points are to be available at the project level; a GRC is to be formed.

130. Both BREB and PBS have central grievance redress service (GRS) system ([reb.gov.bd](http://reb.gov.bd)), but experience with the just completed RET&DP indicates that the complainants prefer communicating their grievances directly to Samiti Board/local PBS rather than using the web-based GRS system and the local PBS does the needful. If a complaint is beyond PBS level to mitigate, then it is referred to BREB HQ and addressed there. The outcome is communicated to the complainant by PBS/Samiti Board. BREB has its internal grievance mechanism whereby complaints are directed to PBS HR Department at the BREB HQ. This is a 'routine internal GM'.<sup>16</sup> As such, the web-based GRS system is seldom used. However, as the whole country is affected adversely by COVID-19 pandemic, the web-based GRS needs to be used more effectively. Necessary information sharing may be undertaken at the PBS level in educating the local community on the web-based GRS. Currently, websites contain numbers which normally take electricity connection-related grievances. A form and toll-free number can be added, so that aggrieved person can easily raise grievances. A letter box at PBS can be kept where the aggrieved person could drop letter narrating his/her complaint with ease. Some form of hotline mobile telephone number can also be arranged where the aggrieved ones could send SMS to lodge a complaint. Persons/staff at the E&SM Office need to be trained further on grievance recording,

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<sup>16</sup> Discussion with Chief Engineer (Project) BREB, Dhaka at 2130 hours on August 15, 2021.

procedure of address, and disclosure. It is to mention here that BREB is confident of its GRS and notes with satisfaction that there had never been a single GBV-related complaint in its just concluded RET&DP.

131. Communities and individuals who believe that they are adversely affected as a result of a World Bank-supported PforR Program, as defined by the applicable policy and procedures, may submit complaints to the existing Program GRM or the World Bank's GRS. The GRS ensures that complaints received are promptly reviewed to address pertinent concerns. Affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the World Bank noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention and the World Bank management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

132. GBV-related complaints, if any, will be handled in a survivor-centric manner in line with the World Bank guidelines provided in the World Bank good practice note on gender-based violence (GBV).<sup>17</sup> GBV-related complaints will be dealt with strict confidentiality, based on the wishes of the GBV survivor. Any GBV survivor will be referred to an NGO assigned for the project by BREB to manage and respond to GBV cases. This NGO will support GBV survivors in accessing service providers and guiding them through options of lodging a complaint. However, it is heartening to note that BREB at its headquarters has a Central Complaint Committee on 'Sexual Exploitation and Abuse against Women'. Besides, in the just concluded RET&DP, the E&SM Office did not receive any sexual exploitation and abuse/sexual harassment/GBV-related complaints. BREB's mechanism is strong enough to prevent those harassment. However, BREB should not be complacent that since no GBV cases were recorded in the RET&DP, it is not going to happen in the EDMP. Necessary measures must be put in place to deter and arrest GBV-related cases.

133. There is presence of a female representative at the GRC in both central and PBS levels from subdistrict committees and local NGOs working on GBV-related issues. A representative from the local NGO and a female representative of the affected people in the GRC represent the women who has been subjected to sexual exploitation and abuse/sexual harassment or any other form of GBV. Due to presence of small number of migrant workers, GBV-related threats are less pronounced in the subprojects. However, in the event of any GBV-related incident, the GBV-survivor will be referred to an NGO assigned for the project by BREB to manage and respond to GBV cases. This NGO will support GBV survivors in accessing service providers and guiding them through options of lodging a complaint. For further details, please refer to the GBV action plan at <https://www.worldbank.org/en/news/press-release/2017/11/08/new-action-plan-addresses-gender-based-violence-in-world-bank-operations>

### **Summary findings**

134. Based on the above identified impacts, institutional capacity, available resources, and analysis of the experience of BREB in implementing World Bank and GoB-funded projects, the following issues are summarized.

- BREB's existing ESMF needs to be updated.

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<sup>17</sup> World Bank. 2018. "Good Practice Note Addressing Gender Based Violence in Investment Project Financing Involving Major Civil Works." <http://documents.worldbank.org/curated/en/399881538336159607/Environment-and-Social-Framework-ESF-Good-Practice-Note-on-Gender-based-Violence-English.pdf> and

- Institutional capacity of BREB for safeguards management at the central level needs to be strengthened.
- Capacity-building training may be required at macro and micro (PBS and contractor/subcontractor) level on E&S risk and impact mitigation, labor management, GBV issues, stakeholder engagement, and GRS issues.
- Measures need to be taken to increase accountability for ESMP compliance at the field level.
- Capacity-building training is required for labor influx management, stakeholder engagement, and GRM.
- Integration of the local community and relevant stakeholders with the project is required.
- Capacity-building training is required for the E&SM Office of BREB.

## SECTION IV: RECOMMENDATIONS AND ACTIONS

### 4.1 Compatibility of BREB’s environmental and social systems

135. The ESSA presented in preceding sections identified the compatibility of the systems of BREB’s Electricity Modernization Program and the core principles of E&S management for PforR investment. The assessment has found the systems largely compatible by policy and practice but identified some gaps in ESMF implementation. The ESSA, therefore, recommends addressing institutional capacity constraints and gaps across a range of ESMS limitations. These recommendations are summarized as actions to be incorporated in the PAP. Drawing upon this background, this section identifies the specific actions that are to be implemented to address the identified risks, gaps/challenges, and needs. These options for improvement of the ESMS have been discussed with the implementing agencies.

### 4.2 Strengthening environmental and social system performance

136. Table 1 lists the actions aimed at strengthening E&S performance of the implementing agency (BREB) for the entire PAP.

**Table 1. Strengthening environmental and social system performance**

Objectives and issues	Recommended measures/actions
<b>Environmental and social systems management</b>	
Environment and social management instruments	<p>The ESMF developed for the RET&amp;DP is deemed adequate to address the safeguard requirement for the proposed Electricity Modernization Program under PforR financing. However, BREB should contextualize the RET&amp;DP ESMF into the EDMP SOP for E&amp;S management to suit the requirements of the current Program and adopt the same framework for E&amp;S screening, impact assessment, and management and monitoring for the Program.</p> <p>Contextualization to include the following:</p> <ul style="list-style-type: none"> <li>• Exclude the requirements related to high-capacity transmission lines, switchgears, and substations that are relevant to PGCB.</li> <li>• Include the provision of cumulative impact assessment in the screening/assessment protocol.</li> <li>• Develop the EDMP SOP on E&amp;S management following the World Bank guidelines and latest government policies and acts including Labor Act 2006 (amendment in 2018) and Labor Rules 2015, Electricity Act 2018 and Electricity Rules 2020, and so on and relevant new environmental policies.</li> <li>• Include frameworks for Labor Management Plan (LMP), Gender and GBV Prevention Plan, and TPP, wherever necessary.</li> </ul>
Strengthening of institutional capacity for safeguards management at the central level	<p>It is envisaged that the BREB E&amp;SM Office will oversee the activities of the consulting firms/individual consultants engaged in E&amp;S management for all projects. Therefore, capacity building (through training on E&amp;S management) of the personnel in this unit is required.</p> <p>The BREB E&amp;SM Office does not have experience in implementation of projects following PforR. However, BREB has considerable experience in executing World Bank projects, with demonstrated capacity in managing E&amp;S risk for similar activities. All the experts of the E&amp;SM Office along with the top management of BREB need to be trained on relevant E&amp;S guidelines practiced in the World Bank. BREB needs to induct a permanent social and environmental specialist in its E&amp;SM Office or hire required social consultants</p>

