Resettlement Plan

July 2019

BAN: Dhaka and Western Zone Transmission Grid Expansion Project

Prepared by PGCB, Ministry of Power, Energy and Mineral Resources, Government of Bangladesh for the Asian Development Bank

CURRENCY EQUIVALENTS

(as of 20 May 2019)

Currency unit	_	Taka (Tk)
Tk 1.00	=	\$ 0.012
\$ 1.00	=	Tk 83.85

ABBREVIATIONS

ADB APs ARIPA ARIPO CCL CLAC CPR DC DWZTGEP DPD ESU GoB GRC GRM IEM IOL JVS km kV LGRC LILO MPEMR PAVC	Asian Development Bank Affected Persons Acquisition and Requisition of Immovable Property Act (2017) Acquisition and Requisition of Immovable Property Ordinance (1982) Cash Compensation under the Law Central Land Allocation Committee Common Property Resources Deputy Commissioner Dhaka and Western Zone Transmission Grid Expansion Project Deputy Project Director Environmental and Social Unit Government of Bangladesh Grievance Redress Committee Grievance Redress Mechanism Independent External Monitor Inventory of Losses Joint Verification Survey kilometer kilovolt Local Grievance Redress Committee Line-in-Line-Out Ministry of Power, Energy and Mineral Resources Property Assessment and Valuation Committee
PAVC PGCB	Property Assessment and Valuation Committee Power Grid Company of Bangladesh
PMU	Project Management Unit
PVS	Property Valuation Survey
RoW RP	right-of-way Resettlement Plan
R&R	Rehabilitation and Restoration
SPS	Safeguard Policy Statement (ADB 2009)
Tk	Bangladesh Taka

WEIGHTS AND MEASURES

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1 acre

0.40 hectares

NOTES

- (i) The fiscal year (FY) of the Government of Bangladesh and its agencies ends on 30 June. "FY" before a calendar year denotes the year in which the fiscal year ends, e.g., FY2018 ends on 30 June 2018.
- (ii) In this report, "\$" refers to United States dollars.

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GLOSSARY

Affected Person (AP)	Individuals who are affected by the project through land acquisition, relocation or loss of incomes, including any person, affected households (AHs), firms or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with physical or economic displacement.
Assistance	Support, rehabilitation and restoration measures extended in cash and/or kind over and above the compensation for lost assets.
Compensation	Payment in cash or kind for an asset to be acquired or affected by project at replacement cost based on current market value.
Cut-Off-Date	The date after which eligibility for compensation or resettlement assistance (as the case may be) will not be considered. The final date of census is considered as eligibility cut-off-date. This is recognized as the social cut-off date. The legal cut-off date will be the date on which the DC issues section 4 notice under ARIPA 2017 indicating the intention of land acquisition.
Displaced Person (DP)	Displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use.
Entitlements	The range of measures comprising cash or kind compensation, relocation cost, income restoration assistance, transfer assistance, income substitution and business restoration, which are due to Affected Households, depending on the type and degree/nature of their losses, to restore their social and economic base.
Eminent Domain	The regulatory authority of the government to obtain land for public purpose/interest or use as described in ARIPA 2017 of Bangladesh. The principle of eminent domain and the land acquisition laws referred to will be applied to acquire the land required for the proposed substations.
Inventory of Loses	The record (inventory) of the affected or lost properties and assets identified during census survey which is used as the basis for preparation of the Resettlement Plan.
Non-titled	Those who have no recognizable rights or claims to the land that they are occupying as per the national laws and includes people using private or public land without permission, permit or grant i.e. those people without legal title to land and/or structures occupied or used by them.
Poverty Line	The upper poverty line for the project region is based on the Bangladesh Bureau of Statistics (BBS) 2011 survey which was Tk 1,125.3 per capita. Adopting national BBS inflation rates (11.5% for 2011, 6.2% for 2012, 7.5% for 2013, 7.0% for 2014, 6.2% for 2015, 5.7% for 2016 & 2017 and 6% for 2018), the upper poverty line has been updated to Tk 1,927.69 per month per capita (i.e. Tk 8,481.83 per household/month, for an average household size of 4.4 in Bangladesh as per the BBS data 2011). Considering the monthly household income of Tk 8,481.83 for an average household size of 4.42 (as per the census survey, 2018), Tk 8,520 has been adopted as the poverty line for the project area. Based on this Tk 8,520x12=Tk 102,240 is calculated as the annual poverty line and with a rounded-off figure of Tk 102,000 is counted as poverty line in the resettlement plan.
Relocation	Rebuilding and re-establishing of private residential dwellings and businesses in a new location.

Replacement Cost	The calculation of full replacement cost will be based on the following elements: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. Furthermore, replacement cost of the land, structures, trees and crops affected had been assessed during consultations conducted with APs, and information elicited through a rapid market survey conducted with key stakeholders in the land market and other relevant government departments such as forest, agriculture, marketing and public works. In calculating the replacement cost, depreciation of built structures and other assets will not be considered.
Rehabilitation & Restoration	The restoration of income, livelihoods, and re-establishment of sociocultural system.
Significantly Affected Households	Households who will be i) physically displaced or ii) lose more than ten percent or more of their productive assets.
Vulnerable Households	Those households which are (i) living below the official poverty line; (ii) women headed households living below the official poverty line; (iii) headed by elderly over 70 years or disabled persons; and (iv) without legal title to land and to become landless due to land acquisition. The vulnerable status is finally determined subject to the impacts based on social survey.

EXECUTIVE SUMMARY

- i. The Dhaka and Western Zone Transmission Grid Expansion Project (DWZTGEP) to be executed by the Power Grid Company of Bangladesh Limited (PGCB) is estimated to cost \$750 million. The project will be funded by the Asian Development Bank (ADB) with a regular loan of \$300 million, a loan of \$200 million by the Asian Infrastructure Investment Bank (AIIB), and a \$750,000 grant provided by People's Republic of China Poverty Reduction and Regional Cooperation Fund (PRC Fund) which is administered by ADB. The balance will be financed by the Government of Bangladesh and PGCB. ADB and AIIB will finance the transmission system expansion in Greater Dhaka and western region, and the installation of an enterprise resource planning (ERP) system. PRC Fund will support a pilot drone inspection center within the operation and maintenance department of PGCB with some gender equality element. The project implementation period is 4 years and 9 months starting from October 2019.
- ii. The project consists of three main components as described below.
- iii. Component 1 Transmission System Development in Greater Dhaka. The project will construct and commission (i) 22 km of 400 kV transmission lines; (ii) 9 km of 230 kV transmission lines; (iii) 9 km of 132 kV underground cabling; and (iv) 3 indoor GIS substations with a total capacity of 4,450 MVA in Greater Dhaka.
- iv. Component 2 Transmission System Development in Western Zone. The project will construct and commission (i) 135 km of 230 kV transmission lines; (ii) 233 km of 132 kV transmission lines; and (iii) 11 GIS and 1 AIS substations with a total capacity of 2,990 MVA and 20 bay extensions in existing 8 substations. The subprojects of constructing transmission lines and substations in Kaliganji, Kushtia, Maheshpur and Meherpur areas will extend the regional connectivity into western Bangladesh via the existing 230 kV Ishward-Khulna transmission line, which is in turn connected to the Bheramara substation receiving power imported from India.
- v. **Component 3 Institutional Capacity Development of PGCB.** The project will enhance PGCB's financial management capacity by (i) supporting installation and operation of an ERP system to assist PGCB in optimally managing its capital-intensive assets; and (ii) establishing a Drone Inspection Center within the Operation and Maintenance Department of PGCB to improve operation efficiency and safety. This project also aims to promote gender practices in PGCB by employing women in at least 20% of the technical positions in the drone inspection center and providing training to about 80 PGCB staff (at least 20% women) on operating drone and ERP system. These activities with gender-related elements will complement ongoing activities under Southwest Transmission Grid Expansion Project (approved in 2018) and the upcoming SASEC Third Bangladesh-India Electrical Grid Interconnection Project (for approval in 2019), both categorized as having some gender elements.
- vi. The project is categorized as A for involuntary resettlement and C for indigenous peoples based on screening in the due diligence according to ADB's Safeguard Policy Statement (SPS), 2009. Several alternative designs for the proposed scope were considered during due diligence to minimize resettlement impacts. The preparation of the resettlement plan was guided by SPS and the legal and regulatory framework of the government. The resettlement plan analyses the project related impacts and provides an entitlement matrix in Section 7.2 that includes cash compensation and other resettlement assistance to

persons affected by the project. This draft resettlement plan is based on several assumptions and preliminary engineering designs as the detailed and final engineering designs are yet to be completed. Therefore, PGCB is responsible for updating the draft resettlement plan based on final engineering designs and detailed measurement surveys and submitting the final resettlement plan to ADB. All compensation will be paid prior to physical and economic displacement.

- vii. The construction of transmission lines at a length of 408 km¹ will cause temporary damage to crop cultivated in an area of approximately 1,043.7 acres within the clearing width of the right of way, affecting an estimated 870 households and a population of 3,828 persons. There will be a permanent loss of 0.6464 acres for households living within the clearing RoW for the installation of transmission tower foundations. Construction work of the transmission lines can impact on an estimated 20% of 403 built structures comprising 260 primary structures and 143 auxiliary structures belonging to 108 households and 11 institutions and a population of 498 people. Properties belonging to the 11 institutions are large-scale commercial businesses and common property resources. Impacts on structures will be largely temporary and partial damages during construction. Compensation for the affected structures will be paid at replacement cost enabling their complete restoration.
- viii. No land will be acquired for the RoW of the transmission lines as per the legal and regulatory framework of Bangladesh. The standard RoW for 132 kV is 14 m either way from the center of the line (28 m in total), whereas it is 20 m (40 m in total) for 230 kV lines. The RoW for 400 kV is 24 m either way from the center of the line (48 m in total). The regulatory RoW defined under electricity guidelines is symbolic. For resettlement planning purposes, the impact zone of the transmission lines was considered a 12 m corridor (6 m either way from the center of the line), irrespective of the different line design voltages, which is the clearing width of the RoW, required for construction and maintenance purposes of the transmission lines.
- Since there is no land acquisition for the transmission lines, people can still retain their ix. ownership to the land, and use it for residential and cultivation purposes provided the vertical clearance requirement is maintained after construction. The vertical clearance required between the rooftop of the structures and the lines is 5 m for 132 kV; 6 m for 230 kV; and 7.5 m for 400 kV. Moreover, PGCB will consider increasing the vertical clearance to 8 m or extending the height of transmission towers or use of additional angle towers to avoid any direct impacts on built structures, and physical displacements of the populations living within the 12 m corridor. Additionally, PGCB will adopt enough safety measures during conductor stringing to avoid any damages to structures and risks of their falling and causing accidents. Transmission towers will not be installed in residential areas or in public spaces. Also, construction work will avoid peak periods of agricultural and other livelihood activities, and seasons that are abundantly occupied with educational, religious and cultural activities. As such, neither permanent nor temporary physical displacements are anticipated due to construction of the transmission lines. The construction of underground transmission lines at a total length of 14 km will not cause any temporary or permanent adverse impacts on built structures or livelihoods of people as the cables will be laid along road shoulders or centers.

¹ Total length of lines surveyed for social assessments is 403.5 km. However, considering; construction, engineering, and operations requirements, the total transmission line length is estimated as 408 km, i.e, 40 km in component 1 and 368 km in component 2. Social impact assessment in the RP is based on the surveyed length of 403.5 km.

- x. The project includes construction of 15 new substations and bay extensions in 9 existing substations. Acquisition of 79.6 acres of land is required for 14 new substations and bay extensions in one existing substation. Land acquisitions will cause permanent economic displacements for 321 households. Of them, the census traced 281 households comprising a population of 1,221.² Among those 281 households, 218 households will be significantly affected by the loss of more than 10% of their *productive land assets.* 142 tenants and sharecroppers are affected by the land acquisition too. Further details are presented in Table 2-1. and;
- xi. The project will also cause loss of 22,790 standing trees for clearing the 12 m corridor for construction work of the transmission lines, and by the acquisition of private land for substations. Land earmarked for acquisition of the substations is largely cultivation fields or marshy land, and hence no physical displacements are anticipated. Except for bay extensions to one existing substation, rest of the bay extensions in 8 other substations will be installed within the remaining land of the substation premises. Therefore, no additional land acquisitions are required. Cash compensation for the land acquired will be paid at replacement cost.
- xii. Due diligence conducted for the project did not find the presence of any territories of the indigenous populations or ethnic minorities, their livelihood systems, customary properties or their natural or cultural resources within the boundaries earmarked for the project activities.
- xiii. Public consultations were carried out with groups of men and women and their communitybased organizations including the affected persons in the project impact areas for the purpose of disclosing information about the proposed project and its various subcomponents and eliciting their views and concerns. The feedback received from consultations will be used by the executing agency to carryout necessary revisions to the technical designs in order to minimize the resettlement impacts. Furthermore, consultation outcomes were also helpful in establishing appropriate safeguards measures in the preparation of the resettlement plan. Community level consultations were conducted at 40 different locations with the participation of 1,127 men and women from the communities. Furthermore, consultations were also conducted with women's groups at 24 locations in the subproject areas. The number of women who participated in those consultations was 238. Communities in the impact areas, made a strong emphasis that they need to be assured that the project does not make any adverse impacts on their private properties, residential dwellings, public infrastructure, livelihoods and personal security.
- xiv. The Project Management Unit (PMU) of PGCB will continue their communications with the affected persons and other stakeholders and disclose information such as the dates of final surveys and census of affected households, valuation procedures, project-related impacts, specific entitlements of the affected persons, compensation procedures, grievance redress procedures and dates of the commencement of civil works. Brochures and posters containing relevant information will be printed in Bengali and they will be made available/displayed at places easily accessible to the affected persons and other interested parties. A copy of the draft resettlement plan will be disclosed on ADB's website as well as on the official website of PGCB. A translation of the resettlement plan in Bengali will be made available for public scrutiny. Once the draft resettlement plan is finalized with updated information, the same procedure of disclosure will be followed.

² Impact analysis in the RP is based on identified 281 housheolds due to missing information from 40 households.

- xv. PGCB, as the executing agency, will establish a three-tier grievance redress mechanism (GRM), one at the subproject site level, the second at the Executive Engineers' Area level (who are placed under 2 Deputy Project Directors) and the third at the PMU level to address the concerns, complaints and grievances that may be raised by the affected persons during project planning and implementation. The lowest level of the GRM will be at the subproject site level and the focal point will be the assistant engineer or any other officer appointed by PGCB to a site. Also, contractors on project sites can be a window for field level grievances. The complaints and grievances that are not resolved at the local level GRM will be referred to the local grievance redress committees (LGRC) chaired by the executive engineers in-charge of the respective project components. Grievances which are not resolved at the GRC level will be forwarded to the PMU of PGCB chaired by the Project Director. At each level, grievances will be resolved within a stipulated timeframe. Affected parties can resort to legal action in courts at any time. They also have access to ADB's Accountability Mechanism.
- xvi. The land acquisition process in Bangladesh will be governed by Acquisition and Requisition of Immovable Property Act (ARIPA) of 2017. The new Electricity Act of 2018 stipulates full compensation to the affected parties for any damage, detriment or inconvenience caused by licensees of electricity supply or by anyone employed by him. Based on the national regulatory framework and the safeguard policy of ADB, project implementation will be guided by the safeguards principles of (i) avoid, minimize and mitigate adverse impacts by exploring design alternatives; (ii) disclosure of project related information and entitlements to the affected persons; (iii) meaningful consultations with affected persons; (iv) compensation at replacement cost and full compensation prior to displacement; (v) special resettlement assistance to vulnerable and significantly affected households; (vi) restoration and improvement of livelihoods; and (vii) establishment of a grievance redress mechanism which is efficient, cost effective and easily accessible.
- xvii. The entitlement matrix summarizes the main types of losses and the corresponding entitlements in accordance with the legal framework of the government and ADB safeguard policies. The matrix provides for compensation at replacement cost for all losses, both permanent and temporary. Affected persons will be entitled for compensation irrespective of their title to offset such losses, enabling restoration of living conditions to a state better or equal to the pre-project situation. All affected persons who are identified in the project-affected areas on the cut-off date will be entitled to compensation for their affected assets and rehabilitation measures. The legal cut-off date will be the date of issuing of section 4 Notice under ARIPA 2017 by Deputy Commissioner (DC) for title holders affected by land acquisitions. The social cut-off date is the final date of the census survey conducted based on the final design and detailed measurement survey for nontitleholders affected by land acquisitions for substations and titled and non-titleholders affected by the transmission lines. Those who encroach into the subproject area after the cut-off date will not be entitled to receive compensation or any other assistance.
- xviii. For the transmission line RoW, the losses are both permanent and temporary and the project will ensure that it will not create any impoverishment on the part of affected persons. The land acquired for the project will be compensated at replacement cost to enable the affected persons to buy alternate land or to invest their compensation money in productive ventures. The loss of trees due to tower footings and transmission lines along the RoW will be compensated at replacement cost based on the type and age of the tree, its productivity, lost income and time taken to re-establish the trees to similar stage of production. Crop losses during construction will also be compensated. Compensation for

any losses not covered by statutory compensation or any gaps between statutory compensation and replacement cost will be addressed by PGCB in accordance with the recommendations of the Property Assessment and Valuation Committee (PAVC), an independent body to be appointed by PGCB. The vulnerable affected households will be provided with additional cash assistance, and livelihood grants for significantly affected households. Provisions for payment of compensation have been included in the entitlement matrix as well as in the resettlement budget. In addition to payment of cash compensation paid at replacement cost, PGCB will further consult and assist the affected persons to find alternate land, to invest their compensation in productive activities, and furthermore will coordinate with other relevant government agencies which can support and conduct livelihood restoration measures such as tree planting programs and training for the affected communities.

- The resettlement budget provides for payment of compensation at replacement cost and xix. includes compensation for loss of land (for tower foundations) and trees, crops and fishponds along the transmission line RoW. It also provides compensation for any partial damages caused to primary structures and partial or full damages caused to auxiliary structures within the RoW, which require restoration either in the same location or in the remaining portion of the land. The budget also makes provisions for additional resettlement assistance for vulnerable and significantly affected households. Furthermore, provisions have been made to cover the costs of conducting consultations, updating the resettlement plan, grievance redress and monitoring. The resettlement budget is estimated at Tk 1,990,409,594 of which a substantial portion will be absorbed for the compensation of affected land and trees. The budget comprises an extimated Tk 1,401,339.846 for payment of compensation for land acquired for new substations and bay extensions and external monitoring, and another Tk 441,632,000for payment of compensation for impacts causing from the construction of transmission lines and costs of grievance redress etc. PGCB will disburse the necessary funds through the PMU to cover the resettlement costs.
- xx. The PMU of PGCB will be responsible for overall coordination, supervision and monitoring of the project's compliance with social safeguards, which include resettlement planning, fund disbursements, coordination of all activities related to resettlement plan implementation, monitoring and reporting. The executing agency, PGCB has established an Environmental and Social Unit (ESU) for the implementation of the Environmental Management Plan (EMP) and the resettlement plan. With a dedicated officer from the PMU, ESU will coordinate all functions related to land acquisition and resettlement. Furthermore, PGCB will assign safeguards tasks to two officers under each of the four executive engineers (one for substations and one for transmission lines) who will be responsible for the implementation of the safeguard's activities in the plan. PGCB will also establish PAVCs in different regions to assess and determine the replacement cost for all losses.
- xxi. All activities related to assessment of losses and payment of compensation will be completed before subproject sites are handed over to the contractors and the commencement of construction. The timeframe stipulated for completion of resettlement related activities is two years. No physical or economic displacement of affected persons will occur until full compensation is paid to the affected persons. All land will be freed from their encumbrances before they are handed over to the contractors. PGCB will hold the responsibility for monitoring the overall project processes, outputs, outcomes and impacts in periodic intervals. PGCB will establish a monitoring desk at the PMU to conduct the

monitoring activities. PGCB will also appoint an external monitor to review and support the safeguards management as required by ADB's SPS for Category A projects. Semi-annual monitoring reports will be submitted to ADB and disclosed on ADB website.

1. INTRODUCTION

1.1 Background

1. This draft resettlement plan is prepared for the proposed Dhaka and Western Zone Transmission Grid Expansion Project (DWZTGEP, hereafter 'the project') which focuses on expanding the transmission system to deliver electricity to load centers in Dhaka and western Bangladesh. This draft resettlement plan is developed based on several assumptions and preliminary engineering designs. The detailed and final engineering designs are yet to be completed. PGCB will conduct a full census of all affected persons and prepare a corresponding inventory of losses based on final designs.

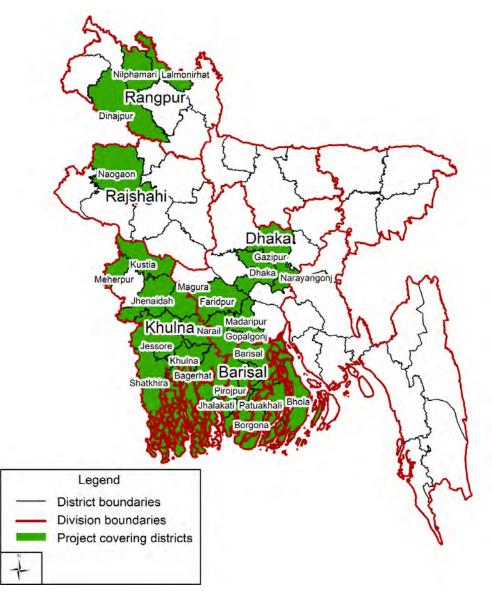
2. To sustain the country's economic momentum, the government has prepared the Power System Master Plan 2016 to increase power generation capacity, as well as improve and extend the power transmission and distribution network, with the aim of achieving universal access to electricity by 2021. Further, Bangladesh's Seventh Five Year Plan envisages an integrated development strategy for the Greater Dhaka area and west zone encompassing Dhaka, Khulna, and Barishal. The government has a national target of electricity for all achieved by 2021 from 91% in 2018. Per capita electricity consumption is expected to increase from 336 kWh in 2018 to 514 kWh by 2020.

3. PGCB, a state-owned enterprise, is the sole company responsible for power transmission in the country. Development of transmission and distribution system in line with generation capacity additions has been identified as a key element of the power sector strategy in the Seventh Five-Year Plan, FY2016 – FY2020. Transmission system expansions are required to cater the increasing demand in existing and new load centers. PGCB is the executing agency (EA) of the project. The project will be funded by the Asian Development Bank (ADB) with a regular loan of \$300 million, a loan of \$200 million by the Asian Infrastructure Investment Bank (AIIB), and a \$750,000 grant provided by People's Republic of China Poverty Reduction and Regional Cooperation Fund (PRC Fund) which is administered by ADB. The balance will be financed by the government and PGCB. ADB and AIIB will finance the transmission system in Greater Dhaka and western region, and the installation of the ERP system. PRC Fund will support a pilot drone inspection center within the operation and maintenance department of PGCB with some gender equality element. The project implementation period is 4 years and 9 months starting from October 2019.

1.1.1 Project Location

4. The project area comprises five (5) administrative divisions and 20 districts as depicted in Figure 1.1. Khulna and Barishal Divisions, and the Faridpur, Madaripur and Gopalganj Districts of Dhaka Division, all located south of Padma River, can be grouped as Southwest Bangladesh, while Rajshahi and Rangpur Divisions bordered by Padma and Jamuna Rivers can be grouped as Northwest Bangladesh. Merger of Southwest and Northwest Bangladesh forms the Western Zone.





5. The project will support the electricity distributon network of Dhaka Electricity Supply Company Limited (DESCO), one of the agencies responsible for electricity distribution in Dhaka and Narayongonj districts. Electricity demand in DESCO distribution area is expected to grow up to 2,600 MW and 5,100 MW by 2025 and 2030 respectively. The project will also address severe low voltage problem in the Western districts of Northwest Bangladesh such as Naogaon, Dinajpur, Nilphamari and Lalmonirhat, which are also the major grain cultivation zones having high electricity demand for irrigation purposes. Electricity demand in Western Bangladesh is expected to grow up to 3,500 MW and 5,400 MW by 2025 and 2030 respectively.

1.1.2 Project Components

6. The project consists of three main components as described below. Details of subprojects under each component are given in Annex 1.

7. **Component 1 –Transmission System Development in Greater Dhaka** includes: i) construction of 400 kV, 230 kV and 132 kV transmission lines with respective cumulative line lengths of 22 km, 9 km and 9 km; and ii) construction of 400/230 kV and 230/132 kV substations with respective cumulative capacities of 3,750 MVA and 700 MVA. As shown in Figure 1.2, except for Kaliganj (Gazipur) substation and related transmission lines, all other subprojects are located within the boundaries of DESCO service area, which falls inside the densest district of the country. Given this situation, finding suitable corridors for construction of overhead transmission lines is difficult. As such, the proposed 230 kV and 132 kV transmission lines of Component 1 will be underground cables except in narrow river crossing areas.

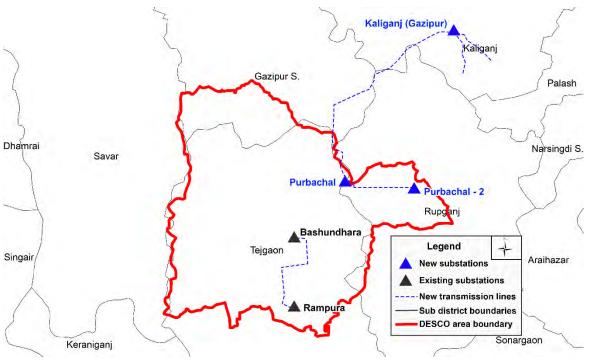


Figure 1.2 - Subprojects under Component 1

8. **Component 2 – Transmission System Development in Western Zone** comprises: i) construction of 230 kV and 132 kV transmission lines with their respective cumulative lengths of 135 km and 233 km; ii) construction of 230/132 kV, 230/33 kV and 132/33 kV substations with their respective cumulative capacities of 750 MVA, 240 MVA and 2,080 MVA, and iv) construction of twenty 132 kV bay extensions at 9 existing substations.

9. **Component 3 – Institutional Capacity Development of PGCB** includes: (i) implementation of Enterprise Resource Planning (ERP) system, and (ii) establishment of a Drone Inspection Center within the operation and maintenance department of PGCB with some gender equality elements.

1.2 Alternatives Considered

10. PGCB together with the support of its team of consultants followed good practices and practical measures to avoid or minimize the resettlement impacts causing from transmission lines and substations. In the first instance, preliminary line route designs provided by the Planning and Design Unit of PGCB were screened in-house using satellite images to avoid built structures, and other environmentally sensitive locations within the clearing width of the RoW (described later).

Accordingly, deviations were incorporated into the original design routes. Survey teams then did a walk-through of the proposed line routes with global positioning system (GPS) devices and conducted physical verifications of the potential impacts for each line route.

11. Moreover, survey teams have also explored alternatives to realign the line routes at sites which were found highly sensitive and have impacts on a significant number of residential dwellings, common properties such as schools and educational and religious institutions, large scale commercial and industrial establishments and natural resources. Table 1-1 summarizes the results of the screening at different stages, and alternatives to avoid or minimize resettlement impacts. Accordingly, resettlement impacts could be significantly reduced by lowering the potentially affected primary structures from 661 to 260, and their corresponding affected households and other entities from 333 to 119. Transmission lines will not cause physical displacements of people and transmission towers will avoid residential areas and other public spaces. In the case of land for substations, the sites are either cultivation fields or water bodies, which would not cause any physical displacements of people.

	PC	GCB Line	Route		ative Rou satellite i	ute (based mages)	Alternative (Final) Route (based on survey results		
Transmission Line Component	Length (km)	No. of Entities/HHs	No. of Primary Structures within Clearing width	Length (km)	No. of Entities/HHs	No. Primary Structures within Clearing Width	Length (km)	No. Entities/HHs	No. of Primary Structures within Clearing Width
Transmission Lines	360	315	625	372	130	267	376.2	107	239
Line-in-Line Out	13	16	33	13	9	21	13.06	9	18
Underground and Partially Overhead Transmission Lines	37.1	2	3	28.2	3	6	14.20	3	3
Total	410.1	333	661	413.2	142	294	403.46	119	260

Table 1-1- Alternatives Considered Minimizing Resettlement Impacts

2. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

2.1 Introduction

12. As described in Section 1, the project has three components. Component 1 includes interventions to expand the transmission system in Greater Dhaka; Component 2 is to expand the transmission system in the western zone; and Component 3 focuses on strengthening the institutional capacity of PGCB. Component 3 comprises two subprojects, namely (i) supporting the installation and operation of an ERP system to assist PGCB in optimally managing its capital-intensive assets; and (ii) establishing a Drone Inspection Center within the operation and maintenance department of PGCB with some gender equality element. The first subproject will include procurement and implementation of ERP system including training. The second subproject is to establish a new drone operations center to improve the efficiency and safety in PGCB's operations and maintenance. Under both subprojects in Component 3, a reasonable percentage of female staff will be engaged.

13. The subprojects proposed under Component 1 include construction of (i) one 400 kV double circuit transmission line; (ii) 3 Line-in Line-Out transmission lines; (iii) 2 underground and partially overhead transmission lines; and (iv) 3 new substations. Component 2 will comprise construction of (i) 9 transmission lines; (ii) 7 Line-in Line-Out transmission lines; (iii) 12 new substations; and (iv) augmentation of 9 existing substations with bay extensions. Altogether, the project scope covers 46 subprojects in both Dhaka and western region of Bangladesh. Component 3 is not anticipated to trigger resettlement impacts. Therefore, the focus of this section is the resettlement impacts arising from Components 1 and 2.

14. Permanent land acquisition is required for construction in 14 out of 15 new substations and 1 out of 9 existing substations selected for bay extensions. No physical displacement of affected persons (APs) is foreseen due to land acquisitions. Land identified for the new substations are mostly cultivated fields and the rest is marsh land with small ponds, which is seasonally flooded and becomes water bodies. The installation of transmission lines does not require land acquisitions as per the Electricity Act of Bangladesh (2018), as there are no provisions in this act for acquiring land for the RoW of the transmission lines. However, the establishment of the RoW for transmission lines of different capacities can cause impacts. They can cause permanent loss of land for transmission tower foundations, and often cause temporary damages during project construction work. Removal of standing trees within the clearing width of the RoW to pave the way for construction work of the transmission lines will lead to permanent economic displacements since trees above 5m in height will not be allowed to be planted once the transmission lines are constructed. Furthermore, temporary economic losses are anticipated due to removal of crops cultivated within the RoW of the transmission lines to clear the land for construction work. A summary of resettlement impacts are as follows.

Resettlement Impact	No. of Affected households/Institutions	Affected Population
Temporary loss of crops within transmission line corridors (estimated)	870	3,828
Potentially affected structures under the clearing width of RoW	119 ³	498
Land acquisitions for new substations and bay extensions (affected land-owning households)	3214	-
Land acquisitions for new substations and bay extensions (identified households in the census)	281	1,221
Tenants ⁵	94	413
Sharecroppers ⁶	48	212
Vulnerable households 7	88	376
Significantly affected households losing more than 10% of their productive land due to land acquisitions	218	959

Table 2-1- Summary of Resettlement Impacts by Affected Households/Institutions

2.2 Transmission Lines and Towers

The transmission line scope encompasses 22 transmission line subprojects as follows:
 (i) ten transmission lines comprising six 132 kV lines, three 230 kV lines and one 400 kV line at a total length of 377.5 km;

(ii) ten Line-in-Line-Out (LILO) transmission lines which include five 132 kV, three 230 kV, and two 400 kV at a total length of 16.0 km; and

(iii) two other 230 kV and one 132 kV transmission lines at a total length of 14.5 km of which some sections are planned to be constructed underground (14.0 km) while the rest (0.5 km) will be overhead cabling.

The estimated total length of all 22 transmission lines is 408 km.⁸ The transmission lines earmarked for construction under the project, their estimated lengths, and the standard width of RoW for each transmission line are shown in **Table 2-2**.

³ Includes 108 households and 11 institutions whose structures would be affected.

⁴ This figure includes (i) 255 households who owned the land to be acquired for new substations and identified in the census; (ii) 40 households who owned the land to be acquired for new substations but could not be traced during the census; and (iii) 26 households who owned the land to be acquired for bay extensions at Sathkira substation and covered in the census. Since 40 landowning households could not be traced for the census, the total household population could not be enumerated for the 321 households.

⁵ Based on responses from the affected landowners who participated in the census.

⁶ Based on responses from the affected landowners who participated in the census.

⁷ Includes (i) households living below the official poverty line; (ii) women headed households living below the official poverty line; (iii) households headed by elderly over 70 years or disabled persons; and (iv) households without legal title to land and to become landless due to land acquisition. The vulnerable status is finally determined subject to the impacts based on social survey.

⁸ Total length of lines surveyed for social assessments is 403.5 km. However, considering; construction, engineering, and operations requirements, the total transmission line length is estimated as 408 km, i.e, 40 km in component 1 and 368 km in component 2. Social impact assessment in the RP is based on the surveyed length of 403.5 km.

No.	Name of the Transmission Line	Voltage (kV)	Estimated Length (km)	Standard width of the RoW (m)
Α	Transmission Lines			
A-1	Kaliganj-Maheshpur	132	28.0	28
A-2	Bagerhat-Pirojpur-Bhandaria	132	49.5	28
A-3	Kushtia-Meherpur	132	48.0	28
A-4	Satkhira-Manirampur	132	33.0	28
A-5	Domar –Hatibanda	132	35.0	28
A-6	Niamatpur-Patnitola	132	32.5	28
A-7	Satkhira-Rupsha	230	62.0	40
A-8	Gopalganj (N) – Shibchar	230	25.0	40
A-9	Purba Sadipur-Domar	230	46.5	40
A-10	Kaliganj – Purbachal	400	18.0	48
	Estimated Total Length		377.5	
В	Line-in-Line-Outs			
B-1	LILO from Bagerhat-Goalpara double circuit line to Rupsha SS	132	3.5	28
B-2	LILO from Gallamari-Gopalganj double circuit line to Rupsha SS	132	0.5	28
B-3	LILO from Faridpur-Madaripur line to Bhanga SS	132	0.5	28
B-4	LILO from Barishal-Bhandaria double circuit line to Jhalokhati SS		1.5	28
B-5	LILO from Khulna Central-Noapara double circuit line to Phultala SS	132	1.0	28
B-6	LILO from Barishal-Bhola-Borhanuddin to Bhola SS	230	1.0	40
B-7	LILO from Khulna (S)-Rupsha Power Plant double circuit line to Rupsha SS	230	0.5	40
B-8	LILO from Ghorashal-Tongi double circuit to Kaliganj SS	230	3.5	40
B-9	LILO from Ghorashal-Tongi double circuit to Kaliganj SS	400	3.5	48
B-10	LILO from Bhulta-Kaliakair double circuit line to Kaliganj SS	400	0.5	48
	Estimated Total Length		16.0	
С	Underground and Partially Overhead Transmission Li	nes		
C-1	Purbachal-Purbachal 2 (Overhead Section)	230	0.5	40
	Purbachal-Purbachal 2 (Underground Section)	230	5.0	2.5
C-2	Basundhara-Rampura (Underground)	132	9.0	2.5
	Estimated Total Length of the Underground Sections		14.0	
	Estimated Total Length of the Overhead Sections		0.5	
	Estimated Total Length of the Underground and Overhead Lines		14.5	
	Total Length of All Transmission Lines		408.0	

Table 2-2 - Details of Proposed	Transmission Lines
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Note: LILO = Line-in-Line-out, SS = Substation Sources: PGCB and ADB

2.2.1 RoW for Transmission Lines

16. The standard RoW for 132 kV is 14 m either way from the center of the line (28 m in total), whereas it is 20 m (40 m in total) for 230 kV lines. The RoW for 400 kV is 24 m either way from the center of the line (48 m in total). The regulatory RoW defined under electricity guidelines is symbolic. In selecting the clearing width, the 400-kV line has a separation of about 13.8 m whilst

all others are all less than 12 m. For resettlement planning purposes, the impact zone of the transmission lines was considered as a 12 m corridor (6 m either way from the center of the line), irrespective of the different line design voltages (especially given the 400 kV line is short), which is the clearing width of the RoW, required for construction and maintenance purposes of the transmission lines. Impacts of transmission lines causing from installation of transmission towers and stringing conductors will directly affect the populations living within the clearing width of the 12 m corridor leading to loss of their land due to tower foundations, temporary and partial damages to residential and commercial structures, disruptions to livelihood activities, loss of standing trees and crops, and access restrictions to common property resources. These impacts are largely temporary economic displacements and will not trigger physical displacements of the populations. However, restrictions imposed on land use under the transmission lines may potentially affect future land values. In contrast, such direct impacts will not be experienced by populations living within the wider RoW. However, if any unforeseen impacts occur on communities living outside the 12 m corridor, affected parties will be compensated for their losses.

17. Since there are no land acquisitions required for transmission lines, people can still retain their ownership of the land, and use it for residential and cultivation purposes provided the vertical and horizontal clearance requirement is maintained after construction. PGCB has set the following standards for vertical and horizontal clearance requirements of different transmission line voltages as shown in Table 2-3. Moreover, PGCB will consider increasing the vertical clearance to 8 m or extending the height of transmission towers or use of additional angle towers to avoid any direct impacts on built structures, and physical displacements of the populations living within the 12 m corridor. Additionally, PGCB will also adopt enough safety measures such as erecting bamboo sheds above the built structures during conductor stringing to avoid any damages to structures and risks of their falling and causing accidents. Also, construction work will avoid peak periods of agricultural and other livelihood activities, and seasons that are abundantly occupied for educational, religious and cultural activities. As such, neither permanent nor temporary physical displacements are anticipated due to construction of the transmission lines.

Transmission Line Voltage	Minimum clearance from ground (meters)	Vertical clearance from structures (meters)	Horizontal clearance from structures (meters)
132 kV	7.0	5.0	5.0
230 kV	8.0	6.0	6.0
400 kV	9.0	7.5	7.5

Source: PGCB.

18. The PGCB will elongate towers passing through the structures, thus the current structures under transmission lines will be maintained through the measures meeting vertical clearance. Also, construction of residential or commercial structures requires obtaining permission from authorities below.

