



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Bangladesh	SOUTH ASIA	P179429	
Project Name	Transmission Grid Enhancement & Modernization Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	11/24/2023	3/29/2024
Borrower(s)	Implementing Agency(ies)		
People's Republic of Bangladesh	Power Grid Company of Bangladesh		

Proposed Development Objective

The project aims to enhance transmission capacity and reliability of the grid network, improve efficiency in grid operations and maintenance, and enable regional integration and evacuation of renewable energy generation.

Financing (in USD Million)	Amount
Total Project Cost	680.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The proposed project is the continuation of Bank’s support to PGCB in improving reliability of the transmission network, facilitating regional import and integrating renewable energy into the national grid. The project will involve construction of 3 new 400kV and 5 new 230kV substations with a total capacity of 17,400MVA. The project will also capture the upgradation of 4 existing substations, construction of 274ct-km of 400kV of new transmission lines and 95ct-km of 230kV transmission lines. The activities under the project are largely distributed across the Southern, Central and Northern Regions of the country. With the added lines and substations, the system will be able to respond to the increasing electricity demand, improve reliability and support economic growth in the project areas. It will help enable new generation plants (including renewable energy-based generation) – expected to be financed



mostly by the private sector – by removing transmission bottlenecks and enabling better access to the end-use market. The project will also facilitate regional power import, enhance grid resilience and introduce grid digitization.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The key Project activities will be conducted in the central, southern, and northern zones of the country, mainly Dhaka region, Barishal and Patuakhali district, Payra sea port area and Parbatipur areas. The southern area of the country is physiographical in the Ganges Tidal Plain and this flood plain is characterized by tidal flood plain landscape of interconnecting tidal rivers. The Southern region has a tropical climate. In winter, there is much less rainfall than in summer and the average annual temperature is 25.9°C and average annual rainfall is 2184 mm. The central region of Bangladesh Dhaka has a tropical wet and dry climate. It has an annual average temperature of 25°C and annual average rainfall of 1,854 mm. In the northern part, average annual temperature is 25.0°C and average annual precipitation 1728 mm.

Since the detailed designs pertaining to proposed Project activities have not been carried out at this stage, the exact Right of Way (ROW) for the overhead and underground Transmission Lines (TLs) have not been determined yet. The TLs ROW may be situated mainly in rural settings, but some urban/peri-urban areas may be unavoidable. PGCB generally avoids construction of overhead TLs in residential and commercial areas and has typically installed underground TLs using Horizontal Directional Drilling (HDD) methodology in such areas. The same will be implemented in this project too.

For the substations PGCB normally uses government-owned land to the extent possible, or vacant/fallow (non-productive) or one-crop private lands when acquisition is unavoidable. Land located at close proximity to existing power lines/load centers and road network (for easier transportation of material and equipment), where available are preferred, avoiding lands that are susceptible to inundation/ storm surge and also avoiding ecologically and socially critical areas. In case of this Project, PGCB has identified public lands for five out of the eight new substations to be built under the project; land acquisition may be needed for the remaining three sites if public lands cannot be identified for those.

D. 2. Borrower’s Institutional Capacity

PGCB has established an Environmental and Social Unit (ESU) instituted within their permanent organogram, consisting of five expert members, who are responsible for the supervision of the E&S activities of PGCB’s portfolio. PGCB has experience in implementing Bank-funded projects under safeguard policies and these are (1) Bangladesh Rural Electricity Transmission and Distribution project (T&D) (P129920) (2) Enhancement and strengthening of Power Transmission Network in Eastern Region (ESPNER) (P159974) (iii) Power System Reliability and Efficiency Improvement Project (P159807). PGCB has successfully completed the T&D project and implemented the relevant Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) fully. The overall compliance status of ESMPs at various subproject sites under PGCB was found to be Satisfactory . No major major grievance or complaints were recorded under the Bank funded projects; the recorded grievances were all managed at the field or project level. PGCB has successfully completed construction of (1) 646 km 400 KV TLs (2) 1971 km 230 KV TLs and (3) 4905 km TLs under Government, World Bank and other donor-financed projects. No fatality incidents are recorded in WB financed projects, nor for any other projects under PGCB.