Objectives and issues	Recommended measures/actions
	for this Program. Necessary funding is to be catered for this purpose from the Program fund.
Training at macro and micro (PBS and contractor/subcontractor) level on environmental and social risk and impact mitigation, labor management, GBV issues, stakeholder engagement, and GRS issues	BREB has been providing relevant training to its own staff and contractors. However, field-level experience suggests that gaps exist in the implementation of E&S mitigation measures. Therefore, there is a need for continued capacity-building initiatives specifically for the staff engaged in supervision at the PBS level and their contractors and subcontractors involved with the project. Adequate budget has to be planned for this purpose from the Program fund.
Measures to increase accountability for ESMP compliance at the field level	<p>Field-level experience suggests that there are gaps in implementation of E&amp;S issues, especially in areas of OHS, working condition of workers, stakeholder engagement and general housekeeping activities. The following measures are to be adopted for ensuring ESMP compliance:</p> <ul style="list-style-type: none"> <li>• It should be ensured that the subcontractors and labor contractors are sensitized about their obligations related to ESMP compliance. This can be achieved through training, for which budget has to be allocated.</li> <li>• The provisions of ESMP for which compliance needs to be achieved should be reflected in the contractual agreements between BREB and contractors and subcontractors. This needs to be ensured by BREB.</li> <li>• Payment to contractors may be tagged with satisfactory compliance of ESMP including OHS and LMP.</li> <li>• Daily record of site supervision by the safety officer must be made available at the project sites. This should be a contractual obligation between BREB and the main contractors.</li> </ul>
Child labor management and third-party monitoring	<p>Bangladesh Labor Law puts minimum legal age for employment as 14, which is not likely to be hazardous or harmful to the child’s health or physical, mental, spiritual, moral, or social development.</p> <p>BREB should ensure that its contractual documents with civil works contractors make specific mention about this matter in the LMP. Appropriate risk assessment tools need to be added with the EDMP SOP on E&amp;S management together with monitoring mechanism.</p> <p>On a need basis, BREB may think of employing a third party under the Program to monitor compliance of child labor-related laws and convention and E&amp;S compliances, negotiated settlement and voluntary land donation procedures, labor influx, OHS, GBV, child labor restrictions, and GRM issues.</p>
Land acquisition and resettlement	<p>World Bank Policy on PforR Financing indicates that the ESSA considers to “manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards.”<sup>18</sup> <b>There will be no land acquisition</b> as BREB will use its own or government-owned land to the extent possible. Whenever needed, BREB would purchase land at market price for the substation through negotiated settlement. The EDMP SOP on E&amp;S management under preparation by BREB must include detailed procedures of negotiated settlement and voluntary land donation. Though private land acquisition may not be required, subproject may take private land through negotiated settlement and PBS is likely to use GoB land to construct the substations. However, there might be squatters on the GoB land.</p>

<sup>18</sup> World Bank Policy on PforR Financing.

Objectives and issues	Recommended measures/actions
	<p>Moreover, few trees and crops may be affected during construction of the distribution line. Considering this possible impact, the main text of the ESSA discusses RAP preparation.</p>
<p>Labor influx management and GBV</p>	<p>It is expected that there will be no major construction under this project. However, contractors will develop site-specific measures and working plan for labor management approved by BREB and the World Bank before the work starts and update them whenever necessary. LMP should include specific clauses on labor influx management, child labor restrictions, and minimizing of GBV.</p> <p>BREB should ensure that contractors develop site-specific LMP and deploy relevant personnel resources before the work starts and update the LMP whenever necessary. Local community, including marginalized, vulnerable, and other stakeholders, should be consulted and consent of the affected tribal community taken while preparing and updating the LMPs.</p> <p>BREB should ensure the following by incorporating these in the contractual documents and physical monitoring:</p> <ul style="list-style-type: none"> <li>• Encourage contractors to employ unskilled workers away from the live electricity network vicinity as much as possible.</li> <li>• Construct labor sheds near the work sites so that presence of migrant workers does not adversely affect local communities and their way of living.</li> <li>• Undertake mandatory and repeated training and awareness program on LMPs for the workforce at site.</li> <li>• Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites</li> <li>• Take adequate measures for gender-friendly workplace environment at all work sites and at the labor sheds.</li> <li>• Ensure addressing of OHS issues at the work sites inclusive of all workers by gender, age, and ethnicity and ensure availability and use of personal protective equipment.</li> <li>• Ensure firefighting and first aid facilities at the work sites and identification and coordination with ambulance services and hospitals for quick evacuation in case of worksite accidents.</li> <li>• Display important telephone contacts such as local emergency services in billboards at the work site and labor shed.</li> <li>• Access and make use of GRM for any issues of labor influx management for misconduct, illicit behavior, drug abuse and other social crimes, and so on in coordination with the local law enforcing agencies, where required.</li> </ul>
<p>Stakeholder engagement and GRM</p>	<p>Due to construction of substations, distributions lines, and other Program-related activities, detailed field-level stakeholder engagement including free, prior, and informed consent (FPIC) of the Garo tribal community and functioning of GRM are required. Consultation and community participation will be undertaken at subproject identification, planning, design, implementation, and evaluation stages. Consultation and participation involve communities and other stakeholders, which will take place through interpersonal communications, FGDs, and small and large community meetings. Additionally, radio broadcast and other media forms may be used to further disseminate information. PBSs will be the platforms for disclosure and</p>

Objectives and issues	Recommended measures/actions
	<p>to consolidate feedback from beneficiary communities and other stakeholders. The EDMP SOP on E&amp;S management should include a detailed guideline to prepare stakeholder engagement plan following World Bank guidelines.</p> <p>Recording of grievances need to be ensured at the field and project level. Both BREB and PBS have web-based GRM system which needs to be user-friendly and needs to disclose outcome of grievances timely so that people are encouraged to raise their grievances with ease. Necessary budget has to be catered for this purpose from the Program fund.</p>
Integrating local community and grass root leadership in the project	<p>PBS plays an important role in integrating the local community and local leadership. There is a Samiti Board in every PBS. The board is constituted through elections where local people have representation. This way the project-affected people and the complainants can communicate their grievances/complaints easily. This method should be continued. Inclusion of women representative and representative from the indigenous people/tribal people community of the locality in the Samiti Board would make it more effective.</p>
Tribal Peoples Plan (TPP)	<p>The project has adopted the exclusion criteria to avoid any negative impact on the tribal Garo community due to undertaking of the project in those areas. The project rather intends to extend the benefits toward their welfare. However, detailed guidelines would have to be prepared, if necessary, for preparing the TPP following the World Bank's latest guidelines to maximize benefits to the tribal people. FPIC of the Garo community must be taken before every stage of the Program activities.</p>

## ANNEX A: DESCRIPTION OF THE PROGRAM

### A.1 Program Development Objectives of the Proposed Program

1. The Program Development Objective (PDO) is to increase the delivery, reliability, and efficiency of electricity supply and strengthen institutional capacity and readiness for its sustainable transformation.