- City: respective city corporations, Rajuk (Dhaka City Development Authority), CDA (Chattogram Development Authority), KDA (Khulna Development Authority), and RDA (Rajshahi Development Authority);
- (ii) Municipality area: relevant municipalities;
- (iii) Rural areas: concerned Union Parishad (local government);

Often, obtaining permission is ignored, however, there are building construction rules including height restriction. The standard formula is "Height = 2^* (road width + setback space from the road edge to building line)" and there are additional rules to meet such as auxiliary building and garage

do not exceed 8 feet (2.4m) in height. The road is very narrow without setback space in most of the area, thus the height restriction of strucures is not only imposed by the RoW but also by the rules and authorities.

19. The construction work for the underground cabling will require a space of 2.5 m corridor during its construction period for laying the cables. Apart from temporary disturbances and inconveniences to the public during the construction period, no adverse impacts on built structures are anticipated, as underground cables will be laid along the road shoulders or centers. However, a fewer number of trees estimated at 350 planted beside the road shoulders will be removed for digging the trenches.

2.2.2 Transmission Towers

20. The number of transmission towers required for 22 transmission lines is estimated at 1,156 which include 429 angle/terminal towers and 727 suspension towers. The line span (tower to tower distance) is 330 m for 132 kV; 380 m for 230 kV; and 420 m for 400 kV lines. The ratio between angle/tension towers and suspension towers for all voltages is 40:60. The number of towers required for transmission lines, and the land area required for their installation are shown in Table 2-4 (Details are provided in Annex 3). Each tower requires 50.61 m², and 1,156 towers require around 14.455 acre (5.58 ha) in total. However, the four tower footings under each tower requires only 0.56 m² and 1,156 towers require 0.6464 acre (0.26 ha) in total.

Transmission Line component	No. of Angle/Terminal Towers	No. of Suspension Towers	Extent of land required for tower bases (acres)	Extent of land required for tower foundations (acres)
Transmission Lines	391	711	13.592	0.5977
Line-in Line-out Connections	36	15	0,817	0.0467
Underground and Partially Overhead Transmission Lines	2	1	0.046	0.0020
Total	429	727	14.455	0.6464

Table 2-4 - Land Requirements for Installation of Transmission Towers

Source: estimates based on PGCB's information.

2.2.3 Impacts on Land

21. The standard RoW for different transmission lines varies as shown under section 2.2.1. The standard RoW for all transmission lines with a total length of 403.5 km will spread over an estimated land area of 3,217.04 acres. Meanwhile, the clearing width of the RoW which is a 12 m corridor will altogether affect approximately 1,164.23 acres of land or 36% of the total extent of land under the standard RoW. The affected land under the clearing width of the RoW comprises 1,043.7 acres of cultivated areas (90%); 15.73 acres of residential areas (1.4%); 42.46 acres of non-residential areas (3.6%); and 62.34 acres of land which is either fallow or remains under water bodies (5.4%). Land ownership is largely private and constitutes 1,116.77 acres (96%) whereas the rest 4% is government land with an extent of 47.46 acres. Given the average landholding size of 1.2 acres per project affected household⁹, it is estimated that the clearing width of the transmission lines can impact on land belonging to 970 households whose household population is approximately 4,268 people.¹⁰

⁹ Census of affected persons, September-October 2018

¹⁰ Estimated at average household size of 4.4 per affected household based on socioeconomic survey

Transmission Line component	Estimated Length (km)	Extent of land under the standard RoW (acres) ¹¹	Extent of land under the clearing width of the RoW (acres)	Percentage of land under direct impact
Transmission Lines	376.2	3,083.73	1,115.58	36.2
Line-in Line-out Connections	13.1	120	38.73	32.3
Underground and Partially Overhead Transmission Lines	14.2	13.31	9.92	74.5
Total	403.5	3,217.04	1,164.23	36.2

Table 2-5 - Impact of Overhead Transmission Lines on Land

Source: Estimates based on PGCB's information.

The installation of 1,156 towers requires a total land area of 14.455 acres for their tower bases, whereas their tower foundations (footings) would require only 0.6464 acres (which equates to an average area of 0.56 square meters per foot). The land area used for the tower foundations will be a permanent loss to their respective landowners. The landowners will be compensated as per the entitlement matrix in the resettlement plan. As per the practice, people will be allowed to cultivate underneath the tower base area.

2.2.4 Impact on Agricultural Land

22. The extent of the cultivated land under the standard RoW of the transmission lines is estimated at 2,900.53 acres or 90.2% of the total land under the full RoW. However, the project will not cause adverse impacts on the entire cultivated area. It will have direct and temporary impacts on the crops grown within the clearing width of the 12 m corridor due to its clearing to facilitate the transportation of construction material and the movement of machinery. Or else, the farmers may not be able to engage in their cultivations during the construction period. Except for permanent loss of land for tower foundations, transmission towers will not have adverse impacts on the agricultural activities and the livelihoods of people. Besides, people will be allowed to grow their crops under tower bases once the construction work is over. The estimated extent of cultivated land under the clearing width is 1,043.7 acres and constitutes 89.6% of its total land under the clearing width. Paddy is the predominant crop cultivated by the farmers. However, a variety of other seasonal crops such as jute, garlic, mustard, wheat, onions, and potato are also cultivated intermittently in the affected land. The land is cultivated 2-3 times a year. Following the same criteria of average land holding size of 1.2 acres per project affected household, it can be concluded that around 870 households with a total estimated population of 3,828 will lose their crops or access to cultivations during construction work of the transmission lines.

¹¹ In Bangladesh there is a standard RoW, but given the country is densely populated work is generally completed within the clearing width of 12 m.

Transmission Line Component	Extent of land under the standard RoW	Extent of cultivated land under standard RoW	Percentage of cultivated land	Extent of land under the clearing width of the RoW	Extent of cultivated land under clearing width of the RoW	Percentage of affected cultivated land
Transmission Lines	3,083.73	2,795.52	90.7	1,115.58	1,009.69	90.5
Line-in-Line Out Connections	120.00	102.14	85.1	38.73	33.15	85.2
Underground and Partially Overhead Transmission Lines	13.31	2.87	21.56	9.92	0.86	8.67
Total	3,217.04	2,900.53	90.2	1,164.23	1,043.7	89.6

Table 2-6 - Impacts of Overhead Transmission Lines on Agricultural Land (in acres)

Source: Inventories on land use pattern within the RoW of transmission lines. September-October 2018

2.2.5 Impacts on Built Structures

23. The presence of a variety of built structures comprising both primary and secondary structures was observed within the clearing width of the 12 m RoW of the transmission lines. They include residential structures, small and large-scale commercial establishments, common property resources (CPRs), and several auxiliary structures associated with those primary structures. Among the auxiliary structures are toilets, toilet slabs, boundary walls, tube wells, and RCC¹² pillars. The construction work of the transmission lines will avoid/minimize adverse impacts on these built structures and no permanent or full impacts causing from construction work is anticipated. In the event of any partial damages caused to these primary and/or auxiliary structures during construction work, project will pay compensation at replacement cost to the affected parties enabling their full restoration.

24. Altogether, 403 built structures comprising 260 primary structures and 143 auxiliary structures belonging to 108 households with a population of 498 and 11 other institutions were enumerated during the census survey. The primary structures include 7 one storied *pucca* structures (3,718 sq.ft.), 40 *semi-pucca* structures (9,636 sq.ft.), 123 tin-made structures (28,823 sq.ft.), and 90 *kutcha* structures (10,406 sq.ft.). The total floor area of the four types of structures is 52,853 sq.ft.

25. Households comprise 98 male headed and 10 female headed households. The total household population is 498 and comprises 250 males (50.2%) and 248 (49.80%) females. Of the total population, 466 persons reside within the clearing width of the RoW while the rest 32 live outside the RoW. Though the later live outside the clearing width of RoW, their small-scale business and auxiliary structures are located within the clearing width RoW. The 11 institutions represent 8 CPRs and 3 large-scale business. The titleholders account for 111 households/institutions (93%) while the rest 8 are non-titleholders. The built structures are described below, which belong to the 119 households and institutions, and have temporary impacts during transmission line constructions.

¹² A reinforced concrete column is designed to carry compressive loads, composed of concrete with an embedded steel frame to provide reinforcement

26. *Primary residential structures:* Transmission lines can cause temporary and partial impacts on 238 primary residential structures belonging to 102 households with an estimated population of 480. They include 99 households (466 persons) who live within the RoW and another 3 non-resident households (14 persons) who had abandoned their 3 residential structures for the past 10 years and are not in use. This implies that some households would own more than a single residence. Construction of transmission lines will avoid all residential structures and adopt protective measures during construction. All impacts will be limited to partial and temporary during construction of transmission towers will not be installed in residential areas either. If any structures are affected due to unforeseen circumstances during civil works, compensation will be paid for their full restoration. Provisions for compensation are included in the entitlement matrix of the resettlement plan and the resettlement budget. Residential structures can remain as the same if they can meet the vertical clearance.

27. *Primary small-scale commercial structures:* There are 5 small-scale commercial structures belonging to 5 households comprising 15 persons. The commercial structures are used for tea kiosks and retail grocery stores. One of the business obtains the services of a hired laborer. Construction work will neither affect the business structures nor their operations.

28. *Large-scale business structures:* The clearing RoW also contains 6 large-scale commercial structures operated by 3 business operators. The business structures are largely the brick-making fields with their kilns, which altogether employ around 150 daily paid laborers. Construction work of the transmission lines will be scheduled for rainy season when brick-making activities are not undertaken. The rainy season extends over to about six months. As such neither their temporary relocation nor any disruptions to their livelihoods and incomes is anticipated.

29. Primary common property resources (CPRs): There are 8 CPRs belonging to 8 institutions within the clearing RoW. Among them are 4 mosques; 2 graveyards; 1 Eidgah field (a place used by people for prayers on special occasions); and 1 *madarasa* school. Apart from these 8 primary structures, there are also another 8 auxiliary structures associated with those primary structures. The project will avoid any damages to CPRs, and they can continue to remain within the RoW provided the vertical clearance requirement is maintained. Moreover, the contractors will also adopt enough safety measures such as scheduling construction work during school vacations and fencing-off the construction areas to prevent people entering the construction sites. Any unforeseen damages caused to CPRs during construction work will be compensated for their full restoration.

30. *Auxiliary structures:* Apart from the primary structures located within the clearing RoW, census survey also observed the presence of 143 auxiliary structures. Among them are 50 tube wells, 18 sanitary toilets, 65 pit-toilets, 5 tin-made boundary walls, 2 *pucca* boundary walls and 3 RCC pillars. Compensation will be paid prior to any civil works or IR activities for any affected structures. If any partial or full damages caused to the auxiliary structures during construction work, compensation for their restoration will be paid at replacement cost.

2.2.6 Land Ownership

31. The extents of land owned by the 119 temporarily affected households and institutions are presented in Table 2-7. Accordingly, one third of the APs own less than 0.1 acre. Most of the APs (47%) own less than 0.5 acres of land. Another 14% own land extents varying from 0.5 to 1 acre while the land owned by another 8% exceeds 1 acre.

	No. Landowners					
Extents of land holdings	Transmission Lines	Line-in Line- Out Connections	Underground and Partially Overhead Transmission Lines	Total	Percentage (%)	
< 0.1 acre (10 decimals)	32	4	_	36	30.25	
0.11 – 0.2 acre (11-20 decimals)	11	1	2	14	11.76	
0.21 – 0.3 acre (21-30 decimals)	19	2	-	21	17.64	
0.31 – 0.5 acre (31-50 decimals)	19	1	1	21	17.64	
0.51- 1.0 acre (51-100 decimals)	17	-	_	17	14.29	
>1 acre (>100 decimals)	9	1	-	10	8.40	
Total	107	9	3	119	100	

Table 2-7- Land Ownership of the Affected Persons

Source: Census of affected persons, September-October 2018

32. The ownership/tenure rights to the land occupied by APs included 103 who claimed singular ownership; 7 who had co-ownership; 6 leaseholders of government land; 1 leaseholder of a private land; and 2 encroachers. Meanwhile, of the 119 households and institutions to be temporarily affected by transmission lines, 37 APs (31.1%) reported that they do not own any other land except for the land that they occupy at present. Among them are 32 titleholders and 5 non-titleholders.

33. Apart from the land occupied by APs within the clearing width of the RoW, balance portions of the land belonging to the rest 82 are in proximity to the standard RoW. The balance lands of 39% are on the borders of the clearing width of the RoW whereas the remaining lands of another 20% extended to a few meters away from the standard RoW. Some of the APs (41%) had their balance land elsewhere but in the same village.

2.2.7 Impacts on Trees

34. The construction of the transmission lines and towers will affect several standing trees of different varieties over and above the height of 5 m along the 12 m wide RoW which must be removed to pave the way for the construction work of the transmission lines. The standing trees which are grown directly under the proposed lines and, falling within the clearing width will be removed. The total number of trees to be removed is estimated at 22,734 which include 13,055 fruit-bearing trees (57.4%), 9,326 timber trees (41%), and 353 medicinal plants (1.6%).¹³ The average number of trees lost per kilometer is approximately 56. The trees affected by the transmission lines are scattered as 1 tree per 20m (22,754 trees along with 500km), thus the livelihood impacts are not significant except only a few locations. Table 2-8 presents a summary of the trees that will be affected by the transmission lines and their current market value. The total market value of the affected trees is estimated at Tk 273,365,440 considering the average rates applied by the Forest Department for variety of tree species of different sizes as well as local market rates collected during the socioeconomic survey.

¹³ The estimated of the affected trees exclude the bamboo and banana trees.

ltem	Fruit	Trees	Wood/Timber Trees Medicinal		cinal	Total Trees	
	(> 10 m height)	(5-10 m height)	(> 10 m height)	(5-10 m height)	(> 10 m height)	(5-10 m height)	
Transmis	sion Lines						
Trees	7,054	5,691	2,525	6,499	122	222	22,113
Average Rate	11,783	9,109	17,588	12,982	8,000	6,667	
Total Value	83,114,522	51,837,587	44,410,294	84,372,312	976,000	1,480,000	266,190,715
LILOs							
Trees	59	59	45	93	4	5	265
Average Rate	11,783	9,109	17,588	12,982	8,000	6,667	
Total Value	695,174	537,413	791,471	1,207,359	32,000	33,333	3,296,750
Undergro	und/Partially	Overhead Li	nes				
Trees	0	192	0	164	0	0	356
Average Rate	11,783	9,109	17,588	12,982	8,000	6,667	
Total Value	0	1,748,870	-	2,129,106	0	0	3,877,975
Total TLs	i						
Trees	7,113	5,942	2,570	6,756	126	227	22,734
Average Rate	11,783	9,109	17,588	12,982	8,000	6,667	
Total Value	83,809,696	54,123,870	45,201,765	87,708,776	1,008,000	1,513,333	273,365,440

Source: Inventories on land use pattern within RoW of transmission lines, September-October 2018

2.3 New Substations

35. PGCB has proposed to construct 15 new substations under the project which are spread over 13 districts (zila) and 14 sub-districts (upazila) and 4 divisions. Annex 4 provides a complete summary of each substation location and their current land use patterns, land acquisition requirements and ownership status of the locations earmarked for the construction of new substations. The total extent of land required for the 15 new substations is estimated at 77.92 acres which includes land required for substations as well as their access roads (Table 2-9).

SL	Substation Name	Area required for substations	Area required for access roads	Total Required Land
1	Rupsha GIS 230/132 kV + 132/33 kV	5.00	0.35	5.35
2	Bhola GIS 230/33 kV	5.00	0.00	5.00
3	Shibchar GIS 132/33 kV	5.00	0.00	5.00
4	Bhanga GIS 132/33 kV	2.00	0.03	2.03
5	Jhalokhati GIS 132/33 kV	5.00	0.00	5.00
6	Pirojpur GIS 132/33 kV	3.00	0.00	3.00

Table 2-9 - Total Land Required for New Substations

SL	Substation Name	Area required for substations	Area required for access roads	Total Required Land
7	Phultala GIS 132/33 kV	2.00	0.00	2.00
8	Monirampur GIS 132/33 kV	3.00	0.00	3.00
9	Moheshpur GIS 132/33 kV	3.00	0.03	3.03
10	Meherpur GIS 132/33 kV	3.00	0.00	3.00
11	Domar GIS 132/33 kV	5.00	0.00	5.00
12	Hatibandha GIS 132/33 kV	3.00	0.04	3.04
13	Purbachal GIS 400/230 kV	14.00	0.10	14.10
14	Kaliganj GIS, Gazipur (Future 132 kV Provision)	18.00	0.05	18.05
15	Purbachal 2 GIS 230/132 kV	1.32	0.00	1.32
	TOTAL	77.32	0.60	77.92

Source: PGCB estimates.

36. The land earmarked for new substations is largely agricultural land for crop cultivations. Some of the land identified for substations is marshy land with small ponds and seasonally flooded. Parts of the land identified for Kaliganj and Purbachchal substations is this kind of marshy land extent of which is estimated at 27.32 acres. Of the total land requirement of 77.92 acres, 1.32 acres identified for Purbachal –2, 230/132 kV substation is *rajuk*¹⁴, ownership of which had been already transferred to PGCB subject to the payment of land value to Rajuk. Except for one small temporary thatched hut (with a floor area of 75 sq.ft.) situated on the Domar substation land which had earlier provided shelter to a water pump, rest of the substation lands do not have any built structures.

37. There are two deep tube wells with irrigation pumps on the land identified for Moheshpur and Hatibanda substation lands. Acquisition of land for Moheshpur substation will lead to a loss of 0.45 acres of land for one of the landowners as well as relocation of this tube well and irrigation pump. The irrigation pump generates an annual income of Tk 36,000 to the landowner by selling water to farmers in the adjacent fields. The landowner agrees to relocate this tube well and irrigation pump in the remaining portion of his land (after acquisition), extent of which is 2.11 acres. Similarly, land acquisitions for Hatibanda substation will affect 1.53 acres belonging to one of the landowners. The landowner will also require relocating his tube well and irrigation pump which generates an annual income of Tk 60.000 by selling water to other farmers. The landowner consents to relocate his tube well and irrigation pump in the remaining portion of his land in the same location which is 1.64 acres. The project will pay compensation for both landowners at replacement cost enabling them to shift their irrigation pumps to the remaining portion of their land. Relocation will neither cause disruptions to their livelihoods nor the incomes generated as they can continue to provide water to their farmer clients from the remaining portions of the same land.

38. Except for the land identified for the Purbachal substation, the rest of the land requires land-filling to varying degrees ranging from 1m to 6 m of height in order to raise the land to the road surface level (see Table 4 in Annex 5). Communities have raised concerns over the potential adverse impacts on the environment, as a result of extracting sand and soil for land filling, as well as the possible implications of raising the land on the drainage system and rest of the land potentially leading to water logging, and flooding. The climate change risk and vulnerability

¹⁴ Dhaka Development Authority, a government organization which has the mandate to sell lands privately and commercially to the citizens.

assessment has been conducted and mitigation measures are to be proposed commensurate to the impact.

39. Excluding the 1.32 rajuk land (which will be used for the construction of the Purbachal 2 substation), PGCB requires acquiring the balance of 76.6 acres land for the rest of the 14 substations. Except for a part of the land identified for Hatibanda substation, which is vested with Bangladesh Water Development Board (BWDB), the rest of the land is owned by 295 households.¹⁵ However, the BWDB land identified for the Hatibanda substation is occupied by a non-titleholder who is dependent on this land for agriculture related activities. Despite the temporary permission given by BWDB for this non-titleholder to cultivate the land, he requests PGCB to consider alternate location for the substation in order to save his livelihoods. PGCB will explore the alternate options. The census conducted for the substation land covered 255 landowners/claimants, which is 86.4% of the estimated number of the landowners/claimants to the affected lands. The rest 40 landowners/claimants could not be traced because they did not live in the same locality or else have been deceased by now. Neither their inheritors live in the original villages of their ancestors. The project will continue its efforts to trace the missing landowners/claimants with the assistance of the office of the District Commissioner and update the census survey.

40. The 255 landowners/claimants represent 234 male headed households (91.76%) with a population of 1,044 (93.46%) and 21 female headed households (8.24%) and a population of 73 (6.54%). Hence, the total population accounts for 1,117. The landowner households comprise 230 who hold single ownership with titles, 24 who claim joint ownership with titles and one non-titleholder.

2.3.1 Impacts on Land

41. As mentioned earlier, land identified for 14 substations (excluding Purbachal 2 substation land) is altogether owned by 295 households of whom 40 could not be traced during the census. The total extent of land owned by the affected 255 landowners (covered in the census) was reported as 279.90 acres which is located either in the project area or elsewhere. Of these total land holdings, they would lose 64.41 acres for the acquisitions of their land. The land to be acquired will thus constitute 23% of their total land holdings and the average extent of land that will be lost to an individual AP will be 0.25 acres. Total land owned by the non-traceable 40 landowners is unknown. Of the total land requirement of 76.6 acres for 14 substations, balance 12.19 acres will have to be acquired from among the missing 40 landowners. The remaining land of 215.5 acres owned by 255 landowners is used for a variety of purposes: They include approximately 165.7 acres for crop cultivations; 13.5 acres of highlands; 33.8 acres of homesteads; and 2.5 acres of land used for commercial purposes.

42. Land acquisitions will cause loss of agricultural land of 253 landowners, an orchard of one household, an orchard of BWDB, a commercial land of one household that sells water to other landowners through an irrigation pump installed in his land. No homesteads will be affected.

43. The total extents of land owned by 34.9% of the APs are less than half acre. This follows another 60.8% owning land extents varying from half to 1 acre. The rest 4.3% owns more than an acre. Land acquisitions will cause loss of less than half acre of land for 90.6% of the APs; half to 1 acre for 5.1%; and more than 1 acre for another 4.3% (Table 2-10).

¹⁵ Based on inquiries from the communities and through identified landowners/claimants

Extents of land holdings	No. of APs and extents of their total land holdings	Percentage (%)	No. of APs and extents of land lost for acquisitions	Percentage (%)
< 0.1 acre (10 decimals)	17	6.67	89	34.90
0.11 – 0.2 acre (11-20 decimals)	19	7.45	70	27.45
0.21 – 0.3 acre (21-30 decimals)	24	9.41	50	19.61
0.31 – 0.5 acre (31-50 decimals)	47	18.43	22	8.63
0.51- 1.0 acre (51-100 decimals)	61	23.92	13	5.10
>1 acre (>100 decimals)	87	34.12	11	4.31
Total	255	100	255	100

Table 2-10 - Land Holdings of the Affected Persons and their Land Losses

Source: Census of affected persons, September-October 2018

44. The majority 240 landowners (94%) claimed owning 'other land' apart from their land earmarked for acquisition. Of them, 180 landowners also have other cultivation land apart from the land earmarked for acquisition. It was only 15 landowners (6%) who claimed that they do not have any other land for cultivation purposes other than the land that was intended for acquisition. Landowners who claimed having other land have multiple land plots spread over several locations as shown in Table 2-11.

Table 2-11- Locations of the 'other land' owned by the Landowners

Location of the land	No. of Landowners	Percentage (%)
Adjoining the affected land	41	17.08
A few meters away from the affected land	52	21.67
Elsewhere in the same village	143	59.58
In another village	4	1.67

Source: Census of affected persons, September-October 2018

45. However, land acquisitions will have significant impacts on the livelihoods of the landowners and their remaining properties when compared with their total land holdings as shown in Table 2-12. Accordingly, 207 (81%) landowners will lose more than 10% of their land assets due to land acquisitions, and thus they are 'significantly affected'. These significantly affected households will be provided an additional livelihood restoration grant of Tk.15,000. Land acquisitions will cause loss of 5% -10% of land for 13.7% of the APs. It is only 13 (5%) landowners who will lose less than 5% of their lands.

Table 2-12 - Loss of Land in Proportionate to Total Land Holdings

Proportion of the land loss	No. of Landowners	Percentage (%)
< 3%	6	2.35
3 to 5%	7	2.75
5 to 8%	13	5.10
8 to 10%	22	8.63
> 10%	207	81.18
Total	255	100.0

Source: Census of affected persons, September-October 2018

2.3.2 Impacts on Livelihoods

46. Land acquisitions for substations will trigger permanent economic displacements to the landowners and their dependents. The land proposed for substations have been intensively used for cultivations for 2-3 times a year. Of the 76.6 acres of land to be acquired, the cultivated area constitutes approximately 59.6 acres (77.8%). The main crop is paddy but jute and a variety of other seasonal crops such as coriander, potato, sugarcane and wheat are also cultivated intermittently with paddy. Aquaculture is conducted in some land together with vegetable cultivations around the ponds.

47. Paddy has been the main crop cultivated by 250 landowners followed by jute cultivation by 45, and seasonal crops by 61. Aquaculture farming is another source of livelihood for 32 landowners who will either use their seasonal ponds for fish farming or catch natural fishes from water bodies. Of the 253 landowners who cultivated their lands, 107 (42.3%) cultivated their lands in three seasons of the year whereas another 58 (22.9%) cultivated in two seasons. The number of landowners who cultivated their lands in a single season accounted for 88 (34.8%). Paddy and other edible produce from cultivations are primarily used for household consumption.

48. Around 200 landowners (78.4%) use their agricultural produce for domestic consumption whereas the rest 55 use their produce for both marketing and household consumption. Land acquisitions for substations will deprive the landowners their agricultural produce which they use for household consumption as well as to generate incomes for their families. 49.

2.3.3 Impacts on Trees

50. The construction of substations will require the removal of standing trees situated on the identified land. The total number of trees to be affected is estimated at 56, comprising 20 fruit bearing trees; 34 timber trees; and 2 medicinal plants. The total value of the trees is estimated at Tk 679,683. Table 2-13 summarizes the estimates of the affected trees together with their market value.

	Fruit Trees		Wood/Timber Trees		Medicinal		
ltem	(> 10 m height)	(5-10 m height)	(> 10 m height)	(5-10 m height)	(> 10 m height)	(5-10 m height)	Total Trees
Substations	Substations						
Trees	15	5	0	34	2	0	56
Average Rate	11,783	9,109	17,588	12,982	8,000	6,667	
Total Value	176,739	45,543	-	441,400	16,000	-	679,683

Table 2-13 - Trees Affected by Substations and their Estimated Value

Source: Inventories on land use pattern within RoW of transmission lines, September-October 2018

2.4 Bay Extensions to Existing Substations

51. Augmentation of the capacities of existing substations or substations which are planned or under construction is another subcomponent proposed under the project. This component includes construction of bay extensions to 9 substations which are in the western region (Component 2). Locations of the existing substations are given in Annex 6.

52. As shown in Table 2-14, 6 substations are in operation of which 5 substations have enough land for bay extensions within their existing premises. However, proposed bay extensions to Sathkira 132 kV AIS require acquisition of 3 acres of land. Gopalganj 132 kV AIS substation is under construction and is earmarked for completion in 2019/2020. Adequate land is available within its 63-acre land to accommodate the bay extensions. The construction work of two other substations has not been commenced yet and these are planned to be completed in 2020/2021. It is expected that adequate land is available within the premises of the substations.

No.	Substation	Current Status	Land Availability for Bay Extensions		
Subs	Substations in operation				
1	Bagerhat 132 kV AIS	Substation is in operation since 1980 on a land of 7.6 acres	Land required is available within the substation premises		
2	Kushtia 132 kV GIS	Substation is in operation since 1968 on a land of 14.3 acres	Land required (0.5 acres) is available within the substation premises		
3	Niamatpur 132 kV AIS	Substation is in operation since 2010 on a land of 5 acres	Land required (1 acre) is available within the substation premises		
4	Purba Sadipur 132 kV GIS	Substation is in operation since 1980 on a land of 10.44 acres	Land required (0.5 acres) is available within the substation premises		
5	Satkhira 132 kV AIS	Substation is in operation since 1980 on a land of 5 acres	Additional land (3 acres) to be acquired for bay extensions		
6	Bhandaria 132 kV GIS	Substation is in operation since 1994 on a land of 2 acres	Land required is available within the substation premises		
Subs	stations under constru	ction			
7	Gopalganj132 kV AIS	Land filling and preparation is being carried out. Scheduled to complete the substation construction work in 2020. Total extent of land available is 63 acres	Land required is available within the substation premises		
Subs	Substation that have not started construction work				
8	Kaliganj 132 kV AIS	Land of 5 acres identified. Scheduled to start construction work in 2019, and complete in 2020.	Land required is available within the substation premises		
9	Patnitola132 kV AIS	Scheduled to start construction work in 2020 on a land of 5 acres and to be completed in 2021	Land required is available within the substation premises		

Source: Environmental assessments conducted for existing substations requiring bay extensions, September – October 2018

2.4.1 Land Acquisitions for Bay Extension at Satkhira 132 kV Substation

53. The construction of bay extension to Satkhira 132 kV substation requires acquisition of 3 acres of private land belonging to 26 households. Land acquisitions will affect an estimated population of 104 persons comprising 60 males and 44 females. The land identified for acquisition is exclusively used for paddy cultivation in two seasons of the year. Most of the landowners (24) used their rice production exclusively for household consumption. Only 2 landowners used their produce for both consumption and marketing. There are no built structures or standing trees within this land. All 26 landowners are male headed households, and titleholders of their respective lands. Of the 26 landowners, 18 held single ownership while the rest claimed co-ownership to

their respective lands. However, three landowners did not consent to land acquisitions, as they were not paid compensation for their land acquired previously to construct the substation. Inquiries revealed that the three claimants have not been paid compensation due to title disputes between themselves over their land. PGCB transferred the budget to the respective district commissioner's office, and the compensation will be given once the case is cleared. PGCB will review these legacy issues to resolve the issue.

54. The total extent of land owned by the affected 26 landowners in the surroundings of the land identified for bay extension was reported as 27.84 acres. Of these total land holdings, they would lose 3 acres for land acquisitions. The land to be acquired will thus constitute 11% of their total land holdings, and the average extent of land that will be lost per individual AP will be 0.1 acre. The remaining land of 24.83 acres is used for a variety of purposes, including approximately 21.2 acres for crop cultivations, 0.23 acres of highlands and 3.4 acres of homesteads.

55. The impact of land acquisitions for the bay extension at Satkhira substation can vary depending on the extent of the total land holdings of the affected person, and the extent of land lost for acquisitions. Table 2-15 shows the extents of land that will be lost to individual landowners due to land acquisitions against their total land holdings. Accordingly, 81% of the landowners will lose less than 0.1 acre of their land holdings whereas another 8% will lose land extents varying from 0.11 to 0.2 acres. Another 8% will lose 0.31-0.5 acres, and only a single owner will lose 0.31-0.5 acres.

Extents of land holdings	No. of APs and extents of their total land holdings	Percentage (%)	No. of APs and extents of land lost for acquisitions	Percentage (%)
< 0.1 acre (10 decimals)	21	80.77	21	80.8
0.11 – 0.2 acre (11-20 decimals)	2	7.69	2	7.7
0.21 – 0.3 acre (21-30 decimals)	0	0.00	0	0
0.31 – 0.5 acre (31-50 decimals)	2	7.69	2	7.7
0.51- 1.0 acre (51-100 decimals)	1	3.89	1	3.89
>1 acre (>100 decimals)	-	-	-	-
Total	26	100	26	100

Table 2-15 Land Holdings of the Affected Persons and their Land Losses

Source: Census of affected persons, September-October 2018

56. However, land acquisitions will have significant impacts on the land holdings and livelihoods of the landowners with 11 (42%) landowners losing more than 10% of their land assets and are thus considered significantly affected. These significantly affected households will be provided an additional livelihood restoration grant of Tk.15,000. Another 15% will be losing 8% to 10% of their land holdings. The proportion of land lost to 38% of the landowners is in the range of 5% to 8%. It is only a single landowner who would lose less than 3% of his land assets.

Proportion of the land loss	No. of Landowners	Percentage (%)
< 3%	1	3.85
3 to 5%	5	19.23
5 to 8%	5	19.23
8 to 10%	4	15.38
> 10%	11	42.31
Total	26	100

Table 2-16 - Loss of Land in Proportionate to Total Land Holdings

Source: Census of affected persons, September-October 2018

2.4.2 Tenants and Sharecroppers

57. Land acquisitions for substations can affect the landowners as well as those who are dependent on such land such as tenants and sharecroppers for their livelihoods. The landowners who accounted for 64 in 9 out of 14 new substation lands have leased out their affected land either partially or in full. The total number of their respective tenants has been reported as 74. Forty-three landowners also reported having 48 sharecroppers in their cultivations. Loss of livelihoods for tenants and sharecroppers can altogether affect an estimated population of 537 persons.¹⁶ Besides, the landowners will also lose their incomes received through leasing their land. The average annual income received by a landowner through leasing his/her land is in the range of Tk 18,653.

58. Land acquisitions for bay extension at Satkhira substation will also affect another 20 tenants of 20 landowners with estimated 93 persons causing adverse impacts on the livelihoods and incomes of these tenant farmers as well as the incomes of the landowners derived from leasing their land. The average annual income received by a landowner from leasing his land is in the range of Tk 2,250.

2.4.3 Vulnerable Households

59. Land acquisitions for substations and bay extensions and the establishment of transmission line corridors will altogether have direct impacts on 400 households ¹⁷ and institutions.¹⁸ Of them, 88 households have been identified as 'vulnerable'. These vulnerable include (i) households living below the official poverty line of Tk 102,000 per annum (excluding female headed households); (ii) female headed households living below the official poverty line of Tk 102,000 per annum; (iii) households headed by elderly over 70 years or disabled persons; and (iv) households without legal title to land¹⁹ and to become landless due to land acquisition. Female headed households altogether comprised 31. No disabled persons were reported among the APs. The vulnerable status is finally determined subject to the impacts based on social survey.

¹⁶ Based on the average household size of 4.4 of APs

¹⁷ Includes 119 households and institutions whose strucures are potentially affected by the clearing RoW; 255 land owning households to be affected by land acquisitions for new substations; and 26 land owning households to be affected by land acquisitions at Sathkira.

¹⁸ This excludes the estimated 1,060 households that would be temporarily affected by the loss of crops within the transmission corridors, 74 leaseholders and 48 sharecroppers who were not covered in the census.

¹⁹ The vulnerable status for persons without legal title is determined based on the social impact assessment/survey.

No.	Type of vulnerable household	Transmission Lines ²⁰	New Substations	Bay Extensions to Existing Substations	Total
1	Male headed households living below the official poverty line of Tk 102,000 per annum	13	19	11	43
2	Female headed households living below the official poverty line of Tk 102,000 per annum	3	2	0	5
3	Households headed by elderly persons over 70 years	4	26	1	31
4	Household without legal title to land and to become landless	8	1	0	9
	TOTAL	28	48	12	88

 Table 2-17 - Vulnerable Households Affected by the Project

Source: Census of affected persons, September-October 2018

2.5 Resettlement Impacts and Mitigation

60. Table 2-18 presented at the end of this section summarizes the resettlement impacts of the project from both land acquisitions and the establishment of the RoWs. This is based on the preliminary engineering design; this resettlement plan will be updated based on the latest available design prior to contract award and compensation paid prior to the commencement of physical and economic displacement.

61. For the transmission lines, land acquisition and permanent physical displacement is not envisaged. Moreover, the legislature related to electricity (Electricity Act 2018 and Telegraph Act 1885) do not allow land acquisition under the RoW. Also, the survey results pointed to strong objections raised by the affected households under the RoW against involuntary resettlement. However, the construction of the transmission lines and towers will cause temporary economic displacements to an estimated 870 households and 3,828 persons due to loss of crops and temporary access restrictions to their cultivation fields. Though there is no physical displacement of populations living within the clearing RoW, construction related partial and temporary impacts are anticipated on an estimated 20% of the 403 primary and auxiliary structures belonging to 108 households and 11 institutions and a population of 498 persons. The structures which may be temporarily and/ or partially impacted include primary residential structures, small-scale and largescale commercial activities and common property resources. Impacts on primary structures are most likely to be partial whereas the impacts on auxiliary structures can be either partial or full. The fully affected auxiliary structures can be restored in the remaining portion of the land by reorganizing the land use pattern once the construction work is over and avoiding the areas directly under the transmission lines.

62. None of the temporary disruptions will impact on the livelihood activities or the religious, educational, and other social activities of the CPRs. The project will pay compensation at replacement cost for the full restoration of the affected structures, and the households and institutions can continue to remain within the RoW provided the vertical clearance requirements

²⁰ The vulnerable households identified within the clearing width of the RoW of the transmission lines are those who were physically living within the RoW at the time of census. It was not possible to identify the vulnerable households who did not present within this transmission corridor.

are maintained. The average height of the structures in the project impact area varies from 3 to 5 m. Most of the two-storied buildings surveyed are less than 7 m in height. Also, PGCB has a track record of avoiding impacts on structures and physical displacement in final engineering design. In previous projects, the final number of affected structures has been reduced by as much as 60 to 70 percent. PGCB will make utmost efforts to ensure that impacts on the residential and other structures are avoided or minimized. Also, the contractors will place bamboo sheds above the structures during conductor stringing to avoid damages to structures and risks of accidents. PGCB will also ensure that the construction contractors comply with enough safeguards measures to avoid any adverse impacts on CPRs like graveyards, Eidgah field and *madarasa* school during construction work and to restore the damages caused to any structures either to the same or better level. The number of households to be affected by the installation of 1,156 angle/termination and suspension towers cannot be determined as of now. Since the land lost for transmission foundations is a permanent loss, the project will pay compensation to the affected parties as recommended by PAVC.

63. Land acquisitions for substations and bay extensions will impact on 281 households and a population of 1,221. Acquisitions will also impact on 88 vulnerable households and 218 households will lose more than 10% of their annual household incomes and falling below the poverty line. While compensation for land acquired is paid at replacement cost, special allowances for vulnerable households and livelihood restoration grants for significantly affected households will be provided by the project.