Under the ESPNER project which is Bank financed, PGCB has acquired lands for 12 new substations following the WB safeguard policy (OP 4.12) and construction works are ongoing for the TLs and sub-stations. PGCB has prepared RAP, ESIA, Environmental and Social Management Plan (ESMP), Gender Action Plan (GAP) and Sexual Exploitation and

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Abuse/Sexual Harassment (SEA/SH) management plan for the ESPNER project. PGCB has recruited an E&S firm to implement the E&S documents and monitor the contractors E&S activities of ESPNER project. PGCB ESU and E&S firm monitor the safeguard activities on a regular basis and no record of fatalities, community conflicts and irreversible impacts on natural habitats (e.g. number of bird/bat carcasses found on TLs or substations is negligible due to avoiding RoWs/substation sites that traverse through bird corridors during alternative analysis) are recorded till now. PGCB has formed area wise Grievance Redressal Committee (GRC) and people from the local community are members of the committee. PGCB has also demonstrated inhouse capacity in managing the waste generated from the rehabilitation of old transformers, discarded switchgears, bus-bars, etc. following the rehabilitation process as per the guidelines ECR '97, and in most cases the old transformers are replaced with the PCB free transformers. A WhatsApp group has been established with PGCB ESU and Bank Specialists to monitor contract management, safety protocols and to receive live updates for this project.

In general, PGCB has consistently prepared good quality documents, based on thorough field work and rigorous data collection and analyses, and has implemented those effectively, and they have been shown their commitment so far in implementation of the E&S compliances quite satisfactorily.

Although PGCB has demonstrated its capacity in managing environmental and social issues under safeguards, the proposed project will follow the World Bank Environmental and Social Framework (ESF), which is new to them. The ESU staff has already received the ESF training under country ESF Client Capacity-building Plan. Further training needs will be assessed and provided during the Appraisal stage. PGCB will recruit a firm during the appraisal stage to support PGCB ESU to prepare the E&S documents.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

High

Environmental Risk Rating

Substantial

Given that TL RoW routing and substation siting are yet to be determined, and given the inherent risk of building transmission line in what represent the full territory of Bangladesh, the environmental risk is considered Substantial. Key environmental impacts during the construction phases are: generation of solid waste, soil and water pollution, air pollution and noise, disruption of traffic, disturbance of ROW soils and vegetation through the movement of people and vehicles along the ROW and access roads. During operation and Maintenance (O&M) activities will also have these similar impacts but result in permanent landscape modification and along with the OHS risks related to height works, electrocution, struck-by hazard etc. the physical presence of TLs can affect local habitats / flyways, and Electric and Magnetic Fields (EMF), electrical induction buzz may cause avoidance behavior in some species. Furthermore there may be PCB containing equipment that will need to be appropriately handled and disposed. New substation sites if constructed within existing vegetation areas or fallow lands, will result in the permanent loss of trees and habitats, and could attract birds and bats during the night. Sub-project-specific ESAs will analyze the environmental and social conditions of each TL, covering all relevant Environment and Social Standards (ESS); identify risks and appropriate mitigation measures in order to avoid, minimize, mitigate, or compensate for adverse environmental impacts.



Social Risk Rating

High

Given the project involves the expansion of the transmission system in the Central, Southern and Northern regions of Bangladesh, the TLs RoW routing and substation siting are yet to be determined and located in rural and periurban areas, and the inherent risk associated with building and operating transmission lines, the social risk are considered High. The Social risks for the Project are related to (i) land acquisition and potential associated crop/tree losses and permanent or temporary income losses, due to the construction of the new substations, towers and easement / use restrictions along the TLs RoW, (ii) Occupational Health and Safety (OHS) for O&M contractors during construction and maintenance of the latter structures, related to working at heights, electrocution etc. and (iii) community health and safety (CHS) risks associated to logistics / transport of heavy machinery and traffic accidents during construction, accidental exposure to PCB containing equipment, and real or perceived disturbances to people living under or near the TL (e.g. electric induction, EMF). As mentioned above PGCB has demonstrated substantial capacity for managing E&S issues in Bank projects with good outcomes. The various monitoring report of PGCB’s TL projects indicate that there were no fatalities in the previous projects during construction, no major incidents or accident with communities during transport, construction, and installation of the cables. They have also shown ownership and responsibility towards the E&S agenda by instituting their own ESU for overall E&S management of all their projects. The PGCB ESU experts have already received training on the ESF. Since the Project will cover a considerable amount of geographic area, the PMU will include additional resources (E&S consultants) to carry out Project specific E&S requirements and commitments with the ESU playing a coordinating and guiding role and providing the institutional linkage and ownership. Once there is more clarity on the exact routing of the TL and sitting of the substation, and depending on the magnitude of the land acquisition and potential productivity and access restrictions imposed by the easement of the ROW, as well as the degree of logistics and community risks challenges presented by the sub-projects, the social risk may be revised to substantial, bringing the whole operation to “Substantial”.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