### A.2 PforR Program Boundary

2. The Government’s program will cover all 80 PBSs in BREB, which together supply about half of the electricity in the country and cover the entire country except Dhaka and some urban areas. The program comprises four geographical areas—Dhaka-Mymensingh Divisions, Chattogram-Sylhet Divisions, Khulna-Barishal Divisions, Rajshahi-Rangpur Divisions—as well as institutional and regulatory strengthening at the national level. The program is expected to cover the period from 2021 to 2025 and require approximately US\$3.2 billion of investments over the period.

3. **The proposed PforR operation will support a part of the overall Government program**—with a focus on network strengthening, expansion, and rehabilitation to ease existing constraints and meet the rapidly growing demand in BREB’s Dhaka-Mymensingh Division. These network investments will be paired with new and transformative elements such as SCADA, ADMS, and AMI and distributed energy resources such as rooftop solar, BESS, and EV infrastructure to improve reliability, efficiency, and sustainability of electricity supply. Strengthening of institutional and regulatory activities will be undertaken at the national level.

**Table 2. Proposed Program Scope**

Item	Government of Bangladesh (GOB) program	Program supported by PforR
<b>Title</b>	Modernization and Capacity Enhancement of BREB Network	Electricity Distribution Modernization
<b>Objective</b>	Increase delivery, reliability, and efficiency of electricity services	Increase delivery, reliability, and efficiency of electricity services and strengthen institutional capacity and readiness for its sustainable transformation.
<b>Duration</b>	2021-2026	2021 -2026
<b>Result Areas</b>	Increased delivery, climate resilience and digitalization of electricity supply Increased readiness to integrate distributed energy resources Strengthened institutional and regulatory capacity	Results areas will be the same as the GOB program
<b>Geographical Scope</b>	Dhaka-Mymensingh Division Chittagong-Sylhet Division Khulna-Barishal Division	Dhaka-Mymensingh Division (1)

	Rajshahi-Rangpur Division	
<b>Financial Envelope</b>	<b>US\$ 3213 million</b> of which GOB/BREB: US\$ 902 million and Development Partners: \$2311 million	<b>US\$ 743 million</b> of which GOB/BREB: US\$228 million; World Bank: US\$500 million; Climate Investment Fund: US\$15 million.

Note: a. Except for support provided under Results Area 3 for institutional and regulatory strengthening at the national level.

### A.3 Results Areas

4. The following are a range of areas for potential action under the operation.

#### Results Area 1: Increased delivery, climate resilience and digitalization of electricity supply

5. **Network strengthening and expansion** will be undertaken to increase the capacity of the distribution network and address network constraints. Power flow analysis of the existing BREB system shows issues with both voltage and loading, indicating that the BREB network faces challenges in supporting the existing level of load and will not be able to meet the projected doubling of load between 2020 and 2028. A significant number of problems have to do with voltage drop issues as well overloads, in some cases independently of overloads. Investment in upgrade and construction of distribution lines, distribution substations, conversion of low tension (LT) to high tension (HT) lines, and related infrastructure will be undertaken to address network constraints and enable BREB to meet the expected increase in electricity demand. BREB is expected to adopt several items of advanced technology such as gas insulated substations and composite core aluminum conductors as well as underground distribution lines in some areas. In addition, the following measures will be considered for implementation during Program preparation: (a) use of 33 kV for distribution, particularly for industrial consumers, and a greater use of 132 kV as a sub-transmission voltage and (b) use of high-capacity distribution lines. Network expansion, strengthening, and rehabilitation is expected to be the most resource-intensive element of the Program and will help anchor and enable the transformative elements of the Program.

6. **Digital transformation of BREB network operations** will be supported through the introduction of SCADA/ADMS and smart prepaid meters/AMI.

- **SCADA/ADMS.** PBSs operate systems that have increased in size and complexity as a result of expansion for universal access. Many PBSs have total consumer counts over 250,000, more than 100 feeders at 11 kV, and extensive 33 kV networks. Implementation of SCADA, ADMS, and other technologies such as GIS will allow remote monitoring of the distribution network and provide the information required by PBS to improve operational performance both during outages and for system optimization, facilitating (a) improved response to outages; (b) identification of measures to reduce loss and improve voltage profile; and (c) management of load shedding when required, since it allows control of devices and monitoring of power flows to verify impact. BREB intends to introduce SCADA systems in the network of PBSs on a phased basis with early implementation in high-load density PBSs and gradual expansion to all other PBSs. Full implementation of a SCADA system in any given PBS is expected to require approximately five years to complete, after an initial two-year period of preparation, specification, procurement, acquisition, and detailed design.

- **Smart prepaid meters and AMI.** PBSs currently mainly use conventional manually read metering technology to bill electricity consumed by their member consumers. The Program will build on the Government's ongoing initiative on smart prepaid smart meters to gradually introduce AMI in PBSs. This has the potential to offer significant advantages to BREB/PBS commercial and technical operations including (a) remote meter reading and billing, (b) real-time monitoring to identify outages and their locations which can help in dispatching crews to resolve a problem, (c) reporting on voltage control and power quality, (d) development of demand response systems, (e) adoption of complex tariff systems such as time of use tariffs and interruptible tariffs, and (f) facilitation of integrating distributed solar and EVs. Costs of AMI have been coming down in recent years such that it is much more affordable and more competitive with manual methods. The Program could begin with an AMI system that covers large and medium-size commercial consumers, an approach that maximizes the benefit from this initiative, leaving the large and therefore more-intensive capital demand for residential and small commercial sectors for later.

7. **Climate resilience of BREB's distribution network** will be increased through improvements to electrical and structural design of the distribution network and strengthened operations and maintenance practices. Bangladesh has a high incidence of lightning and is exposed intermittently to high wind loadings resulting from cyclonic storms originating in the Bay of Bengal, with generally higher wind speeds from Dhaka south. Wind speeds along the coast of the Bay rival those of the worst typhoons of the western Pacific. The World Bank is helping BREB identify measures to address vulnerabilities to the distribution system, which could include revisions to (a) pole top insulation levels of 11 kV lines, (b) pole sizing and span lengths of 11 kV lines, (c) wind load specifications of 11 kV and 33 kV distribution lines to be consistent with Bangladesh National Building Code and higher design standards for transformer, (d) a tree trimming program to prevent tree branches from falling on distribution lines during cyclones, (e) elevated substations and drainage to reduce risk of flooding, and (f) use of surge protection measures against storms.