No	Affected Category	Affected Land (acres)	Affected structures	Affected Trees	Affected Households /Institutions	Affected Population			
	IMPACTS OF TRANSMISSION LINES WITHIN ITS CLEARING WIDTH OF 12 m ROW								
1	Temporarily affected land	1,164.23	-	-	970	4,268			
2	Temporarily affected agricultural land (crop cultivation area)	1,043.7	-	-	870	3,828			
3	Permanently affected land for transmission tower foundations (acres)	0.6464	-	-	-	-			
4	Primary residential structures (including 3 abandoned by non-residents)	-	241	-	102	480			
5	Primary small-scale commercial structures	-	5	-	5	15			
6	Primary large-scale commercial structures	-	6	-	3	-			
7	Primary common property resources	-	8	-	8	-			
8	Auxiliary structures		143	-	86	376			
9	Standing trees	-	-	22,734	-	-			
10	Vulnerable households				28	114			
	IMPACTS OF NEW SUBSTATIONS								

Table 2-18 - Summary Resettlement Impacts by Project Components

No	Affected Category	Affected Land (acres)	Affected structures	Affected Trees	Affected Households /Institutions	Affected Population
1	Permanent loss of private land due to acquisition	76.6	-	-	295 ²¹	-
2	Permanent loss of private land due to acquisitions (for identified landowners)	64.41	-	-	255	1,117
3	Permanent loss of private land due to acquisitions (for unidentified landowners)	12.19	-	-	40 ²²	-
4	Auxiliary structures (tube wells and irrigation pumps)	-	02	-	02	07
5	Leaseholders	-	-	-	74	326
6	Sharecroppers	-	-	-	48	211
7	Standing trees	-	-	56	-	-
8	Vulnerable households				48	213
9	Significantly affected households who will lose more that 10% of their productive land due to land acquisitions	-	-	-	207	911
	IMPACTS OF BAY	EXTENSIONS	(SATKHIRA	132 kV SUBS	STATION)	
1	Permanent loss of private land due to acquisition	3	-	-	26	104
2	Leaseholders	-	-	-	20	88
3	Vulnerable households	-	-	-	12	49
4	Significantly affected households who will lose more that 10% of their productive land due to land acquisitions	-	-	-	11	48

 ²¹ This includes 40 landowners who were non-traceable during the census from whom 12.19 acres have to be acquired
 ²² Refers to the 40 landowning households who could not be traced during the census.

3. SOCIOECONOMIC INFORMATION AND PROFILE

64. The project and its subcomponents cover a wide geographical area in Dhaka and western Bangladesh. The 46 subprojects spreads over five Divisions, namely Dhaka, Rajshai, Barishal, Rangpur and Khulna. They also cut-across 20 districts (5 in Dhaka division and 14 in the western region divisions) and 45 subdistricts (8 in Dhaka division and 37 in western region divisions). Details of the districts and sub-districts in which the proposed subprojects are to be situated are presented in Annex 5.

65. A socioeconomic household survey was conducted with a sample of 766 households living in different subproject impact areas during the period from September to October 2018. The sample included 486 households who live in the corridors of transmission lines and will be affected by the impacts of transmission lines on their land, structures and common property resources; 255 households who will be affected by the acquisition of their land for new substations; and 25 households affected by the acquisition of land for bay extensions (Sathkira substation).

3.1 Demographic Characteristics

66. Of the 766 households included in the socioeconomic survey (mentioned above), the total population accounted for 3,234 persons. The average household size is 4.2. The female population exceeds their male counterparts with 53.1% and 46.9% respectively. Children below the age of 6 years represent 10.4% of the population. Both children and adolescents in the age group of 6 to 15 years constitute 17.6%. Young adults between 15-30 years comprise one third (31%) of the population. The population that falls into the age group of 30-60 years is 35%. The rest 6% represents the population over and above 60 years of age. The married population is 55% against an unmarried population of 41%. Persons who are widowed and divorced from their spouses represent 4%. The composition of the households includes 690 nuclear families (90%) while extended families account for 76 (10%). Male headed households are 715 (93%) and female headed households are 51 (7%). In terms of ethnicity, the majority, 710 (93%) are Muslim while the rest 54 (7%) are Hindus, representing the same proportions of Islamic and Hindus in their religious faiths.

3.2 Education

67. Analysis of educational achievements of the population above 5 years of age suggests that except for 4.59% who have never been to a school, the rest had accessed formal education at varying levels. Around 37% had education less than 5 years of schooling or religious education in a *madarasha*. Another one third (35%) have pursued education for 6-10 years. The population that attained senior school certificate (SSC) and higher school certificates (HSC) or equivalent is 12% and 7% respectively. The graduates and those with postgraduate qualifications constitute 5%. The student population comprises 28% of the population (Table 3-1).

No	No Level of education		Gender				otal
NO			%	Female	%	No.	%
1	Up to class five/ Ebtedaye Madrasha (religious education)	521	32.87	570	40.66	1091	36.52
2	Class six to ten	537	33.88	512	36.52	1049	35.12
3	SSC or equivalent	211	13.31	137	9.77	348	11.65

		Total	1585	100	1402	100	2987	100
	7	Never attended a school	56	3.53	81	5.78	137	4.59
	6	MA or equivalent	41	2.59	5	0.36	46	1.54
	5	BA or equivalent	81	5.11	22	1.57	103	3.45
ĺ	4	HSC or equivalent	138	8.71	75	5.35	213	7.13

Source: Socioeconomic survey of affected persons, September-October 2018

68. Children and youth can receive education from multiple educational institutions such as kindergartens, primary schools, middle schools, high schools and colleges, English medium schools, vocational training institutions, polytechnic institutions, medical colleges and universities. There are some well-established universities in the project areas such as Islami University, Kushtia; Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj; Jashore University of Science and Technology, Jashore; Hajee Mohammad Danesh Science and Technology University, Dinajpur; Khulna University of Engineering Technology, Khulna; Khulna Agricultural University, Khulna; and Barishal University, Barishal. Families encourage their children irrespective of gender to pursue education and almost all children are admitted to a school at the age of 5 years. Many families are unable to sustain their aspirations to educate the children primarily due to household poverty. The number of children dropping out of school at primary levels is rather negligible compared to the drop-out rates at secondary level. Boys dropout primarily to find employment preferably as an immigrant worker either in a major city like Dhaka or else in a foreign country. Or else they engage in agricultural work or in daily paid labor work which is locally available. The factors that trigger girls to drop-out of school includes household poverty (equally applies to boys as well), long distances to schools and early/child marriages arranged by the families. Girls are keener to pursue education compared to boys.

3.3 Housing Infrastructure

69. Most of the households live in tin shed and *katcha* (temporary structure made of mud, bamboo, and iron sheets) houses. The occupants of such tin shed and *katcha* houses account for 44% and 11% respectively. Another one third of the households (29%) live in *semi-pucca* (semi-permanent structure where some walls/flooring is cemented) houses. The households that live in *pucca* (permanent structure, with brick walls/ roofs of concrete) houses comprise 15%.

70. The majority (99%) of households claimed singular ownership to the house they live in which belonged to the head of the household. Households that live in a house belonging to their parents or children are only 1%.

3.4 Household Amenities

71. Households are not dependent on a single source of water for their domestic purposes and collect water from multiple sources. A private tube well is the main source of water for 85% of households. Another 25% of households collected their water from a well or public tube well installed by the government. Water from rivers and streams is accessed by another 25%. Pipe borne water from a government water scheme or from a neighbor's well is used by another 8%. Electricity is available for 89% of the households. The rest 11% are not connected to electricity. Of them, 6% use solar power and 5% use kerosene for household lighting. Individual toilets are available for 96% of the households. Of them, 78% have water seal toilets followed by another 14% who use flush toilets with commodes. Pit toilets are used by 3%. The households that share a toilet with another household or use a public toilet account for 5%. Mobile telephones are available for 62.3% of the households whereas 0.45% has fixed landline telephones.

3.5 Household Assets

72. Movable assets available in a household are limited only to a few items. Almost one fourth of the households (24.23%) have a push bicycle. Motorcycles are available in 7.32% of the households. Water motors that are used for pumping water from deep and shallow tube wells are available in 2.62% of the households respectively. Other assets include rickshaws (1.72%), cars (1.45%), and CNG/auto rickshaws (0.18%). Electrical appliances used in households include televisions (27%); electric fans (38.36%); refrigerators (12.16%); rice cookers (1.71%); and electric irons (0.68%) of the households. Air conditioners, washing machines, computers and electricity operated water pumps are available only in 1.08% of households. However, a significant number of households (18.38%) have other electricity operated kitchen appliances.

3.6 Land Ownership

73. Of the 766 households, 460 households reside either within the clearing width of the RoW or in the remaining portion of the land earmarked for acquisition for substations. Households have a combination of user rights to the land on which they either live or cultivate. The land occupied by 95.7% of the households or cultivated is claimed as private property. Analysis of the extent of land owned by the 460 households pointed to the following: 13% own less than 0.1 acres; 10% between 0.11-0.2 acres; 11.3% between 0.21-0.3 acres; 18.3% between 0.31-0.5 acres; 23% between 0.51-1.0 acre; and 25% with more than 1 acre. Most households (89%) claimed singular ownership to the land they live/cultivate which belonged to the head of the household. Co-owners of the land comprise another 9%. The rest 2% are leaseholders of government or private land, sharecroppers and encroachers.²³

74. The rest 306 households reside either within the broader RoW or the immediate vicinity of the clearing width or in the adjacent village. Among the 306 households, 80% claimed owning paddy land, with each individual household having more than 0.8 acres of land. The extent of land owned by the rest 20% is less than 0.5 acres. Despite having their own land, a significant proportion of the population exceeding 1,000 persons are engaged in sharecropping. Households interviewed during the survey believed that the project would contribute to improving their livelihoods by providing an uninterrupted supply of electricity to their villages so that they would be able to irrigate their crop cultivations to provide a stable supply of water. Some households are content with the project as they expected a rise in land values with improvements in electricity supply. Land use in the project impact areas is largely agricultural fields covering 78% to 81% of the total area whereas homesteads are confined to around 11%. The average homestead size is 0.2 acres which is like the national average. The other important land uses are orchards, bamboo plantations and livestock farming e.g. poultry and dairy farms.

3.7 Livelihoods

75. Households in the subproject affected areas are dependent on multiple sources of livelihoods. They include agriculture, marine fishing, labor work, employment in government and private sector, business activities and foreign employment. The economically active population of the 766 households is reported as 1,066, of whom women constitute only 3%. Of the female labor force, women are significantly represented among professionals (41.7%) working in government and the private sector followed by 19.4% of manual workers and 16.7% equally in agriculture and skilled/semi-skilled sectors. Women who are engaged in business activities are around 6%.

²³ Based on the census of 460 affected persons conducted from September – October 2018

76. Agricultural activities are the main source of livelihood for 32.9% of the labor force followed by 22.9% in small and medium scale business activities. Professionals working in government and private sector jobs represent 16.2%. Various forms of labor-based work provide a source of livelihood for 12.4%. Skilled and semi-skilled workers such as drivers, carpenters, masons etc. constitute 8.5%. Those engaged in fishery related activities are only 0.3% of the labor force. People who are employed in foreign countries represent 6.7% of the active labor force.

3.8 Household Income and Expenditure

77. The average monthly incomes of 10.57% households are less than Tk 8,000. Another 10.18% have monthly incomes ranging from Tk 8,000 to Tk 10,000. Households receiving monthly incomes between Tk 10,001 to Tk 20,000 are 49.09%. Monthly incomes of the rest one-third (30.16%) are within Tk 30,001 to Tk 165,000 (Table 3-2). The average monthly income of a household is estimated at Tk 20,975. As per the official poverty line of Bangladesh (see glossary for full details), households earning an annual income of less than Tk 102,000 are considered those living below the poverty line. Accordingly, 81 households (11%) out of 766 households will be considered as poor households.

Monthly Household Income (Tk)	Frequency	Percentage (%)
< 8,500	80	10.44
8,500–10,000	79	10.31
10,001–20,000	376	49.09
20,001–30 ,000	143	18.67
30,001–40,000	41	5.35
>40,000	47	6.14
Total	766	100.00

Table 3-2 - Monthly Household Income

Source: Socioeconomic survey of affected persons, September-October 2018

78. More than half the households (53%) spend Tk 5,000 to Tk 10,000 of their monthly income on food consumption followed by another 25% spending less than Tk 5,000. The monthly expenditure of 99% of the households is on electricity, water, gas, telephone and transport is less than Tk 5,000. Household monthly expenditure on children's education, family healthcare, clothing and entertainment for 88% is less than Tk 5,000 whereas another 11% spend Tk 5,000 to Tk 10,000 a month (Table 3-3). The average monthly expenditure of a household is estimated at Tk 13,043.

Table 3-3 - Monthly Household Expen	diture
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Expenditure	<tk 5,000<="" th=""><th>Tk 5,000 – Tk 10,000</th><th>Tk 10,000 – Tk 15,000</th><th>Tk 15,000 – Tk 20,000</th><th>Tk 20,000 – Tk 25,000</th><th>>Tk 25,000</th></tk>	Tk 5,000 – Tk 10,000	Tk 10,000 – Tk 15,000	Tk 15,000 – Tk 20,000	Tk 20,000 – Tk 25,000	>Tk 25,000
Food consumption	190	406	123	34	6	7
%	24.8	53.0	16.1	4.4	0.8	0.9
Electricity, water, gas, telephone & transport	758	6	1	1	-	-
%	99.0	0.8	0.1	0.1	-	-
Children's education, healthcare, clothing & entertainment	673	85	7	-	1	-
%	87.9	11.1	0.9	-	0.1	-

Source: Socioeconomic survey of affected persons, September-October 2018

3.9 Government Assistance and Foreign Remittance for Households

79. The government's special assistance is received by 88 households (11.5%). Government assistance is delivered in various forms such as food for work (for those providing 40 days of manual labour work per year), old age allowance amounting to Tk 500 per month, freedom fighters' allowance of Tk 10,000 a month etc. In addition, vulnerable households can buy their rice at Tk 10 per kilogram. However, households are not eligible to receive more than one government's assistance. Another 63 households (8.2%) reported that they receive foreign remittance from family members working outside Bangladesh. Foreign remittance received by 35% of the households is in the range of Tk 10,000 to Tk 15,000 a month whereas another 24% received monthly remittance of Tk 5,000 to Tk 10,000. Another 28% received remittance exceeding Tk 15,000 a month. Households that received less than Tk 5,000 foreign remittance account for 13%.

3.10 Indebtedness

80. Loans have been obtained by 229 (30%) households during the past 12 months. The source of loans for most households (67.25%) was a non-governmental organization (NGO) or a community-based organization (CBO) followed by 17.5% from family members or neighbors, and 11.4% from a moneylender or a bank. The widespread operations of micro-credit institutions in Bangladesh such as Bangladesh Rural Advancement Committee (BRAC), Grameen Bank etc., who conducted their operations through NGOs and CBOs, may be one of the reasons for rural communities to access loans from NGOs and CBOs. The annual interest rates charged on the loans varied from 10% to 25% with an average rate of 17%. The loans have been accessed by 36.2% to invest in agricultural activities; 33.6% for family emergencies; 10% each for the educational purposes of their children and house building; 6% for investments in businesses; and 5% for a variety of purposes such as for repaying past debts, land purchases, and getting gas connections. The loans taken by 74% of the households had been repaid while another 26% has been able to repay the loans partially.

3.11 Unemployment

81. The number of persons in the sample reported unemployed is relatively low, representing only 1.5% of the household population. Of them, 36% are females. Low rates of unemployment may be due to engagement of many household members in a variety of seasonal and casual employment such as in daily paid labor work. Employment opportunities in the project affected areas are rather negligible as there are no industrial or commercial ventures that can absorb the unemployed. Due to a lack of employment opportunities in the surrounding areas, most of unemployed people find work in seasonal agricultural activities or in daily paid casual labor work as a source of livelihood to support their families. Some unemployed persons will operate as tenant farmers, cultivating the land belonging to another party and sharing part of the produce with the landowner. Others are engaged in small businesses, rickshaw pulling, driving vans or auto rickshaws or jobs in the service sector. Women are mostly housewives. But some women are engaged in household labor and in agriculture, livestock farming, tailoring and manufacture of handicrafts to earn supplementary incomes for their families. A fair number of children also work in various factories to find extra incomes for their families despite child labor being illegal (children below the age of 14 years cannot work by law and in the case of hazardous work, children below 18 years are not allowed). In some communities, women also are engaged in casual daily paid labor work whereas in other communities they would not go for such labor work. Many rural women are deprived of working outside due to customary and social beliefs and taboos. Many youths aspire to find employment in a foreign country.

3.12 Health and Services

82. No major chronic illnesses are reported from the subproject affected areas. However, incidence of water borne diseases and skin ailments were frequently reported during consultations. People approach multiple institutions for medical care and treatment. Government hospitals or university hospitals are accessed by 51% for their medical and health needs followed by 42% reaching the private hospitals or private physicians. Medication from pharmacies is sought by 7%. Despite the presence of several health and medical service institutions, access to them from rural areas is rather remote. Distance from the households to such institutions varies from 2 km to 7 km across the project affected areas. Medical services at private clinics are expensive and unaffordable to many families. Government hospitals in local areas lack enough medicine, diagnostic facilities and staff. Patients must wait in long queues. For serious illnesses, people must go to Dhaka for treatment. People sometimes travel more than 100 km to get their medical tests done.

3.13 Energy Use

83. Electricity is the main source of lighting for 89% grid connected households. The nonconnected households are 11%, who use kerosene (5%) and solar power (6%) for household lighting. Households use multiple and combined energy sources for domestic purposes. Firewood is the main source of energy used by most of the households (51.8 %) for cooking and boiling purposes followed by 1.84% using liquefied petroleum gas, particularly by people living closer to urban areas. Electricity is also used by 41.6% in combination with firewood and kerosene. Kerosene is used by 29.2% which is very harmful for the health and environment caused by indoor pollutants.

84. The electrified households, apart from household lighting, use electricity for a variety of other purposes. Electricity is used by 38.36% for fans, 27% for televisions, 12.16% for refrigerators, and 1.71% for rice cookers as they cook rice using rice cookers, 68% for electric irons and 18.38% for a variety of other kitchen appliances. Electricity use by households for air conditioners, computers and water pumps is only 0.4%. Moreover, 62.3% households own mobile phones, and all of them use electricity for charging.

85. Solar power and dry batteries are also used by 20% households for various electrical appliances.

86. Households in the project affected areas experience frequent load shedding which deprives them regular supply of electricity throughout the day. Daily power shedding is extensive and continues for several hours both daytime and night. Load shedding adversely affect the farmers in irrigating their cultivation fields and providing a regular supply of water, children's studies at nighttime, and women in watching television programs during their leisure time. Sleep at night after a day's hard work is difficult as they cannot operate fans particularly during warm seasons. Despite irregular and limited power supply, households lament over having to pay high electricity bills.

3.14 Role of Women and Gender Issues

87. Women in the project affected areas are engaged in multiple activities. Apart from their household roles such as household cooking, cleaning, fetching water, feeding children, helping in children's studies and looking after the in-laws (particularly those living in extended families), women across the project areas also make a significant contribution to the household economy.

Despite strong pressures from the families to dissuade women finding employment, they take a lead role in livestock farming and take care of the feeding of their cattle, goats and poultry. Home gardening is another important economic activity of women, produce of which is used for both household consumption and marketing. Other forms of economic activities conducted by women include agricultural labor work, dressmaking, handicraft-making, employment in apparel industries etc. Educated women are employed in both government and private sector jobs. Women's earnings are mainly used for children's education and clothing, to supplement the households' consumption needs, and to repay the past debts. Some women would also save some money to be used in emergencies or for their children's future. In some communities, however, it has been reported that women must hand over their earnings to husbands or else get prior consent of the husband to spend their earnings. Women also participate in the activities of NGOs like BRAC and Grameen Bank to access micro-credit which they would use to buy cattle, goats and poultry.

88. Women in daily paid labor work are paid less compared to their male counterparts. For example, when a man is paid Tk 300 a day, a woman would get only Tk 150 or Tk 200 though there is not much difference in the workload that both groups carry out and the duration of work. Excess of labor available and social attitudes towards women are also reported as factors that influence to pay lower salaries for women. Women working outside the home suffer from lack of access to private and suitable sanitary services.

89. Household level decision-making is largely vested with the husband. A few instances of joint decision making by both men and women were reported. Women also perform a significant role in managing household assets despite the key immovable assets like land and house are owned by men. Physical assets such as land and jewelry received by women as part of their dowry remain in her possession but in some occasions, they are transferred to the ownership of men as part of matrimonial agreements. Women are discouraged from participating in social and political activities mostly by their male counterparts. However, many women struggle to change this situation.

90. During consultations, women expressed concerns over the loss of their fruit-bearing trees, livestock farming activities, household incomes and their social networks as a result of their potential displacements from the project impact areas. The project will address these concerns of women by minimizing physical displacements and helping them to continue to live in the remaining portion of their land or in the immediate vicinity while engaging in their routine activities. The project will also pay compensation for all their economic losses and will encourage their participation in livelihood restoration activities such as in tree planting programs lead by Ministry of Environment. A total of three times the number of affected trees can be planted in home gardens, in the remaining portions of their land, government lands and on the side slopes of the access roads during the monsoon period. The number of saplings which die will be replaced with new saplings. Female headed vulnerable households will receive additional cash allowances to re-establish their livelihoods. Consultations with women will continue throughout the project lifecycle.

91. A key gender challenge in the context of Bangladesh and project affected area is that while there is a high demand for technical people in the energy sector, the number of women in these jobs is limited, and the sector has been traditionally male dominated. Education in science and technology is generally not promoted for women and girls, and the environment for technical work is not conducive to women. In project affected areas, women participate in the workforce generally in areas that are deemed an extension of their gender roles. This results in less interest of families in sending girls to technical schools, and in limited opportunities for further training for those women already in the sector.

92. On the other hand, vulnerability of women in their economic and social lives is manifested in different forms such as household food insecurity, restricted social and economic mobility, limited amounts of freedom due to strict religious and moral codes and harmful practices such as child marriage and dowry.

93. Lack of access to reliable, affordable and clean energy sources can adversely affect the women. Extensive use of biomass for cooking can cause health complications among women. Their mobility in public places during nighttime would be restricted due to safety issues. They will be deprived of engaging in productive activities such as home-based enterprises and contributing to household economy. Their access to information via electronic means of communication such as radio and television can be curtailed.

3.15 Awareness on HIV

94. Not all men and women in the communities across the subproject areas are equally aware of the root causes of HIV, how the disease is communicated and the preventive measures that people should adopt to avoid the spread of HIV. In a few communities, awareness has been raised through educational programs conducted by NGOs over a period of almost two decades. However, not all the villagers have participated in those programs. People who claimed to have some knowledge on HIV acquired such awareness through media such as television, newspapers and the brochures and leaflets distributed by NGOs. It is the estimation of the villagers that around 50% to 70% of the villagers in their respective communities are not knowledgeable of the disease.

95. At consultations, people expressed concerns over influx of migrant laborers for project's construction work and their possible engagement in illicit sexual relationships with women and children. They thought that such instances can cause the spread of sexually transmitted diseases. Addressing this concern, both PGCB and the contractors will ensure that awareness raising programs on sexually transmitted diseases are conducted for all local and migrant laborers as well as local communities prior to the commencement of civil works. Furthermore, it will be also a mandatory requirement on the part of contractors to enforce a strict code of conduct for their labor teams.

3.16 Indigenous Peoples

96. There are no indigenous people's settlements in the affected area of the project. Therefore, no permanent or temporary and direct or indirect impacts on indigenous people's communities are anticipated. The project has taken necessary steps to avoid the indigenous people's communities and their properties and other social and cultural activities from the areas identified for project implementation.

4. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

4.1 Consultations

97. Public consultations were carried out with groups of men and women and their communitybased organizations and members of the local government authorities (union parishad) in the project affected areas for the purpose of disclosing information about the proposed project and its various subcomponents and eliciting their views and concerns. The persons to be affected by land acquisitions were also consulted during project preparation. In addition to community level consultations, interviews were also conducted with local level politicians and administrators including the district level officers responsible for land acquisitions. The feedback received from consultations will be used by the project executing agency to carryout necessary revisions to the technical designs in order to minimize the resettlement impacts. Furthermore, consultation outcomes were also helpful in identifying the key issues and concerns of the local communities on the potential impacts of the project on their economic and social assets, specifically on land and livelihoods, assessing the level of compensation anticipated by the affected persons, and establishing appropriate safeguards measures such as grievance redress procedures and the preparation of the entitlement matrix in the resettlement plan. Consultations with women also led to identifying the special safeguard measures that need to be adopted to secure the rights of women and children during project construction and operation.

98. Community level public consultations were conducted in 40 locations in the different project affected areas in the months of September and October 2018 as part of the preparation processes for the project and draft resettlement plan. They included 21 at proposed sites for different transmission lines, and 19 at sites proposed for new substations and bay extensions to an existing substation. Participants at consultations included persons to be potentially affected using their land for transmission line corridors, owners/claimants of the lands to be acquired for substations and their dependents such as tenants and sharecroppers, vulnerable groups and members of local government authorities (union paishad) and civil society organizations. Participants at these consultations altogether comprised 1,127 community members who included 916 men and 211 women. Furthermore, separate consultations were conducted in the same 24 locations (7 at transmission line corridors and 17 at proposed substation sites) with women and men to specifically discuss their gender perspectives on the proposed project and its impacts. These women's consultations were attended by 238 women and 36 men. The locations and the number of participants in public and women's consultations are summarized in Table 4-1 with details given in Annex 6. Photographs of a cross-section of the consultations are added to Annex 7.

No.	Name of the Subproject Date		No. of Pa	rticipants		
INO.	Name of the Subproject	Date	Male	Female		
PUBLIC CONSULTATIONS FOR TRANSMISSION LINES						
1	Manirampur-Satkhira (TL)	17/09/2018	13	15		
2	Domar-Purba Sadipur (TL)	19/09/2018	12	5		
3	Manirampur-Satkhira (TL)	20/09/2018	24	2		
4	Gopalganj- Shibchar (TL)	21/09/2018	16	12		
5	Domar-Hatibanda (TL)	22/09/2018	18	6		
6	Gopalganj- Shibchar (TL)	22/09/2018	14	10		
7	Domar-Hatibanda (TL)	25/09/2018	19	0		
8	Kaliganj-Maheshpur (TL)	25/09/2018	12	3		

Table 4-1 - Locations and the Number of Participants at Public and Women's Consultations

9	Kaliganj-Maheshpur (TL)	25/09/2018	13	4
10	Purba Sadipur- Domar (TL)	26/09/2018	5	17
11	Kushtia-Meherpur (TL)	27/09/2018	21	5
12	Rupsha-Satkhira (TL)	27/09/2018	30	6
13	Kushtia-Meherpur (TL)	28/09/2018	16	18
14	Niyamotpur-Patnitola (TL)	30/09/2018	40	-
15	Rupsha-Satkhira (TL)	30/09/2018	19	9
16	Niamatpur-Patnitola (TL)	02/10/2018	39	1
17	Rupsha (LILO)	06/10/2018	20	9
18	Kaliganj-Purbachal (TL)	8/10/2018	7	10
19	Kaliganj-Purbachal (TL)	11/10/2018	17	-
20	Bagerhat-Pirojpur-Bhandaria (TL)	15/10/2018	27	3
21	Bagerhat-Pirojpur-Bhandaria (TL)	17/10/2018	25	17
	Total		407	152
PUBLI	C CONSULTATIONS FOR SUBSTATIONS			
1	Manirampur Substation	13/09/2018	12	
2	Shibchar Substation	17/09/2018	32	- 8
			38	0
3	Manirampur Substation	18/09/2018		- 10
4 5	Bay Extension to Domar Substation	20/09/2018	21	13
	Bhanga Substation	21/09/2018	21	13
6	Satkhira Bay Extension	22/09/2018	30	-
7	Satkhira- Khulna Substation	22/09/2018	12	-
8	Hatibanda Substation	25/09/2018	21	4
9	Maheshpur Substation	25/09/2018	8	9
10	Meherpur Substation	26/09/2018	10	9
11	Phultala Substation	29/09/2018	25	-
12	Rupsha Substation	02/10/2018	26	-
13	Niamatpur Substation	04/10/2018	46	3
14	Purbachal Substation	09/10/2018	16	-
15	Purbachal Substation	09/10/2018	11	-
16	Pirojpur Substation	12/10/2018	27	-
17	Jhalokathi Substation	13/10/2018	53	-
18	Kaliganj Substation	13/10/2018	59	-
19	Bhola Substation	15/10/2018	41	-
	Total		509	59
WOME	N'S CONSULTATIONS FOR TRANSMISSI	ON LINES		
1	Khulna-Satkhira Transmission Line	23.9.2018	-	11
2	Domar-Hatibanda Transmission Line	25.09.2018	-	14
3	Domar-Purbosadipur Transmission Line	26.09.2018	-	08
4	Kushtia-Meherpur Transmission Line	27.09.2018	_	12
5	Niamatpur-Patnitola Transmission Line	30.09.2018	_	12
6	Bagerhat-Pirojpur-Bhandaria	07.10.2018		12
Ŭ	Transmission Line	01110.2010		
	Total		-	69
WOME	N'S CONSULTATIONS FOR SUBSTATION	NS		
1	Manirampur Substation	13/09/2018	12	-
2	Manirampur Substation	18/09/2018	-	12
3	Shibchar Substation	18/09/2018	1	15
4	Hatibanda Substation	18/09/2018	-	12
-		21/09/2018	-	11
5	Bhanga Substation	21/09/2016		11
5 6 7	Bhanga Substation Satkhira- Khulna Substation	22/09/2018	12	- 13

8	Maheshpur Substation	25/09/2018	-	9
9	Meherpur Substation	26/09/2018	-	14
10	Domar Substation	26/09/2018	-	12
11	Phultala Substation	29/09/2018	-	12
12	Rupsha Substation	01/10/2018	-	12
13	Purbachal Substation	09/10/2018	11	-
14	Kaliganj Substation	10/10/2018	-	12
15	Pirojpur Substation	12/10/2018	-	12
16	Jhalokathi Substation	14/10/2018	-	10
17	Bhola Substation	15/10/2018	-	13
	Total		36	169

Source: Public and women's consultations conducted from September–October 2018

99. Communities anticipated that the project would contribute to overcome one of their critical power related issues, namely load shedding and that communities will also have stable power supply particularly during dry seasons. Communities who are frequently affected by load shedding almost daily are adversely affected by their inability to provide a stable supply of water for their crops as they cannot operate their water pumps. Farmer communities expected to use electricity for irrigation purposes so that they would be able to avoid crop losses, increase productivity and generate higher incomes. Children are unable to engage in their studies at night due to lack of electricity. Women aspired better lighting for their households and particularly to spend their leisure time in watching television programs.

100. Communities did express concerns over the potential loss of their land, trees and crops and the adverse consequences that such losses can have on their livelihoods and incomes. They emphasized that the project follows adequate measures to avoid/minimize any adverse impacts on their private properties, residential dwellings, public infrastructure, livelihoods and personal security. If subprojects caused any adverse impacts on individual properties, valuable tree species and cultivations, people requested that such losses irrespective of whether they are permanent or temporary should be compensated adequately and timely. Consultations also highlighted that compensation for any of their losses should be paid over and above the current market rates (3-5 times) to enable them to buy alternate land, find alternate livelihoods or to invest in other productive activities to avoid their impoverishment. Compensation for land devaluation causing from the installation of transmission towers and lines traversing their private properties was another concern of the participants at the consultations.

101. The key issues raised and discussed during consultations are presented in Table 4-2. Issues discussed mainly evolved around perceived and potential impacts of the project, and issues related to land acquisition and payment of compensation, grievance redress, project benefits, and safety related issues. Summaries of consultations are also presented in. Annex 8.

No	Issues and concerns raised	Response from the project
Anti	cipated benefits from the project	
1	We expect transmission lines to contribute to improved village and household power supply, reduce load shedding, stable supply of electricity to irrigate crop cultivations, uninterrupted power supply at night for children's studies, development of industries and commercial centers and employment for our unemployed people in civil works, and	Project will bring many positive benefits to the local communities. The project will improve and stabilize the power supply. Moreover, if the electricity supply increases, it will create more livelihood opportunities and employment for people.

	permanent employment for educated youth at substations specifically affected households. Households affected by the project should be	PGCB will negotiate with the construction contractors to place their priority in local labor in recruiting labor teams for civil
2	provided with fair compensation and other assistance, priority in job placements, free electricity connections to their households, access to loans at concessionary interest rates, and vocational training for alternate employment.	works. Compensation for affected properties will be paid at replacement cost. The project will also provide other rehabilitation and restoration assistance for the APs.
Loss	of land, livelihoods and incomes and compensation	
3	Some landowners are not entirely dependent on the land to be acquired, and they live elsewhere either in Dhaka or abroad. Their lands are cultivated by tenants or sharecroppers. These landowners are willing to sell their land so that they can get rid of the tenants and sharecroppers. Others are exclusively dependent on the land earmarked for substations, and they will lose a stable source of food for their	Compensation for all losses caused to the APs 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 ADB safeguard policy. If there is a gap between statutory compensation and the replacement cost,
4	families, livelihoods and incomes. Transmission towers will restrict the land use. Tractors and machinery cannot be used. Productivity of the land will decrease. Removal of fruit-bearing and timber trees will reduce incomes. Civil works will cause crop losses and restrict farmers' access to	the gap will be bridged by PGCB based on assessments and recommendations of the Property Assessment and Valuation Committees (PAVC) to be appointed by PGCB.
5	their cultivated areas for several seasons. Households to be displaced by transmission lines, and landowners losing their land for substations should be paid a higher compensation over and above the mouza rate to enable them to purchase alternate residential or agricultural land.	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 transmission tower base areas.
6	Land valuations and property assessments should consider the productivity of the land, production cycle, fertility of the land, and land devaluation due to transmission lines when determining the compensation. Because of land devaluation, people will not be able to find potential buyers for their land in case they decided to sell the land to find money in	Compensation will be paid for the trees to be removed. Also, tree owners will be allowed to retain the timber from the trees. APs will also be provided with additional rehabilitation and resettlement
7	emergencies. If relocation and resettlement is required, some people do not own any other land other than the land they occupy inside the RoW. Some others will have only agricultural land other than their present land. Construction of houses on such agricultural land requires landfilling and obtaining utility service connections at an additional cost.	assistance; and special grants/allowances for vulnerable and severely affected households to restore and improve their affected livelihoods. Concerns over land devaluation due to transmission lines and towers will be reviewed by PGCB.
		PGCB will avoid any physical displacement of the residential and business structures and common property resources.
8	Project should consider allocating alternate land of similar quality to people who lose their land and specifically to the leaseholders and sharecroppers who are exclusively dependent on acquired land for their livelihoods and incomes.	Compensation will be paid at replacement cost enabling people to purchase alternate land. The project will assist the APs to find alternate land either for outright purchase or leasing.

		Leaseholders and sharecroppers will be compensated for their crop and income losses. Furthermore, they will be assisted to find alternate land.
9	The lands earmarked for substations are (i) fertile land cultivated by farmers in several seasons of the year; (ii) government land occupied by non- titleholders for several years and are dependent on it for their residential, agricultural and commercial purposes; and (iii) planned to construct 'future houses' by land-filling as they are located closer to the main roads. Land acquisitions will adversely affect the activities and expectations of the landowners. Project should consider selecting	Project tries to avoid/minimize resettlement impacts and particularly the residential areas, and none of lands earmarked for substations are within the residential areas. The location is proposed by a team of professionals considering the engineering and technical requirements. However, community concerns over the land will be
10	alternative land. What is the procedure for landowners who live abroad to claim their compensation	further reviewed by PGCB. They can appoint a power of attorney on their behalf. Or else the compensation money will remain in DC's account and the eligible parties can claim the money whenever they are available by showing evidence in support of their claims and ownership.
Avoi	dance and safeguards	
11	Transmission lines should avoid traversing public places like schools, mosques, graveyards, <i>madarasa</i> , markets etc. as well as residential dwellings of the people.	In the final engineering designs, PGCB will take maximum efforts to avoid primary residential dwellings, businesses related structures and community properties. Installation of transmission towers will avoid residential areas and other public spaces. If unavoidable, project will provide compensation at replacement cost and other rehabilitation and restoration assistance. PGCB ensures that transmission lines do not cause population displacements. People can live in the same places if distance between the roof of their structures and the transmission conductors are maintained at 7-8 meters.
12	Transmission lines and towers can cause possible electrocution, accidents, fires and damages to trees and crops particularly during natural disasters like heavy rains, lightening, storms and winds.	PGCB will ensure that all required safety measures are followed by contractors during substation construction and PGCB officers during its operations.
13	Construction and operations of substations should ensure the prevention of potential accidents, pollution and noise disturbances to local communities and the common property resources situated in the vicinity of the substations.	Necessary safety measures such as erecting bamboo sheds over the built structures and fencing off the construction sites will be adopted by the contractors
14	Transportation of construction material can cause traffic congestion, dust and noise emissions.	during conductor stringing. Civil works will be scheduled to avoid cultivation seasons, and peak periods for other livelihood activities.
		Contractors will be obliged to avoid traffic congestion and follow health and safety

		guidelines to control dust emissions and noise generation. PGCB officers will monitor the
		performance of the contractors and compliance with safeguards requirements.
15	Landfilling for substations can disturb the drainage systems and would adversely affect the rest of the lands, water logging, floods etc.	The final engineering designs will study the drainage systems and necessary measures would be incorporated to avoid environmental hazards.
16	Construction work of the transmission lines should not damage utility services and our water sources and pumps.	No utility services or water sources will be affected. If affected, project will restore them at its own cost within a reasonable time frame.
17	Civil works of the project will lead to influx of migrant labor teams; their possible misconduct and engagement in sexual harassment of women; drug peddling and abuse, human trafficking etc.	PGCB and the contractors will endeavor to minimize labor influx and place priority in local labor. Awareness raising programs will be conducted for labor teams. It will be a mandatory requirement for the contractors to enforce a code of conduct for the labor teams. PGCB will establish a grievance redress mechanism (GRM) to facilitate any affected/aggrieved parties to report their grievances/complaints and seek resolution within a reasonable time frame.
18	Compensation payments should not be delayed. Middlemen interfering with compensation process and seeking bribes should be avoided. It should be a trouble-free process for APs.	PGCB together with DC will ensure that compensation is paid on due time and before taking possession of land. Compensation will be paid directly to the landowner/ claimant through a cheque.