ESS1 is relevant for this project. Prior to Appraisal, the IA will prepare an ESMF with detailed criteria and guidance for the development of site-specific ESIA/ESMPs for project activities. The ESMF will also source relevant information from Electric Power Transmission and Distribution Sector Specific Guidelines , Environment, Health and Safety Guidelines to identify specific environmental and social risks and mitigation measures for the project.

The project is using the framework approach through the preparation of an ESMF because the specific location/ROW of the activities to be financed are not yet known. While the scope of a few activities to be financed may be generally known before Appraisal (mostly on substation investments), the design and thus final environment and social footprint, are not expected to be known until the detail designs are completed at which point the ESMF will be applied and the site-specific ESIA/ESMP will be prepared. Site specific ESIA/ESMP will be prepared based on the feasibility design and initiated with the bidding process. During the detailed design stage, ESIA/ESMP will be updated. Expected impacts from construction of Substations: Around 60 acres of land might be required for the eight proposed substations under the Project. , However land acquisition will be required for only for three locations as the lands for the remaining five have already been identified - these are non-productive, vacant government owned lands. Where

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acquisition is unavoidable PGCB will identify vacant private land (fallow or one-crop lands are usually used) to be acquired for the substations. Project will also upgrade four 230/132 KV substations; no additional land is required for upgradation. The Government has revised the compensation rates associated with Land Acquisition to three times of the value registered in the Deputy Commissioners Office. The Bank has noted from recent projects that in rural and remote areas where land markets are not very active, the Government rate in some cases exceeds the Replacement Value determined during the preparing the Resettlement Action Plans (RAPs).

Expected impacts from construction of Towers And TLs: Approximately 3-5 decimal of land is required for the construction of a tower. Possible impacts on private land may emanate from the loss of use of the land area under the towers. Construction of overhead TLs will avoid residential areas to the extent possible but may affect crops and require cutting of trees. Under the new Electricity Rules 2020 and amendment of rules 2022, No Objection Certificate (NoC) from the concerned individuals and local government officials and PGCB is mandated to pay market rate for the entirety of the land that falls under the tower or TLs RoW; the title for the piece of land will however remain with the owner who may use it only for purposes deemed safe and fit by PGCB and with permission from PGCB. PGCB generally avoids construction activities in residential and commercial areas for the overhead transmission lines.

It is expected that the high voltage transmission lines under the project will follow the existing linearity that does not go through any residential or commercial areas, and will follow HDD method for sub-surface cabling in peri-urban/urban areas. However, to avoid any adverse and irreversible impacts on the local biodiversity/natural habitats, PGCB will carry on alternative analysis based extensive survey work during feasibility and design, and undertake appropriate mitigation measures through site specific ESIA/ESMP for implementation. An RPF containing criteria for the preparation of site-specific RAPs will be prepared. The project will attempt avoiding, to the extent possible, adverse impacts on private or privately used land and property and will clearly document all efforts made to avoid land restriction and resettlement impacts. Where such impacts are unavoidable, they will be minimized to the extent possible, and PGCB will follow the procedures laid out in the RPF to ensure that appropriate compensation and rehabilitation measures have been provided to the project affected people.

PGCB will recruit a firm to prepare the following E&S documents during the Appraisal stage for the Project: ESMF, Resettlement Policy Framework (RPF), Labor Management Procedure (LMP), Gender Action Plan (GAP) and SEA/SH Prevention and Mitigation Plan, Stakeholder Engagement Plan (SEP) and Environmental and Social Commitment Plan (ESCP) to be prepared in compliance with the ESF and disclosed prior to Appraisal. Their contract will also cover preparing the ESIA/ESMPs and RAP(s) based on the feasibility studies, following Appraisal.

PGCB will form a project Management Unit (PMU) within 3 months of project effectiveness with dedicated environmental and social consultants (one of each). During Project Implementation stage, the PMU will carry out screening of the project sites and prepare the detailed ESIA/ESMP and update the RAP(s) based on the outcomes of the screening and following the guidelines of ESMF and RPF respectively.