## **Results Areas 2: Increased readiness to integrate distributed energy resources**

8. **Integration of distributed solar** will be supported through efforts to increase net metering connections to BREB's networks<sup>19</sup> as well as implementation of options for BREB/PBS to mobilize distributed solar photovoltaics as a potential revenue opportunity through the utility-owned model or public-private partnerships. This will entail strengthening the BREB/PBS's capacity to process and approve net metering application from consumers, develop distributed solar using utility-owned and/or public-private partnership models, and assess and manage their impact on BREB/PBS's financial sustainability. Assessments carried out by the World Bank show that there is significant distributed solar potential in BREB areas and integration of distributed solar can reduce distribution losses, improve reliability, and make distribution networks more efficient. Support to BREB could include infrastructure upgrades, utility-owned and public-private partnership solar photovoltaic investments, recruitment and training of staff, development of a unified web portal to facilitate applications, consumer awareness programs, and preparation of gender informed distributed solar programs.

9. **BESS pilots** will be supported in coordination with distributed solar to demonstrate their value to BREB distribution network and operations. The pilots would help catalyze a market that has the potential to transform power system planning in Bangladesh, particularly as BESS costs decline precipitously and distributed photovoltaic becomes more attractive to consumers. There are no utility-scale BESS investments in Bangladesh, and BESS backup systems are also unavailable to

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<sup>19</sup> BREB had provided net metering connections to 17.9 MW rooftop solar as of 2019.

consumers in the absence of a broader market. The performance of the advanced grid-scale battery systems has not been verified under Bangladesh’s environmental conditions nor integrated with power system equipment and grid conditions. These barriers reduce the interest of commercial actors to make first-of-a-kind investments in BESS without instruments to mitigate risk or lower the cost of financing. A pilot would serve to demonstrate the BESS value proposition and reduce uncertainty about technical and operational risk, with the potential to reduce BREB’s system development costs while establishing BESS value chains and attracting broader commercial interest.

### **Results Area 3: Strengthened institutional and regulatory capacity**

10. **Technical assistance and capacity building** will be provided to electricity sector institutions—BREB and Power Cell—to effectively respond to emerging challenges and opportunities in the sector. Sector institutions will be supported in assessing and responding to these emerging needs.

- **Areas of support to BREB**, to be informed by the technical assessment of the Program during preparation, could include (a) strengthened network planning; (b) upgrade and replacement of legacy organizational information technology systems; (c) human resource planning, training and upgrade; (d) organizational review and strengthening; (e) capacity building on climate and disaster risks; and (f) capacity building and technical assistance on gender and social inclusion.
- **Areas of support for Power Cell** included in the technical assistance project proposal approved by the Government, could include (a) preparation of new policies, sector road maps and regulations on smart grid development, renewable energy, energy efficiency, storage, digitization, and so on; (b) sector human resource planning, training, and upgrade; (c) development of innovative financing mechanisms; (d) electricity cost and tariff assessment and design; and (e) communication programs.

## ANNEX B: CORE PRINCIPLES AND ASSOCIATED KEY PLANNING ELEMENTS OF ESSA

1. The ESSA has been prepared in a systematic way and the key issues are given due consideration in assessing E&S systems applicable to PforR Program activities. The ESSA considered Program circumstances and the extent to which the Program systems are consistent with the six core principles and associated key planning elements.<sup>20</sup> Specialists preparing the ESSA may draw from other relevant assessment methods or guidance materials developed for specific subject areas that may be considered best practice and authoritative—for example, the World Bank’s Involuntary Resettlement Sourcebook.

2. The six core principles and their applicability are stated below.

Core principle	Applicability
<p><b>1. Core principle 1: General Principle of Environmental and Social Management</b></p> <p>E&amp;S management procedures and processes are designed to (a) promote E&amp;S sustainability in Program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a Program’s E&amp;S effects.</p> <p>Program procedures will do the following:</p> <ul style="list-style-type: none"> <li>• Operate within an adequate legal and regulatory framework to guide E&amp;S impact assessments at the Program level.</li> <li>• Incorporate recognized elements of E&amp;S assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the ‘no action’ alternative); (c) explicit assessment of potential induced, cumulative, and transboundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of Program information, and responsive grievance redress measures.</li> </ul>	<p>Core Principle 1 is applicable for the E&amp;S management of the Electricity Modernization Program. Environmental management of civil work-related activities and OHS will be key issues in promoting sustainability of the proposed Program and adequate safeguard measures should be in place to avoid adverse impacts and health risks.</p> <p>Core Principle 1 equally applies to social management of the Program. No notable adverse project-related social risk and impact is expected during implementation of the project.</p>
<p><b>Core Principle 2: Natural Habitats and Physical Cultural Resources</b></p> <p>E&amp;S management procedures and processes are designed to avoid, minimize, and mitigate against adverse effects on natural habitats and physical cultural resources resulting from the Program.</p>	<p>The proposed Program investments may affect natural habitats of aquatic flora and fauna including fish as well as terrestrial flora and fauna as the poles might cross water bodies and tree clearing may be required in the RoW of distribution corridors.</p> <p>However, as BREB would be mostly using the existing poles, such adverse effect would be minimal. Tree clearing is a necessity along the RoW and the locals are encouraged not to plant trees under the electric distribution lines.</p>
<p><b>Core Principle 3: Public and Worker Safety</b></p>	<p>The Program will support new construction and civil works and therefore there will be issues associated</p>

<sup>20</sup> <https://web.worldbank.org/archive/website01541/WEB/IMAGES/ENTIREOM.PDF#page=295&zoom=100,92,138>

Core principle	Applicability
<p>E&amp;S management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>	<p>with public and worker safety during construction activities. Therefore, core principle 3 will be applicable.</p> <p>The project would primarily use the existing poles for upgrading LT lines to HT lines. A small number of workers will be deployed in the subprojects for the substations and other jobs where local workers and limited migrant specialized workers will be employed. No unskilled workers will be employed for electricity-related jobs by the contractors. PBS has to monitor the same to avoid electrocution.</p>
<p><b>Core Principle 4: Land Acquisition</b></p> <p>Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.</p>	<p>BREB normally purchases land for the substation through negotiated settlement. <b>No land acquisition is planned for the project.</b></p>
<p><b>Core Principle 5: Indigenous People and Vulnerable Groups</b></p> <p>Due consideration is given to cultural appropriateness of, and equitable access to, Program benefits giving special attention to rights and interests of tribal people and to the needs or concerns of vulnerable groups.</p> <ul style="list-style-type: none"> <li>• Undertake FPIC of tribal people who are potentially affected (positively or negatively) to determine whether there is broad community support for the Program.</li> <li>• Ensure that tribal people can participate in devising opportunities to benefit from exploitation of customary resources or tribal knowledge, the latter to include the consent of the small ethnic and vulnerable community (tribal people).</li> <li>• Give attention to groups vulnerable to hardship or disadvantaged, including the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to Program benefits.</li> </ul>	<p>Garo community exists in the districts of Mymensingh, Netrokona, Jamalpur, and Sherpur. Whenever any subprojects including their screening are planned in Garo-held areas in Mymensingh Division, FPIC will be taken from the Garo community by PBS staff at each stage of the project at the local level through FGD and physical contact and the inputs will be sent to macro level for planning purpose. BREB is aware of this matter and would do the needful.</p>
<p><b>Core Principle 6: Social Conflicts</b></p>	<p>Not applicable.</p>