4.2 Information Disclosure

102. During the due diligence conducted for the project, information related to preliminary engineering designs and line routes of the project, land requirements and acquisition procedures, potential impacts of the project, both positive and negative and direct and indirect, entitlement policies and frameworks for compensation for the affected parties and grievance redress procedures were shared with affected persons during consultations. The PMU and its Environmental and Social Unit (ESU) of the executing agency will continue their communications with the affected persons and other stakeholders and disclose information such as the dates of final surveys and census of affected households, valuation procedures, project related impacts, specific entitlements of the affected persons, compensation procedures, grievance redress procedures and dates of the commencement of civil works.

103. Brochures and posters containing relevant information will be printed in Bengali and they will be made available/displayed at places easily accessible to affected persons and other interested parties. A copy of the draft resettlement plan will be disclosed on ADB's website as well as on the website of the executing agency. A translation of the resettlement plan in Bengali will be made for public scrutiny in places accessible to them. Once the draft resettlement plan

was finalized with updated information, the same procedure of disclosure will be followed. Monitoring reports will also be disclosed on the ADB and borrower websites.

4.3 Continued Consultation and Participation

104. The PMU of the executing agency directs their project directors, engineers and ESU to engage in continuous consultations with the affected persons to minimize/avoid adverse impacts of the project emanating from final engineering designs. For continued consultations, the following steps are envisaged from the ESU:

- Organize and conduct periodic meetings with affected persons and other stakeholders e.g. members of union parishad, upazila nirbhai officers etc. to inform them the status of final engineering designs, land acquisition process and entitlements and payment of compensation to affected persons.
- In coordination with, engineers engage the affected persons and other stakeholders to review the final engineering designs, and entitlements and other benefits to affected persons.
- Liaise with the office of the Deputy Commissioner to verify the status of land acquisitions and communicate the same information to the affected persons.
- Conduct consultations with affected persons and other stakeholders to elicit their views and suggestions to revise and to update the resettlement plan.
- Share the final resettlement plan with the affected persons and other stakeholders.
- Hold periodic meetings with the affected persons and other stakeholders to review any unanticipated or indirect consequences of the implementation of safeguard plans.
- Assist the affected persons to access necessary information, prepare documentation related to land acquisitions and receive compensation and other resettlement assistance and other project related benefits.
- Organize public meetings and appraise the communities about the progress of project implementation and the implementation of social safeguards such as payment of compensation and other assistance to be provided.
- A regular update of the progress of the resettlement component of the project is placed for public display at the offices of the executing agency and its PMU.
- All monitoring reports of the resettlement components of the project are disclosed in the same manner as that of the resettlement plan.
- Conduct information dissemination sessions at major locations and solicits the help of the local community leaders to encourage the participation of the affected persons in resettlement plan implementation.
- Place special attention to assist the vulnerable groups to understand the process and to help them in getting the compensation and other assistance.

5. GRIEVANCE REDRESS MECHANISM

105. The impacts of the project may raise grievances and complaints on the part of affected persons. Resolution of such grievances within the legal framework of Bangladesh largely rests with the Deputy Commissioner who is responsible for land acquisitions. Affected parties can submit their grievances and complaints to the Deputy Commissioner for redress. The land acquisition law also provides for the affected parties recourse to the country's judicial system in case the Deputy Commissioner has not resolved the issue or else the parties are dissatisfied with the decision of the Deputy Commissioner. Meanwhile, there will be several other non-land acquisition-based grievances and complaints. The clearance of standing trees and way-leaves within the RoW of the transmission lines can adversely affect the livelihoods and incomes of households: civil construction works can cause destructions to standing crops: stringing of transmission lines over private properties can lead to property devaluation and raise people's concerns over their personal safety; and construction work of the project could also result in various inconveniences to the general public such as access difficulties, restrictions to public places, damages to privately owned built structures and common property resources, disturbances causing from noise and dust, and issues related to labour influx etc.

106. However, the legal framework of the country may not address all grievances effectively. Therefore, the project will establish a project-based grievance redress mechanism (GRM) which is easily accessible to the aggrieved parties, transparent and accountable in grievance handling and responding while winning the confidence of the complainants. A well-established and well-functioning GRM would be able to resolve the grievances locally and avoid lengthy court procedures.

The project will establish a three-tier GRM, details of which are described in the sections 107. to follow. The GRM will function throughout the life cycle of the project implementation and PGCB will ensure its accessibility to affected parties, and transparency and efficiency in grievance resolution. However, it will not deal or interfere with any matters which are already placed before the country's courts of law. The project will provide wider publicity for the GRM established using a variety of media such as brochures and leaflets printed in Bengali, and through community level awareness raising programs. The roles and functions of the GRM and its different tiers, specific locations where the different tires are established, grievance reporting procedures, time frames for grievance resolution at each level etc. will be disseminated to the affected persons as well as the general public using the above-mentioned modes of communication. Furthermore, the project will provide orientation and training to the members of the GRM on effective grievance handling procedures. All expenses related to the functioning and use of the GRM will be borne by the project. PGCB will carefully record on grievances and report on the status of open and closed grievances in semi-annual monitoring reports submitted to ADB. Records on grievances will be made available to the external monitor and ADB supervision missions.

108. **GRM – Level 1:** Level 1 of the GRM will be the project officer/s appointed by PGCB to a subproject. The person can be a sub assistant engineer, or any other engineer appointed by PGCB to a specific site.²⁴ Also, contractors on project sites can be a window for field level grievances. In case of grievances that are urgent and minor, aggrieved parties can easily approach PGCB's field officer and/or contractors. Contact phone numbers, mails and names of the focal persons will be posted at all construction sites at visible locations. Considering female complainant, a contact point of a focal female person will be posted too. The field officer of PGCB

²⁴ The DWZTGEP envisages engaging/recruiting 2 deputy project directors, 4 executive engineers, 6 sub-divisional engineers and 12 assistant engineers and 42 sub assistant engineers (DPP, April 2019)

and focal person of the contractors will record the name of the complainant, the date of complaint and the nature of the complaint. The field officer of PGCB and/or focal person of contractors will communicate with the complainant/s to reach an amicable settlement within a period of two weeks.

109 **GRM – Level 2:** Level 2 of the GRM will be the Local Grievance Redress Committee (LGRC) chaired by one of the Executive Engineers. PGCB will establish five LGRCs, one for each Division under the project namely, Dhaka, Barishal, Khulna, Rajshai and Rangpur.²⁵ The rest of the members of the GRC will include (i) the project officer/assistant engineer from concerned project area; (ii) the focal persons from the contractors; (iii) representatives of the concerned Union; (iv) representatives of the relevant government offices such as DC; and (v) representative of the affected households. Grievances that cannot be resolved at GRM-Level 1 or else if the affected persons were dissatisfied with the Level 1 resolution can submit their grievances to LGRC. The meetings of the LGRC will be held at the local office of PGCB or the union office in the area where the complaint originated. The LGRC can convene the affected person to explain his/her grievance at its meeting. The complainant can also send his/her nominee to the LGRC, if he/she is unable to physically participate in the LGRC. During the committee deliberations, LGRC will clarify the issues involved, and would try its best to reach a settlement acceptable to both the affected person and the project within a period of two weeks. The executive engineer can also consult his/her respective deputy project director (DPD) for advice and guidance if necessary. If an agreement or resolution is reached, the key points of the agreement/resolution will be summarized, documented and signed by both the affected person and the members of the LGRC. The project officer of PGCB at site level from where the complaint was submitted to LGRC will assist in the documentation and record keeping, summaries of which will also be reported to ADB through monitoring reports.

110. **GRM – Level 3:** Level 3 of the GRM will be the Project Management Unit of PGCB. The GRC at the PMU will be charged by Project Director (PD) and comprise (i) external monitor for resettlement; (ii) safeguards specialist(s) under PMU/ESU; (iii) relevant technicians and engineers from PGCB and contractors; and (iv) representatives of the relevant government offices. The complainant and/or representative will be called to appear before the Level 3 GRC and explain his/her grievance. An officer from ESU/PMU will coordinate with the complainant. The complainant can send his/her nominee to the GRC, and in the event of both being unable to physically participate in the GRC, the ESU officer will explain the grievances on behalf of the complainant. If necessary, GRC members will undertake field inspections to verify the issues reported. Level 3 GRC will reach a settlement through consensus among its membership, failing which the decision may be taken on a majority vote. The GRC located at PMU will conclude its proceedings within a period of one month since the submission of the grievance. Any significant arievances which an implication on life of a person may have should be resolved immediately. Also, in the case of critical issues to be resolved, PD can also consult the managing director of PGCB for advice and guidance. The ESU officer will assist in the documentation and record keeping, and summary outcomes will be reported to ADB through monitoring reports. Also, the external monitor will take a role as a liaison between the GRC and ADB.

111. Apart from the above described three levels of GRM, contractors will also establish a GRM at site level which will exclusively address the issues and grievances of the labor teams. However, whenever necessary, the aggrieved laborers also have the choice of approaching the project based GRM.

²⁵ Since there will be only 4 executive engineers, one of them will be assigned to oversee 2 Divisions.

112. The GRM does not impede access to the legal system. Affected persons can resort to legal action through the country's judiciary system at any time. They can also submit their grievances to ADB's Accountability Mechanism, which has both a problem-solving function to respond to concerns of project affected people and a compliance review function where there is discrepancy with implementation of ADBs operational policies.

6. POLICY AND LEGAL FRAMEWORK

6.1 Introduction

113. The government does not have a national policy on involuntary resettlement. The law of eminent domain is applied for the acquisition of land for infrastructure projects of public interest. The legal and policy framework for land acquisition and involuntary resettlement for the project will be based on: (i) the recently enacted Acquisition and Requisition of Immovable Property Act (ARIPA) 2017 (ii) the Electricity Act of 2018; (iii) the Bangladesh Telegraph Act of 1885 and (vi) ADB's Safeguards Policy Statement (SPS), 2009, which applies to all ADB financed and/or administered projects, regardless of the country of where the project is located or the financing modality (i.e. loan, a grant, or other means).

6.2 Legal Framework for Land Acquisitions in Bangladesh

114. The principal legal instrument governing land acquisition in Bangladesh was the Acquisition and Requisition of Immovable Property Ordinance (ARIPO) 1982. This ordinance was repealed by the newly passed act under the name of Acquisition and Requisition of Immovable Property Act of 2017. Land acquisitions for the 15 new substations and any land required for bay extensions for existing substations will be carried out in accordance with the provisions in the ARIPA 2017. The ARIPA 2017 requires that compensation be paid for (i) land and assets permanently acquired (including standing crops, trees, houses); and (ii) any other damages caused by such acquisition. The Act also provides for the acquisition of properties belonging to religious organizations like mosques, temples, pagodas and graveyards if they are acquired for public interest, provisions for which were excluded from the former ARIPO. However, the project for which the land is acquired is bound to provide similar types of assets in some other appropriate place. The Act stipulates certain safeguards for the landowners and provides for payment of "fair value" for the properties acquired.

115. The Ministry of Land (MOL) has overall responsibility to enforce land acquisition. The MOL delegates some of its authority to the Commissioner at the Divisional level and to the Deputy Commissioner at the District level. The Deputy Commissioners 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 in order to be eligible for compensation under the law is on the landowner. The Deputy Commissioner is empowered to acquire a maximum of 50 standard bigha (16.50 acres) of land without any litigation for which he would obtain the approval of the Divisional Commissioner. Acquisition of land exceeding 16.50 acres must be approved from the central land allocation committee (CLAC) headed by the prime minister of the Government 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 DC or MOL.

116. Under the ARIPA 2017, The Deputy Commissioner determines the value of the acquired assets as at the date of issuing the notice of acquisition under section 4(1) of the Act. The premium for land is 200%, thus 3 times of the mouza value for the affected land is provided as compensation. In addition, if there are other asset and income/livelihood losses caused by the land acquisition, 2 times of the market rate for these items is provided as compensation, as premium for these items is 100%. The compensation such determined is called the Cash Compensation under Law (CCL). 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 has land are not included in the acquisition proposal, and therefore, excluded for considerations for compensation under the law. Lands acquired for a public purpose cannot be used for any other purpose. The new Act under section 4 (2) also facilitates the private organizations to request from 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.

117. The government is obliged to pay compensation for the assets acquired. The previous Ordinance of 1982 did not address social and economic impacts resulting from land acquisition such as compensation and other assistance for non-titleholder project-displaced persons such as informal settlers (squatters), occupiers, and informal tenants and leaseholders without registration document. Furthermore, the Ordinance did not provide for compensation for loss of livelihoods and incomes. The new Act of 2017 has incorporated certain provisions to address the above gaps, and therefore, it reduces the gaps between the national legislative framework of the government and ADB's policies.

118. Table 6-1 describes the land acquisition process under ARIPA 2017. The process generally takes minimum of 13 months for a priority project and minimum 16 months for a non-priority general project. This includes the time taken by DC to award compensation for affected persons which is stipulated as 2 months. Time frame for land acquisition is shown in Annex 9.

Relevant Section under ARIPA, 2017	Steps in the Process	Responsibility
Section 4 (1)	Publication of preliminary notice of acquisition of property for a public purpose	Deputy Commissioner
Section 4 (3) (1)	ection 4 (3) (1) Prior to the publication of section 4(1) notice; Identify the present status of the land, structures and trees through videography, still pictures or appropriate technology.	
	After the publication of the section 4(1) notice, a joint verification is conducted with potentially affected households and relevant organizations.	Deputy Commissioner
Section 4 (7)	After publication of preliminary notice under the section 4(1), if any bousehold has changed the status of the land for	
Section 4 (8)	Section 4 (8) If the affected person is not happy with the joint verification within seven days of issuing sec 4(1) notice.	
Section 4 (9) Hearing by Deputy Commissioner within 15 working days after receiving the complaints. In case of government priority projects, hearing will be within 10 working days.		Deputy Commissioner
Section 5 (1)	Objections to acquisition by interested parties, within 15 days of the issue of section 4 (1) Notice	Affected Person
Section 5 (2) Deputy Commissioner submits hearing report within 30 working days after the date of the section 5(1) notice. In the case of government priority projects, it will be within 15 working days.		Deputy Commissioner
Section 5 (3) DC submits his report to the (i) government (for properties that exceed 16.50 acres; (ii) Divisional Commissioner for properties that do not exceed 16.50 acres. Deputy Commissioner makes the final decision, if no objections were		Deputy Commissioner

 Table 6-1 - Land Acquisition Process under ARIPA, 2017

Relevant Section under ARIPA, 2017	Steps in the Process	Responsibility
	raised within 30 days of inquiry. In case of government priority project, it will be 15 days	
Section 6 (1) (1)	Government makes the final decision on acquisition within 60 working days after receiving report from the Deputy Commissioner under section 5(3) notice.	Government
Section 6 (1) (2)	Divisional Commissioner makes the decision within 15 days or with reasons within 30 days since the submission of the report by Deputy Commissioner under section 5(3) notice.	Divisional Commissioner
Section 7 (1)	Publication of the Notice of final decision to acquire the property and notifying the interested parties to submit their claims for compensation.	Deputy Commissioner
Section 7 (2)	Interested parties submit their interests in the property and claims for compensation within 15 working days (in case of priority project 7 days).	Affected Person
Section 7 (3)	Individual notices have to be served to all interested persons including the shareholders within 15 days of issuing Section 7(1) notice	Deputy Commissioner
Section 8 (1)	Deputy Commissioner makes a valuation of the property to	
Section 8 (3)	Deputy Commissioner informs the award of compensation to the interested parties and sends the estimate of compensation to the requiring agency/person within 7 days of making the compensation decision.	Deputy Commissioner
Section 8 (4)	Section 8 (4) The requiring agency deposits the estimated award of compensation with the Deputy Commissioner within 120 days of receiving the estimate.	
Section 9 (1)	During valuation of assets, Deputy Commissioner will consider the following: (i) Average market price of land of the same category in the last 12 months; (ii) Impact on existing crops and trees; (iii) Impact on other remaining adjacent properties; (iv) Impact on properties and income; and (v) Relocation cost for businesses, residential dwellings etc.	Deputy Commissioner
Section 9 (2)	Additional 200% compensation on current mouza rate is added to the estimated value. If land is acquired for private organizations, added compensation will be 300%.	Deputy Commissioner
Section 9 (3)	Additional 100% compensation on top of the current market price for impacts mentioned under sections 9(1) and (2)	Deputy Commissioner
Section 9 (4)	Appropriate action will be taken for relocation on top of the above-mentioned subsections.	
Section 11 (1)	Deputy Commissioner awards the compensation to entitled	
Section 10 (2) If an entitled person does not consent to receive compensation, or if there is no competent person to receive compensation, or in the case of any dispute with the title to receive compensation, Deputy Commissioner deposits the compensation amount in a deposit account in the Public Account of the Republic. Thereafter, Deputy Commissioner acquires the land. (Landowners can obtain such deposited money at any time, having appealed to the Deputy		Deputy Commissioner Affected Persons

Relevant Section under ARIPA, 2017	Steps in the Process	Responsibility
Commissioner, and providing evidence in support of his/her claim.		
Section 12 When the property acquired contains standing crops cultivated by bargadar (registered tenants), the apportion of compensation due to him will be determined by the Deputy Commissioner and will be paid to the bargadar in cash.		Deputy Commissioner

6.3 Valuation of Assets and Payment of Compensation

119. The ARIPA provides for the payment of compensation for land and other assets permanently acquired, including standing crops, trees, and houses and any other damages caused by such acquisition. The Deputy Commissioner determines the market value of acquired assets as per its value on the date of issue of the notice of acquisition (Section 4 (1) Notice under ARIPA), based on the registered value of similar property bought and/or sold in the area over the preceding 12 months. The market value of the property determined by the Deputy Commissioner is reinforced by 200% due to compulsory nature of acquisition. The law specifies methods for calculation of market value of property based on recorded prices obtained from relevant Government departments such as Registrar (for land), Public Works Department (for structures), Department of Forests (for trees), Department of Agriculture (for crops) and Department of Fisheries (for fish stock). The following factors will be considered by the Deputy Commissioner in determining the market value of the property to be acquired.

- The market value of the property at the date of publication of the notice under section 4 (1) under ARIPA. (In determining such market value, the Deputy Commissioner shall consider the average value of the properties of similar description and with similar advantages in the vicinity during the twelve months preceding the date of publication of the notice under section 4 (1);
- ii. Damages caused to any standing crops or trees on the property as a result of acquisition;
- iii. Any severance of the property from other property held by the interested parties;
- iv. Any injurious affection on other properties, movable or immovable, in any other manner, or the earnings of the interested parties;
- v. Any possibilities that compel the person interested in the property (to be acquired) to change his residence or place of business, the reasonable expenses, if any, incidental to such change; and
- vi. Any damages that may result from diminution of the profits of the property between the date of serving the notice under section 7 (ARIPA) and the date of taking possession of the property by the Deputy Commissioner.

6.4 The Electricity Act, 2018

120. The Electricity Act enacted on 12th February 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:

Chapter	Issues	Provisions in the Electricity Act, 2018
Chapter 3, section 6	Civil works	If any licensee is permitted to lay power supply lines within the area of supply or, subject to the terms of his 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.
Chapter 3, section 9	Damages	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.
Chapter 3, section 12	Compensation	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.
Chapter 3, section 13	Right of Way	For the purpose of laying power supply lines or doing civil works under this Act, the licensee shall reserve the right of way over the land and the space above or underground there of: Provided that the licensee shall inform the land owner in writing before laying of power supply lines and doing civil works within a reasonable time.
Chapter 3, section 14	Acquisition of land	If acquisition of land is required for establishment of power generation plant or sub-station, 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 any land for constructing any connection line with power station, sub-station 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.
Chapter 5, section 29	Accidents and investigation	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.

6.5 The Bangladesh Telegraph Act, 1885

121. The Telegraph Act, 1885 does not have any provision for permanent land acquisition for construction of transmission pillars and lines. The Act provides for the payment of compensation for temporary impacts resulting from construction of lines and towers. The Act allows for the removal of any trees that interrupt the transmission lines and would pay compensation only if those trees existed prior to the installation of the telegraph lines. The Government shall not acquire any right other than that of user in the property under, over, along, across, in or upon which the telegraph authority places any telegraph line or posts. Any damages caused to property during construction, operation and maintenance will be compensated in full to all persons interested in those properties. Practices followed to establish right of way for electricity lines and payment of compensation for affected parties.

- The decision of PGCB to construct a transmission line in a region is communicated in the form of an application to the Deputy Commissioners (DC) of the respective districts where the transmission lines will be constructed.
- The DC issues a Public Notice on behalf of the licensee organization (in terms of section 51 of 1910 Electricity Act and Section 10-19 of the Bangladesh Telegraph Act of 1885) to inform the public about the (i) RoW to be established for the transmission lines; (ii) compensation entitlements for damages caused to crops, trees, structures, etc. (but excluding compensation for land), due to construction work of the transmission lines at market rates as determined by the Agriculture Department; and (iii)requesting the assistance and cooperation of respective Upazilla Nirbahi Officers (UNO), Union Parishad Chairmen, and other officials of the area and the wards members for the relevant officials and representatives of PGCB.
- If any landowner or land user is affected by the project, he/she can report the grievance to DC Office/ PGCB Local Office/ Project Office/ Contractor.
- The grievance or the complaint of the affected person is communicated to the Project Director (PD) by the DC Office/ PGCB Local Office/ Project Office/ Contractor.
- The PD in communication with the DC's Office endeavors to reach an amicable settlement with the complainant/aggrieved party. Assistance of the local authorities is also obtained in the process of grievance resolution.
- Contractors pay cash compensation to the landowners or land users for the affected trees, structures and crops for which a signed receipt is obtained from the receiving party. The receipt signed by the receiving party also serves as the landowner's authorization and 'No Objection' for the contractors to enter his/her premises.
- The civil construction work commences only after the permission of the landowner is obtained.

6.6 ADB's Safeguard Policy Statement (SPS) 2009

The Safeguard Policy Statement (SPS) of ADB (2009) includes safeguard requirements 122. for environment, involuntary resettlement and indigenous people. The objectives of the Involuntary Resettlement Safeguard policy are to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to preproject levels; and to improve the standards of living of the displaced poor and other vulnerable groups. The involuntary resettlement safeguards covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land; or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The three important elements of ADB's SPS (2009) are: (i) compensation at replacement cost for lost assets, livelihoods, and incomes prior to displacement; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being that affected persons had prior to the project. The SPS gives special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions.

123. The ARIPA of 2017 provides for the payment of compensation, 3 times of the mouza value for land and 2 times of the market value for other assets and income/livelihood loses, but there can be a gap between this compensation amount and replacement cost required by ADB. If there

is a gap between the compensation amount by ARIPA and the replacement value by ADB's SPS, then it will be filled by the project as provided for in the entitlement matrix of the resettlement plan.

124. ADB's involuntary resettlement requirements emphasize that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets. However, ARIPA recognizes only the entitlements of legal titleholders who can establish their ownership rights. The Act does not address losses of the project-affected persons who do not have titles or ownership records to their properties such as informal settlers, squatters and occupiers, nor the informal tenants and leaseholders who are unable to produce any documentary evidence in support of their properties. Neither the Act provides for any resettlement assistance or transitional allowances for restoration of livelihoods of non-titled affected persons. The only exception is for *bargadar* (registered sharecroppers/tenants) who have cultivated standing crops under a legally constituted written agreement. These sharecroppers/tenants are entitled to a part of the compensation money as provided for in the written agreement. Therefore, any payment of compensation for project affected non-titleholders will be in accordance with the provisions in the entitlement matrix of the resettlement plan, the cost of which will be entirely borne by the project executing agency.

125. ADB's involuntary resettlement policy recognizes the need for resettlement of physically and economically displaced persons providing them with needed assistance including secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities and civic infrastructure and community services, as required. The regulatory framework in Bangladesh does not provide for such resettlement and rehabilitation assistance for displaced persons. It only provides for cash compensation for properties acquired. This gap between the safeguards requirements of ADB and the national regulatory framework will be bridged through a series of project specific measures built into the resettlement plan such as provisions to pay compensation for non-titleholders who as per the SPS are entitled to compensation at replacement cost for assets other than land affected by the project; and extend special assistance to restore and improve the livelihoods of the affected persons including the vulnerable groups such as elderly and women headed households.

126. ADB's policy recommends adequate and appropriate replacement land or cash compensation at full replacement cost for lost land. Neither the Telegraph Act of 1885 nor the Electricity Act of 2018 have any provisions to pay compensation for the land used for the erection of tower foundations of the transmission lines. The Telegraph Act provides for compensation for the trees fell, if those trees were in existence before the telegraph line was erected. The Electricity Act recognizes full compensation for damage, detriment or inconvenience caused by the project. In the circumstances, the project ensures cash compensation for the land lost for the foundation areas of the transmission towers as well as permission for the landowners to cultivate the land under the transmission towers after they are erected. However, erecting any structures or planting any tall trees under the towers will be disallowed.

127. Carrying out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations and establishing a grievance redress mechanism that would receive and facilitate resolution of the concerns of the affected persons are key policy requirements of ADB. The ARIPA does not make any provisions for consultations or a project-based grievance redress mechanism. The law provides only limited space for the affected persons to raise objections to land acquisition (after section 5 Notice under ARIPA is issued) while disputes over land acquisition must be settled through an arbitrator or the courts of law. Therefore,

the vacuum for consultations and grievance redress procedures observed in the regulatory framework will be addressed through the resettlement plan.

No	ADB Safeguard Policy Principles (2009)	Legal Framework of Bangladesh (ARIPA 2017)	Degree of Compliance or Gaps and Proposed Action to Address Gaps
1	Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks.	Deputy Commissioner conducts a joint verification with PGCB and categorizes land by types and any assets thereon and identifies owners of physical assets prior to issue of section 4(1) notice.	Partially complied. PGCB & consultants will conduct an independent assessment & prepare an Inventory of Losses and identify resettlement issues.
2	Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment Organizations.	Affected persons are allowed to raise objections under section section 4(7) of ARIPA, if they disagree with joint verification assessment, and under section 5(1) against land acquisition. Deputy Commissioner hears the complaints and grievances under section 4(9) of ARIPA.	Partially complied. PGCB will initiate a comprehensive process of consultation with affected persons and others during resettlement plan preparation and implementation, to inform them of their entitlements and resettlement options, to ensure their participation in resettlement planning and to address the needs of vulnerable groups.
3	Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns.	Affected persons are allowed to raise objections under section 4(7) if they disagree with joint verification assessment and under section 5(1) against land acquisition. Deputy Commissioner hears the complaints and grievances under section 4(9).	Partially complied. PGCB will establish a project based GRM through resettlement plan to address grievances.
4	Provide cash compensation at replacement cost.	For land, 200% premium is given in addition ot the original mouza value. For the other asset and income/livelihood loses, 100% premium is given in addition to the market vaue of the items.	Partially complied. PGCB will appoint a Property Assessment and Valuation Committee (PAVC) to recommend replacement cost and pay additional compensation directly to the affected persons, if they are entitled through the entitlement matrix and if the CCL paid by Deputy Commissioner is lower than the replacement cost or if not covered by CCL. PAVC will also recommend additional resettlement and rehabilitation assistance to relevant affected persons.
5	Improve or at least restore the livelihoods of all displaced persons.	Deputy Commissioner will consider the impact of land acquisition on livelihoods and incomes of affected persons during the valuation under sections 8(1) & 9(1).	Partially complied. PGCB through the Entitlement Matrix of the resettlement plan will provide additional compensation for loss of trees and crops, transitional allowances, shifting costs, reconstruction assistance, livelihood training, access to credit & grants, employment during project

 Table 6-3 - A Compliance Review of the Legal Framework of Bangladesh and the Safeguard

 Principles of the ADB Safeguard Policy Statement of 2009

No	ADB Safeguard Policy Principles (2009)	Legal Framework of Bangladesh (ARIPA 2017)	Degree of Compliance or Gaps and Proposed Action to Address Gaps
			construction period, special assistance to women headed households, vulnerable groups and significantly affected households with R & R assistance.
6	Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.	When the property acquired contains standing crops cultivated by bargadar (registered shareholders/tenants), such portion of the compensation will be determined by the Deputy Commissioner and will be paid to the bargadar in cash under section 12. No provision of compensation for bargdar who cultivate on government land.	Partially complied. Provisions are included in the Entitlement Matrix of the resettlement plan to pay compensation to the non-titleholders (informal and unregistered) for their lost assets and to provide other R & R benefits assistance.
7	Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards	Legal framework does not make provisions to support poor and vulnerable groups	Non-complied. Additional compensation and R & R assistance for poor and vulnerable groups and significantlyaffected households is included in the Entitlement Matrix and the resettlement budget of the RP.
8	Prepare a Resettlement Plan	Legal framework does not make provisions	<i>Non-complied.</i> PGCB will prepare the RP and obtain the approval of GoB and ADB.
9	Disclose the draft resettlement plan	Legal framework does not make provisions	Non-complied. PGCB will disclose the draft and final RPs in their official website and share the draft with affected persons and other stakeholders including a translation of the RP in Benglai. The draft and final RPs will also be disclosed on the ADB and PGCBs websites.
10	Conceive and execute involuntary resettlement as part of a development project or program	Legal framework does not make provisions	Non-complied. PGCB will include the full resettlement cost in its total budget and commits to make available the required funds in time. PGCB will have a separate unit (ESU) to implement the involuntary resettlement component.
11	Pay compensation prior to physical or economic displacement	Legal framework does not allow the taking over the possession of the acquired land prior to the payment of compensation. However, this applies only to the land acquired from titleholders. Deputy Commissioner awards the compensation to entitled	Partially complied. PGCB will ensure that all affected persons, irrespective of their titles following the entitlement matrix and ensure that they are paid compensation prior to displacement. PGCB and the External Monitor will monitor the compensation payment procedure. PGCB's project officers will also ensure additional support and

No	ADB Safeguard Policy Principles (2009)	Legal Framework of Bangladesh (ARIPA 2017)	Degree of Compliance or Gaps and Proposed Action to Address Gaps
		parties within 60 days of receiving the deposit from the requiring agency under section 11(1).	guidance required by affected persons during their resettlement and relocation.
12	Monitor and assess resettlement outcomes and impacts and the achievement of the objectives of the resettlement plan and disclose monitoring reports.	Legal framework does not make provisions	<i>Non-complied.</i> PGCB will institute both internal and external monitoring mechanisms to monitor the processes, outputs, outcomes and impacts of resettlement plan implementation, and share the monitoring reports with affected persons and other stakeholders including ADB. Biannual reports will be submitted and disclosed on the ADB website.

6.7 Involuntary Resettlement Safeguard Principles Applicable to the Project

128. Based on the national regulatory framework and the safeguards policy of ADB, the project implementation will be guided by the following safeguards principles.

- Adverse impacts arising from project design, planning and implementation including involuntary resettlement would be avoided, minimized and mitigated by exploring design alternatives.
- Project related information including entitlements to affected persons will be disclosed in a timely manner and will be made available in places easily accessible to them and in local languages.
- Consultations will be carried out with the affected persons and their communities to elicit their views and suggestions on project design and implementation procedures, and to ensure their participation in project planning, implementation and monitoring.
- Permanent and temporary loss of crops, standing trees and commercial trees due to project constructions will be compensated at replacement cost as determined by the Property Assessment and Valuation Committee (PAVC) to be established by the executing agency.
- Civil construction works will be scheduled for off-farming seasons to minimize adverse impacts on crops and cultivations. If unavoidable, affected persons will be compensated at replacement cost for their loss of production and incomes.
- Vulnerable persons/households and persons significantly affected by land acquisitions will be provided with special assistance as per the entitlement matrix of the resettlement plan.
- All entitlements and compensation will be paid to the affected persons prior to the commencement of the civil construction work.
- Livelihoods and incomes of all displaced persons will be restored and improved.
- Affected households will be eligible for compensation, irrespective of tenure status, social or economic standing, and any such factors that discriminate against achievement of the resettlement objectives. Lack of legal rights to lost assets, tenure, social or economic status will not bar the affected households from entitlement to compensation and assistance.
- A grievance redress mechanism will be established at different levels from construction sites to the executing agency level to receive and resolve any

grievances from affected persons, and to be resolved within a reasonable time frame.

- Contractual agreements with construction companies will ensure that contractors adopt adequate safety measures, and avoid accidents and disturbances causing from noise, dust, access restrictions etc.
- A resettlement plan will be developed incorporating affected persons entitlements, compensation procedures, plans for livelihood and income restoration and improvement, grievance redress mechanisms etc. will be disclosed in an accessible place and in a form and language(s) understandable to the affected persons and other stakeholders.
- Compliance with the safeguards policies and principles by the executing agency and the outcomes and impacts of resettlement will be monitored both internally and externally.

7. ENTITLEMENTS, ASSISTANCE AND BENEFITS

7.1 Introduction

129. The Dhaka and Western Zone Transmission Grid Expansion Project will provide cash compensation at replacement cost²⁶ as well as other rehabilitation and restoration (R&R) assistance to persons affected by the project. The affected persons will include both legal titleholders, and non-titleholders. Among them are landowners/claimants affected by land acquisitions, and the leaseholders/tenants, and share-croppers dependent on such land. The corridors earmarked for transmission lines will also affect a number of persons such as those who would lose their land for tower foundation area at ground level of the transmission towers, and households whose residential dwellings, standing trees and crops are located within those boundaries due to temporary impacts imposed on land use. Furthermore, both land acquisitions and transmission lines proposed under DWZTGEP would traverse several CPRs such as mosques, graveyards, a praying ground (Eidgah), and one *madarasa* school located within the clearing width of the RoW.

130. Though the legal and regulatory framework of Bangladesh does not recognize nontitleholders and their rights to compensation, this resettlement plan advocates compensation and/or R&R assistance to all persons affected by the project irrespective of their title in order to offset such losses and enabling restoration of living conditions to a state better or equal to the pre-project situation.

131. All affected persons who are identified in the project-affected areas on the cut-off date will be entitled to compensation for their affected assets, and rehabilitation measures. The legal cut-off date will be the date of issuing of the Section 4 notice (ARIPA 2017) by the DC for titleholders affected by land acquisitions for 14 new substations and one existing substation. The social cut-off date for non-title holders and affected people by transmission lines is the final date of the census of APs conducted based on the detailed measurement survey and the final engineering design. The land acquisition process has not commenced yet, and therefore, the legal cut-off date will not be entitled to receive compensation or any other assistance. All entitlements will be paid to eligible households prior to physical and economic displacement commencement of civil works. For those households who cannot be located, their compensation will be transferred to DC who will deposit this money in a special account until such time the claimants appear before him.

7.2 Entitlement Matrix

132. This section presents an entitlement matrix that provides for compensation and other R&R assistance for different losses of the affected persons depending on the type and scope of the losses, its impact, and status of ownership to the affected assets and the social and economic vulnerability of the affected persons. The land acquired for the project as well as the land, residential dwellings, trees and crops that would be affected by impacts imposed on land use

²⁶ The calculation of full replacement cost will be based on the following elements as per the ADB's SPS 2009: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. Furthermore, replacement cost of the land, structures, trees and crops affected had been assessed during consultations conducted with APs, and information elicited through a rapid market survey conducted with key stakeholders in the land market and other relevant government departments such as forest, agriculture, marketing and public works. In calculating the replacement cost, depreciation of built structures and other assets will not be considered.

during the construction of the transmission towers and lines will be compensated. Furthermore, the landowners will be allowed to continue to use the land falling within the RoW of the transmission lines and under the transmission towers (except for planting of tall trees) after the completion of construction work. In addition, since there are no land acquisitions for transmission lines, people can still retain their ownership to the land, and use it for residential and cultivation purposes provided the vertical clearance requirement is maintained. The standard vertical clearance between lines and structures is 5 m for 132 kV; 6 m for 230 kV; and 7.5 m for 400 kV.

133. Apart from the statutory compensation/cash compensation under the law (CCL) paid for the land acquired for the project, the executing agency (PGCB) will ensure that parties affected by land acquisition are paid compensation at replacement cost. Furthermore, affected parties who are not eligible to receive compensation under the land acquisition regulations of Bangladesh will also be compensated by the executing agency for their losses. All affected persons will be entitled to receive compensation for their losses at replacement cost. The executing agency will establish independent Property Assessment and Valuation Committees (PAVCs) in project areas to assess all losses to the affected persons and advise on the replacement cost for all such losses. All entitlements of compensation will be paid to the affected persons prior to their displacement and handing over the construction sites to the contractors.

134. The entitlement matrix was prepared taking into consideration the provisions in the national regulatory framework of Bangladesh and in compliance with ADB's SPS 2009. The good practices that Bangladesh followed in externally funded development projects that involved involuntary resettlement impacts have also been incorporated into the entitlement matrix. If the entitlement matrix has not covered any particular impact or the valuation rates set in the resettlement plan do not correspond to the replacement cost, the entitlement matrix will be updated after the final census of the affected persons to include entitlements that have not been covered, and to adjust the rates to match the replacement cost, however the entitlement matrix will not be downgraded. Any updating of the Resettlement Plan will take place prior to any implementation activities, i.e. well before compensation payments commence, see Chapter.

135. Table 7-1 summarizes the main types of losses and the corresponding entitlements in accordance with the policies and legal framework of the government and ADB safeguard policies.

No.	Type of Loss	Affected Persons/ Institutions	Entitlement	Details	Responsibility	
	LAND					
1	Agricultural, fallow land, pond land, and commercial land acquired for substations	Legal titleholders as determined by DC or by the court in cases of legal disputes	Cash compensation at replacement cost	 Cash compensation under the law (CCL) including additional 200% premium prescribed in the land acquisition act²⁷ Additional compensation if 	 DC PAVC PGCB Contractors 	

 Table 7-1 - Eligibility and Entitlement Matrix

²⁷ The premium will be 200% of the mouza rate determined by Deputy Commissioner under the ARIPA 2017.