The PMU will ensure that the latter documents are fully implemented before any civil works for the Project commence (livelihood restoration activities may continue). The PMU will carry out the day-to-day project activities while assessing those from the environmental and social points of view with the assistance of the E&S Specialists. They will perform regular supervision visits of the sites, coordinate environmental and social management activities, and ensure full implementation of all the above-mentioned documents. PGCB's ESU will guide the E&S consultants of PMU during screening, updating, and implementing the ESIA/ESMP and RAPs.



PGCB will need to hire several contractors to carry out the various construction and other activities under the Project during Implementation. PGCB will monitor implementation of the site specific restoration plan prepared by the contractors to ensure that all reclamation has been carried out in accordance with the restoration plan. Certificate of Completion of Reclamation is to be obtained by the Contractor from the landowner that “the land is restored to his satisfaction”. The E&S Specialists in the PMU will coordinate with the contractors to ensure their E&S commitments and compliance with requirements (e.g., make sure the appropriate CoC are prepared and implemented). In the case of any non-compliance, the Environment and Social Specialists will investigate the nature and reason(s) for non-compliance, suggest corrective actions or recommend sanctions against non-compliant contractors. Institutional arrangements for E&S and responsibilities of PGCB, its contractors and other relevant parties will be set forth in the project Operational Manual.

Project impacts will be managed through instruments such as ESMF, RPF, LMP and SEP. Once the sites are identified, PGCB will prepare/update ESIA, ESMP and RAP(s). The Project activities will require a mix of skilled and unskilled labor. While most labor is expected to be locally recruited, some skilled labor may need to be brought in from outside the locality (or even from outside the country). There may be some risks related to community health and safety which will be monitored throughout project implementation. In case workers are recruited from outside the locality (or foreign workers are contracted), necessary measures will be reflected in the LMP and ESMF.

Areas where “Use of Borrower Framework” is being considered:

N/A

ESS10 Stakeholder Engagement and Information Disclosure

ESS10 is relevant for this project. In consultation with the Bank, PGCB will prepare a SEP proportional to the nature and scale of the project and associated risk and impacts. All Stakeholder Engagement (SE)/Citizen Engagement (CE) activities will be conducted adhering to the COVID-19 protocols in place in Bangladesh. Consultations may be carried out through virtual formats based on social distancing requirements where needed. PGCB will conduct consultations with the potential beneficiaries of the Project and inform them about the Project objectives, impacts, benefits, proposed mitigation measures, importance of substation and TLs constructions etc. and gather their feedback. The SEP will include measures for communication with relevant stakeholders paying attention to the identification of vulnerable and disadvantaged groups including women, minority groups in remote areas, differently abled people, LGBTQ+ etc. The SEP will also include a grievance redress mechanism (GRM) set up by PGCB that is accessible by all stakeholders including those belonging to vulnerable groups. Stakeholders will receive timely and relevant, information and will be consulted in a culturally appropriate and gender-sensitive manner free of manipulation, interference, coercion, discrimination, and intimidation.

A project and local -level grievance mechanism sensitive towards SEA/SH will be designed and implemented throughout the project cycle. This includes consulting local communities (in particular women and girls) on the risk of SEA/SH and the reporting mechanism that is accessible, safe and appropriate to the context. The GRM will include channels/procedures for SEA/SH complaints, including multiple and accessible entry points, referral to GBV service providers, and the management of complaints in a confidential and survivor-centered manner.



The SEP will outline a) who the key stakeholders are; b) how they are to be engaged; c) how often the engagement will occur throughout the project; d) how feedback will be solicited, recorded and monitored over the project; e) roles and responsibilities and institutional arrangements; f) timeline, and so on. The Bank will review the adequacy of the SEP, which will be prepared and disclosed prior to Appraisal. The process of stakeholder engagement will begin during preparation and continue throughout the life of the project.

As stakeholder engagement is critical to the project's success through uptake and utilization of services, PGCB will undertake a strong communication and mobilization strategy which will inform beneficiaries and facilitate the access of project benefits to the target population, especially vulnerable beneficiaries and ensure that relevant feedback is adequately incorporated and reflected in the design of mitigation measures.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

SS2 is relevant for this project. The legislation on Labor cover almost all requirements present in ESS2 except those relating to community workers and establishment of functional GRMs for different types of workers. PGCB will contract agencies to undertake civil works, agencies/firms to support core-functions; primary suppliers and installers of material/equipment and other implementation support partners. Both skilled and unskilled laborers will be required for the project, and unskilled labor will be preferably recruited from local areas. However skilled labor for specialized works may include some migrant laborers and foreign laborers.