**ANNEX C: CONTENTS OF THE EMAIL SENT BY BREB E&SM OFFICE HEAD, SUPERINTENDENT ENGINEER MR. MD. SHAHIDUL ISLAM ON THE MATTER ON MARCH 10, 2021**

From: **Environment & Social Management, BREB** <[se.envreb@gmail.com](mailto:se.envreb@gmail.com)>

Date: Wed, Mar 10, 2021 at 9:17 AM

Subject: Re: INPUTS FOR ESSA ON EDMP (P 174650)

To: Md Anisuzzaman Bhuiyan <[mbhuiyan3@worldbank.org](mailto:mbhuiyan3@worldbank.org)>

Cc: Jun Zeng <[jjzeng@worldbank.org](mailto:jjzeng@worldbank.org)>, Iqbal Ahmed <[iahmed1@worldbank.org](mailto:iahmed1@worldbank.org)>, Tanvir Ahmed <[tanvir@itn-buet.org](mailto:tanvir@itn-buet.org)>, [tanvir96@gmail.com](mailto:tanvir96@gmail.com) <[tanvir96@gmail.com](mailto:tanvir96@gmail.com)>, Hasna Maymuna <[hmaymuna@worldbank.org](mailto:hmaymuna@worldbank.org)>, Sabah Moyeen <[smoyeen@worldbank.org](mailto:smoyeen@worldbank.org)>, Bipul Singh <[bsingh2@worldbank.org](mailto:bsingh2@worldbank.org)>

Dear Md Anisuzzaman Bhuiyan,

Walaikumus Salaam. Thanks for your email. It is also my pleasure to contribute to the development of ESSA for 'Modernization and Capacity Enhancement of BREB Network (Dhaka-Mymensingh Divisions) Project. As you asked in the email, the required information is given here in below:

Questions	Information
# What are the likely environmental and social risks you anticipate from the project? How are you mitigating the social and environmental risks associated with World bank supported ongoing 'Rural Electricity Transmission and Distribution (T&D) project?' Do you think the risks could be similar and can be effectively addressed through ongoing mitigation measures?	# There is no major environmental and social risk from the project. Moreover, the BREB has the experience to deal with similar types of projects [e.g. Upgradation of Rural Electricity Distribution System; Dhaka, Chattogram and Sylhet Division (UREDSD; DCSD) Project]. The risks are almost similar, therefore, they can be addressed through ongoing mitigation measures.
# How effective is your E&SM set up to address the social and environmental risks mitigation. Are you adequately staffed? Do you have any plan to reorganize it to meet the needs of the time? If not, do you plan to hire consultants/specialists to meet the purpose?	# BREB has a separate Environment & Social Management office headed by a Superintending Engineer. The organogram and hierarchy of the office is good enough to monitor and mitigate the risks from the project. Though the office is not adequately staffed, the office can easily contact and communicate with Pally Biddut Samiti (PBSs) in the project area to mitigate the Environmental and Social risks. Besides, if we require we have a plan to hire consultants/ specialists to meet the purpose.
# In your consideration what are the areas that needs strengthening in terms of additional manpower and training for effectively mitigating the environmental and social risks of the project?	# For effectively mitigating the environmental and social risks of the project, there should be enough training on coordination of World Bank Policy and Local Environmental Rules and Regulation.
# At the micro level which component of BREB would be available to interact with various project affected persons, listen to their grievances and address those? Are they prepared to undertake these tasks?	# In the micro level, the Pally Biddut Samiti (PBS) would be available to interact with various project affected persons. There are 80 PBSs throughout the country and they are also prepared to undertake these tasks.
# What all formal and informal meetings/workshops/interactive sessions have you conducted at the macro and micro levels with the	# The macro level interactive meeting involves meetings of the staff of E&SM staff with the staff of Project Offices. Most of the sessions are informal.

Questions	Information
<p>various stakeholders preparatory to this project? What all were their input? Whether their inputs were taken into consideration during the planning process or not? Are there minutes of those meetings? If so, we would like to have copies of those for our study. Please specify place and dates of such meeting, number and type of stakeholder attended the meeting and what all points were brought home.</p>	<p>The E&amp;SM office advises the Project Office to mitigate the environmental risk. Moreover, there are also frequent meetings with the environmental consultants with E&amp;SM staff of BREB. Besides, the BREB also assists the consultants to execute Public Hearing and Focused Group Discussion in the project area with the help of Pally Biddut Samiti in micro level.</p>
<p># How effective is your Grievance Redress Mechanism (GRM) in the ongoing 'Rural Electricity Transmission and Distribution (T&amp;D) project?' What all issues you plan to add/discontinue with the GRM mechanism of the new project in view of the learnings from the 'Rural Electricity Transmission and Distribution (T&amp;D) project' so to make GRM more effective?</p>	<p># Currently we are yet to have any issue of Grievance Redress Mechanism (GRM) to add or discontinue. As most of the components of the projects are the same, the Grievance Redress Mechanism (GRM) is also similar. Moreover, we monitor our projects on a regular basis and we have flexibility, therefore, we also have the capacity to modify the Mechanism if it needs to be addressed in an emergency.</p>
<p># Did you receive any complain on 'Sexual Exploitation and Abuse' and 'Sexual Harassment' in the 'Rural Electricity Transmission and Distribution (T&amp;D) project'? How did you address these complaints and what sort of remedial measures you adopted?</p>	<p># In BREB Headquarter, we have a Central Complaint Committee on 'Sexual Exploitation and Abuse against Women'. BREB is also very active in responding to the complaints. The human rights and women-friendly work environment are always supported. Fortunately, the E&amp;SM office hasn't received any complaint from this project in this regard. We believe our mechanism is strong enough to prevent those harassment.</p>
<p># How did you integrate the local community and local leadership in favor of the project? Did you face any hurdles? How did you manage those?</p>	<p># To integrate the local community and local leadership, the Pally Biddut Samiti (PBS) plays a very important role. There is a Samiti Board in every PBS. The board is constituted through elections. Therefore, the involvement of local people are ensured.</p>
<p># We will also need your active support in arranging a 'Stakeholder Consultation' with relevant stakeholders of the project including project affected persons, local leadership so to understand their mindset about the project before finalizing the ESSA. The stakeholders need to be communicated with date and time, venue, agenda of the meeting and briefing on the project by some of your staffs.</p>	<p># We can assist you in arranging a "Stakeholder Consultation". Let us know the agenda, venue, probable participants and time of the meeting. In time. We shall talk to the higher authority of BREB and schedule the meeting with the help of the staff from Pally Biddut Samiti in the concerned venue.</p>
<p># As discussed on 20 January 2021, Mr. Nurul Islam Siddiq, BREB Consultant, who prepared the ESMF for your T&amp;D project was assigned to review and prepare the ESMF for the 'Modernization and Capacity Enhancement of BREB Network (Dhaka-Mymensingh Divisions) Project'. If it is already done,</p>	<p># Mr. Nurul Islam Siddiq is currently working on the ESMF. He expects to complete the ESMF by a week. We've talked to him, he will share the ESMF with you as soon as possible.</p>

Questions	Information
could you share the same which might have answers to many of our queries.	
# The Garo community lives in greater Mymensingh district including Netrokona, Jamalpur and Sherpur. Do your Program take into consideration this ethnic minority community? If so, did you have any meeting/discussion with them and got any input from them? Did their input have any effect in your Program designing?	# The issues of the minority community are addressed in the Focused Group Discussion, generally arranged by the PBS. Moreover, in our Rural Electrification (RE) system, the concern of vulnerable groups in the rural area is taken sincerely.