2	Land used for four tower foundation areas at ground level of the transmission towers	Legal titleholders	Cash compensation	CCL is lower than thereplacement cost as recommended by PAVC • Cash compensation for the residual land if the remaining portion is a nonviable entity and the willingness of the landowner to surrender that land • 60 days of advance notice to the affected persons to harvest standing seasonal crops • Cash compensation for the affected four tower foundation land at Tk 4,400,000 per acre • 60 days of advance notice to the affected four tower foundation land at Tk 4,400,000 per acre • 60 days of advance notice to the affected persons to harvest standing seasonal crops • Land underneath can be cultivated under the tower hare area	PGCB Contractors
			TREES	base area	
3	Trees within the land acquired for substations	Legal titleholders, non- titleholders, sharecroppers, tenants, & socially recognized tree growers	Cash compensation at replacement cost	 CCL paid as provided for in ARIPA 2017²⁸ Additional compensation recommended by PAVC based on the type, age, productivity, and lost income 	DCPAVCPGCBContractors

²⁸ Based on applicable rates obtained from the Forest Department

	Troop within the		Cach	 during the life cycle of the trees if the CCL is lower than the replacement cost or affected persons are not covered by legal provisions. 60 days of advance notice to the affected persons to cut-down standing trees and the right to possess the timber and any other produce. 		
4	Trees within the RoW of the transmission lines	Legal titleholders, non- titleholders, sharecroppers, tenants, & socially recognized tree growers	Cash compensation at replacement cost and R & R assistance	 Cash compensation recommended by PAVC (guided by ARIPA 2017) based on the type, age, productivity, and lost income during the life cycle of the trees including additional compensation for fruit bearing trees 60 days of advance notice to the affected persons to cut- down standing trees and the right to possess the timber and any other produce. Linkages with relevant agencies which can support tree planting programs 	 PAVC PGCB Contractors 	
	STANDING CROPS AND FISH STOCKS					
5	Standing crops and fish stocks (in aquaculture ponds) within the	Legal titleholders	Cash compensation at	Compensation as per ARIPA 2017 considering the	DCPGCBContractors	

land acquired for		replacement	market value of	
substations		cost	 a given variety of crop, average seasonal production of the cultivated land and the number of seasons lost to the farmer, and volume of fish stock, and market value of the estimated fish production 60 days of advance notice to the affected persons to harvest standing seasonal crops and fish stocks 	
	Registered tenants or sharecroppers to be determined by title deeds, lease agreements or mortgage documents by DCs	Cash compensation at replacement cost	 Share of cash compensation under the law (CCL) for crops/fish stocks Repayment of all liabilities by the landowner/lessor 60 days of advance notice to the affected persons to harvest standing seasonal crops 	 DC PGCB Contractors
	Non- titleholders, non-registered sharecroppers and tenants	Cash compensation at replacement cost	 Cash compensation recommended by PAVC based on market value of a given variety of crop, average seasonal production of the cultivated land and the number of seasons lost to the farmer and volume of fish stock, and market value of the estimated fish production Assistance for sharecroppers 	PAVC PGCB Contractors

6	Standing crops and fish stocks (in aquaculture ponds) within the RoW of the transmission lines	Legal titleholders, non- titleholders, sharecroppers and tenants	Cash compensation at replacement cost and	 and tenants to identify and move into alternate land 60 days of advance notice to the affected persons to harvest standing seasonal crops and fish stocks Cash compensation recommended by PAVC based on market value of a given variety of crop, average seasonal production of the cultivated land and the number of seasons lost to the farmer and volume of fish stock, and market value of the estimated fish production Assistance for restoration of the land and ponds to its previous state or better level 60 days of advance notice to the affected persons to harvest standing seasonal crops and fish stocks 	 PAVC PGCB Contractors
			ARY STRUCTUR	RES	
7	Partially affected primary residential dwellings, business structures and common property resources within the clearing with of RoW	Legal titleholders & non- titleholders	Cash compensation at replacement cost	 Cash compensation recommended by PAVC to repair, restore and reorganize the affected structures in the same location or in the remaining 	PAVCPGCBContractors

				portion of the	
				land ²⁹	
	ſ		LIARY STRUCT	URES	
8	Partially/fully affected auxiliary structures	Legal titleholders & non- titleholders	Cash compensation at replacement cost	 Cash compensation recommended by PAVC to repair, restore and reorganize the affected structures in the remaining portion of the land³⁰ 	PAVCPGCBContractors
S	SPECIAL ASSISTAN		BLE AND SIGN	IFICANTLY AFFECTE	D HOUSEHOLDS
9	Vulnerable allowances	Vulnerable Households	R&R assistance	One-time grant of Tk10,000 per vulnerable household	ContractorsPGCB
10	Livelihood restoration allowances	Significantly affected households	R&R assistance	 Livelihoods restoration grant of Tk 15,000 per household 	PGCBContractors
			FION OF UTILIT	Y SERVICES	
11	Disruptions to utility services (electricity, water, telecommunication etc.) within households	Titleholders, non- titleholders and CPRs	R&R assistance	 Contractors to restore the service facilities Compensation for costs incurred by households due to disruption of services as determined by PAVC 	 PAVC PGCB Contractors
		COMPENSATIC	N FOR UNFOR	ESEEN IMPACTS	
12	Unforeseen adverse impacts on properties and livelihoods during project construction	Legal titleholders, non- titleholders, sharecroppers, tenants, daily wage laborers and vulnerable households	Cash compensation at replacement cost	• Full cash compensation at replacement cost as provided in the Electricity Act of 2018 and the Bangladesh Telegraph Act of 1885 for any damages caused to movable and immoveable	 PGCB PAVC Contractors

²⁹ Based on the preliminary design and survey results, reorganizing structures is not expected in the project. However, there might be some cases which have unexpected impacts. If there are some plots where reorganizing structures is necessary despite of the mitigation measures taken, then compensation will be provided at replacement cost for reorganization and reconstruction of the affected structures. To address potential and unexpected impacts on the structures, 20% of the estimated cost of the total structures is included in the budget. The timeframe will be mutually agreed, and an advance notice will be given at least 2 months prior to the commencement of civil works.
³⁰ The same as the footnote 29.

				 properties and livelihoods as determined by PAVC A written agreement between the landowner and the contractor for the temporary use of land for construction related activities Full restoration of the land temporarily used for construction related activities to its original condition before returning to their respective owners 	
134	Unforeseen other impacts	Affected persons	Will be assessed and determined based on safeguards principles and incorporated into the entitlement matrix		 PGCB Contractors

8. INCOME RESTORATION

136. The project will not cause permanent physical displacements and relocation of affected people. However, land acquisitions for new substations and bay extensions to one of the existing substations will result in permanent economic displacements to 321 land owning households³¹, and another 142 leaseholders and sharecroppers who are dependent on the land to be acquired. Among the land-owning households are 218 households (78%) who will be "significantly affected" with the loss of more than 10% of their productive land assets. Vulnerable groups affected by land acquisitions account for another 88 households.

137. Landowners will receive compensation from the project for the acquired land at replacement cost together with additional compensation for affected standing trees, crops and fish stocks. Meanwhile, leaseholders and sharecroppers will receive cash compensation for the loss of their crops and incomes. Livelihood restoration grants will be provided to the significantly affected households to help them restoring their livelihoods and incomes. Additional cash grants will also be provided to vulnerable households to cope with their income losses during a transitional period and until their livelihoods are reestablished. The project encourages the landowners to invest their compensation money diligently, and for productive purposes such as buying alternate land for cultivations or initiating alternate livelihoods so that they would not be impoverished by the loss of their land or face food insecurities in their households. Project will also extend assistance to leaseholders and sharecroppers to find alternate land for cultivations.

138. The construction work of the transmission lines will temporarily affect the crops cultivated within the clearing RoW as well as trees grown therein. It is estimated that 870 households would be affected. Project will pay compensation for the affected crops for the duration of the construction period and the trees that are to be removed from the RoW. Project will encourage APs to use part of their compensation for re-planting the trees and will facilitate linkages with support agencies that can assist the APs in replanting programs. Small- and large-scale commercial activities located within the clearing RoW will not be affected by the construction work of the transmission lines. The five small-scale commercial activities will continue their business transactions without any disruptions during the civil works. The six large-scale commercial activities that exclusively comprise brick-making industries will not be affected by the project as construction work in those specific areas will be scheduled for the rainy season when brick-making work is suspended. Project will also reach agreements with construction contractors to offer employment in construction work, specifically for households affected by the project.

139. Considering the project covers geographically huge area and the total length of the transmission lines is 500km, the most feasible and practical measure for livelihood restoration is providing additionally compensation beyond market rate. For substation sites, 2 times of the market rate will be given for income/livelihood losses by ARIPA 2017. For transmission lines, it is not required by the act, however, PGCB will take the same approach and the compensation rate for crop which is evaluated as Tk 100,000/acre which is double than the current market rate (Tk 50,000/acre) considering livelihood impact. The Project outlines to implement the following measures (see Table 8-1) to restore and improve the livelihoods and incomes of the affected households/persons. Provisions for payment of compensation and other R&R assistance have been included in the entitlement matrix as well as in the resettlement budget.

³¹ Including those non-traced 40 landowners during the census.

Affected Persons	Livelihood and Income Restoration Measures	Responsibility	
Households/persons	Cash compensation for acquired land at replacement		
affected by land acquisitions	cost to enable them to buy alternate land or invest in other productive activities.	DC PGCB	
	Vulnerable households will be provided with special cash grants. Additional livelihood restoration grants for significantly affected households for restoration of their livelihoods and incomes	PGCB	
	Assistance and guidance for the affected persons to identify suitable alternate land and to use their compensation money in productive ventures	PGCB/ESU	
	Help arranging credit/grants to the affected persons for income generation or livelihood restoration through micro-finance institutions and banks	PGCB/ESU	
	Facilitating linkages with relevant agencies such as the department of agriculture or department of agricultural extension services for affected persons to participate and benefit from tree planting programs or programs that introduce alternate crop varieties including related training programs conducted by those agencies	PGCB/ESU	
	Cash compensation at replacement cost for affected crops to off-set their production and income losses	PGCB/ESU	
	Cash compensation at replacement cost for affected trees to off-set their losses as well as to invest part of the compensation money in tree planting	PGCB/ESU	
	Cash compensation for the land under four tower tootings	PGCB	
Households/persons affected by the construction of	Temporary employment at project construction sites for affected men and women with equal wages as per the contractual agreement reached with respective contractors	PGCB/Contractors	
transmission lines	Full restoration of the land temporarily affected by construction related activities to its original condition before returning to their respective owners	Contractors	
	Facilitating linkages with relevant agencies such as the department of agriculture or department of agricultural extension services for affected persons to participate and benefit from tree planting programs or programs that introduce alternate crop varieties including related training programs conducted by those agencies	PGCB/ESU	
Tenants and Sharecroppers affected by land acquisitions	Cash compensation at replacement cost to off-set their loss of trees and crops as well as to invest part of the compensation money in tree planting and crop cultivations in alternate land	PGCB/ESU	
	Assistance for sharecroppers and tenants to identify and move into alternate land	PGCB/ESU	
	Temporary employment at project construction sites for affected men and women with equal wages as per the contractual agreement reached with respective contractors	PGCB/Contractors	

Table 8-1 - Livelihood and Income Restoration Plan

9. RESETTLEMENT BUDGET AND FINANCING PLAN

140. The resettlement budget is indicative. It has been prepared based on several technical assumptions, current market values of land, trees and crops, built structures of different types as reported by community members during consultations, and information elicited through a rapid market survey conducted with key stakeholders in the land market and other relevant government departments such as forest, agriculture, marketing and public works and other previous project experiences. The average unit rates for land, structures, trees and crops were established taking into consideration several criteria that are applied in the different open markets across the project impact area.

The budget will be revised and updated after completion of the final engineering designs, final inventory of losses and a systematic valuation of the losses by the executing agency. The preparation of the budget was guided by the entitlement matrix which provides for payment of compensation at replacement cost and includes compensation for both temporary and permanent loss of land and the other assets. The budget also makes provisions for additional resettlement assistance for non-titleholders, vulnerable and significantly affected households and particularly for their livelihood restoration. Furthermore, provisions have been made to cover the costs of hiring the services of an external monitoring expert (as required by ADB's SPS 2009 for category A projects), conducting consultations, updating the resettlement plan, grievance redress and monitoring. A contingency provision of 8% of the total budget is set aside to cover unanticipated costs incurred after final engineering designs, detailed measurement surveys and inventory of losses are concluded. The total resettlement budget (inclusive of 8% contingency) is estimated at Tk 1,990,409,594. The budget comprises an extimated Tk 1,401,339,846 for payment of compensation for land acquired for new substations and bay extensions and external monitoring. and another Tk Tk 441,632,000 for payment of compensation for impacts causing from the construction of transmission lines and costs of grievance redress etc. The executing agency will disburse the necessary funds through its PMU to cover the land acquisition and resettlement costs. The summary resettlement budget is presented with details given in Annex 10.

	Category of Losses	Qty.	TLs	LILOs	UG/OH	New Sub- stations	Existing Substations	Total (Tk)	Total in USD
Α	COMPENSATION I 10 FOR DETAILS)	FOR LAND TO	BE ACQUIRE	D FOR NEW	SUBSTATIO	ONS AND BAY E	EXTENSIONS (REFER TABLE	A IN ANNEX
1	Compensation for Crop Land	53.60 acres	0	0	0	699,322,098	14,581,800	713,903,898	8,498,856
2	Compensation for Pond/water bodies	27.32 acres	0	0	0	597,624,400	0	597,624,400	7,114,576
	Total Compensation for Land	80.92 acres	0	0	0	1,296,946,498	14,581,800	1,311,528,298	15,613,432
В	OTHER RESETTLE	MENT BENEF	ITS RELATED	TO LAND A	CQUISITION	(REFER TABLE	B.1 AND B.2 I	N ANNEX 10 FO	R DETAILS)
1	One-time cash grant of Tk100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) for land acquired for substations	79.60 acres	0	0	0	7,660,000	300,000	7,960,000	94,762
2	One-time cash grant of Tk 100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) within the RoW of the transmission lines	1,043.7 acres	100,970,000	3,316,650	86,000	0	0	104,372,650	1,242,532

Table 9-1 Summary Resettlement Budget for Dhaka and Western Zone Transmission Grid Expansion Project

	Category of Losses	Qty.	TLs	LILOs	UG/OH	New Sub- stations	Existing Substations	Total (Tk)	Total in USD
3	Onetime cash grant of Tk 4,400,000/Acre for land lost for tower footing/foundation areas at ground level of the transmission towers –	0.6464 acres	2,629,880	205,480	8,800	0	0	2,844,160	33,859
	Total	1123.9	103,599,880	3,522,130	94,800	7,660,000	300,000	115,176,810	1,371,153
	Compensation for Other Resettlement Benefits related to Land Acquisition	acres							
C.1	COMPENSATION F CONSTRUCTION V ANNEX 10 FOR DE	VORK OF TRA							
1	Compensation for Primary Structures	10,517 sft	6,721,140	780,180	40,200	0	0	7,541,520	89,780
2	Compensation for Auxiliary Structures	146 nos/rft	341,300	19,600	0	0	0	360,900	4,296
C.2	COMPENSATION F DETAILS)	OR STRUCTL	IRES ON LAN	D TO BE AC	QUIRED FO	R SUBSTATION	IS (REFER TAE	BLE C.2 OF ANN	IEX 10 FOR
1	Compensation for Primary structures	150 sft	0	0	0	45,000		45,000	536
2	Compensation for Auxiliary structures	2 nos	0	0	0	70,000		70,000	833

	Category of Losses	Qty.	TLs	LILOs	UG/OH	New Sub- stations	Existing Substations	Total (Tk)	Total in USD
	Total Compensation for Structures		7,062,440	799,780	40,200	115,000	0	8,017,420	95,445
D	COMPENSATION F	OR STANDIN	G TREES (REF	ER TABLES	D.1 AND D.	2OF ANNEX 10	FOR DETAILS		
1	Fruit Trees	13,075 nos	134,952,109	1,232,587	1,748,870	222,283	0	138,155,849	1,644,712
2	Timber/Wood Trees	9,360 nos	128,782,606	1,998,829	2,129,106	441,400	0	133,351,941	1,587,523
3	Medicinal Trees	355 nos	2,456,000	65,333	0	16,000	0	2,537,333	30,206
4	Resettlement Benefits for fruit bearing trees @ 30% of timber value for each grown up fruit trees	Tk 138,155,848	40,485,633	369,776	524,661	66,685	0	41,446,755	493,414
	Total Compensation for Standing Trees		306,676,348	3,666,525	4,402,637	746,368	0	315,491,878	3,755,856
E	LIVELIHOOD, VUL	NERABLE ANI	D SEVERITY A	LLOWANCE	S (REFER T	ABLE F OF ANI	NEX 10 FOR DE	TAILS)	
1	Livelihood restoration grant of Tk15,000 (Tk 5,000 for training and Tk 10,000 for tree planting, other livelihood restoration activities etc.) for significantly affected households	218 nos	0	0	0	3,105,000	165,000	3,270,000	38,929

	Category of Losses	Qty.	TLs	LILOs	UG/OH	New Sub- stations	Existing Substations	Total (Tk)	Total in USD
		42	110,000	20,000	0			420,000	
2	Onetime grant of Tk 10,000 per male headed household living below the official poverty line	43 nos	110,000	20,000	0	190,000	110,000	430,000	5,119
3	Onetime grant of Tk 10,000 per woman headed household living below the official poverty line	5 nos	30,000	0	0	20,000	0	50,000	595
4	Onetime grant of Tk 10,000 per household headed by elderly over 70 years	31 nos	40,000	0	0	260,000	10,000	310,000	3,690
5	Onetime grant of Tk 10,000 per household without legal title to land	9 nos	70,000	10,000	0	10,000	0	90,000	1,071
	Special allowances for vulnerable and significantly affected households	306 nos	250,000	30,000	0	3,585,000	285,000	4,150,000	49,405
	Total of A to E (Tk)		417,588,668	8,018,435	4,537,637	1,309,052,866	15,166,800	1,754,364,406	20,885,290
F	Costs for grievance redress, consultations, staff orientation and RP	Lump sum	0	0	0	0	0	4,200,000	50,000

	Category of Losses	Qty.	TLs	LILOs	UG/OH	New Sub- stations	Existing Substations	Total (Tk)	Total in USD
	updating (Also					otationo	Cusotationo		005
	refer Table F of								
	Annex 10)								
G	External		0	0	0	0	0	3,360,000	40,000
	Safeguards								
	Monitoring Expert								
	for 8 months over								
	a period of 4 years								
	@ USD 5,000 per								
	month								
	(BDT425,000)								
	(Also refer Table F								
	of Annex 10)							=0 =00 / 00	
Н	Administrative		0	0	0	0	0	73,760180	878,097
	cost (fees charged								
	by DC for land								
	acquisition and								
	crop								
	compensation for								
	the acquisition								
	areas) – Refer								
	Table F of Annex								
<u> </u>	Administrative	0	0	0	0	0	0	7,287,260	86,753
1	cost for TLs Refer	0	0	0	0	0	0	7,207,200	60,755
	Table F of Annex								
	10								
	Total		417,588,668	8,018,435	4,537,637	1,309,052,866	15,166,800	1,842,971,846	21,940,141
	Contingency 8%		33,407,093	641,475	363,011	104,724,229	1,213,344	147,437,748	1,755,211
	of the total		00,407,090	1,170	000,011	107,127,223	1,210,044	, , , , , , , , , , , , , , , , , , ,	1,700,211
	Grand Total		450,995,761	8,659,910	4,900,648	1,413,777,095	16,380,144	1,990,409,594	23,695,352

10. INSTITUTIONAL ARRANGEMENTS

141. PGCB will be the executing agency of the overall project. The executing agency will establish a Project Management Unit (PMU) for the overall implementation and coordination of the project related activities. The PMU with its Project Director (PD) appointed to be in-charge of different components of the Project will be responsible for overall project planning and implementation, including procurement, accounting, quality assurance, social and environmental issues, coordination with concerned agencies, supervising, monitoring, and auditing. It is also the responsibility of PMU to report to ADB on the implementation of the resettlement plan on a semiannual basis during construction and on annual basis during operation. The PD will be assisted by two Deputy Project Directors (DPDs).

142. Bangladesh does not have a legal framework that provides guidance for resettlement plan implementation. Therefore, an implementation procedure has been defined, based on the key safeguards policy requirement of ADB and lessons learnt from many other successfully completed donor funded projects in Bangladesh with resettlement plan requirements.

PGCB has an environmental and social unit (ESU) at its headquarters composed of a 143. manager and two engineers with resettlement experience. ESU has has gained sufficient resettlement experience in implementing several resettlement plans for ADB funded power sector projects of PGCB as well as a number of World Bank projects such as Power System Reliability and Efficiency Improvement Project, Bangladesh Rural Electricity Transmission and Distribution Project and Scaling up Renewable Energy Project. One of the engineers will be responsible for the overall coordination and direction of the resettlement plan implementation. In addition, PGCB/PMU will assign safeguards tasks to two staff members with resettlement experience under each of the four executive engineers who will be responsible for the implementation of resettlement activities at field level including coordination of land acquisition process and payment of compensation. Of the two officers placed under the supervision of each executive engineer, one will be assigned for transmission line component while the second will look after the substation component. Altogether, there will be 10 officers (2 for each of the five divisions where the project is implemented and supervised by 4 executive engineers) for field level safeguards management and coordination. The safeguards management responsibilities of PMU at field level include:

- (i) Conduct overall coordination, preparation, planning, and implementation of all field level activities related to resettlement plan implementation;
- (ii) Implement Environmental Management Plan and the environment and social policy guidelines and environmental and social good practices at the project site;
- (iii) Undertake and supervise compensation to the affected persons based on the entitlement matrix in the resettlement plan;
- (iv) Oversight of construction contractor(s) on monitoring and implementing mitigation measures during design, construction and operation phases of the project;
- (v) Advise and coordinate within the PMU to finalize survey and detailed design and update the safeguards documents following detailed design;
- (vi) Engage in grievance redress and ensure the prompt resolution of complaints;
- (vii) Set up appropriate record keeping system;
- (viii) Disclose relevant information to the affected people and continue consultations;
- (ix) Provide training and awareness on environmental and social issues and safeguards to the project staff and engineering-procurement contractor(s), if necessary, with assistance from external resettlement experts;
- (x) Engage the services of an external monitor; and

(xi) Preparation of environmental monitoring reports on a regular basis and semiannual social monitoring reports (see Section11 for monitoring items).

10.1 Role of the Project Director in Managing Land Acquisitions and Resettlement

144. The specific duties of the PD will be the coordination of the preparation and implementation of the land acquisition and resettlement activities in a timely and socially acceptable manner. The PD will be assisted by the two DPDs and PGCB's ESU. These duties will include:

- Reviewing and updating schedules for the implementation of civil works, and coordinating them with the process tasks required for land acquisition and resettlement compensation;
- Coordinating the monitoring of all RP-implementation related activities performed at the PMU level and ensuring that all tasks related to land acquisition and compensation, including the placement of acquisition funds with the DC's office, are all completed on time.
- Consulting with Chief Engineer and DPDs to resolve any issues that are deemed instrumental for land acquisition and preparation and implementation of the resettlement activities.
- Monitoring the payments to APs, confirming that their compensations/entitlements are delivered in full before the land is taken over for civil construction.
- Ensuring payment of compensation for crops and trees for temporary used land in the transmission lines.
- Ensuring payment of compensation for damaged structures, trees, crops and other assets following the policy framework and entitlement matrix of this RP.
- Ensuring payment of compensation for vulnerable, and significantly affected households defined in the RP and following the policy framework and entitlement matrix of the RP and ADB SPS 2009.
- Ensuring that all mandatory reporting is completed and transmitted to the agencies as defined in the RP.

10.2 Environmental and Social Unit (ESU)

145. The Environmental and Social Unit of PGCB is responsible for the overall planning, management and monitoring of the implementation of the Environmental Management Plan and this resettlement plan. The ESU and its officer assigned for overall coordination of resettlement plan implementation will be assisted by the ten officers assigned for the 4 executive engineers. The specific functions and responsibilities of the ESU in resettlement plan implementation include:

- i. Maintaining relevant files of the affected persons;
- ii. Monitoring the timely disbursement of compensation and other entitlements;
- iii. Establishing the GRM and ensuring its effective and efficient functioning;
- iv. Liaison with the PAVC to ensure that the affected persons are compensated for their property losses at replacement cost;
- v. Plan and implement necessary resettlement measures including negotiations with the contractors to offer employment for the affected persons;
- vi. Monitor the unforeseen project impacts and plan and implement necessary mitigation measures;
- vii. Conduct training and orientation programs for resettlement/safeguards staff on resettlement plan implementation and safeguards management, if necessary, with

the assistance of external resource persons;

- viii. Ensure and provide necessary funds for the implementation of resettlement activities; and
- ix. Preparation of periodic progress reports to the project management.

146. Furthermore, ESU will be responsible to guide and direct the field level resettlement officers placed under the executive engineers to engage in the mobilization of communities to participate in the process of resettlement plan implementation, conducting the relevant socioeconomic surveys, project impact assessments and enumeration of the affected persons, preparation of inventory of losses, dissemination of relevant information including entitlements to affected persons, assisting and guiding the affected persons in the process of preparing their title documents, appearing before inquiries and compensation procedures, facilitation of the proper functioning of the GRM, ensuring timely payment of compensation from both Deputy Commissioner and PGCB, implementation of the livelihood restoration and improvement program and implementing all other safeguard measures to secure the rights of all affected persons including women and vulnerable groups. The specific tasks of the ESU will be as follows:

No.	Tasks and Responsibilities
Surveys	, data management, planning and documentation
1	Reconciliation of census and joint verification data of each affected household within the land acquired for substations and the proposed RoW as per the final alignment and the corresponding resettlement plan prepared by the consultant
2	Prepare and maintain profiles of affected persons
3	Collect and computerize all resettlement related data, including land acquisition and census to prepare a resettlement databank
Assist in	the land acquisition process
4	Participate with Deputy Commissioner and PGCB for carrying out Joint Verification Survey or Joint On-Site Inventory verification of the affected assets of APs following final resettlement plan
5	Assist PVAC in valuation of properties/assets for finalization of replacement cost
6	Collect Award list from office of the Deputy Commissioner
Assistar	ce to resettlement implementation agencies
7	Assist formation of GRC and PAVC
8	Liaise with various agencies and officials in resettlement plan implementation and R&R
	programs
	with affected persons
9	Guide the field level resettlement officers to develop rapport with APs
10	Guide and direct resettlement officers to conduct awareness raising programs among APs on their entitlements and mechanism of payments as mentioned in the entitlement matrix
11	Guide and direct resettlement officers to engage in information dissemination activities to create awareness about the project, and distribute/display booklets and posters prepared by ESU in the affected areas and communities
12	Issue identity cards to entitled persons
Assistar	ice to affected persons
13	Direct the resettlement officers to assist APs in opening of their bank accounts.
14	Ensure timely delivery of full entitlements to AP
15	Wherever possible, guide the resettlement officers to ensure proper utilization of compensation and resettlement assistance by APs for productive purposes
16	Guide the resettlement officers to assist APs interested in purchasing alternate land and in the process of restoring their damaged structures (if any)
17	Assist APs in redressing their grievances through Grievance Redress Committee

 Table 10-1 - Tasks and Responsibilities of ESU

18	Facilitate establishing links with micro-finance institutions and other support organizations					
	that can help APs for their livelihood and income restoration					
Monitor	Monitoring and reporting					
19	Monitor regularly the progress of compensation payments to APs					
20	Collect relevant data and assist PGCB to monitor and assess the progress of safeguards					
	management					

10.3 Property Assessment and Valuation Committee (PAVC)

147. The PMU will establish Property Assessment and Valuation Committees at the district level (Upazila) through a gazette notification to be issued by the Ministry of Power, Energy and Mineral Resources (MPEMR). The Deputy Commissioners (DCs) and PGCB will conduct joint onsite verification of the affected physical properties on private land proposed for acquisition for the substations. The DCs will also assess the market price of the affected land, structures, trees and crops with available data, and assistance from the Sub-Registry offices for land, Public Works Department (PWD) for structures, Department of Forest (DoF) for trees, and Agriculture Extension and Agriculture Marketing Departments for crops. The DCs will not compensate the residential structures, shops or any other entities affected on Government land or having no legal documents/title to the assets to be affected by project interventions. However, as per the ADB SPS 2009 on involuntary resettlement, the authorized and unauthorized occupants of public land, sharecroppers, and lessees with no legal documents will also be entitled for compensation and assistance irrespective of their titles. In the circumstances, the physical and economic losses of these non-titled affected persons will be assessed at replacement cost of affected physical assets and incomes will be determined by the Property Assessment and Valuation Committee (PAVC) established for each district under the project. At each district, there will be five members in each PAVC. The members of PAVC will be nominated by the Superintending Executive (Grid Circle) of PGCB and the Project Director. The Vice Chairman of the relevant Upazila will represents the interests and concerns of the Aps.

Superintending Executive (Grid Circle) PGCP	Convener
Executive Engineer, Grid Maintenance Division (GMD) of the	Member
concern jurisdiction, PGCB	
ESU officer responsible for resettlement plan implementation	Member-Secretary
Representative of concerned DC office	Member
Upazila Vice Chairman (concerned Upazila)	Member

148. The PAVC will verify and cross check the field books of the joint verification survey (JVS) conducted jointly by PGCB and the Deputy Commissioners in respective project areas. The PAVC will also review and certify the census of affected households (titled and non-titled) and assets conducted by PGCB through ESU. If there is major variation between Census and JVS data (more than 10%) in assessing affected properties, PAVC will consult the JVS for titled losses and the Census for non-titled losses. PAVC will assess the quantity and the category of affected physical properties (structures, trees, businesses, common properties etc.) on substations and transmission lines. Replacement cost of the affected physical properties will also be determined by PAVC based on current market price. The PAVC will also design and conduct a property valuation survey (PVS), review the secondary data available and consult the public to recommend the replacement cost of land and structures and the market price of trees and crops as well as the amount of income losses at current market price.

11. MONITORING AND REPORTING

149. PGCB will have the overall responsibility for monitoring the project processes, outputs, outcomes and impacts in periodic intervals. The project will be monitored both internally and externally as required by ADB's SPS 2009 for projects classified for A category. The executing agency will establish the necessary institutional arrangements required for monitoring of the implementation of the resettlement plan. The project director who will be responsible for the overall project management and coordination will appoint competent staff to carry out the internal monitoring activities. Semiannual reports will be submitted to ADB and disclosed on the ADB website.

11.1 Internal Monitoring

150. The Environmental and Social Unit of PGCB in consultation with the resettlement officers assigned to executive engineers will design a monitoring framework which will include the key areas for monitoring, methodologies and relevant indicators and plans for disclosure of monitoring results well in advance of the project implementation. The monitoring system will also focus on engaging all the relevant stakeholders in the monitoring processes and adopt participatory processes. The methodologies would include review of documents produced by the project staff, contractors etc., individual/group meetings with affected persons and other stakeholders and surveys and studies. The ESU will maintain a database of all the relevant information such as baseline survey/census data, profiles of affected persons and information related to resettlement. ESU will also provide necessary training and orientation to the resettlement officers prior to the commencement of the monitoring process.

151. The ESU officer and the resettlement officers will undertake periodic field visits to project sites and engage in communication with the affected persons and ensure that consultations are conducted regularly and effectively. The monitoring process will also focus on (i) the progress of the implementation of the resettlement plan; (ii) the level of compliance of project implementation with safeguards plans and measures provided in the legal agreements including payment of compensation and other resettlement assistance and mitigation of construction related impacts; (iii) disclosure of monitoring results to the affected persons and other stakeholders; (iv) the level of consultations conducted with the affected persons and other stakeholders to address gaps in resettlement plan implementation and to identify necessary measures to mitigate, avoid or minimize adverse impacts arising from project implementation; and (v) redressal of affected persons' grievances.

152. The resettlement officers will systematically document the monitoring results and quarterly (internal) reports will be produced during implementation of the resettlement plan. The executing agency will submit consolidated semiannual reports for review by ADB on the progress of the safeguard's implementation of resettlement activities and any compliance issues and corrective actions adopted until a project completion report is issued. These reports will closely follow the involuntary resettlement monitoring indicators (see Table 11-1) agreed at the time of resettlement plan approval and will be disclosed on the ADBs and PGCBs websites.

Monitoring Themes	Monitoring Indicators
Status of RP implementation	 Have all land acquisition and resettlement staff been appointed and mobilized for field and office work on schedule? Have capacity building and training activities been completed on schedule (As per RP)? Have the surveys and census after the completion of the final engineering designs and updating the plan, disclosure to the affected
	 persons and other stakeholders and obtaining approval been conducted? Are involuntary resettlement implementation activities being achieved against agreed implementation plan? Are funds for land acquisition and involuntary resettlement being allocated to the EA on time? Have funds been disbursed according to RP? Has the land made encumbrance- free and handed over to the
Delivery of APs' entitlements	 contractor in time for feasibility study implementation? Have all APs received entitlements according to categories of loss set out in the entitlement matrix? Are activities related to income and livelihood restoration being implemented as planned? Have all processes been documented? Have resettlement information brochures/leaflets been prepared and distributed?
Consultations, grievances, and special issues	 Have consultations taken place as scheduled, including meetings, groups, and community activities? Who participated in consultations? What were the information shared and disclosed with APs and other stakeholders? Were the APs and other stakeholders consulted on final engineering designs and RP? What were the outcomes of consultations? What were the measures adopted to address issues emerged from consultations? Have any APs used the grievance redress procedures? What were the outcomes? Have problems/conflicts been resolved? Have any cases been taken to court?
Benefit monitoring	 What changes have occurred in the lives of families who were relocated and resettled? What changes have occurred in patterns of livelihoods compared to the pre-project situation? What changes have occurred in income and expenditure patterns compared to pre-project situation? Have APs income kept pace with these changes? What changes have occurred for vulnerable groups and significantly affected households?

11.2 External Monitoring

153. In parallel to the internal monitoring exercises, the executing agency will appoint an Independent External Social Monitoring Expert to review and evaluate the social safeguards management in the Project and its compliance with the safeguards policies of ADB and the government. The Terms of Reference for the External Social Monitoring Expert is as follows.

Project	Dhaka and Western Zone Transmission Grid Expansion Project							
Expertise	External social monitoring expert							
Source	National							
	nd Purpose of the Assignment							
An independ monitoring in agency. The providing gu manuals (P)	An independent local expert (external expert) will be engaged to carry out external monitoring and to verify monitoring information for the project. The external expert will be retained on behalf of PGCB, executing agency. The external expert will be responsible for reviewing resettlement monitoring reports and providing guidance in accordance with the resettlement plan (RP), loan agreements, project administration manuals (PAM) and ADB's Safeguard Policy Statement (2009). The external monitoring report will be prepared and submitted to ADB for review semi-annually.							
implementat	ork al expert will be responsible for periodic monitoring of the progress and status of RP ion with regard to achieving objectives of the ADB's Safeguard Policy on Involuntary at. Independent evaluation will be done twice during the project implementation period.							
Dotailod Ta	sks and/or Expected Outputs							
	s of this position include, but are not limited to the following:							
	Review the progress and status of RP implementation and internal monitoring reports. Identify							
	the key issues that need to be addressed.							
	Review compensation and entitlement policy compliance; adequacy of organizational							
	mechanism for implementing the RP; and provisions for adequate budgetary support for							
	implementing the RP.							
	Assess whether resettlement objectives, particularly assistance to vulnerable and significantly affected groups and restoration of livelihoods and living standards of the affected persons have been fulfilled.							
(iv)	Assess resettlement efficiency, its effectiveness, impact and sustainability in relation to policy and practices and to suggest any corrective measures.							
(v)	Appraise the accounting documents used in recording the payments of compensation to affected people by PGCB.							
	Provide guidance to PGCB on the grievance redress mechanism, grievance handling and grievance log and documentation.							
	To provide inputs into the RP and assist RP update, if necessary.							
	The external monitoring expert should make necessary field visits and activities such as conducting formal and informal surveys/interviews/public consultations/focus group discussions and in-depth case studies to assess impact of resettlement.							
Minimum O	uslification Dequirements							
	ualification Requirements							
	The specialist should have an advance degree in environmental studies, social science or other related disciplines and with at least 7 years of related work experience in resettlement. The specialist should be							
	an expert on resettlement and social issues especially in preparation of resettlement and social monitoring							
reports.								
Minimum Ge	eneral Experience: 7 years							
	Minimum Specific Experience: 5 years (relevant to assignment)							
	untry Experience: Required							
Deliverable	s Estimated Submission Date Type							

External Resettlement Monito Final Evaluation Report	ring Report bi-annually	Report
Places of Assignment:	(dd/mm/yyyy)	
TOTAL DAYS	176 (intermittent)	2 months/year and for 4 years from the loan effective date. Early termination is possible if the land acquisition and compensation for both substations and transmission lines is completed.

12. IMPLEMENTATION SCHEDULE

154. Activities related to social safeguards management will go through different phases which include preparation of draft and final resettlement plan, public consultations and information disclosure, and disclosure of resettlement plans, land acquisition and payment of compensation and other assistance, relocation and resettlement, grievance redress etc. The compensation will be provided before any physical and/or economic displacement. The implementation schedules for each substation and transmission line vary, and therefore finalizing resettlement plan encompassing all project components and their implementation schedules into one single framework prior to the award of the first contract is not feasible. Meanwhile, implementation schedules for transmission lines are difficult to finalize prior to the award of contract as the design will be finalized by the contractors. Therefore, the team will finalize the resettlement plan by component.

155. However, all activities related to assessment of losses and payment of compensation will be completed before subproject sites are handed over to the contractors and the commencement of the civil work constructions. No physical or economic displacement of the affected persons will occur until full compensation is paid to the affected persons at replacement cost and the executing agency will ensure that compensation is paid prior to the start of civil works. All land will be freed from its encumbrances before they are handed over to the contractors. Public consultations, information disclosure, grievance redress processes and monitoring will continue an intermittent basis for the entire duration of the project which is now considered to be five years. Table 12-1 presents an implementation schedule for resettlement activities. The timeframe planned for the completion of resettlement activities will vary from minimum of 13 to 16 months, preceding the implementation of each project to modification based on the actual progress of work.