The key project workers likely to be engaged are direct workers, contracted workers including skilled migrant labor, and primary supply workers (labor contractors). The possible risks include Working at height, Electric and magnetic fields, Exposure to physical hazards from use of heavy equipment, non-payment of wages and benefits (compensation, bonus, maternity benefits etc.) by employer; discrimination in employment (e.g. abrupt termination of the employment, working conditions, wages or benefits etc.); possibility of SEA/SH arising from the presence of workers, especially migrant workers (although the number of migrant workers is expected to be low), in proximity to sensitive locations such as hospitals, schools, etc.; and health risks such as sexually transmitted diseases. Possible issues associated with skilled internal migrant labor may include conflict amongst workers and/or between workers and local community based on cultural, religious, or behavioral practices and discontent amongst local community on engagement of outsiders. There may also be chances of mild outbreaks of certain infectious diseases due to interactions between the local and migrant populations. Before the construction starts, local communities and potential affected people will be informed through consultations about (1) the timeline of construction activities, (2) number of labors in the construction camp, (3) CoC for the labors and project staff and (4) Grievance Redressal Mechanism. All the local and internal skilled migrant laborers will be trained on the CoC and GRM. GRM will be designed to be easily accessible for the community.

PGCB maintains 8 to 12 meters vertical and horizontal clearance during construction and operational stage for the TLs constructionsometimes increasing the vertical clearance upto 15 meters using the angle towers for the safety of



the community. PGCB will take minimum 10 to 12 meters horizontal clearance during the TLs stringing for the Project and follow automated procedures during stringing considering the safety of the laborers.

PGCB will be responsible for developing and disclosing an LMP acceptable to the Bank prior to Appraisal. The LMP will identify the main labor requirements and risks associated with the Project and will help PGCB to determine the resources necessary to address labor issues in the project. The LMP would describe (i) procedures relevant to each category of workers involved; (ii) overview of key potential labor risks (if any); (iii) overview of country's labor legislation; (iv) description of grievance redress mechanism or mechanisms available for all direct workers and contracted workers (and if relevant, to their organizations). The LMP may be amended at any time during project cycle depending on the needs and developments in the project preparation and/or implementation.

Bid documents for construction will lay out the requirements as applicable by law, LMP guidelines and provisions, and the metrics for periodic reporting by contractors. Child labor, forced labor, SEA/SH will be prevented through inclusion of required provisions in the bid documents; all measures will be taken to implement the relevant laws and provisions under the bid documents effectively. ESMP(s) will outline the various measures that need to be considered to prepare the contractor's OHS plan which will be part of Contractor's ESMP (C-ESMP). An OHS plan based on project LMP will be developed prior to mobilization of civil works by the contractor, describing requirements relating to provision of terms and conditions of employment; promoting non-discrimination and equal opportunity; worker's organization, code of conduct etc. A GRM for the direct and contracted workers will be formed which will also address and respond to SEA/SH incident faced by workers.

ESS3 Resource Efficiency and Pollution Prevention and Management

ESS 3 is relevant for this project. Assessment of risks and impacts and proposed mitigation measures related to relevant requirements of ESS 3 (sourcing of construction materials, efficient use of resources, disposal of wastes and clearing of construction sites, etc.) will be carried out. PGCB will adopt Good International Industry Practice (GIIP) alternatives for reducing transmission losses at different sections of transmission lines and the selection of substation (GIS or AIS) to increase transmission efficiency of the line. Also, environmentally sound, and safe management and disposal of solid waste and liquid waste, using measures that are suitable and accessible to the country context will be adopted. PCB free transformers will be installed in both the new and refurbished TLs. However, the Polychlorinated biphenyls (PCBs) pollutants of old transformers will be strictly regulated and discarded transformers must be properly disposed off as per the guidelines of PGCB so as to minimize environmental pollution and ECR 97 enjoined by the Stockholm Convention on POPs. In Bangladesh, the disposal of solid waste (which may constitute products and equipment containing PCBs) is done almost solely through the landfill method. There are about 61 disposal sites in Bangladesh. In most cases, open dumping is not practiced and takes places at about 90% of the total landfills. However, disposal Methods of disposal for PCB must meet the destruction efficiency of 99.9999% and must be consistent with best available techniques (BAT) and best environmental practices (BEP). Other waste generated from the discarded switchgears, bus-bars, etc. following the rehabilitation process should be handled as per the guidelines for E-waste management specified in ECR '97. Upon completion of the construction works, the contractor shall remove all equipment, surplus material, wastes and temporary works of every kind, and the site in clean condition to the satisfaction of the PGCB/PMU according to the site specific restoration plans. Following the



guidelines of ESMF, the site specific ESIA/ESMP will describe the procedures for handling waste, identify gaps and offer harmonized with specific and realistic measures in country's context to achieve compliance.