Hope that our information will serve the purpose.

Regards,  
Md. Shahidul Islam  
Superintending Engineer  
Environment and Social Management, BREB.

## **ANNEX D: STAKEHOLDER CONSULTATION**

### **ELECTRICITY DISTRIBUTION MODERNIZATION PROGRAM (P174650)**

**Government of the People's Republic of Bangladesh**

**Bangladesh Rural Electrification Board (BREB)**

**Place of Meeting: Virtual meeting**

**Date: 10/06/2021**

**Time: 11 AM to 1.00 PM**

The World Bank, Dhaka Office ESSA Assessment Team conducted a virtual stakeholder consultation on 10<sup>th</sup> June, 2021 with different stakeholders including BREB headquarters officials, BREB's PBS level officials, Samiti Board Members, Department of Environment (DoE), representatives from Ministry of labor, Union Porishod Chairmen and Members, local government leadership, rural entrepreneurs, teachers, print and electronic media journalists and tribal representatives from Garo community. BREB's focal person of Environment and Social Unit presented a short briefing on the EDMP through a power point presentation that included project area, project objectives, scope of work and the likely interventions. Bank environmental and social team apprised the audience on the findings of the ESSA on BREB's capacity to undertake the project, institutional responsibilities and implementation performance of BREB in different projects, related govt. and BREB policies, social and environmental benefits and risks involved with the project and how to mitigate the risks. The team emphasized on the importance of "Free, prior and Informed Consent" of the Garo minority community while undertaking project in areas where they inhabit. The participants were interested on the assessment, findings and recommendation provided in the ESSA. The Stakeholders were very satisfied and positive with EDMP of BREB, as the project, when completed, would provide them with uninterrupted electric supply at the homestead and workplace/business centers improving livelihood of the rural community and ensuring better services. They were also informed that installation of substation will include allied infrastructure e.g. road, accommodation, office and rest house, which would impact positively on the land price for the landowners and local businesses. They were further informed that the compensation for all losses caused to the Affected Persons (AP) will be paid at replacement cost irrespective of the title of the AP as per the provisions in the ARIPA, 2017 and in compliance with Bank policy. If there is a gap between statutory compensation and the replacement cost, the gap will be bridged by BREB based on assessments and recommendations of the Property Assessment and Valuation Committees (PAVC) to be appointed by BREB. Compensation for crop losses will be paid for a period of one year and taking into consideration the loss of incomes and investments of the farmers. Farmers will also be allowed to cultivate underneath the distribution tower base areas. compensation will be paid for the trees to be removed. Also, tree owners will be allowed to retain the timber from the trees.

BREB would ensure that distribution lines do not cause population displacements. The project will try to avoid/minimize resettlement impacts and particularly the residential areas, and none of the lands earmarked for substations are within the residential areas. However, community concerns over the land, if any, will be further reviewed by BREB. Route plan of distribution lines will be developed avoiding traversing public places like schools, mosques, graveyards, madrasah, markets etc. as well as residential dwellings of the people. Installation of distribution towers will avoid residential areas and other public spaces. If unavoidable, project will provide compensation at replacement cost and other rehabilitation and restoration assistance.

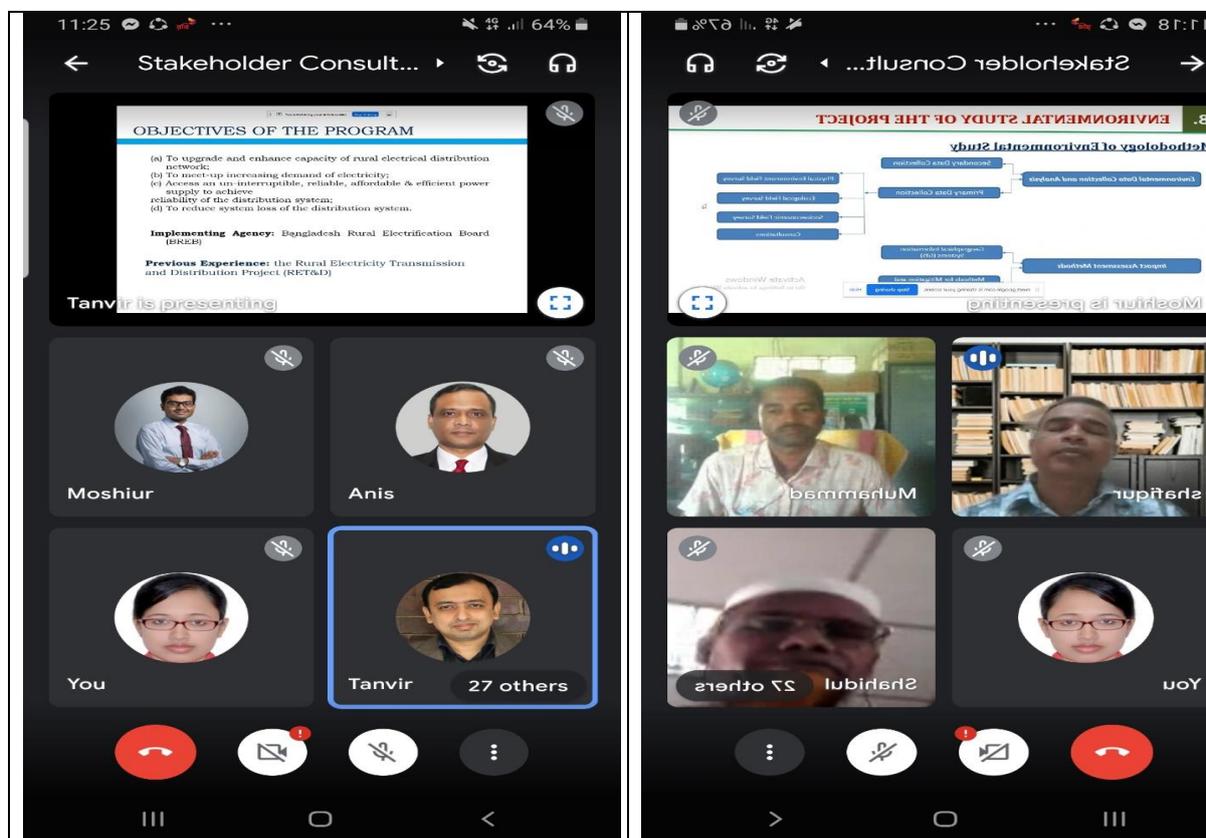
After the briefing session, the floor was opened for Q/A by the stakeholders. BREB and ESSA Teams replied to the questions. The main discussion issues and reply given are narrated below:

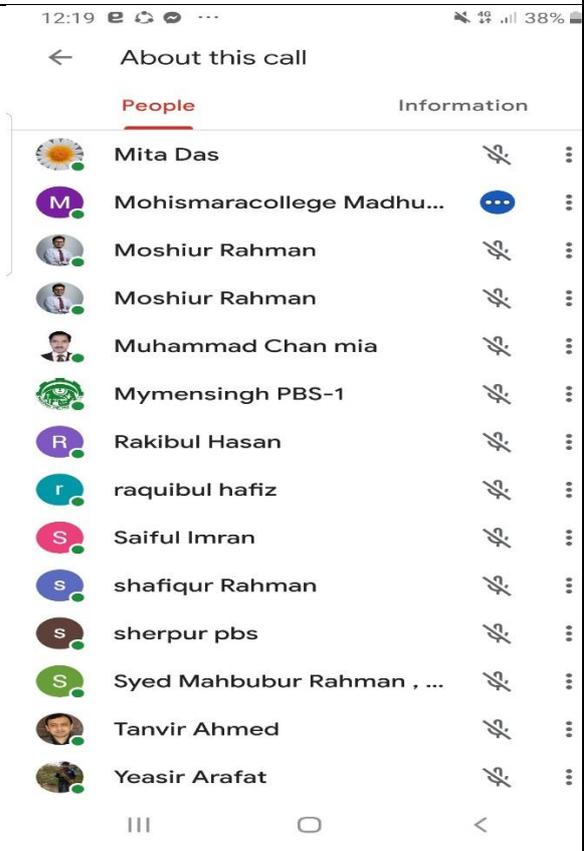
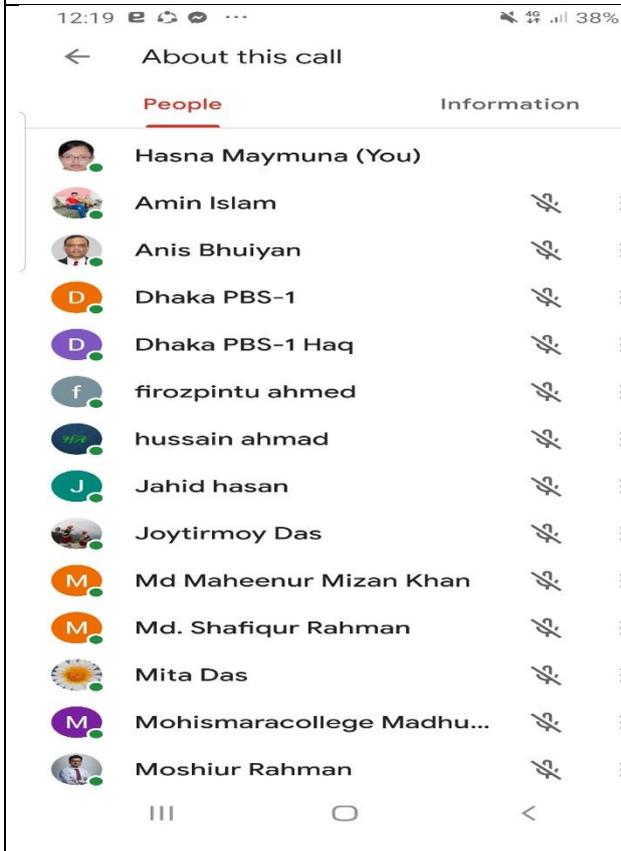
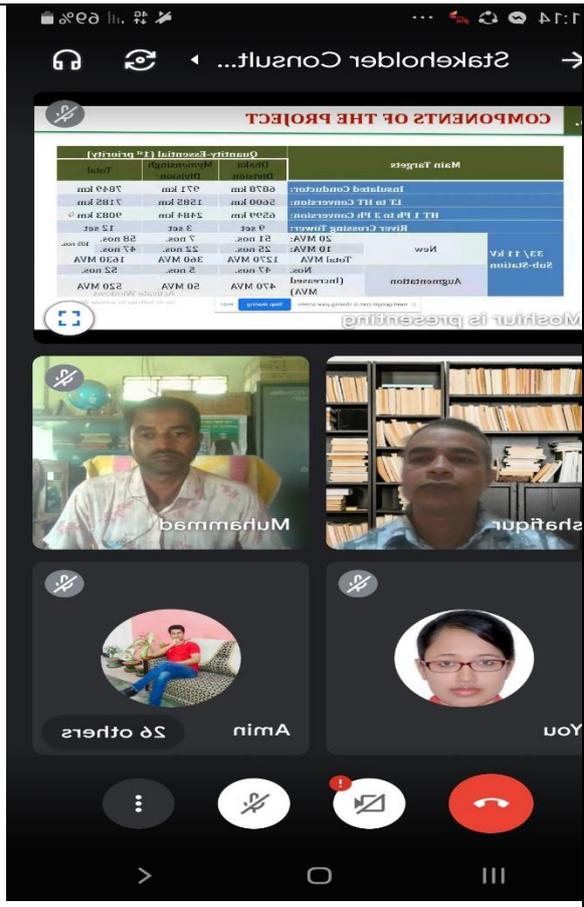
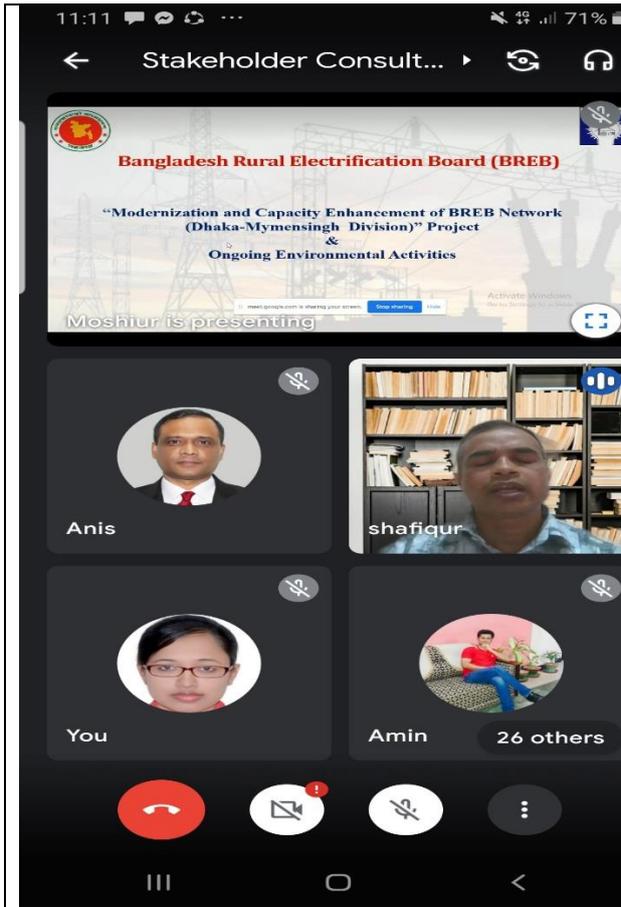
### Key discussion issues and replies in the Meeting