A chivita		20	19			20	20		2021				2022				2023			
Activity	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prepare the draft resettlement plan																				
Disclosure of draft resettlement plan																				
Assign required personnel to ESU																				
Update the resettlement plan based on final																				
engineering designs and detailed measurement																				
survey and full census of persons affected by land																				
acquisitions and transmission lines																				<u> </u>
Submit the updated RP																				
Complete land acquisition process for substations and payment of compensation including																				
compensation payments																				
Establish PAVC and gazette notification by MPEMR																				
Establish the Grievance Redress Mechanism (GRM)																				
Disclose information on GRM																				
ESU conducts a census survey and prepares IoL																				
PAVC verifies IoL and determines replacement cost																				
for all affected properties acquired and the properties																				
affected by transmission lines																				
PGCB pays additional compensation as																				
recommended by PAVC																				
ESU implements the resettlement plan including																				
livelihood restoration activities																				<u> </u>
Clear the land for construction work (component by component)																				
Hand over the sites to contractors (component by																				
component)																				
Conduct grievance redress																				
Continue stakeholder consultations																				
Information disclosure																				
Monitor safeguards compliance (internal and																				
external)																				
Reporting resettlement plan implementation progress																				

Table 12-1 - Implementation Schedule

Annex 1: List of subprojects

Project Component 1

A. List of 400/230 kV Substations

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
1	Kaliganj (Gazipur) 400/230 kV, 2×750 MVA Indoor GIS Substation -Future 132 kV Provision (18 acres)		LILO of Bhulta- Kaliakair 400 kV DC Line at Kaliganj (Gazipur) Substation (0.5 km)	
		-	LILO of Ghorashal- Tongi 400 kV DC Line at Kaliganj (Gazipur) Substation (3.5 km)	-
			LILO of Ghorashal- Tongi 230 kV DC Line at Kaliganj (Gazipur) Substation (3.5 km)	
2	Purbachal 400/230 kV, 3×750 MVA Indoor GIS Substation (14 acres)	Kaliganj (Gazipur)- Purbachal, 400 kV DC Line (18 km)	-	-

B. List of 230/132 kV Substations

	Substations		Transmission Lines	Line-in Line-out Connections	Bay Extensions
1	Purbachal	2	Purbachal-Purbachal 2,		
	230/132 kV,		230 kV Underground (5		
	2×350/450 MVA		km) and Overhead (0.5		
	Indoor GIS		km) DC Line	-	-
	Substation				
	(Rajuk Land – 1.32				
	acres)				

C. Other (not relevant to new substations) Transmission Lines

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
1	-	Bashundhara-Rampura, 132 kV Underground DC Line (9 km)	-	-

Project Component 2

A. List of 230/132/33 kV Substations

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
1	Bhola 230/33 kV, 2×120/140 MVA Indoor GIS Substation (5 acres)	-	LILO of Barishal- Bhola- Borhanuddin 230 kV DC Line at Bhola Substation (1 km)	-
2	Rupsha 230/132 kV, 3×250/350 MVA and 132/33 kV, 3×80/120 MVA Indoor GIS Substation (5 acres)	Rupsha-Satkhira, 230 kV DC Line (62 km) <i>Initially charged at</i> 132 kV	LILO of Bagerhat- Goalpara 132 kV DC Line at Rupsha Substation (3.5 km) LILO of Gallamari- Gopalganj 132 kV DC Line at Rupsha Substation (0.5 km) LILO of Khulna (S)-Rupsha Power Plant 230 kV DC Line at Rupsha Substation (0.5 km)	2×132 kV bay extensions at Satkhira Substation (existing)

B. List of 132/33 kV Substations

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
1	Bhanga 132/33 kV, 3×80/120 MVA Indoor GIS Substation (2 acres)	-	LILO of Faridpur- Madaripur 132 kV DC Line at Bhanga Substation (0.5 km)	-
2	Domar 132/33 kV, 2×80/120 MVA Indoor GIS Substation (5 acres) <i>Future 230 kV</i> <i>provision</i>	Domar-Purbasadipur 230 kV DC Line (46.5 km) <i>Initially charged at 132</i> <i>kV</i>	-	2×132 kV Indoor GIS bay extensions at Purbasadipur Substation (existing)

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
3	Hatibanda 132/33 kV, 2×80/120 MVA Indoor GIS Substation (3 acres)	Domar -Hatibanda 132 kV DC Line (35 km)	-	-
4	Jhalokati 132/33 kV, 2×80/120 MVA Indoor GIS Substation (5 acres)	-	LILO of Barishal- Bhandaria 132 kV DC Line at Jhalokati Substation (1.5 km)	-
5	Maheshpur 132/33 kV, 2×80/120 MVA Indoor GIS Substation (3 acres)	Kaliganj-Maheshpur 132 kV DC Line (28 km)	-	2×132 kV bay extensions at Kaliganj Substation (ongoing)
6	Manirampur 132/33 kV, 2×80/120 MVA Indoor GIS Substation (3 acres)	Manirampur-Satkhira 132 kV DC Line (33 km)	-	2×132 kV bay extensions at Satkhira Substation (existing – additional 3 acres required)
7	Meherpur 132/33 kV, 2×80/120 MVA Indoor GIS Substation (3 acres)	Kushtia-Meherpur 132 kV DC Line (48 km)	-	2×132 kV bay extensions at Kushtia Substation (existing)
8	Phultala 132/33 kV, 3×80/120 MVA Indoor GIS Substation (2 acres)	-	LILO of Khulna Central-Noapara 132 kV DC Line at Phultala Substation (1 km)	-
9	Pirojpur 132/33 kV, 2×80/120 MVA Indoor GIS Substation (3 acres)	Bagerhat-Pirojpur- Bhandaria 132 kV DC Line (49.5 km)	-	2×132 kV bay extensions at Bagerhat Substation (existing) 2×132 kV Outdoor GIS bay extensions at Bhandaria Substation (existing)
10	Shibchar132/33kV, 3×80/120MVAIndoorGISSubstation(5acres)	Gopalganj (N) – Shibchar 230 kV DC Line (25 km) <i>Initially charged at 132</i> <i>kV</i>	-	2×132 kV bay extensions at Gopalganj (N) Substation (ongoing)

C. Other (not relevant to new substations) Transmission Lines

	Substations	Transmission Lines	Line-in Line-out Connections	Bay Extension	ns
1	-	Niamatpur-Patnitola 132 kV DC Line (32.5 km)	-	2×132 kV extensions	bay at

Substations	Transmission Lines	Line-in Line-out Connections	Bay Extensions
			Niamatpur Substation (existing)
			2×132 kV bay extensions at Patnitola Substation (ongoing)

No.	Name of the Transmission Line	Voltage (kV)	Surveyed Length (km)	Standard width of the RoW (meters)
Α	Transmission Lines			
A-1	Kaliganj-Maheshpur	132	27.9	28
A-2	Bagerhat-Pirojpur-Bhandaria	132	49.6	28
A-3	Kushtia-Meherpur	132	48.1	28
A-4	Satkhira-Manirampur	132	33.1	28
A-5	Domar –Hatibanda	132	35.0	28
A-6	Niamatpur-Patnitola	132	32.3	28
A-7	Satkhira-Rupsha	230	61.7	40
A-8	Gopalganj (N) – Shibchar	230	24.6	40
A-9	Purba Sadipur-Domar	230	46.2	40
A-10	Kaliganj – Purbachal	400	17.7	48
	Estimated Total Length		376.2	
В	Line-in-Line-Outs			
B-1	LILO from Bagerhat-Goalpara double circuit line to Rupsha SS	132	3.4	28
B-2	LILO from Gallamari-Gopalganj double circuit line to Rupsha SS	132	0.1	28
B-3	LILO from Faridpur-Madaripur line to Bhanga SS	132	0.1	28
B-4	LILO from Barishal-Bhandaria double circuit line to Jhalokhati SS	132	1.3	28
B-5	LILO from Khulna Central-Noapara double circuit line to Phultala SS	132	0.6	28
B-6	LILO from Barishal-Bhola-Borhanuddin to Bhola SS	230	0.6	40
B-7	LILO from Khulna (S)-Rupsha Power Plant double circuit line to Rupsha SS	230	0.1	40
B-8	LILO from Ghorashal-Tongi double circuit to Kaliganj SS	230	3.4	40
B-9	LILO from Ghorashal-Tongi double circuit to Kaliganj SS	400	3.4	48
B-10	LILO from Bhulta-Kaliakair double circuit line to Kaliganj SS	400	0.1	48
	Estimated Total Length		13.1	
С	Underground and Partially Overhead Tra	Insmission	Lines	
C-1	Purbachal-Purbachal 2 (Overhead Section)	230	0.5	40
	Purbachal-Purbachal 2 (Underground Section)	230	4.9	2.5
C-2	Basundhara-Rampura (Underground)	132	8.9	2.5
	Estimated Total Length of the Underground Sections		13.7	
	Estimated Total Length of the Overhead Sections		0.5	
	Estimated Total Length of the Underground and Overhead Lines		14.2	
	Total Length of All Transmission Lines		403.5	

Annex 2: Details of Surveyed Lengths of Transmission Lines

Annex 3:Land requirements for installation of transmission towers (tower base area)

	Name of the Lines	Estimat Tow			d area requ footings (A	
		Angle+Te rminal	suspens ion	Angle	suspen sion	Total Area
Trar	nsmission Lines					
1	Kaliganj-Moheshpur 132 (KV)	14	72	0.229	0.640	0.869
2	Bagerhat-Pirojpur-Bhandaria 132 (KV)	57	95	0.931	0.845	1.776
3	Kusthia-Meherpur 132 (KV)	32	115	0.523	1.023	1.546
4	Satkhira-Monirampur 132 (KV)	35	73	0.572	0.649	1.221
5	Domar -Hatibandha 132 (KV)	58	52	0.947	0.463	1.410
6	Niamatpur-Patnitala 132 (KV)	25	74	0.408	0.658	1.067
7	Satkhira-Rupsha 230 (KV)	82	85	1.464	0.887	2.351
8	Gopalganj (N) – Shibchar 230 (KV)	23	43	0.411	0.449	0.860
9	Purbasadipur-Domar 230 (KV)	48	75	0.857	0.783	1.640
10	Kaliganj - Purbachal 400 (KV)	17	27	0.351	0.502	0.853
Trar	nsmission Line Sub Total	391	711	6.691	6.901	13.592
LILC						
1	LILO of Goalpara-Bagerhat 132 kV double circuit line at Rupsha	8	4	0.131	0.036	0.166
2	LILO of Gopalganj-Gallamari 132 kV double circuit line at Rupsha	2	0	0.033	0.000	0.033
3	LILO at Bhanga 132KV from Madaripur- Faridpur line	2	0	0.033	0.000	0.033
4	LILO of Barishal-Bhandaria double circuit 132kV line at Jhalokhati	3	2	0.049	0.018	0.067
5	LILO of Noapara-Khulna Central double circuit 132kV line at Phultala	2	1	0.033	0.009	0.042
6	LILO of Barishal-Bhola-Borhanuddin at Bhola 230 KV	3	0	0.054	0.000	0.054
7	LILO of Rupsha Power Plant-Khulna (S) double circuit 230 kV line at Rupsha Substation	2	0	0.036	0.000	0.036
8	LILO of Tongi -Ghorashal 230 kV double circuit at Kaliganj	6	4	0.107	0.042	0.149
9	LILO of Tongi -Ghorashal 400 kV double circuit at Kaliganj	6	4	0.124	0.074	0.198
10	LILO of Kaliakoir - Bhulta 400 kV double circuit line at Kaliganj	2	0	0.041	0.000	0.041
	O Sub Total	36	15	0.639	0.178	0.817
Und	erground/Partially Overhead Lines					
1	Purbachal - Purbachal 2 (Overhead Section) 230 KV	2	1	0.036	0.010	0.046
	Purbachal - Purbachal 2 (Underground Section) 230 KV	0	0	0	0	0
2	Rampura- Basundhara 132kV underground cable line	0	0	0	0	0
	Total - Underground Sections	0	0	0	0	0
Sub	Total - Overhead Sections	2	1	0	0	0
Sub	Total - Underground & Overhead	2	1	0.036	0.010	0.046
Tota	al	429	727	7.366	7.090	14.455

Land Requirements for Installation of Transmission Towers

SL	Name of the Lines	Estimat Tow			d area requ ootings (In	
		Angle+Te rminal	suspens ion	Angle	suspen sion	Total Area
Trans	mission Lines					
1	Kaliganj-Moheshpur 132 (KV)	14	72	0.0112	0.0256	0.0368
	Bagerhat-Pirojpur-Bhandaria 132	57	95			
2	(KV)			0.0456	0.0338	0.0794
3	Kusthia-Meherpur 132 (KV)	32	115	0.0256	0.0409	0.0665
4	Satkhira-Monirampur 132 (KV)	35	73	0.0280	0.0260	0.0540
5	Domar -Hatibandha 132 (KV)	58	52	0.0464	0.0185	0.0649
6	Niamatpur-Patnitala 132 (KV)	25	74	0.0200	0.0263	0.0463
7	Satkhira-Rupsha 230 (KV)	82	85	0.0657	0.0302	0.0959
8	Gopalganj (N) – Shibchar 230 (KV)	23	43	0.0184	0.0153	0.0337
9	Purbasadipur-Domar 230 (KV)	48	75	0.0384	0.0267	0.0651
10	Kaliganj – Purbachal 400 (KV)	17	27	0.0378	0.0171	0.0549
	mission Line Sub Total	391	711	0.3372	0.2605	0.5977
LIL Os						
1	LILO of Goalpara-Bagerhat 132 kV double circuit line at Rupsha	8	4	0.0064	0.0014	0.0078
- '	LILO of Gopalganj-Gallamari 132 kV	2	0	0.0004	0.0014	0.0070
2	double circuit line at Rupsha	-	Ŭ	0.0016	0.0000	0.0016
	LILO at Bhanga 132KV from	2	0	0.0010	0.0000	0.0010
3	Madaripur- Faridpur line	-	Ŭ	0.0016	0.0000	0.0016
	LILO of Barishal-Bhandaria double	3	3 2		0.0000	0.0010
4	circuit 132kV line at Jhalokhati	C C	_	0.0024	0.0007	0.0031
	LILO of Noapara-Khulna Central	2	1			
5	double circuit 132kV line at Phultala			0.0016	0.0004	0.0020
	LILO of Barishal-Bhola-Borhanuddin	3	0			
6	at Bhola 230 KV			0.0024	0.0000	0.0024
	LILO of Rupsha Power Plant-Khulna	2				
	(S) double circuit 230 kV line at		0			
7	Rupsha Substation			0.0016	0.0000	0.0016
	LILO of Tongi -Ghorashal 230 kV	6	4			
8	double circuit at Kaliganj		4	0.0048	0.0014	0.0062
	LILO of Tongi -Ghorashal 400 kV	6	4			
9	double circuit at Kaliganj		т	0.0133	0.0025	0.0159
	LILO of Kaliakoir – Bhulta 400 kV	2	0			
10	double circuit line at Kaliganj			0.0044	0.0000	0.0044
-	Sub Total	36	15	0.0402	0.0064	0.0467
Unde	rground/Partially Overhead Lines	-				
	Purbachal – Purbachal 2 (Overhead	2	1	0.0016	0.0004	0.0020
3	Section) 230 KV	0		0.0000	0.0000	0.0000
	Purbachal – Purbachal 2	0	0	0.0000	0.0000	0.0000
	(Underground Section) 230 KV	0		0.0000	0.0000	0.0000
	Rampura- Basundhara 132kV	0	0	0.0000	0.0000	0.0000
Sub T	underground cable line	0	0	0.0000	0.0000	0.0000
	Total – Underground Sections Total – Overhead Sections	2	0	0.0000	0.0000	0.0000
	Total – Underground & Overhead	2	1	0.0016	0.0004	0.0020
Total		429	727	0.3790	0.2673	0.6464
TULA		423	121	0.3/30	0.2013	v.0404

Land Requirements for Installation of Transmission Towers (Four Tower Legs)

Annex 4: Details of substation lands

Table 1 - Substations locations

No.	Subproject	Sub-District (Upazila)	District (Zila)	Division			
Component 1. Transmission Network Development in Greater Dhaka							
New S	Substations						
1	Kaliganj (Gazipur) 400/230 kV indoor gas insulated switchgear (GIS) substation (18.05 acres)	Kaliganj	Gazipur	Dhaka			
2	Purbachal 400/230 kV indoor GIS substation (14.10 acres)	Kaliganj	Gazipur	Dhaka			
3	Purbachal-2 230/132 kV indoor GIS substation (1.32 acres)	Rupganj	Narayanganj	Dhaka			
	Component 2. Transmission Network	Development in Wes	stern Zone				
New S	Substations						
4	Bhola 230/33 kV indoor GIS substation (5 acres)	Daulat Khan	Bhola	Barishal			
5	Rupsha 230/132/33 kV indoor GIS substation (5.35 acres)	Fakirhat	Bagerhat	Khulna			
6	Bhanga 132/33 kV indoor GIS substation (2.03 acres)	Bhanga	Faridpur	Dhaka			
7	Domar 132/33 kV outdoor GIS substation (5 acres)	Domar	Nilphamari	Rangpur			
8	Hatibanda 132/33 kV outdoor GIS substation (3.04 acres)	Hatibanda	Lalmonirhat	Rangpur			
9	Jhalokati 132/33 kV indoor GIS substation (5 acres)	Jhalokati Sadar	Jhalokati	Barishal			
10	Maheshpur 132/33 kV indoor GIS substation (3.03 acres)	Maheshpur	Jhenaidah	Khulna			
11	Manirampur 132/33 kV indoor GIS substation (3 acres)	Manirampur	Jessore	Khulna			
12	Meherpur 132/33 kV indoor GIS substation (3 acres)	Meherpur Sadar	Meherpur	Khulna			
13	Phultala 132/33 kV indoor GIS substation (2 acres)	Phultola	Khulna	Khulna			
14	Pirojpur 132/33 kV indoor GIS substation (3 acres)	Pirojpur Sadar	Pirojpur	Barishal			
15	Shibchar 132/33 kV indoor GIS substation (5 acres)	Shibchar	Madaripur	Dhaka			

Table 2 - Land requirement, type of land identified, and their current use

No.	Name of the Substation	Extent of land required for substation s and access roads (acres)	Type of land identified	Current land use	Built structures
1	Banga	2.03	Agricultural	Paddy and jute are cultivated in two seasons of a year	-

2	Bhola	5.00	Agricultural	Paddy is cultivated in three seasons of a year	-
3	Domar	5.00	Agricultural	Paddy, corn and potato are cultivated in three seasons of a year	One thatched structure earlier used to provide shelter to an irrigation pump. Now used for resting purposes
4	Hatibanda	3.04	Agricultural	Paddy, corn and potato are cultivated in three seasons of a year	One deep tube well and irrigation pump
5	Jhalokhati	5.00	Agricultural	Paddy is cultivated in three seasons of a year	-
6	Kaliganj	18.05	Agricultural & marshy	Paddy is cultivated in a single season; aquaculture during rainy season	-
7	Meherpur	3.00	Agricultural	Paddy and jute are cultivated in two seasons of a year	-
8	Maheshpur	3.03	Agricultural	Paddy is cultivated in two seasons of a year	One deep tube well and irrigation pump
9	Manirampur	3.00	Agricultural	Paddy, coriander, and sugarcane are cultivated in three seasons of a year	-
10	Phultala	2.00	Pond	Natural Water lilies inside the pond and vegetables around the edge of the pond	-
11	Pirojpur	3.00	Agricultural	Paddy, coriander, sugarcane is cultivated in two seasons of a year	-
12	Purbachal (400 kV)	14.10	Agricultural	Paddy is cultivated in a single season of a year	-
13	Purbachal (230/132 kV)	1.32	Barren highland	-	-
14	Rupsha	5.35	Agricultural & pond	Paddy is cultivated two seasons of the year and vegetables around the edge of the pond in a single season of a year	-
15	Shibchar	5.00	Agricultural	Paddy is cultivated in two seasons of a year	-
	Total	77.92			

Table 3 - Details of land ownership

No.	Name of the Substation	Estimated No. Landowners	No. Landowners traced	Willingness of the landowners for acquisition	Implications of land acquisition
1	Banga	07	07	06 expressed their consent to LA provided they are compensated at market rates. 01 landowner has yet to decide.	-

2	Bhola	07	07	All expressed their consent to LA provided they are compensated at market rates.	-
3	Domar	05	05	All expressed their consent to LA provided they are compensated at market rates and, subject to their ability to find alternate land	Land has been leased out to 3 persons of whom one expects compensation for loss of his income
4	Hatibanda	06 (5 private landowners & the Water Development Board)	06	All private landowners expressed their consent to LA provided they are compensated at replacement cost. The non-titleholder cultivating the Water Development Board requested to find alternate land to save his livelihood.	One irrigation pump will be affected. Owner of the pump will shift his pump to his existing agriculture land adjacent to the affected land and he claimed that he can pump to other lands but requested the project to give him the replacement cost of relocating the pump in a new location
5	Jhalokhati	13	13	All expressed their consent to LA	-
6	Kaliganj	100	71	71 are willing to give their land at market rates. 29 could not be traced either because they lived elsewhere or abroad.	Some leaseholders and sharecroppers can be affected. They request employment in the project during construction period.
7	Meherpur	14	14	All expressed their consent to LA	The value of an adjacent land with an extent of 8 decimal
8	Maheshpur	10	10	All expressed their consent to LA	-
9	Manirampur	18	18	All expressed their consent to LA	-
10	Phultala	20 (19 private landowners & 01 business company	18	All expressed their consent to LA provided they are properly compensated	Part of the land is leased to local prawn farmers
11	Pirojpur	12	12	All expressed their consent to LA	-
12	Purbachal (400 kV	32	22	All (interviewed) expressed their consent to LA	10 could not be traced either

13	Purbachala (230/132 kV)	Rajuk allocated land for PGCB	_	-	because they lived elsewhere or abroad. PGCB to provide evidence in support of the land transfer
14	Rupsha	18 (16 private landowners & 2 companies	18	All expressed their consent to LA provided they are properly compensated. If not, the project should identify alternate site	Eight leaseholders requested
15	Shibchar	34	34	All (interviewed) expressed their consent to LA	-
	Total	296	255		

Table 4 - Land filling requirements

No	Name of the substation	Land filling requirement (approximately)	
1	Banga	4.6 m	
2	Bhola	1.2 m.	
3	Domar	1-1.5 m	
4	Hatibanda	2.5 – 3 m	
5	Jhalokhati	1.5 m	
6	Kaliganj	3.7 -4.6 m	
7	Meherpur	1.8 m	
8	Maheshpur	2.1 -2.4 m	
9	Manirampur	1.5 m	
10	Phultala	3.0 m	
11	Pirojpur	2.0 m	
12	Purbachal (400 kV)	.6.0 m	
13	Purbachal 2 (230/132 kV)	No filling required	
14	Rupsha	1.5 – 3.0 m	
15	Shibchar	3.0 m	
18	Satkhira (Extension)	-	

	Subproject	Sub-District	District	Division
No.		(Upazila)	(Zila)	
Tran	Component 1. Transmission Network Development in Greater Dhaka Transmission Lines			
1	Kaliganj (Gazipur)-Purbachal 400 kV double circuit transmission line 17.73 km	Gazipur Sadar & Kaliganj	Gazipur	Dhaka
Line-	in-Line-Out			
2	Line-in line-out connection from Bhulta-Kaliakair 400 kV double circuit transmission line to Kaliganj (Gazipur) substation (0.10 km)		Gazipur	Dhaka
3	Line-in line-out connection from Ghorashal-Tongi 400 kV double circuit transmission line to Kaliganj (Gazipur) substation (3.42 km)	Kaliganj	Gazipur	Dhaka
	Line-in line-out connection from Ghorashal-Tongi 230 kV double circuit transmission line to Kaliganj (Gazipur) substation (3.39 km)	U	Gazipur	Dhaka
Unde	rground and partially overhead Transmission Lin	es		
5	Purbachal-Purbachal-2 230 kV double circuit underground transmission cable with overhead transmission line section (4.86 UG/ 0.49 km OH)		Gazipur & Narayanganj	Dhaka
6				
New	Substations	[I	
7	Kaliganj (Gazipur) 400/230 kV indoor gas insulated switchgear (GIS) substation (18.05 acres)	Kaliganj	Gazipur	Dhaka
8	Purbachal 400/230 kV indoor GIS substation (14.10 acres)	Kaliganj	Gazipur	Dhaka
9	Purbachal-2 230/132 kV indoor GIS substation (1.32 acres)	Rupganj	Narayanganj	Dhaka
	Component 2. Transmission Network D	evelopment in Wes	tern Zone	
Trans	smission Lines			
1	Rupsha-Satkhira 230 kV double circuit transmission line (62km)	Fakirhat, Batiaghata Dumuria, Satkhira Sadar & Tala	Bagerhat, Khulna &Satkhira	Khulna
2	Domar-Purba Sadipur 230 kV double circuit transmission line (46.5 km)	Birganj, Kaharole Khansama, Domar & Nilphamari Sadar	Dinajpur &Nilphamari	Rangpur
3	Domar-Hatibanda 132 kV double circuit transmission line (35 km)	Hatibanda, Dimla, Domar	Lalmonihat & Nilphamari	Rangpur
4	Kaliganj-Maheshpur 132 kV double circuit transmission line (28km)	Kaliganj, Kotchandpur & Maheshpur	Jenaidah	Khulna
5	Manirampur-Satkhira 132 kV double circuit transmission line (33km)	Keshabpur, Manirampur, Patkelghata, Satkhira Sadar &Tala	Jeshore & Satkhira	Khulna
6	Kushtia-Meherpur 132 kV double circuit transmission line (48km)	Kushtia Sadar, Mirpur & Gangni	Kushtia & Meherpur	Khulna
7	Bagerhat-Pirojpur-Bhandaria 132 kV double circuit transmission line (49.5 km)		Bagerhat & Pirojpur	Khulna Barishal

Annex 5: Locations of subprojects under DWZTGEP

_			_ · ·	B L 1
8	Gopalganj (North)-Shibchar 230 kV double circuit transmission line (25 km)	Bhanga, Rajoir & Shibchar	Faridpur Madaripur	Dhaka
9	Niamatpur-Patnitola 132 kV double circuit	Mahadebpur,	Naogoan	Rajshahi
	transmission line (32.5 km) (32.26 km)	Niamatpur &	Ū	-
		Patnitola		
Line-	in-Line-Out			
10	Line-in line-out connection from Barishal-Bhola-	Daulat Khan	Bhola	Barishal
	Burhanuddin 230 kV double circuit transmission line			
	to Bhola substation (1 km)			
11	Line-in line-out connection from Bagerhat-Goalpara	Rupsha & Fakirhat	Khulna &	Khulna
	132 kV double circuit transmission line to Rupsha		Bagerhat	
	substation (3.5 km)		0	
12	Line-in line-out connection from Gallamari-	Fakirhat	Bagerhat	Khulna
• –	Gopalganj 132 kV double circuit transmission line to		- gomet	
	Rupsha substation (0.5km)			
13	Line-in line-out connection from Khulna (South)-	Fakirhat	Bagerhat	Khulna
10	Rupsha power plant 230 kV double circuit	i annat	Dagomat	randina
	transmission line to Rupsha substation (0.5 km)			
14	Line-in line-out connection from Faridpur-Madaripur	Bangha	Faridpur	Dhaka
•••	132 kV double circuit transmission line to Bhanga	Bangna	ranapai	Briana
	substation (0.5 km)			
15	Line-in line-out connection from Barishal-Bhandaria	Jhalokati Sadar	Jhalokati	Barishal
10	132 kV double circuit transmission line to Jhalokati		onalokati	Danonai
	substation (1.5 km)			
16	Line-in line-out connection from Khulna Central-	Phultola	Khulna	Khulna
10	Noapara 132 kV double circuit transmission line to	Thullola	Rhana	Tanana
	Phultala substation (1 km)			
New	Substations			
17	Bhola 230/33 kV indoor GIS substation (5 acres)	Daulat Khan	Bhola	Barishal
18	Rupsha 230/132/33 kV indoor GIS substation (5.35	Fakirhat	Bagerhat	Khulna
10	acres)	Takinat	Dagemat	Tanana
19	Bhanga 132/33 kV indoor GIS substation (2.03	Bhanga	Faridpur	Dhaka
10	acres)	Bhanga	ranapai	Dhata
20	Domar 132/33 kV outdoor GIS substation (5 acres)	Domar	Nilphamari	Rangpur
20	Hatibanda 132/33 kV outdoor GIS substation (3.04	Hatibanda	Lalmonirhat	Rangpur
21	acres)	Tatibalida	Lamoninat	rtangpu
22	Jhalokati 132/33 kV indoor GIS substation (5 acres)	Jhalokati Sadar	Jhalokati	Barishal
23	Maheshpur 132/33 kV indoor GIS substation (3 acres)		Jhenaidah	Khulna
23	acres)	Mariesripui	Jilenaluan	Rhuina
24	Manirampur 132/33 kV indoor GIS substation (3	Manirampur	Jessore	Khulna
27	acres)	Marinampur	0633016	Khuina
25	Meherpur 132/33 kV indoor GIS substation (3 acres)	Meherpur Sadar	Meherpur	Khulna
	Phultala 132/33 kV indoor GIS substation (2 acres)	Phultola	Khulna	Khulna
	Pirojpur 132/33 kV indoor GIS substation (3 acres)	Pirojpur Sadar	Pirojpur	Barishal
27	Shibchar 132/33 kV indoor GIS substation (5 acres)			
		Shibchar	Madaripur	Dhaka
	Extensions to Existing Substations	Cadia	Dinaire	Denersi
29	132 kV outdoor GIS bay extensions at Purba Sadipur	Sadipur	Dinajpur	Rangpur
	substation	Kellerer'	lla a a - ' - ! - !	
30	132 kV outdoor AIS bay extensions at Kaliganj	Kaliganj	Jhenaidah	Khulna
<u> </u>	substation,			
31	132 kV outdoor GIS bay extensions at Kushtia	Kustia Sadar	Kushtia	Khulna
	substation			
32	132 kV outdoor GIS bay extensions at Bagerhat	Bagerhat Sadar	Bagerhat	Khulna
	substation			

33	132 kV outdoor GIS bay extensions at Bhandaria substation	Bhandaria	Pirojpur	Barishal
34	132 kV outdoor AIS bay extensions at Gopalganj (North) substation	Mukshedpur	Gopalganj	Dhaka
35	32 kV outdoor AIS bay extensions at Niamatpur substation	Niamatpur	Naogaon	Rajshahi
36	32 kV outdoor AIS bay extensions at Patnitola substation	Patnitola	Naogaon	Rajshahi
37	132 kV outdoor air insulated switchgear (AIS) bay extensions at Satkhira substation (3 acres to be acquired)	Satkhira Sadar	Satkhira	Khulna

No. of Divisions, Districts & Sub-Districts Covered by DWZTGEP

No. of Division	No. of Sub-District	No. of District
1. Dhaka	Gazipur Sadar	Gazipur
	Kaliganj	Narayanganj
	Rupganj	Faridpur
	Gulshan	Madaripur
	Bhanga	Gopalganj
	Shibchar	Dhaka
	Mukshedpur	
	Rajoir	
Total in Dhaka	8	6
2. Khulna	Fakirhat	Bagerhat
2	Batiaghata	Khulna
	Dumuria	Satkhira
	Satkhira Sadar	Jhenaidah
	Tala	Jashore
	Kaliganj	Kushtia
	Kotchandpur	Meherpur
	Maheshpur	•
	Keshabpur	
	Manirampur	
	Patkelghata	
	Kushtia Sadar	
	Mirpur	
	Gangni	
	Bagerhat Sadar	
	Meherpur Sadar	
	Phultala	
	Fakirhat	
	Rupsha	
	Kachua	
Total in Khulna	20	7
3. Rangpur	Birganj	Dinajpur
314	Kaharole	Nilphamari
	Khansama	Lalmonihat
	Domar	
	Nilphamari Sadar	
	Hatibanda	
	Dimla	
	Saidpur	
Total in Rangpur	8	3

No. of Division	No. of Sub-District	No. of District
4. Barishal	Kawkhali	Bhola
	Bhandaria	Jhalokathi
	Pirojpur	Pirojpur
	Daulat Khan	
	Jhalokathi Sadar	
	Pirojpur Sadar	
Total in Barishal	6	3
5. Rajshahi	Mahadebpur Naogoan	
	Niamotpur	
	Patnitala	
Total in Rajshahi	3	1
Total Division: 5	Total Sub-District: 45	Total District: 19

- Total Division 5 where Dhaka region 1 and Western region 4
 Total Sub-District 45 where Dhaka region 8 and Western region 37
 Total District 19 where Dhaka region 6 and Western region 14

Annex 6: List of participants at consultations

Table 1 - List of Participants at Public Consultations Conducted for Transmission Lines

No.	Name of the participant	Gender	Occupation/status	Contact No.
1. Sat	khira-Manirampur Transmission	n Line – Uttar S	Sharsha village: 17.9.2018	
01	Abdul Khalek	Male	Businessman	
02	Joshim Uddin	Male	Farmer	
03	Tarikul Islam	Male	Farmer	
04	Abul Khaer	Male	Farmer	
05	Jalal Sheikh	Male	Day laborer	
06	Abdul Jalil	Male	Businessman	
07	Sorbanu	Female	Tailor	
08	Halima	Female	Housewife	
09	Jesmine	Female	Housewife	
10	Laki	Female	Housewife	
11	Aklima	Female	Unemployed	
12	Jesmin	Female	Housewife	
13	Tara Banu	Female	Tailor	
14	Rokeya	Female	Housewife	
15	Morjina	Female	Housewife	
16	Liton	Male	Day laborer	
17	Yusuf	Male	Farmer	
18	Tania	Female	Housewife	
19	Nargis	Female	Housewife	
20	Sonia	Female	Housewife	
21	Yusuf	Male	Van-puller	
22	Iman Ali	Male	Farmer	
23	Robiul Islam	Male	Mechanic	
24	Nashima Begum	Female	Housewife	
25	Alamgir	Male	Businessman	
26	Rahima	Female	Housewife	
27	Tuli Khatun	Female	Housewife	
28	Jamir Uddin	Male	Farmer	
2. Dor	mar-Purbsadipur Transmission	Line – Mollikpu	ır village: 19.9.2018	
01	Md. Harun-ur-Rashid	Male	Farmer	
02	Chopna	Male	Farmer	
03	Sukko Hemron	Male	Farmer	
04	Md. Abdul Kadir	Male	Farmer	
05	Bishu Murmu	Male	Farmer	
06	Manik Himroy	Male	Farmer	
07	Kanto Soren	Male	Farmer	
08	Sri Japen Chandra Roy	Male	Farmer	
09	Babu Hemrom	Male	Farmer	

10	Lipika Tudu	Female	Student
11	Mahi Murmu	Female	Student
12	Monika Soren	Female	Student
13	Aunjoli Hemrom	Female	Housewife
14	Sokal Murmo	Male	Farmer
15	Mintu Murmo	Male	Farmer
16	Shoriful	Male	Farmer
17	Bharoti Murmo	Female	Housewife
3. Satk	hira-Manirampur Transmission	Line – Uttar Sha	arsha village: 20.9.2018
01	Monindranath Sarker	Male	Businessman
02	Polin Chandra Sarker	Male	Farmer
03	Gulshan Ara	Female	Housewife
04	Jannatul Ferdus	Female	Housewife
05	Md. Bashar	Male	Businessman
06	Md. Nur Islam	Male	Day laborer
07	Abdus Sabur	Male	Day laborer
08	Masum Billah	Male	Student
09	Awhiduzzaman	Male	Businessman
10	Aman Ullah	Male	Van puller
11	Mohsinul Habib	Male	Businessman
12	Monirul Islam	Male	UP-member
13	Ashraf Ali	Male	Businessman
14	Abdur Razzak	Male	Farmer
15	Emdadul Haque	Male	Imam
16	Rafiqul Islam	Male	Van puller ³²
17	Touhiduzzaman	Male	Businessman
18	Rayhan Mia	Male	Farmer
19	Khurshed	Male	Businessman
20	Asaduzzaman	Male	Businessman
21	Alimul	Male	Student
22	Milon Sarker	Male	Student
23	Fazlur Rahman	Male	Driver
24	Md. Jakir Hossain	Male	Businessman
25	Gouropodo Sarker	Male	Farmer
26	Md. Mohibur Rahman	Male	Businessman
4. Shib	char- Gopalganj Transmission I	ine – Gopalpur	village: 21.9.2018
01	Md. Hasan	Male	Driver
02	Liton Kumar Das	Male	Mason
03	Md. Kamal Hossain	Male	Farmer
04	Md. Nurul Amin	Male	Businessman
05	Md. Rohiful	Male	Electrician

³² A driver who pulled a two/three-wheeler non-motor vehicle to carry goods is called van puller.