ESS4 Community Health and Safety

ESS 4 is relevant for this project. Construction and rehabilitation activities are often associated with the generation of dust and noise, soil disturbance, traffic disruption and loss/disruption of access, generation of waste, risks due to presence of migrant/foreign labor, and associated disturbances and H&S risks to local communities, these risks and impacts are applicable during O&M phase as well. Hazardous materials will be strictly controlled to ensure they are not kept in proximity or accessible to local communities. Project activities are not expected to create emergency events, but this risk will be further assessed and reflected in the ESMF, if found relevant.

Most of the project sites of TLs are anticipated to be in vacant land, but some may be near residential buildings (to be further verified during project preparation) for unavoidable reasons; nevertheless, a set safety distance is always maintained by PGCB. PGCB will evaluate such cases during the detailed design stage and put in place a mechanism to manage the potential risks (e.g., safety of people living in nearby houses, especially children), and conduct public consultations accordingly. Hazards most directly related to power transmission and distribution lines and facilities will be avoided using standard recommended techniques viz. use of signs, barriers (e.g. locks on doors, use of gates, use of steel posts surrounding transmission towers, particularly in urban areas), and education / public outreach to prevent public contact with potentially dangerous equipment; grounding conducting objects (e.g. fences or other metallic structures) installed near power lines, to prevent shock. Thus, the risk of impact (or perception of impact) of electric and magnetic fields by substations and TLs on population is considered low as the locations of the substations are expected to be at safe distances from residential areas. No significant risks related to SEA/SH or community health and safety are expected under the project, as most project workers are part of existing contracts or will be recruited locally and the number of migrant laborers is expected to be low.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

ESS 5 is relevant for this project. It is determined that the Project will be implemented in the Central, Southern and Northern regions of Bangladesh, but the exact locations of the substations, towers, and RoW of the overhead and underground TLs are not known yet. However, PGCB has identified lands for five substations which are owned by either PGCB or government. It is expected that the remaining three substation locations will be identified during the Appraisal stage, but exact footprints and routes for the ROW of the TLs will be finalized during the Implementation stage.

PGCB will try to use government land for the construction of the all eight new substations. However, if government land is not available, private lands which are vacant, fallow or one-crop lands will be acquired (as is typical); PGCB generally does not acquire commercial or residential lands. Acquisition of the land for construction of substations will cause loss of land to the titled owners, and may cause impacts for owners, tenant farmers, sharecroppers through loss of rents, loss of crops and trees etc.



The TLs may cross over/through urban, peri-urban, and rural areas. Any TLs constructed in the urban or peri urban areas will be underground and follow existing road shoulders and HDD methods, so that resettlement and livelihood impacts can be avoided/minimized. The construction of towers and over-head TLs may fall on government or private land following the route optimization process under the Detailed Designs. As per the Electricity Act, PGCB must obtain written NoC from the owners of private land on or under which the TLs may be built. Where there is disagreement, the owner will be able to seek legal recourse. Given this, PGCB's normal practice is to avoid residential and commercial areas to the extent possible. Possible impacts on private land may emanate from the loss of use of the land area under the towers (under the new Electricity Rules 2022 PGCB is mandated to pay market rate for the entirety of the land that falls under the tower; the title for the piece of land will however remain with the owner who may use it only for purposes deemed safe and fit by PGCB and with permission from PGCB). Possible impacts on private lands may entail damage to crops, cutting of trees, and temporary impacts during construction such as loss of access to land when heavy machinery is being used.

All activities will be screened for impacts related to land acquisition, restrictions on land use, and involuntary resettlement, and such screening processes will be described in the RPF to be prepared and disclosed by Appraisal. However, impact assessment will be carried out where sites are identified based on the feasibility design and RAP will be prepared prior to initiation of bidding process for the corresponding activities. Subsequent RAPs will be developed/updated during project implementation based on the outcomes of the screening and final Detailed Designs. The RAPs will be reviewed, consulted upon, approved, and disclosed and implemented prior to the commencement of any civil works (livelihood restoration activities may continue).