Serial	Name and Appointment	Issue Raised	Reply from BREB/ESSA Team
1.	Mr. Hasan Hasibur Rahman, Deputy Director (Planning), DoE Headquarters, Dhaka	The Project to exclude Elephant corridor along Sreebord in the Districts of Jamalpur and Sherpur while planning distribution lines so that the Elephants can pass uninterrupted and the local community do not fall prey to the Elephants. He also emphasized on the protection of biodiversity along the Garo Hills.	The ESSA and BREB teams thanked Mr. Hasib for his valuable points. The BREB representatives informed that they are equally aware of the biodiversity and elephant pass areas and excluded those areas consciously to avert any damage. Biodiversity in the area will not also be disturbed by the project interventions.  The ESSA Team informed the House that these issues would be included in the final ESMF and appropriate measures would be undertaken by BREB during implementation.
2.	Members from the local community of Sherpur and Jamalpur present in the meeting	There are presence of elephants and they must not be disturbed as they pass through Elephant Pass during construction of distribution lines	The matter was noted by BREB.
3.	Mr. Yasin Ali Khan, proprietor, Khan Auto Rice Mill, Khan Flour Mill	He demanded that BREB cuts on Load Shedding and provide uninterrupted and stable electric supply to the industries so to improve run the industries efficiently and help create employment opportunities in small and medium industries.	BREB representatives and the ESSA team informed that the issue was part of the project and upon completion, the users would get stable and uninterrupted power supply.
4.	Projina Renu, a Garo tribal community representative and NGO worker	He confirmed Elephant Movement Pass along Garo Hills and was very happy noting that the distribution lines would also provide electric connection to the minority community and this would improve their livelihood. He opined that electricity has already improved their lives and have given them greater security.	He was informed that BREB has planned to take Distribution lines to Garo inhabited areas after FPIC with the community so to ensure that the community is involved from the planning, implementation and finally to operational phases without any adverse effect on them. com
5.	Shamsul Huda, Union Parishod Secretary, Karimganj, Kishoreganj and Zahid Hasan, an online Marketer	They demanded that robust distribution lines be laid in the EDMP as weak and thin wires used presently as distribution lines are causing electrocution leading to loss of lives, accidents in the homesteads and industries, fires and damages to trees and crops particularly during natural disasters like heavy rains, lightening, storms etc. They also demanded that	BREB representatives informed the audience that improved and robust distribution lines would be laid to avert tear of the lines due to storm, natural disasters etc. They opined that once the project is completed, load shedding will automatically be reduced, economic and social development will be revamped through establishment of small, medium and large-scale industries due to

Serial	Name and Appointment	Issue Raised	Reply from BREB/ESSA Team
		Load Shedding is seriously affecting their business and this be minimized.	stable supply of power supply in the project area. This will create scope of employment of locals in these industries.
6.	Mr. Yeasir Arafat, NTV Reporter	He informed the meeting that due to thundering, many an electric/ electronic gadgets get damaged. He asked BREB to advise on the issue.	BREB representatives informed the House that through installation of Thunder Arrester at the residences and business houses/industries, this could be minimized. Palm Trees planted in the open areas also act as a Thunder Arrester as these are taller than surrounding plants/structures. BREB representative also advised the stakeholders to plant Palm Trees in the open areas to minimize thundering related losses.
7.	Members from the local community	They are willing to sell land to BREB for the construction of sub-stations voluntarily if the GoB compensation package is rewarding for them.	It was informed that the GoB provides compensation for any land acquisition at 300% higher than the current market value. As such there will not be any problem with land as many are volunteering to sell their land to BREB.

### Pictures of Virtual Consultation Meetings





### List of Key Stakeholders Consulted

Persons met	Organization
Md. Mohiuddin	Chief Engineer, BREB
Debasish Chakrabarti	Chief Engineer (Project), BREB
Md. Shahidul Islam	BREB
Md. Shafiqur Rahman	BREB
Saiyad Mahbubur Rahman	BREB
Md. Anwar Hossain	BREB
Md. Rakibul Hafiz	BREB
Md. Moushiur Rahman	BREB
Md. Azhar Ali	PBS
Md. Akhtar Hossain	PBS
Engineer Md. Ali Hossain	PBS
Md. Mahfuzur Rahman Khan	PBS
Md. Rifatul Karim	PBS
Ashraf Uddin	PBS
Md. Rifatullah	PBS
Bazlur Rashid Khan	PBS
Md. Chan Mia	PBS
Md. Anisuzzaman Bhuiyan	World Bank Consultant
Dr. Tanvir Ahmed	World Bank Consultant
Iqbal Ahmed	Environmental Specialist, World Bank
Hasna Maymuna	World Bank Consultant
Shafiqur Rahman	IIFCI
Md. Hasan Hasibur Rahman	DoE
Md. Hafizur Rahman	DoE
Md. Abdullah Al-Mamun	DoE
Kazi Suman	DoE
Md. Nayan Mia	DoE
Dr. Md. Lutfur Rahman	DoE
Md. Mojahidul Islam	DoE
Ful Islam	Chairman, UP, Kishorganj
Md. Rakibul Islam	Department of labor
Md. Moniruzzaman	Teacher
Md. Mehrabul Islam	Entrepreneur
Md. Mahinur Mizan Khan	Businessman
Jahidul Islam	Businessman
Ashraful Alam	Businessman
Projina Renu	Representative from Garo community and an NGO worker
Eyasir Arafat	Journalist
Firoz Ahmmed	Representative from Siemens
Hossain Mahmud	Representative from Energypac
Shamsul Huda	Secretary
Balia Premo	Representatives from Garo minority
Barli Sangma	Representatives from Garo minority
Eyasin Ali khan	Businessman

## REFERENCES

- BREB Letter Number: - 27.12.0000.020.36.006.17.436 dated: 27 May 2019 on Preliminary Development Project Proposal (PDPP)
- GoB, Ministry of Finance, ERD, World Bank – 7 Branch Letter Number: - 09.00.0000.057.24.038.2020-15 dated 16 January 2020 on Request for Financing the “Modernization and Capacity Enhancement of BREB Network (Dhaka-Mymensingh Division”
- World Bank, Dhaka, Program Concept Note for Electricity Distribution Modernization (P174650); dated: July 08, 2020
- World Bank Policy on PforR Financing
- Email sent by BREB E&SM Office Head, Superintendent Engineer on the matter on March 10, 2021
- Program Appraisal Document for Electricity Distribution Modernization Program (P174650); August 2021, QER version