06	Md. Abul Kalam	Male	Farmer	
07	Selina Begum	Female	Housewife	
08	Ambia Khatun	Female	Housewife	
09	Abul Kashem	Male	Van puller	
10	Al Mamun	Male	Student	
11	Sheikh Saikat	Male	Student	
12	Md. Shodul Islam	Male	Mason	
13	Rezaul Karim	Male	Farmer	
14	Md. Abdullah	Male	Electrician	
15	Bikash	Male	Businessman	
16	Moajed Ali	Male	Van puller	
17	Md. Shamsul Huda	Male	Farmer	
18	Selina	Female	Housewife	
19	Md. Nasir Uddin	Male	Farmer	
20	Lipi Begum	Female	Housewife	
21	Rapeja	Female	Housewife	
22	Mst. Shepali Begum	Female	Housewife	
23	Surjan Begum	Female	Housewife	
24	Kulsum Begum	Female	Housewife	
25	Ambia Begum	Female	Housewife	
26	Nurjahan Begum	Female	Housewife	
27	Toma	Female	Housewife	
28	Rina Begum	Female	Housewife	
5. Dom	ar-Hatibanda Transmission Li	ne – Melapanga	village: 22.9.2018	
01	M. A Malek Sarker	Male	Teacher	
02	Md. Shamsul Haque	Male	Businessman	
03	Md. Muniruzzaman	Male	Student	
04	Md. Sazzad Hossain	Male	Student	
05	Md. Andul Kuddus	Male	Farmer	
06	Asma Begum	Female	Housewife	
07	Md. Mizanur Rahman	Male	Farmer	
08	Md. Saddam Hossain	Male	Student	
09	Md. Abdul Motin	Male	Teacher	
10	Md. Danu Islam	Male	Student	
11	Md. Rowshan Ali	Male	Businessman	
12	Md. Manik Mia	Male	Student	
13	Md. Moklesur Rahman	Male	Farmer	
14	Md. Abdul Khalek	Male	Farmer	
15	Md. Shahinur Rahman	Male	Student	
16	Md. Rahel Mia	Male	Farmer	
17	Md. Lutfor Rahman	Male	Farmer	
18	Md. Chopiar Rahman	Male	Farmer	
19	Md. Nur Mohammad	Male	Farmer	

20	Mst. Maksuda Begum	Female	Housewife
21	Mst. Saleha Begum	Female	Housewife
22	Mst. Rokeya Begum	Female	Housewife
23	Mst. Delewara Begum	Female	Housewife
24	Mst. Kona Begum	Female	Housewife
6. Shib	char- Gopalganj Transmission I	_ine – Charkakir	village: 22.9.2018
01	Md. Shahajahan	Male	Teacher
02	Lakhi Begum	Female	Housewife
03	Emdud Munshi	Male	Farmer
04	Md. Mofazzel	Male	Farmer
05	Md. Elius Madbor	Male	Day laborer
06	Ripon	Male	Expatriate
07	Masuda	Female	Housewife
08	Shepali Begum	Female	Housewife
09	Khadija	Female	Student
10	Liza	Female	Student
11	Alauddin	Male	Farmer
12	Md. Yousuf Munshi	Male	Farmer
13	Merina	Female	Housewife
14	Abdus Salam	Male	Farmer
15	Md. Badal	Male	Farmer
16	Rina	Female	Housewife
17	Humayun	Male	Businessman
18	Azizul Madbor	Male	Farmer
19	Jahangir	Male	Farmer
20	Golam Mustafa	Male	Carpenter
21	Mojibor Madbor	Male	Farmer
22	Hasina	Female	Housewife
23	Esmat Ara	Female	Housewife
24	Runa	Female	Housewife
7. Dom	ar-Hatibanda Transmission Lin	e – Doani village	: 25.9.2018
01	Md. Alamin Gazi	Male	Driver
02	Faridul Islam	Male	Businessman
03	Md. Sobhan	Male	Businessman
04	Nesar Uddin	Male	Businessman
05	Kafil Uddin	Male	Farmer
06	Md. Rahmat Ali	Male	Farmer
07	Md. Lavlu	Male	Student
08	Md. Mostakim	Male	Student
09	Md. Rabbin Hasan	Male	Student
10	Ali Nur	Male	Student
11	Mizanur Rahman	Male	Student
12	Milon Hossain	Male	Driver

13	Mizanur Rahman	Male	Driver
14	Abdus Samad	Male	Businessman
15	Md. Shofiqul Islam	Male	Religious Leader (Imam)
16	Kasu Mahmud	Male	Day laborer
17	Tajuddin	Male	Businessman
18	Md. Jonab Ali	Male	Carpenter
19	Khalekuzzaman	Male	Student
8. Kalig	anj-Maheshpur Transmission L	ine – Sahebbari	village: 25.9.2018
01	Kumar Chandra Das	Male	Businessman
02	Haripodo Das	Male	Day-laborer
03	Govinda Chandra Das	Male	Businessman
04	Sopon Das	Male	Van puller
05	Wasid Mia	Male	Businessman
06	Dulal Chandar Das	Male	Van puller
07	Alea	Female	Housewife
08	Mohitosh Chandra Das	Male	Van puller
09	Raj Kumar	Male	Van puller
10	Haripodo Kumar Das	Male	Van puller
11	Shamol Das	Male	Van puller
12	Topon Das	Male	Businessman
13	Shivarani	Female	Housewife
14	Srimoti	Female	Housewife
15	Nirmol	Male	Van puller
9. Kalig	anj-Maheshpur Transmission L	ine – Sundarpur	village: 25.9.2018
01	Md. Manik Mia	Male	Farmer
02	Shivarani	Female	Housewife
03	Jhilani	Male	Businessman
04	Abdur Rahman	Male	Businessman
05	Md. Sobhan	Male	Farmer
06	Sajeda	Female	Housewife
07	Mopajjal	Male	Day laborer
08	Shepali	Female	Housewife
09	Akram	Male	Businessman
10	Safayet	Male	Student
11	Abu Taher	Male	Student
12	Nur Nahar	Female	Housewife
13	Belayet	Male	Student
14	Md. Nabi	Male	Van puller
15	Abdul Wazed	Male	Day laborer
16	Akabbar	Male	Businessman
17	Md. Kabir	Male	Businessman
10. Don	nar-Purbsadipur Transmission I	_ine – Purbo-Kh	atoria village: 26.9.2018
01	Mst. Fatema	Female	Housewife

02	Mst. Sharifa	Female	Housewife	
03	Mst. Hafiza	Female	Housewife	
04	Mst. Mahfuza	Female	Housewife	
05	Mst. Hamida Parveen	Female	Housewife	
06	Mst. Afroja Aktar	Female	Housewife	
07	Mst. Shaheda	Female	Housewife	
08	Md. Hasmat Ali	Male	Farmer	
09	Mst. Jhorna	Female	Housewife	
10	Mst. Reshma	Female	Housewife	
11	Shohidul Islam	Male	Student	
12	Mst. Lavli	Female	Housewife	
13	Md. Selim	Male	Farmer	
14	Md. Siddik	Male	Farmer	
15	Md. Khoibar	Male	Farmer	
16	Mst. Jobeda	Female	Housewife	
17	Mst. Alif Nura	Female	Housewife	
18	Mst. Khelafat Ali	Female	Farmer	
19	Mst. Ferdousi	Female	Housewife	
20	Mst. Habiba	Female	Student	
21	Mst. Rejia	Female	Housewife	
22	Mst. Khadeja	Female	Housewife	
11. Me	eherpur-Kushtia Transmissior	n Line – Khuksa v	village: 27.9.2018	
01	Md. Jiarul	Male	Farmer	
02	Monowara	Female	Housewife	
03	Rehana	Female	Housewife	
04	Sujon	Male	Day laborer	
05	Md. Marjul Islam	Male	Farmer	
06	Md. Arzulla	Male	Mason	
07	Md. Iqbal Hossain	Male	Expatriate	
08	Piroj Ali	Male	Mason	
09	Md. Kamal	Male	Businessman	
10	Md. Haidar Ali	Male	Businessman	
11	Md. Shofiqul Islam	Male	Farmer	
12	Md. Mannan	Male	Farmer	
13	Md. Abdul Haque	Male	Farmer	
14	Md. Hashem Ali	Male	Expatriate	
15	Sufia	Female	Housewife	
16	Md. Joshim Uddin	Male	Farmer	
17	Md. Yasin	Male	Farmer	
18	Md. Sohidul Islam	Male	Farmer	
19	Md. Shoriful	Male	Farmer	
20	Md. Khalil	Male	Farmer	
21	Shahida Parvin	Female	Housewife	

22	Kulsum	Female	Housewife		
23	Dablu	Male	Farmer		
24	Md. Shukur Ali	Male	Day laborer		
25	Mojammel	Male	Farmer		
26	Ripon	Male	Businessman		
12. Sat	khira-Rupsha Transmission Lin	e – Chargram vi	llage: 27.9.2018		
01	Jagadish Kumar Haldar	Male	Teacher		
02	Sardar Abu Selim	Male	Teacher		
03	Tapan Kumar Aiche	Male	Teacher		
04	Abdul Gafure Parh	Male	Teacher		
05	Anando Mohon Das	Male	Teacher		
06	Sheikh Al-Amin	Male	Teacher		
07	Shamol Kumar Das	Male	Teacher		
08	Shirin Majumdar	Female	Teacher		
09	Md. Asaduzzaman	Male	Teacher		
10	Md. Bazlur Rahman	Male	Teacher		
11	Feroja Parvin	Female	Service Holder		
12	Joyounti Rani	Female	Service Holder		
13	Md. Nazmul Hossain	Male	Service Holder		
14	Md. Moniruzzaman	Male	Service Holder		
15	Azizul Islam	Male	Service Holder		
16	Sheikh Abdur Razzak	Male	Farmer		
17	Md. Bakarul Sheikh	Male	Farmer		
18	Md. Kasim Uddin	Male	Farmer		
19	Md. Jahangir Hossain	Male	Farmer		
20	Md. Samir Dewan	Male	Farmer		
21	Md. Muktar Sarder	Male	Farmer		
22	Md. Nasir Uddin	Male	Farmer		
23	Md. Mizanur Rahman	Male	Farmer		
24	Md. Barik Pal	Male	Farmer		
25	Md. Selim Sheikh	Male	Farmer		
26	Md. Amirul Islam	Male	Farmer		
27	Md. Polash	Male			
28	Md. Rashed Sheikh	Male	Unemployed		
29	Mst. Morium	Female	Unemployed		
30	Mst. Mahfuza	Female	Unemployed		
31	Md. Minhaz Ali	Male	Farmer		
32	Morium	Female	Unemployed		
33	Shihab	Male	Unemployed		
34	Pranto	Male			
35	Enamul Sarder	Male			
36	Golam Mustafa	Male	Businessman		
13. Meł	13. Meherpur-Kushtia Transmission Line – Juginda village: 28.9.2018				

01	Shodia Begum	Female	Housewife
02	Nur Jahan	Female	Housewife
03	Buluara	Female	Housewife
04	Churmila	Female	Housewife
05	Momtaj	Female	Housewife
06	Md. Abbas Ali	Male	Farmer
07	Md. Jibrail	Male	Farmer
08	Kulsum	Female	Housewife
09	Md. Wasim	Male	Businessman
10	Md. Kheder Ali	Male	Farmer
11	Md. Jahangir	Male	Farmer
12	Lavli Khatun	Female	Housewife
13	Gaffarul	Male	Farmer
14	Parvin	Female	Housewife
15	Md. Nasir Uddin	Male	Day laborer
16	Asma	Female	Housewife
17	Moreuom	Female	Housewife
18	Sajeda	Female	Housewife
19	Md. Alauddin	Male	Businessman
20	Habibur	Male	Day laborer
21	Md. Shofiqul	Male	Businessman
22	Poli	Female	Housewife
23	Abdur Rahim	Male	Day laborer
24	Shahina	Female	Housewife
25	Najera	Female	Housewife
26	Nilupa	Female	Housewife
27	Sirin	Female	Housewife
28	Tajena	Female	Housewife
29	Md. Saiful Islam	Male	Businessman
30	Jobbar	Male	Farmer
31	Banarun	Male	Businessman
32	Tonni	Female	Housewife
33	Shahabul	Male	Driver
34	Matahar	Male	Farmer
	matpur-Patnitola Transmission	Line – Shantosh	
01	Kamruzzaman	Male	Businessman
02	Sirajul Islam	Male	Businessman
03	Md. Afzal Mondol	Male	Farmer
04	Md. Sohag	Male	Student
05	Raich Uddin	Male	Farmer
06	Md. Milon Babu	Male	Farmer
07	Md. Sharif	Male	Farmer
08	Md. Niribul	Male	Farmer

09	Abdul Hamid	Male	Day laborer
10	Abdus Salam	Male	Farmer
11	Md. Abul Hossain	Male	Business
12	Md. Mofiz	Male	Day laborer
13	Md. Sobhan	Male	Farmer
14	Md. Abed Ali	Male	Farmer
15	Md. Masud Rana	Male	Farmer
16	Md. Firoj	Male	Farmer
17	Md. Sayeed	Male	Farmer
18	Md. Ariful Islam	Male	Businessman
19	Md. Ansar Ali	Male	Farmer
20	Md. Jobbar Mondol	Male	Farmer
21	Md. Khuhir Uddin	Male	Farmer
22	Md. Mobarak Mondol	Male	Farmer
23	Md. Jalil	Male	Businessman
24	Md. Miraj Uddin	Male	Farmer
25	Alhaj Abdul Jobbar	Male	Unemployed
26	Md. Hasan	Male	Businessman
27	Mujahidul Islam	Male	Student
28	Selim Uddin	Male	Farmer
29	Md. Sohag	Male	Van puller
30	Nurzzaman	Male	Farmer
31	Jobbar	Male	Businessman
32	Md. Parvez Hossain	Male	Businessman
33	Md. Saheb Ali	Male	Farmer
34	Md. Sohel	Male	Farmer
35	Momin Mia	Male	Farmer
36	Md. Tarek	Male	Farmer
37	Ful Mohammad	Male	Teacher
38	Md. Siraj	Male	Farmer
39	Md. Aslam	Male	Farmer
40	Md. Sujon	Male	Farmer
15. Satl	khira-Rupsha Transmission Lin	e – Kharabad vil	lage: 30.9.2018
01	Elius Molla	Male	Businessman
02	Monwara Begum	Female	Housewife
03	Sharifa Begum	Female	Housewife
04	Minara	Female	Housewife
05	Sabina	Female	Housewife
06	Imam Mehedi	Male	
07	Akash	Male	Day laborer
08	Enayet Hossain	Male	Businessman
09	Bashar	Male	Service Holder
10	Arif	Male	

11	Jahanara	Female	Housewife	
12	Nadira	Female	Housewife	
13	Robiul Islam	Male		
14	Habibullah	Male		
15	Amir Hamza	Male	Businessman	
16	Nadera Begum	Female	Housewife	
17	Billal Sardar	Male	Farmer	
18	Samad Sheikh	Male	Farmer	
19	Mesbah Uddin	Male		
20	Jihadul	Male	Farmer	
21	R. Jalil	Male	Service Holder	
22	Rezaul	Male	Farmer	
23	Mahabubur Rahman	Male	Farmer	
24	Abdul Khalek	Male	Farmer	
25	Halima	Female	Housewife	
26	Helal	Male	Businessman	
27	Makbul Hossain	Male	Businessman	
28	Aklima	Female	Housewife	
16. Nia	amatpur-Patnitola Transmissio	n Line – Koraiba	ri village: 2.10.2018	
01	Md. Shofiq Uddin	Male	Farmer	
02	Siraj Uddin	Male	Farmer	
03	Md. Saju Islam	Male	Electrician	
04	Md. Sagar Hossain	Male	Student	
05	Md. Atiyar Hossain	Male	Farmer	
06	Md. Ruhul Amin	Male	Businessman	
07	Md. Robiul	Male	Student	
08	Abdul Aziz	Male	Farmer	
09	Md. Shanto Rana	Male	Student	
10	Md. Abdus Sattar	Male	Farmer	
11	Md. Khokon	Male	Farmer	
12	Md. Abul Kalam	Male	Farmer	
13	Md. Alamgir Kabir	Male	Farmer	
14	Md. Ataur	Male	Farmer	
15	Kabij Uddin	Male	Farmer	
16	Md. Milon	Male	Farmer	
17	Md. Nazmul Islam	Male	Farmer	
18	Md. Alamgir Hossain	Male	Student	
19	Md. Ishrafil	Male	Farmer	
20	Md. Shajahan	Male	Farmer	
21	Md. Firoj	Male	Farmer	
22	Md. Abul Kalam	Male	Farmer	
23	Md. Abdul Aziz	Male	Farmer	
24	Md. Imran	Male	Farmer	

25	Md. Shofi	Male	Farmer
26	Md. Saiful	Male	Farmer
27	Md. Ishmot	Male	Farmer
28	Md. Ekramul	Male	Farmer
29	Md. Khairul Islam	Male	Businessman
30	Md. Shohidul Islam	Male	Businessman
31	Md. Khorshed Alam	Male	Businessman
32	Md. Abu Bakkar Siddiqui	Male	Businessman
33	Md. Anisur Rahman	Male	Farmer
34	Md. Abdul Hai	Male	Farmer
35	Md. Azizar Hossain	Male	Van puller
36	Sultana	Female	Housewife
37	Md. Alam	Male	Farmer
38	Md. Joel	Male	Farmer
39	Md. Shofiqul	Male	Farmer
40	Raja Mia	Male	Farmer
17. Rup	sa Line-In-Line-Out – Uttarpara	a village: 6.10.20	018
01	Abdul Aziz	Male	Framer
02	Sekendar Ali	Male	Businessman
03	Rabiul Islam	Male	Day laborer
04	Tuhin	Male	Day laborer
05	Mubarak Hossain	Male	Businessman
06	Mukta	Female	Housewife
07	Ratul	Male	Unemployed
08	Mortuza Sheikh	Male	Day laborer
09	Shamim	Male	Unemployed
10	Alim Uddin	Male	Businessman
11	Abul Kalam	Male	UP-member
12	Din Islam	Male	Mechanic
13	Nur Islam	Male	Farmer
14	Nazmul Islam	Male	Farmer
15	Niloy Sheikh	Male	Unemployed
16	Farida Begum	Female	Housewife
17	Shima Begum	Female	Housewife
18	Arif Begum	Female	Housewife
19	Josna Begum	Female	Housewife
20	Jayeda	Female	Housewife
21	Tuhina Begum	Female	Housewife
22	Zahura Begum	Female	Housewife
23	Sathi Begum	Female	Housewife
24	Basir Uddin	Male	Service Holder
25	Alagir	Male	Businessman
26	Afzal Hossain	Male	Unemployed

27	Al-Musa	Male	Service Holder
28	Sagar Ali	Male	Unemployed
29	Munna	Male	Unemployed
18. Kali	ganj- Purbachal Transmission I		ge: 8.10.2018
01	Md. Shamim Rana	Male	Student
02	Md. Jobaer Ahmed	Male	Teacher
03	Md. Shahin	Male	Student
04	Md. Billal Hossain	Male	Service Holder
05	Md. Rubel Shikdar	Male	Farmer
06	Abdus Salam	Male	Farmer
07	Mozaffar Mia	Male	Farmer
08	Abdul Latif	Male	Farmer
09	Iman Uddin	Male	Farmer
10	Alaiman Kazi	Male	Farmer
11	Lehaz Uddin	Male	Farmer
12	Fazlu Mia	Male	Farmer
13	Khorshed Alam	Male	Businessman
14	Rahim Sheikh	Male	Service Holder
15	Rahim Sheikh	Male	Businessman
16	Md. Mamun	Male	Service Holder
17	Md. Yasin	Male	Farmer
19. Kali	ganj- Purbachal Transmission I	ine – Pipulia vill	age: 8.10.2018
01	Md. Riyad Hossain	Male	Student
02	Ronjon Devnath	Male	Farmer
03	Shanto Das	Male	Student
04	Jui Begum	Female	Housewife
05	Ponkoj Devnath	Male	Businessman
06	Kakoli Devnath	Female	Housewife
07	Abdur Rashid Sheikh	Male	Farmer
08	Md. Jahir	Male	Farmer
09	Md. Arif Sheikh	Male	Farmer
10	Jhorna Begum	Female	Housewife
11	Md. Joel Sheikh	Male	Service Holder
12	Shahina Begum	Female	Housewife
13	Taslima Begum	Female	Housewife
14	Tania	Female	Housewife
15	Kohinor Begum	Female	Housewife
16	Mojiron Sheikh	Female	Housewife
17	Rashida Begum	Female	Housewife
			Ittar Poragola village: 15.10.2018
01.	Nirmol Krishno Boiragi	Male	Farmer
02.	Al-Akbar	Male	Farmer
03.	Humayun	Male	Farmer

04.	Ibrahim	Male	Farmer	
05.	Bikash Howladar	Male	Farmer	
06.	Maruf Morol	Male	Businessman	
07.	Murad	Male	Businessman	
08.	Imam Hossain	Male	Unemployed	
09.	Ruhul Amin	Male	Unemployed	
10.	Delwar Hossain	Male	Fisherman	
11.	Shimul	Male	Unemployed	
12.	Robiul Islam	Male	Service Holder	
13.	Sakib Hasan	Male	Unemployed	
14.	Poritosh	Male	Farmer	
15.	Shamlal	Male	Farmer	
16.	Ajit Mridha	Male	Farmer	
17.	Sonia Begum	Female	Housewife	
18.	Raju Ahmed	Male	Service Holder	
19.	Lokkhi Mridha	Female	Housewife	
20.	Mintu Howladar	Male	Businessman	
21.	Abul Bashar	Male	Businessman	
22.	Rahima Begum	Female	Housewife	
23.	Adut Sheikh	Male	Farmer	
24.	Miraj	Male	Businessman	
25.	Kawsar	Male	Businessman	
26.	Rashid	Male	Farmer	
27.	Ashraf Ali	Male	Farmer	
28.	Delwar Hossain	Male	Farmer	
29.	Shah Alam Fakir	Male	Farmer	
30.	Al-Mamun	Male	UP-member	
21. Ba	gerhat-Pirojpur-Bhandaria Tra	insmission Line-	Aria Mordon village: 17.10	.2018
01.	Sotto Ranjan Boiddo	Male	Retired	
02.	Ansar Sheikh	Male	Businessman	
03.	Ripon Kumar Boiddo	Male	Electrician	
04.	Ashok Kumar Saha	Male	Businessman	
05.	Torab Sheikh	Male	Framer	
06.	Sheikh Sohidul Islam	Male	Businessman	
07.	Mohsin Sheikh	Male	Farmer	
08.	Sohel Hossain	Male	Businessman	
09.	Imran Sheikh	Male	Farmer	
10.	Ismail	Male	Farmer	
11.	Billal Sheikh	Male		
12.	Obaidul Sheikh	Male		
13	Md. Monirul Islam	Male	Service Holder	
14	Shariful Islam	Male	Unemployed	
15	Obaidul Sheikh	Male	Mechanic	

16	Abdul Khalek Sheikh	Male	Farmer	
17	Somir Mondol	Male	Businessman	
18	Nikhil Boiddo	Male	Farmer	
19	Maksuda Khanom	Female	Unemployed	
20	Ajoy Krishno	Male	Businessman	
21	Jobeda Begum	Female	Housewife	
22	Sukomar Boiddo	Male	Unemployed	
23	Nazir Sheikh	Male	Farmer	
24	Chandra Shekhar	Male	Businessman	
25	Rekha Haldar	Female	Housewife	
26	Sabita Haldar	Female	Housewife	
27	Rajia	Female	Housewife	
28	Shirina	Female	Housewife	
29	Poli Begum	Female	Housewife	
30	Anwara	Female	Housewife	
31	Shurma	Female	Housewife	
32	Reshma	Female	Housewife	
33	Rashida	Female	Housewife	
34	Nazma	Female	Housewife	
35	Monowara	Female	Housewife	
36	Amena	Female	Housewife	
37	Aftab	Male	Cultivation	
38	Rumisa	Female	Housewife	
39	Anjira	Female	Housewife	
40	Rahima	Female	Housewife	
41	Suchitra Mondol	Male	Service Holder	
42	Md. Nazrul Islam	Male		

Summary of Participants at Public Consultations for Transmission Lines

No	Name of the Transmission Line	Dates of	No. Participants	
INO	Subproject	Consultations	Male	Female
1.	Manirampur-Satkhira (TL)	17/09/2018	13	15
2.	Purbasadipur-Domar (TL)	19/09/2018	12	5
3.	Manirampur-Satkhira (TL)	20/09/2018	24	2
4.	Shibchar- Gopalganj (TL)	21/09/2018	16	12
5.	Domar-Hatibanda (TL-environ)	22/09/2018	18	6
6.	Shibchar-Gopalganj (TL)	22/09/2018	14	10
7.	Domar-Hatibanda (TL)	25/09/2018	19	0
8.	Kaliganj-Maheshpur (TL)	25/09/2018	12	3
9.	Kaliganj-Maheshpur (TL)	25/09/2018	13	4
10.	Purbasadipur- Domar (TL)	26/09/2018	5	17
11.	Kushtia-Meherpur (TL)	27/09/2018	21	5
12.	Satkhira-Rupsa (TL)	27/09/2018	30	6

13.	Kushtia-Meherpur (TL)	28/09/2018	16	18
14.	Niyamotpur-Patnitola (TL)	30/09/2018	40	0
15.	Satkhira-Rupsa (TL)	30/09/2018	19	9
16.	Niyamotpur-Patnitola (TL)	02/10/2018	39	1
17.	Rupsa (LILO)	06/10/2018	20	9
18.	Kaliganj-Purbachal (TL)	8/10/2018	7	10
19.	Kaliganj-Purbachal (TL)	11/10/2018	17	0
20.	Bagerhat-Pirojpur-Bhandaria (TL)	15/10/2018	27	3
21.	Bagerhat-Pirojpur-Bhandaria (TL)	17/10/2018	25	17

Table 2 - List of participants at public consultations conducted for substations

No.	Name of the participant	Gender	Occupation/status	Contact Telephone No.		
1. Manirampur Substation Focus Group Discussion with Fishermen – Jamla village: 13.9.2018						
01	Abdul Alim	Male	Farmer			
02	Minhazur Rahman	Male	Farmer			
03	Latif Sardar	Male	Farmer			
04	Yakub Ali	Male	Farmer			
05	Iqbal Hossain	Male	Farmer			
06	Aziz Sardar	Male	Farmer			
07	Ruhul Alim	Male	Farmer			
08	Soleiman Sardar	Male	Farmer			
09	Mofiz Sardar	Male	Farmer			
10	Khalil Mia	Male	Farmer			
11	Delewar Hossain	Male	Farmer			
12	Rafiqul Islam	Male	Farmer			
2.	Shibchar Substation - Maler Ka	ndhi village: 17.9	.2018			
01	Md. Akbar Howladar	Male	Farmer			
02	Md. Joynal Howladar	Male	Farmer			
03	Md. Rahim Howladar	Male	Service(rtd) Holder			
04	Md. Ratan Howladar	Male	Farmer			
05	Md. Jakir Howladar	Male	Service Holder			
06	Md. Shahin Howladar	Male	Farmer			
07	Md. Mojibar Howladar	Male	Farmer			
08	Md. Nurul Amin Sabuz	Male	Service Holder			
09	Md. Moslem Howladar	Male	Farmer			
10	Md. Dulal Talukdar	Male	Farmer			
11	Md. Tota Mia Howladar	Male	Service(rtd) Holder			

12	Md. Islam Howladar	Male	Migrant
13	Md. Ishkandar Howladar	Male	Migrant
14	Mst. Hameda Begum	Female	Housewife
15	Md. Sikandar Howladar	Male	Farmer
16	Md. Delwar Howladar	Male	Farmer
17	Md. Elius Howladar	Male	Laborer
18	Md. Kalai Howladar	Male	Laborer
19	Md. Kuddus Howladar	Male	Farmer
20	Md. Bacchu Howladar	Male	Service Holder
21	Md. Lashu Howladar	Male	Farmer
22	Md. Motaher Howladar	Male	Service Holder
23	Md. Atahar Howladar	Male	Service Holder
24	Md. Ishkan Howladar	Male	Businessman
25	Abdul Barek Howladar	Male	Farmer
26	Mofiz Talukdar	Male	Migrant
27	Mst. Sahana Begum	Female	Housewife
28	Mst. Nur Jahan Begum	Female	Housewife
29	Mst. Majeda Begum	Female	Housewife
30	Haji Delwar Talukdar	Male	Businessman
31	Md. Modasser Howladar	Male	Farmer
32	Mst. Saleha Begum	Female	Housewife
33	Mst. Renu Begum	Female	Housewife
34	Joynal Abedin Howladar	Male	Farmer
35	Md. Abdul Kuddus Mia	Male	Service(rtd) Holder
36	Md. Alauddin Howladar	Male	Service Holder
37	Md. Babul Howladar	Male	Businessman
38	Delewara Begum	Female	Housewife
39	Akub Ali Kazi	Male	Farmer
40	Farida Begum	Female	Housewife
3.	Manirampur Substation – Jamla	village: 18.9.201	8
01	Md. Azad Karim	Male	Businessman
02	MD. Lavlu	Male	Businessman
03	Md. Sawkat Ali	Male	Unemployed
04	MD. Billal	Male	Van puller
05	Kanai	Male	Businessman
06	Fazar Ali	Male	Farmer
07	Barek	Male	Farmer
08	Hashem Ali	Male	Businessman
09	Mashier	Male	Van puller
10	Md. Moshiur Rahman	Male	Van puller
11	Hafizur Rahman	Male	Van puller
12	Md. Jalal Uddin	Male	Businessman
13	Moshiur Rahman	Male	Farmer

14	Alauddin	Male	Businessman	
15	Md. Babar Ali	Male	Businessman	
16	Yusuf Ali	Male	Student	
17	Kamruzzaman	Male	Carpenter	
18	Abdul Alim	Male	Businessman	
19	Ari Samad	Male	Businessman	
20	Ruhul Amin	Male	Farmer	
21	Solaiman Mia	Male	Farmer	
22	Mahmudur Raham	Male	Businessman	
23	Md. Anamul	Male	Businessman	
24	Habibullah-al-Mamun	Male	Student	
25	Md. Rezwan	Male	Businessman	
26	Kamruzzaman	Male	Service Holder ³³	
27	R Alim	Male	Businessman	
28	Md. Rezaul	Male	Businessman	
29	Md. Maruf	Male	Unemployed	
30	Asad	Male	Carpenter	
31	Ananda Das	Male	Businessman	
32	Arafat	Male	Student	
33	Shafiqul	Male	Driving	
34	Monir Uddin	Male	Unemployed	
35	Md. Abul Kashem	Male	Farmer	
36	Hafizur Rahman	Male	Farmer	
37	Md Azim	Male	Businessman	
38	Md Rayhan	Male	Businessman	
4.		ion - Paschim Cl	nikonmati Nobarpara village: 20).9.2018
01	Md. Nasir Uddin	Male	Businessman	
02	Azizul	Male	Farmer	
03	Md. Habibur Rahman	Male	Farmer	
04	Md. Mulesur	Male	Farmer	
05	Md. Piyartul Islam	Male	Farmer	
06	Md. Enamul Haque	Male	Businessman	
07	Parul Khatun	Female	Housewife	
08	Kajoli Begum	Female	Housewife	
09	Riva Akhter	Female	Housewife	
10	Md. Abdul Aziz	Male	Businessman	
11	Bablu Hossain	Male	Farmer	
12	Md. Noem Uddin	Male	Farmer	
13	Salman	Male	Farmer	
14	Md. Fazlul Haque	Male	Farmer	
15	Md. Azizur Hossain	Male	Farmer	

³³ A service holder is defined the person who work for government or private organizations as full time.

16	Mahidul Islam	Male	Farmer
17	Md. Shaharul	Male	Businessman
18	Md. Enamul Haque	Male	Service Holder
19	Md. Bazlur Rahman	Male	Service Holder
20	Md. Golap Hossain	Male	Businessman
21	Ratan	Male	Van puller
22	Morium	Female	Housewife
23	Jhorna	Female	Housewife
24	Rezina	Female	Housewife
25	Rekha	Female	Housewife
26	Taslima	Female	Housewife
27	Jabeda	Female	Housewife
28	Sayeeda	Female	Housewife
29	Kazoli	Female	Housewife
30	Arif	Male	Farmer
31	Atiur	Male	Farmer
32	Rabius	Male	Farmer
33	Jhorna	Female	Housewife
34	Rabina Aktar	Female	Housewife
5.	Bhanga Substation – Madhabput	r village: 21.9.20	18
01	Rafiquddin Talukdar	Male	Farmer
02	Md. Mannan Mia	Male	Businessman
03	Husne-ara-Begum	Female	Housewife
04	Md. Sirajul	Male	Driver
05	Md. Shomrat	Male	Driver
06	Md. Rakib	Male	Student
07	Sahidul Islam	Male	Farmer
08	Md. Nurul Islam	Male	Farmer
09	Md. Nazrul Islam	Male	Farmer
10	Md. Rezaul Haque	Male	Businessman
11	Md. Liaqat Ali	Male	Service Holder
12	Md. Rezaul Karimk	Male	Businessman
13	Md. Sirajul Islam	Male	Service Holder
14	Rifat	Male	Businessman
15	Asgar	Male	Farmer
16	Mehedi	Male	Businessman
17	Akram	Male	Farmer
18	Parul Begum	Female	Housewife
19	Maksuda	Female	Housewife
20	Ahmad Ali	Male	Businessman
21	Alamgir	Male	Businessman
22	Rahima	Female	Housewife
23	Jahanara Begum	Female	Housewife

24	Karimonnesa	Female	Housewife	
25	Sufia	Female	Housewife	
26	Sheuli	Female	Housewife	
27	Chaina	Female	Housewife	
28	Emarat	Male	Businessman	
29	Emdadul	Male	Service Holder	
30	Rahima	Female	Housewife	
31	Mokammel	Male	Service Holder	
32	Pinjira	Female	Housewife	
33	Sabina	Female	Housewife	
34	Golenur	Female	Housewife	
6.	Satkhira Bay Extension – Taltola	village: 22.9.20	18	
01	Md. Shamsul Haque	Male	Businessman	
02	Md. Mizanur Rahman	Male	Carpenter	
03	Md. Kabirul Islam	Male	Farmer	
04	Md. Abul Hossain	Male	Farmer	
05	Abu Bakkar Siddique	Male	Farmer	
06	Md. Jalal Uddin	Male	Driver	
07	Md. Abdur Rakib	Male	Service Holder	
08	Md. Mufasseruzzaman	Male	Service Holder	
09	Md. Azizur Rahman	Male	Service Holder	
10	Md. Rafiqul Islam	Male	Businessman	
11	Md. Rezaul Karim	Male	Businessman	
12	Md. Kamrul Islam	Male	Driver	
13	Poritosh	Male	Farmer	
14	Md. Sohor Ali	Male	Farmer	
15	Md. Nurul Islam	Male	Farmer	
16	Md. Shofiul Islam	Male	Farmer	
17	Md. Meher Ali	Male	Farmer	
18	Md. Amzad Hossain	Male	Businessman	
19	Md. Abul Kashem	Male	Retired	
20	Md. Abidur Rahman	Male	Businessman	
21	Md. Fazlul Haque	Male	Businessman	
22	Solaiman	Male	Mason	
23	Ohiduzzaman	Male	Farmer	
24	Erfan	Male	Farmer	
25	Md. Azim Uddin	Male	Businessman	
26	Md. Babar Ali	Male	Businessman	
27	Md. Kamruzzaman	Male	Businessman	
28	Md. Nazrul Islam	Male	Businessman	
29	Md. Aksed	Male	Farmer	
30	Krishnopada	Male	Farmer	

7.	Satkhira-Khulna Substation Foo 22.9.2018	cus Group	Discu	ussion with Fisher	men - C	humarkhali	village:
01	Md. Motiar Sardar		Fishe	erman			
02	Md. Shahin Morol		Fishe	Fisherman			
03	Md. Bablu		Fishe	erman			
04	Md. Abdul Hakim		Fishe	erman			
05	Md. Joel Sardar		Fishe	erman			
06	Md. Rahim		Fishe	erman			
07	Md. Selim		Fishe	erman			
08	Md. Lutfur		Fishe	erman			
09	Md. Aziz		Fishe	erman			
10	Md. Taibur Rahman		Fishe	erman			
11	Md. Kawsar Ali		Fishe	erman			
12	Uttam		Fishe	erman			
8.	Hatibanda Substation – Romonio	ganj village	: 25.9.	2018			1
01	Mohammad Hossain	Male		Farmer			
02	Abdur Rahman	Male		Farmer			
03	Khabdul Islam	Male		Farmer			
04	Toyebur Rahman	Male		Farmer			
05	Abdul Aziz	Male		Farmer			
06	Moazzem	Male		Farmer			
07	Md. Mozaffar	Male		Farmer			
08	Md. Shafiqul	Male		Farmer			
09	Javed Ali	Male		Farmer			
10	Md. Badal	Male		Farmer			
11	Oshidul	Male		Farmer			
12	Abdul Gafur	Male		Farmer			
13	Abdul Halim	Male		Businessman			
14	Md. Ratan	Male		Farmer			
15	Md. Rokonuzzaman	Male		Farmer			
16	Asima Begum	Female		Housewife			
17	Hasina Begum	Female		Housewife			
18	Arafat Hossain	Male		Student			
19	Md. Salman Shah	Male		Student			
20	Abdur Rahman	Male		Retired			
21	Md. Dulal Ahmed	Male		Student			
22	Mst. Sharmin	Female		Housewife			
23	Mst. Dulali Khatun	Female		Housewife			
24	Robiul Islam	Male		Student			
25	Fersous Islam	Male		Businessman			
9.			25.9.2				
01	Khandokar Nurunnabi	Male		Service Holder			
02	Khandokar Gulfikar Ali	Male		Farmer			

03	Khandokar Abdul Baten	Male	Service Holder
04	Khandokar Abdul Monaem	Male	Farmer
05	Khandokar Mostakim	Male	Farmer
06	Khandokar Nazmul Reza	Male	Service Holder
07	Khandokar	Male	Service Holder
08	Mst. Anwara Khatun	Female	Housewife
09	Umme Mahfuza	Female	Housewife
10	Khandokar Atiqul Islam	Male	Teacher
11	Johana Sultana	Female	Student
12	Muslima Jahura	Female	Housewife
13	Alea Begum	Female	Housewife
14	Rehana Begum	Female	Housewife
15	Pariha	Female	Student
16	Rehana Parvin	Female	Housewife
17	Mapruza Khatun	Female	Housewife
10	. Meherpur Substation - Natun Ma	adnadanga villag	e: 26.9.2018
01	Md. Badar Uddin	Male	UP member
02	Md. Jamir Uddin	Male	Freedom Fighter
03	Md. Helal	Male	Farmer
04	Md. Yadullah	Male	Farmer
05	Md. Alamin	Male	Van puller
06	Md. Abdul Wahed	Male	Farmer
07	Md. Elius	Male	Migrant
08	Yasmin	Female	Housewife
09	Shila	Female	Housewife
10	Matiar Rahman	Male	Farmer
11	Majiran	Female	Housewife
12	Salma	Female	Housewife
13	Moklesh	Male	Migrant
14	Md. Majnu Ali	Male	Businessman
15	Probon	Female	Housewife
16	Joli	Female	Housewife
17	Kolpona	Female	Housewife
18	Farida Begum	Female	Housewife
19	Momina	Female	Housewife
11	. Phultala Substation – Mattomda	nga village: 29.9.	2018
01	Md. Siddiqur Rahman	Male	Businessman
02	Gazi Jakir	Male	Businessman
03	Masud Hossain	Male	Businessman
04	Kibria	Male	Businessman
05	Saddam Hossain	Male	Farmer
06	Shakil Hossain	Male	Farmer
07	Shawkat Hossain	Male	Farmer