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The ESS6 is relevant. The activities associated with construction a transmission line through or along the edge of natural habitat areas may destroy and degrade the habitat. Thus, the project will select RoW and TLs sites, location at close proximity to existing power lines, and road network (for easier transportation of material and equipment), where available, and avoiding ecologically critical areas/natural habitats. Project will avoid activities that have significant adverse impacts on natural habitats, protected areas, wildlife corridors, etc, inclusion of such areas will be managed through appropriate mitigation hierarchy following the ESS 6 that follows avoidance, minimization, restoration and offsets in order to reduce development impacts and control any negative effects on the environment. This will need to be assessed further during the design stage after getting idea of the ROWs of the TLs and location of the substations. PGCB will explore all alternative options based on the extensive survey works during the design stage to avoid intrusion of the transmission network into migratory bird corridors, and for ensuring minimum impact on the standing trees within the clearing width of the RoW. The project will take appropriate mitigation measures to reduce bird/bat collision (specially at nights) , commensurate to the GIIP and will do regular monitoring of the number of bird / bat carcasses found on lines or substation as part of regular O&M. These will need to be covered by ESIA/ESMP as well. Thus, ESMP will need to have the necessary specifications, quantities, and reporting mechanisms for monitoring and confirming that ESS6 provisions are being implemented. PGCB, wherever possible, would use the existing path/access roads for the movement of man and machinery so that vegetation clearance is not required for accessing construction sites. Tree felling for the Project will be minimum; the contract document for the construction activities would include specific clauses to prevent felling of trees unless it becomes absolutely necessary. Regular cutting and trimming of trees for RoW maintenance to be done (if required, with permission from the local forest



office/appropriate authority). Nonetheless, appropriate mitigation measures for the impact of periodic vegetation clearing activities in RoW for maintenance activities will also need to be included with the contract document of maintenance contractors.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Not relevant at this stage. The relevance of ESS7 will be further assessed during Appraisal.

ESS8 Cultural Heritage

No direct impact on cultural heritage is expected, but this will be further assessed during Appraisal.

ESS9 Financial Intermediaries

ESS 9 is not relevant for the project because its implementation arrangements do not consider involvement of any Financial intermediaries.

B.3 Other Relevant Project Risks

Additional key social risks include variations in institutional capacity and readiness in the preparation and implementation of Environmental and Social Framework (ESF) instruments; the possible exclusion of vulnerable groups from receiving project benefits, such as resettlement benefits, access to jobs in the project, access to decision making, and access to electricity (that is, for groups including women, rural communities, migrants, the poor, illiterate persons, persons with disabilities, the elderly and others).

The Operation and Maintenance (O&M) activities will also have impacts on vegetation clearing, tree cutting, along with the OHS risks related to height works, electrocution, struck-by hazard etc. However, most of these potential impacts are likely to be localized in nature, short term and reversible with appropriate mitigation measures

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

No other financing partner is proposed.

Public Disclosure



B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:

Preparation of ESCP, LMP, RPF, ESMF(including GAP and SEA/SH Prevention and Mitigation Plan) and SEP prior to Appraisal

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

- *PIU will prepare and submit to the World Bank regular monitoring reports on the environmental, social, health and safety (ESHS) performance .
- *PIU will prepare and submit ESIA/ESMP that includes BMP for the selected TLs and Substations
- *The PIU will promptly notify the World Bank of any incident or accident related to the project
- * ESU to hire qualified consultant to manage ES risks and impacts associated with the project activities and prepare the required ES documents.
- * Establish and operate a grievance redress mechanism (GRM)

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS

26-Jan-2023

IV. CONTACT POINTS

World Bank

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Borrower/Client/Recipient

Borrower: People's Republic of Bangladesh

Implementing Agency(ies)

Implementing Agency: Power Grid Company of Bangladesh

V. FOR MORE INFORMATION CONTACT

Public Disclosure



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VI. APPROVAL

Task Team Leader(s):	Anthony Granville, Mohammad Anis
Practice Manager (ENR/Social)	Robin Mearns Recommended on 10-Nov-2022 at 12:24:5 GMT-05:00
Safeguards Advisor ESSA	Charles Ankisiba (SAESSA) Cleared on 18-Nov-2022 at 11:46:53 GMT-05:00