08	Babu	Male	Businessman	
09	Gappar Fakir	Male	Village Doctor	
10	Muslem	Male	Farmer	
11	Fakrul	Male	Farmer	
12	Rakib	Male	Farmer	
13	Abul Hossain	Male	Businessman	
14	Nazrul Isalam	Male	Farmer	
15	Rafiqul Islam	Male	Farmer	
16	Jhoney Hossain	Male	Businessman	
17	Abdul Karim	Male	Farmer	
18	Abul Kalam Azad	Male	Service Holder	
19	Md. Rafiqul Islam	Male	Service Holder	
20	Mizanur Rahman	Male		
21	Shirajul Islam	Male	Laborer	
22	Ahmed Hossain	Male	Businessman	
23	Sahidul Islam	Male	Businessman	
24	Eman Sheikh	Male	Businessman	
25	Khairul Islam	Male	Businessman	
12	2. Rupsha Substation – Khajura	village: 2.10.20)18	
01	Md. Mizanur Rahman	Male	Businessman	
02	Dulal Devnath	Male	Businessman	
03	Sopon Devnath	Male	Businessman	
04	Nur Alam Tarafdar	Male	Businessman	
05	Abdus Sobhan Sheikh	Male	Businessman	
06	Md. Jahid	Male	Farmer	
07	Md. Yusuf Ali	Male	Businessman	
08	Md. Monirul Islam	Male	Farmer	
09	Md. Sohrab Hossain	Male	Farmer	
10	Md. Saiful Islam	Male	Drawing-master	
11	Sirajul Islam	Male	Farmer	
12	Md. Rakib	Male	Unemployed	
13	Md. Nazrul Sheikh	Male	Carpenter	
14	Md. Daud Hossain	Male	Farmer	
15	Md. Jouhurul Islam	Male	Farmer	
16	Kazi Hasan Khaled	Male	Businessman	
17	Md. Rakib Sheikh	Male	Unemployed	
18	Md. Humayun Kabir	Male	Farmer	
19	Litu Kazi	Male	Mason	
20	Malek Morol	Male	Farmer	
21	Md. Bappa	Male	Unemployed	
22	Monirul Islam	Male	Businessman	
23	Israel Kha	Male	Farmer	
24	Enayet Morol	Male	Farmer	

25	Farhad Sheikh	Male	Service Holder
26	Mizanur Rahman	Male	Businessman
13.	Niamatpur Substation – Puiya vil	lage: 4.10.2018	
01	Jogolchandra Devnath	Male	Councilor
02	Rashida	Female	Councilor (woman)
03	Jillur Rahman	Male	Farmer
04	Biplob Kumar	Male	Farmer
05	Bipul Sarkar	Male	Farmer
06	Md. Rustom Ali	Male	Farmer
07	Md. Dulal Hossain	Male	Service Holder
08	Monoj Kumar Mondol	Male	Businessman
09	Md. Fazlul Haque	Male	Farmer
10	Md. Mahatab Uddin	Male	Farmer
11	Poresh Chandra Mondol	Male	Farmer
12	Taposh Kumar Sarker	Male	Businessman
13	Md. Jahidul Islam	Male	Unemployed
14	Md. Tuhin Reza	Male	Student
15	Md. Bakul Alam	Male	Student
16	Bidhan Kumar	Male	Businessman
17	Md. Shahinur Rahman	Male	Businessman
18	Kalisonkor Mondol	Male	Businessman
19	Tarun Kumar Sarker	Male	Farmer
20	Md. Mojibor Mondol	Male	Farmer
21	Md. Robiul Islam	Male	Teacher
22	Sahadat	Male	Farmer
23	Md. Monjurul Sheikh	Male	Farmer
24	Ronojit Kumar Mondol	Male	Businessman
25	Taslima	Female	Unemployed
26	Md. Abul Kashem	Male	Farmer
27	Taslima	Female	Housewife
28	Narayan Chandra Saha	Male	Student
29	Masud Rana	Male	Student
30	Tonmoy Kumar	Male	Student
31	Polash Kumar	Male	Student
32	Md. Khalid Hasan	Male	Student
33	Md. Shakil Dewan	Male	Student
34	Md. Sabbir Hossain	Male	Student
35	Akash	Male	Student
36	Nazul	Male	Student
37	Ariful	Male	Student
38	Shihab	Male	Student
39	Doyal	Male	Student
40	Kawsar	Male	Student

41	Mithu	Male		Student		
42	Anik	Male		Student		
43	Mizanur	Male		Student		
44	Papon	Male		Student		
45	Gouro	Male		Student		
46	Rahim	Male		Student		
47	Robiul	Male		Student		
48	Rifat	Male		Student		
49	Md. Hasibul Hasan	Male		Student		
14	1. Purbachal Substation – Barkaw	village: 9.1	0.2018	}		
01	Md. Yakkub Ali	Male		Businessman		
02	Krishonopod Biswas	Male		Carpenter		
03	Md. Rafiqul Islam	Male		Businessman		
04	Md. Zaman Mia	Male		Businessman		
05	Md Anwarul Islam	Male		Framer		
06	Md. Sagir	Male		Driver		
07	Md. Rafiqul Islam	Male		Laborer		
08	Md. Ashraf	Male		Businessman		
09	Md. Hossen Ali	Male		Farmer		
10	Md. Obinash	Male		Mechanic		
11	Md. Nanu	Male		Service Holder		
12	Kazi Abdul Kuddus	Male		Businessman		
13	Abdul Latif	Male		Businessman		
14	Md. Baser Uddin	Male		Retired		
15	Md. Ruhul Amin	Male		Farmer		
16	Sirajul Islam	Male		Farmer		
15	5. Purbachal Substation Focus Gro	up Discus	sion wi	th Businessmen – B	orkaw vil	lage: 09.10.2018
01	Md. Sohij Uddin		Busir	nessman		
02	Delewar Hossain		Busir	nessman		
03	Md. Manjurul Islam		Busir	nessman		
04	Md. Jaman		Busir	nessman		
05	Md. Anisur Rahman		Busir	nessman		
06	Md. Nazrul Islam		Busir	nessman		
07	Md. Piroj Mia		Busir	nessman		
08	Shamol Biswas		Busir	nessman		
09	Md. Kawsar		Busir	nessman		
10	Md. Hasm Mia		Busir	nessman		
11	Md. Jahidul Islam		Busir	nessman		
16	5. Pirojpur Substation – Kadamtola	village: 12	2.10.20			
01	Haidar Khan	Male		Service Holder		
02	Majibor Khan	Male		Businessman		
03	Nurul Amin	Male		Service Holder		
04	Shamsur Rahman	Male		Farmer		

05	Sukhontho Nath	Male	Service Holder
06	Nittanondo Nath	Male	Farmer
	Sohrab Seikh	Male	Farmer
07	Abul Fakir		
08		Male	Farmer
09	Faruk	Male	Farmer
10	Tapan Kumar	Male	Businessman
11	Jahangir	Male	Businessman
12	Nahid Seikh	Male	Farmer
13	Mithu	Male	Unemployed
10	Altaf Fakir	Male	Businessman
15	Arjun Shaha	Male	Unemployed
	Mohidul Khan	Male	Service Holder
16			
17	Imran Molla	Male	Service Holder
18	Jahangir Khan	Male	Unemployed
19	Mojahar Khan	Male	Businessman
20	Russel	Male	Unemployed
21	Sujon	Male	Unemployed
22	Hamid Molla	Male	Farmer
23	Musa Sekih	Male	Businessman
24	Shanty Ranjan Saha	Male	Farmer
25	Imarat Seikh	Male	Farmer
	Hanif Molla	Male	Businessman
26			
27	Ganesh	Male	Service Holder
	Jhalokathi Substation – Chamta		
01	Md. Abdul Malek	Male	Farmer
02	Khairul Islam	Male	Student
03	Abdul Haque Ziadul Islam	Male Male	Expatriate
04 05	Nazrul	Male	Farmer Mason
05	Md. Anis Talukdar	Male	Farmer
07	Ishrafil	Male	Student
08	Mizanur Rahman	Male	Farmer
09	Md. Iqbal	Male	Businessman
10	Sabur	Male	Farmer
11	Obaidul	Male	Businessman
12	Md. Rahat	Male	Student
13	Md. Abdul Hossain	Male	Businessman
14 15	Md. Sohidul Islam Md. Joynal	Male Male	Businessman Teacher
15	Md. Shah Alam	Male	Businessman
10	Md. Abdul Hannan Mia	Male	Retired
18	Md. Anwar Hossain	Male	Businessman
19	Sekandar Hossain	Male	Businessman
20	Reshat Talukdar	Male	Student
21	Sahadullah	Male	Student
22	Munsur Ali Talukdar	Male	Unemployed
23	Md. Sohidul Islam	Male	Student
24	Hannan Talukdar	Male	Farmer

25	Yunus Talukdar	Male	Businessman
26	Shamim Talukdar	Male	Student
27	Saidul Islam	Male	Day laborer
28	Furkan	Male	Farmer
29	Md. Delewar Hossain	Male	Farmer
30	Enamul Haque	Male	Farmer
31	Md. Idris Ali	Male	Farmer
32	Md. Farid	Male	Businessman
33	Md. Alauddin	Male	Farmer
34	Md. Shafakat Talukdar	Male	Unemployed
35	Eklas Talukdar	Male	Farmer
36	Mojibur Talukdar	Male	Farmer
37	Md. Alim	Male	Farmer
38	Md. Ibrahim	Male	Student
39	Md. Mehedi Hasan	Male	Unemployed
40	Md. Rokibul Islam	Male	Teacher
41	Imran Mia	Male	Student
42	Md. Aktar Hossain	Male	Doctor
43	Md. Rokibul Hasan	Male	Expatriate
44	Md. Dulal Talukdar	Male	
45	Md. Abdul Mannan	Male	Businessman
46	Md. Ismail Hossain	Male	UP member
47	Md. Hannan Talukdar	Male	Businessman
48	Md. Alauddin	Male	Teacher
49	Md. Hanif	Male	Service Holder
50	Md. Shajahan Talukdar	Male	Farmer
51	Md. Jakaria Talukdar	Male	Businessman
52	Md. Kuddus Talukdar	Male	
53	Md. Kawsar Talukdar	Male	
	. Kaliganj Substation – Fulldi villa	ne: 13 10 2018	
01	Md. Roton Mia	Male	Teacher
02	Md. Mizanur Rahman	Male	Service Holder
02	Md. Hazrat Ali Kazi	Male	Farmer
03	Ali Ahmad	Male	Farmer
04	Abdul Gafur Sheikh	Male	
05	Nayeem Bhuya	Male	Businessman Service Holder
00	Arman Mia	Male	Farmer
07	Shamsul Haque	Male	Farmer
09	Arif Hossain	Male	Service Holder
10	Ali Noor Khan	Male	Businessman
11	Md. Abdul Latif Khan	Male	Service(rtd) Holder
12	Khandoker Royel	Male	Service Holder
12	Md. Salauddin Rana	Male	Businessman
13	Md. Rahidul Islam Rithu	Male	Businessman
14	Md. Jahangir Khan	Male	Businessman
16	Md. Mahabub Alam	Male	Service Holder
17	Md. Shawkat Hossain	Male	Businessman
18	Md. Asgar Hossain	Male	Service Holder
10	Selim Mahmud	Male	Farmer
20	Mozaffar Sheikh	Male	Farmer
20	Abul Kalam Azad	Male	Farmer
21	Md. Ismail Sheikh	Male	Farmer
22	Abdul Aziz	Male	Farmer
20		Maic	

24	Md. Harun Rashid Sheikh	Male	Farmer
25	Moshed Pathan	Male	Farmer
26	Habibur Rahman	Male	Businessman
27	Khorshed Alam	Male	Businessman
28	Ayub Sarker	Male	Farmer
29	Tajul Islam	Male	Businessman
30	Rahim Sheikh	Male	Businessman
31	Md. Toybur Rahman	Male	Businessman
32	Mamun Kazi	Male	Businessman
33	Shamim Hossain	Male	Farmer
34	Muktar Mia	Male	Farmer
35	Rezaul Karim	Male	Farmer
36	Anwar Hossain	Male	Farmer
37	Abdul Awal	Male	Service Holder
38	Ruhul Amin	Male	Farmer
39	Sumon Sarker	Male	Businessman
40	Rajim Rahman	Male	Businessman
40	Sohrab Sheikh	Male	Farmer
42	Mainul Sheikh	Male	Farmer
43	Shahin	Male	Student
44	Md. Ashraful Alam	Male	Farmer
44	Shamsul Alam	Male	Farmer
45	Md. Aksar	Male	Farmer
40		Male	Service Holder
47	Nayem Hasan Md. Yasin	Male	Farmer
40	Md. Sadim Mia	Male	Service Holder
49 50	Zaman Uddin	Male	
50		Male	Businessman
51	Md. Bacchu Mia Kamrul Islam	Male	Businessman
52	Sahidullah	Male	Journalist
53	Gias Uddin	Male	Migrant Businessman
55	Lutfar Rahman	Male	Service Holder
56	Md. Kawsar Hossain	Male	Service Holder
57	Al-Amin	Male	Service Holder
58	Majibur Rahman	Male	Service Holder
58	Mohsin	Male	Farmer
	. Bhola Substation - Madhya Jayn	0 0	
01	Md. Hanif	Male	Union Parishad member
02	Aziz Choukidar	Male	Farmer
03	Md. Yousuf	Male	Farmer
04	Abdul Khalek	Male	Farmer
05	Md. Harun	Male	Farmer
06	Md. Jahangir	Male	Farmer
07	Md. Nur Alam	Male	Farmer
08	Md. Ali Hossain	Male	Unemployed
09	Md. Sadek	Male	Farmer
10	Abdul Goni	Male	Businessman
11	Md. Shah Alam	Male	Farmer
12	Md. Ayub Ali	Male	Farmer
13	Abu Bakkar	Male	Farmer
14	Md. Jahangir	Male	Farmer
15	Md. Bashir	Male	Businessman
16	Md. Harunur Rashid	Male	Businessman

17	Md. Farid	Male	Farmer	
18	Md. Abdur Rashid	Male	Farmer	
19	Abdul Mannan	Male	Farmer	
20	Md. Alauddin	Male	Farmer	
21	Shohidul Haque	Male	Farmer	
22	Abdus Sattar	Male	Farmer	
23	Md. Mustafa	Male	Farmer	
24	Tobi Forazi	Male	Farmer	
25	Nur Muhammad	Male	Farmer	
26	Nurul Haque	Male	Farmer	
27	Faruk Choukidar	Male	Farmer	
28	Abdur Rashid	Male	Farmer	
29	Aktar-uz-Zaman	Male	Businessman	
30	Abdus Sattar	Male	Farmer	
31	Abdur Rahim	Male	Farmer	
32	Md. Ismail	Male	Farmer	
33	Md. Riyan	Male	Farmer	
34	Md. Toyub	Male	Farmer	
35	Md. Malek	Male	Service Holder	
36	Md. Mustafa	Male	Unemployed	
37	Md. Aktar Hossain	Male	Service Holder	
38	Md. Ahsan Ullah	Male	Farmer	
39	Md. Tofayel Ahmed	Male	Farmer	
40	Md. Yunus Patwary	Male	Retired	
41	Md. Habibullah	Male	Businessman	

Summary of participants at public consultations conducted for substations

Na	Name of the Cubatation	Datas of Canaviltations	No. Participants	
No	Name of the Substation	Dates of Consultations	Male	Female
1.	Manirampur Substation (FGD)	13/09/2018	12	0
2.	Shibchar Substation	17/09/2018	32	08
3.	Manirampur Substation	18/09/2018	38	0
4.	Bay Extension to Domar Substation	20/09/2018	21	13
5.	Bhanga Substation	21/09/2018	21	13
6.	Satkhira Bay Extension	22/09/2018	30	0
7.	Satkhira- Khulna Substation (FGD)	22/09/2018	12	0
8.	Hatibanda Substation	25/09/2018	21	04
9.	Maheshpur Substation	25/09/2018	08	09
10.	Meherpur Substation	26/09/2018	10	09
11.	Phultala Substation	29/09/2018	25	0
12.	Rupsha Substation	02/10/2018	26	0
13.	Niamatpur Substation	04/10/2018	46	3
14.	Purbachal Substation	09/10/2018	16	0
15.	Purbachal Substation (FGD)	09/10/2018	11	0
16.	Pirojpur Substation	12/10/2018	27	0
17.	Jhalokathi Substation	13/10/2018	53	0

18.	Kaliganj Substation	13/10/2018	59	0
19.	Bhola Substation	15/10/2018	41	0

Table 3 - List of participants at women's consultations conducted for transmission lines

No.	Name of the participant	Occupation/Status	Contact No.
1.	Satkhira-Khulna Transmission Line – Gan		
1.	Mst. Laili Begum	Housewife	
2.	Mst. Sakhina Begum	Housewife	
3.	Mst. Monira Begum	Housewife	
4.	Mst. Rashida Begum	Housewife	
5.	Mst. Aklima Khatun	Housewife	
6.	Mst. Khadija Khatun	Housewife	
7.	Mst. Amena Khatun	Housewife	
8.	Mst. Samiron Begum	Housewife	
9.	Mst. Keya Khatun	Housewife	
10.	Mst. Jakia Khatun	Housewife	
11.	Mst. Rijia Khatun	Housewife	
2.	Domar-Hatibanda Transmission Line – Ba	burhat village: 25.9.2018	
1	Sheuli Khatun	Housewife	
2	Khadeja Begum	Housewife	
3	Mst. Romena Begum	Housewife	
4	Mst. Rohima	Housewife	
5	Rubi Aktar	Housewife	
6	Abida Sultana	Housewife	
7	Sharmin Aktar	Student	
8	Asmani Aktar	Student	
9	Mosammat Saleha Khatun	Student	
10	Mosammat Rashida Begum	Housewife	
11	Mosammat Nazma	Housewife	
12	Mosammat Sokhina	Housewife	
13	Mosammat Jolekha	Housewife	
14	Sonia Aktar	Housewife	
3.	Purbosadipur-Domar Transmission Line –	Paschimchikonmati village	: 26.9.2018
1	Ayesha Siddiqui	Housewife	
2	Mst. Rosina	Housewife	
3	Mst. Nilufa	Housewife	
4	Mst. Jarifa	Housewife	
5	Mst. Laily	Housewife	
6	Mst. Rashida	Housewife	
7	Mst. Ferdousi	Housewife	
8	Mst. Rahima	Housewife	
4.	Meherpur-Kushtia Transmission Line – Ga	neshpur village: 27.9.2018	}
1	Anesa Begum	Housewife	

2	Afroja	Housewife	
3	Bobita	Housewife	
4	Beby Khatun	Housewife	
5	Kulsum	Housewife	
6	Dilara Khatun	Housewife	
7	Hiramon	Housewife	
8	Adori Khatun	Housewife	
9	Pamli Khatun	Housewife	
10	Chintamoni	Housewife	
11	Tonni	Housewife	
12	Rupali	Housewife	
5.	Niamatpur-Patnitola Transmission Line - S	Singra Uzirpur village: 30.9.2	018
1	Padmoni	Day laborer	
2	Minoti	Day laborer	
3	Kolpona Rani	Day laborer	
4	Sumita Devi	Housewife	
5	Srimoti	Housewife	
6	Sumita Moni	Housewife	
7	Heymonti	Housewife	
8	Parul	Housewife	
9	Aroti	Housewife	
10	Sornomala	Day laborer	
11	Gonga Rani	Day laborer	
12	Kousholi Bala	Housewife	
6.	. Bagerhat-Pirojpur-Bhandaria Transmission	n Line - Charkathi village: 7.	10.2018
1	Lolita Rani	Housewife	
2	Dulali Rani	Housewife	
3	Lily Rani	Housewife	
4	Tithi Saha	Housewife	
5	Billa Rani	Housewife	
6	Srity Rani	Housewife	
7	Anondi Rani	Housewife	
8	Amola Rani	Housewife	
9	Beuty Rani	Housewife	
10	Akhi Rani	Housewife	
11	Lotika Rani	Housewife	
12	Nipa Rani	Housewife	

Summary of Participants at Gender Consultations for Transmission Lines

No	Name of the Transmission Line Subproject	Dates of Consultations	No. Participants
1.	Satkhira-Khulna Transmission Line	23.9.2018	11

2.	Domar-Hatibanda Transmission Line	25.09.2018	14
3.	Purbosadipur-Domar Transmission Line	26.09.2018	08
4.	Meherpur-Kushtia Transmission Line	27.09.2018	12
5.	Niamatpur-Patnitola Transmission Line	30.09.2018	12
6.	Bagerhat-Pirojpur-Bhandaria Transmission Line	07.10.2018	12

Table 4 - List of participants at women's consultations conducted for substations

1. Manirampur Substation Focus Group Discussion with Farmer – Jamla village: 13.9.2018 01 Abdul Alim Farmer 02 Minhazur Rahman Farmer 03 Latif Sardar Farmer 04 Yakub Ali Farmer 05 Iqbal Hossain Farmer 06 Aziz Sardar Farmer 07 Ruhul Alim Farmer 08 Soleiman Sardar Farmer 09 Mofiz Sardar Farmer 10 Khalil Mia Farmer 11 Delewar Hossain Farmer 12 Rafiqul Islam Farmer 13 Mofiz Sardar Farmer 14 Delewar Hossain Farmer 12 Rafiqul Islam Farmer 14 Mst. Moyna Khatun Housewife 02 Seuli Begum Housewife 03 Rahima Begum Housewife 04 Rahima Khatun Housewife 05 Sajeda Begum Housewife 06 Nargis Housewife 07 Halima Begum <td< th=""><th>No.</th><th>Name of the participant</th><th>Occupation/Status</th><th>Contact No.</th></td<>	No.	Name of the participant	Occupation/Status	Contact No.
02 Minhazur Rahman Farmer 03 Latif Sardar Farmer 04 Yakub Ali Farmer 05 Iqbal Hossain Farmer 06 Aziz Sardar Farmer 07 Ruhul Alim Farmer 08 Soleiman Sardar Farmer 09 Mofiz Sardar Farmer 10 Khalil Mia Farmer 11 Delewar Hossain Farmer 12 Rafigul Islam Farmer 13 Rafigul Islam Farmer 14 Delewar Hossain Farmer 15 Rafigul Islam Farmer 16 Mst. Moyna Khatun Housewife 17 Rahima Begum Housewife 18 Mst. Matun Housewife 19 Sajeda Begum Housewife 106 Nargis Housewife 107 Halima Begum Housewife 108 Jahanara Housewife 109 Nargis Begum Housewife 11 Sabikunnahar Student	1.	Manirampur Substation Focus Group Disc	ussion with Farmer – Jaml	a village: 13.9.2018
1 Latif Sardar Farmer 03 Latif Sardar Farmer 04 Yakub Ali Farmer 05 Iqbal Hossain Farmer 06 Aziz Sardar Farmer 07 Ruhul Alim Farmer 08 Soleiman Sardar Farmer 09 Mofiz Sardar Farmer 10 Khalil Mia Farmer 11 Delewar Hossain Farmer 12 Rafiqul Islam Farmer 13 Natirampur Substation – Agurhati village: 18.9.2018 1 04 Mahima Begum Housewife 02 Seuli Begum Housewife 03 Rahima Begum Housewife 04 Rahima Begum Housewife 05 Sajeda Begum Housewife 06 Nargis Housewife 07 Halima Begum Housewife 08 Jahanara Housewife 09 Nargis Begum Housewife 10 Selina Housewife 11 Sabikunnahar Student </td <td>01</td> <td>Abdul Alim</td> <td>Farmer</td> <td></td>	01	Abdul Alim	Farmer	
04 Yakub Ali Farmer 05 Iqbal Hossain Farmer 06 Aziz Sardar Farmer 07 Ruhul Alim Farmer 08 Soleiman Sardar Farmer 09 Mofiz Sardar Farmer 09 Mofiz Sardar Farmer 10 Khalil Mia Farmer 11 Delewar Hossain Farmer 12 Rafiqui Islam Farmer 13 Nat. Moyna Khatun Housewife 02 Seuli Begum Housewife 03 Rahima Begum Housewife 04 Rahima Begum Housewife 05 Sajeda Begum Housewife 06 Nargis Housewife 07 Halima Begum Housewife 08 Jahanara Housewife 10 Selina Housewife 11 Sabikunnahar Student 12 Shamima Housewife 13 Sabikunnahar Student 14 Sabikunnahar Student <t< td=""><td>02</td><td>Minhazur Rahman</td><td>Farmer</td><td></td></t<>	02	Minhazur Rahman	Farmer	
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12 Rafiqul Islam Farmer 2 Manirampur Substation – Agurhati village: 18.9.2018 01 Mst. Moyna Khatun Housewife 02 Seuli Begum Housewife 03 Rahima Begum Housewife 04 Rahima Khatun Housewife 05 Sajeda Begum Housewife 06 Nargis Housewife 07 Halima Begum Housewife 08 Jahanara Housewife 09 Nargis Begum Housewife 10 Selina Housewife 11 Sabikunnahar Student 12 Shamima Housewife 3 Shibchar Substation - Maler Kandi village: 18.9.2018 01 Nurjahan Begum Housewife 02 Shahena Begum Housewife 03 Selina Akter Housewife 04 Hamida Housewife 05 Rita Housewife 05 Rita Housewife 06 Md. Abbas Ali Union Parishad member 07 Rosina	10	Khalil Mia	Farmer	
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12ShamimaHousewife3.Shibchar Substation - Maler Kandi village: 18.9.201801Nurjahan BegumHousewife02Shahena BegumHousewife03Selina AkterHousewife04HamidaHousewife05RitaHousewife06Md. Abbas AliUnion Parishad member07RosinaHousewife	10	Selina	Housewife	
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05RitaHousewife06Md. Abbas AliUnion Parishad member07RosinaHousewife	03	Selina Akter	Housewife	
06 Md. Abbas Ali Union Parishad member 07 Rosina Housewife	04	Hamida	Housewife	
07 Rosina Housewife	05	Rita	Housewife	
	06	Md. Abbas Ali	Union Parishad member	
	07	Rosina	Housewife	
	08	Janu	Housewife	

09	Asma	Housewife	
10	Khadija	Housewife	
11	Farida Begum	Housewife	
12	Saleha Begum	Housewife	
13	Delewara Begum	Housewife	
14	Munni Begum	Housewife	
15	Fahima Begum	Housewife	
16	Lipi Begum	Housewife	
4.	Hatibanda Substation – Romniganj village	: 18.9.2018	
01	Halima	Housewife	
02	Fuljan	Housewife	
03	Rahima Khatun	Housewife	
04	Chamili	Housewife	
05	Ajia Begum	Housewife	
06	Hasina Begum	Housewife	
07	Monowara	Housewife	
08	Khadija	Housewife	
09	Tahmina	Housewife	
10	Aziza Begum	Housewife	
11	Shakila Farhana	Student	
12	Amena	Housewife	
5.	Bhanga Substation – Madabpur village: 21	.9.2018	
01	Mst. Hafiza Khatun	Housewife	
02	Jesmin	Housewife	
03	Rahela	Housewife	
04	Tara Banu	Housewife	
05	Bilkis	Housewife	
06	Ajiman	Housewife	
07	Hone-Ara	Housewife	
08	Shahina	Housewife	
09	Sima	Housewife	
10	Komola	Housewife	
11	Jobaida	Housewife	
6.	Satkhira-Khulna Substation Focus Group 22.9.2018	Discussion with Fisherme	en - Chumarkhali village:
01	Md. Motiar Sardar	Fisherman	
02	Md. Shahin Morol	Fisherman	
03	Md. Bablu	Fisherman	
04	Md. Abdul Hakim	Fisherman	
05	Md. Joel Sardar	Fisherman	
06	Md. Rahim	Fisherman	
07	Md. Selim	Fisherman	
08	Md. Lutfur	Fisherman	

09	Md. Aziz	Fisherman
10	Md. Taibur Rahman	Fisherman
11	Md. Kawsar Ali	Fisherman
12	Uttam	Fisherman
7	. Satkhira Bay Extension – Taltola village:	25.9.2018
01	Mst. Manjuara	Housewife
02	Khadija Khatun	Housewife
03	Rubina	Housewife
04	Nazmunnahar	Housewife
05	Nazma Khatun	Housewife
06	Helena Khatun	Housewife
07	Mamtaj	Housewife
08	Jotsna	Housewife
09	Ruksana	Housewife
10	Tahmina	Housewife
11	Morjina	Housewife
12	Karima	Housewife
13	Asfia	Housewife
8	. Maheshpur Substation – Pativila village:	25.9.2018
01	Mst. Husne Ara	Housewife
02	Anwara Khatun	Housewife
03	Johana Khatun	Housewife
04	Umme Mahbuba	Housewife
05	Muslima Jahura	Housewife
06	Alea Begum	Housewife
07	Rehana Aktar	Housewife
08	Parija	Housewife
09	Mapruja Khatun	Housewife
	. Meherpur Substation - Notun Modnadan	ga village: 26.9.2018
01	Yasmin	Housewife
02	Kolopna	Housewife
03	Probon	Housewife
04	Salma Begum	Housewife
05	Mojiron	Housewife
06	Shilpa	Housewife
07	Farida Begum	Housewife
08	Momina Begum	Housewife
09	Shanara	Housewife
10	Komola	Housewife
11	Rehana	Housewife
12	Anwara	Housewife
13	Hasina Khatun	Housewife
14	Taharun	Housewife

1	0. Domar Substation – Paschimchikonmati v	illage: 26.9.2018	
01	Nurani Begum	Housewife	
02	Tajmi Begum	Student	
03	Mst. Lavli	Housewife	
04	Borni Aktar	Student	
05	Sufia	Housewife	
06	Mst. Taslima	Housewife	
07	Mst. Parul	Housewife	
08	Mst. Sultana	Housewife	
09	Mst. Komola	Housewife	
10	Mst. Shorifa	Housewife	
11	Mst. Riva	Student	
12	Mst. Sonara	Housewife	
1	1. Phultala Substation - Mattomdanga, Gulsh	nan: 29.9.2018	
01	Jahida Begum	Housewife	
02	Rojina Begum	Housewife	
03	Halima Begum	Housewife	
04	Asma	Housewife	
05	Rubina	Housewife	
06	Rebeca Sultana	Housewife	
07	Sharmin Sultana	Housewife	
08	Hosne-Ara Begum	Housewife	
09	Selina	Housewife	
10	Ripa	Housewife	
11	Tula Begum	Housewife	
12	Bristy	Housewife	
1:	2. Rupsha Substation - Khajura village: 01.10	0.2018	
01	Mst. Jabeda Begum	Housewife	
02	Mst. Nur Jahan	Housewife	
03	Mst. Julekha Begum	Housewife	
04	Mst. Fatema Begum	Housewife	
05	Mst. Abida	Housewife	
06	Mst. Sathi	Housewife	
07	Mst. Selina	Housewife	
08	Mst. Seuli	Housewife	
09	Mst. Nasrin	Housewife	
10	Mst. Bristy	Housewife	
11	Mst. Meherun	Housewife	
12	Mst. Selina	Housewife	
	3. Purbachal Substation Focus Group Discus		orkaw village: 09.10.2018
01	Md. Sohij Uddin	Businessman	
02	Delewar Hossain	Businessman	
03	Md. Manjurul Islam	Businessman	

05Md. Anisur RahmanBusinessman06Md. Nazrul IslamBusinessman07Md. Piroj MiaBusinessman08Shamol BiswasBusinessman09Md. KawsarBusinessman10Md. Hasm MiaBusinessman11Md. Jahidul IslamBusinessman14. Kaliganj Substation – Fuldi village: 10.10.20180102Tania BegumHousewife03Rekha RaniHousewife04Kohinur BegumHousewife05Rashida BegumHousewife06Urmi BegumHousewife07Jui BegumHousewife08Shahina BegumHousewife09Dhonlokkhi DevnathHousewife09Dhonlokkhi DevnathHousewife	
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08 Shamol Biswas Businessman 09 Md. Kawsar Businessman 10 Md. Hasm Mia Businessman 11 Md. Jahidul Islam Businessman 11 Md. Jahidul Islam Businessman 14. Kaliganj Substation – Fuldi village: 10.10.2018 10 01 Romija Khatun Housewife 02 Tania Begum Housewife 03 Rekha Rani Housewife 04 Kohinur Begum Housewife 05 Rashida Begum Housewife 06 Urmi Begum Housewife 07 Jui Begum Housewife 08 Shahina Begum Housewife 09 Dhonlokkhi Devnath Housewife	
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08 Shahina Begum Housewife 09 Dhonlokkhi Devnath Housewife	
09 Dhonlokkhi Devnath Housewife	
40 Sorossoti Dovnoth Housewife	
10 Sorossoti Devnath Housewife	
11 Protima Devnath Housewife	
12 Taslima Housewife	
15. Pirojpur Substation - Uttar Kadamtola: 12.10.2018	
01 Rokhsana Begum Housewife	
02 Poli Rani Saha Housewife	
03 Tisha Rani Saha Housewife	
04 Ayesha Begum Housewife	
05 Shirin Akter Housewife	
06 Momena Akter Housewife	
07 Poli Rani Saha Housewife	
08 Molina Rani Saha Housewife	
09 Shelly Begum Housewife	
10 Sabita Rani Saha Housewife	
11 Sanu Rani Saha Housewife	
12 Rajia Begum Housewife	
16. Jhalokathi Substation – Chamta village: 14.10.2018	
01 Ranju Begum Housewife	
02 Nupur Housewife	
03 Fatema Khatun Housewife	
04 Safia Housewife	
05 Ishrat Jahan Housewife	
06 Maisha Housewife	
07 Sabina Housewife	
08 Tamanna Student	

09	Halima	Housewife
10	Munmun	Housewife
1	7. Bhola Substation -: Paschim Joynagar vill	age: 15.10.2018
01	Sahida Begum	Housewife
02	Monira Begum	Housewife
03	Suraiya Begum	Housewife
04	Nupur Begum	Housewife
05	Ruma Begum	Housewife
06	Somiron Begum	Housewife
07	Runo Akter	Unemployed
08	Anwara Begum	Housewife
09	Fatema Aktar	Unemployed
10	Faria Aktar	Student
11	Halima Khatun	Housewife
12	Rina	Housewife
13	Hasna Aktar	Housewife

Summary of Participants at Gender Consultations for Substations

No	Name of the Substation	Dates of Consultations	No. Participants	
			Male	Female
1.	Manirampur Substation (FGD)	13/09/2018	12	0
2.	Manirampur Substation	18/09/2018	0	12
3.	Shibchar Substation	18/09/2018	1	15
4.	Hatibanda Substation	18/09/2018	0	12
5.	Bhanga Substation	21/09/2018	0	11
6.	Satkhira- Khulna Substation (FGD)	22/09/2018	12	0
7.	Satkhira Bay Extension	25/09/2018	0	13
8.	Maheshpur Substation	25/09/2018	0	9
9.	Meherpur Substation 26/09/2018 0		14	
10.	Domar Substation 26/09/2018 0		0	12
11.	Phultala Substation	29/09/2018	0	12
12.	Rupsha Substation	01/10/2018	0	12
13.	Purbachal Substation (FGD)	09/10/2018	11	0
14.	Kaliganj Substation	10/10/2018	0	12
15.	Pirojpur Substation	12/10/2018	0	12
16.	Jhalokathi Substation	14/10/2018	0	10
17.	Bhola Substation	15/10/2018	0 13	



Annex 7: Selected photographs of consultations









PICTURES OF WOMEN'S CONSULTATIONS

Hatibanda SS	Hatibanda SS
Kustia Meherpur TL	Satkhira SS







Annex 8: Summary outcomes of public and women's consultations

Table 1 - Summary Outcomes of Public Consultations Conducted for Transmission Lines

No	Key areas of discussion	Issues and concerns raised	Response from the Project
1	Communities' previous knowledge of the Project	 We have no knowledge of the project We were informed by the survey team (when they invited us for this meeting), and by the chairman and members of the local government about this project. However, we would like to get more information about the project 	 Facilitators explained the aims and objectives of the project and its impact area. People responded positively for information shared.
2	Community support for the Project	 We support the project because it aims to improve the power supply. We will support the project, only if affected households are provided with proper compensation and, installation of conductors avoids houses and other important public places like schools, colleges, mosques, madrasa, marketplaces etc. We will support the project, if it didn't harm our houses and water sources. 	 Project will improve the power supply across the region. During the detailed design stage, project will avoid residential structures, structures related to businesses and common properties. If it is not possible to avoid, CPRs, project will reconstruct the CPRs at project costs. No utility services will be affected. If affected, project will restore them at its own cost within a reasonable time frame.
3	Concerns over project implementation	 Who implements the project? Is it the Government or a private agency? Would the towers be installed on residential land, cultivation fields, and our settlements? How many towers would be installed in our area? If transmission lines are erected over houses, what would be its height from above the houses? 	 PGCB will implement the project with the financial support of ADB. Towers will be mostly constructed on agricultural land, and project will try to avoid residential areas. Distance between individual towers will be 300-400 m. There will be angle towers and suspension towers. It is difficult to estimate the exact number of towers required for this area now as the final designs are not ready. However, around 1,200 towers would be needed for the entire length of the transmission lines, which is about 500 km. Project will construct angle towers to avoid any residential areas or other sensitive areas.

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			 Transmission lines will be installed 7-8 m above from above the structures.
4	Anticipated positive impacts and benefits	 Agriculture and fishing are the main sources of livelihoods of the people, and farmers are extensively dependent on electricity for irrigation. Increased supply of electricity will help farmers to operate their water pumps to irrigate the land. The crop production will increase with a stable supply of electricity for irrigation. Increased power supply will help people to set up mills and factories and, they can contribute to the development of livelihoods of people. We expect uninterrupted supply of electricity to our villages. Our areas will develop with increased power supply. We expect employment opportunities for local people during project construction and particularly for the educated youth in the villages. Poor households should be provided free electricity connections to their households. Supply of raw materials required for the construction work of the project can be given to local companies. 	 Project will bring many positive benefits to the local communities including a stable supply of electricity. Moreover, if the electricity supply increases, it will create more livelihood opportunities and employment for people. PGCB will request the contractors to recruit local labor wherever possible and local companies for sub-contracting work.
5	Communities' fears over the Project	 If towers are installed in our farmlands, it will cause to reduce the fertility of our land, crop production and incomes. Many people will permanently lose their residential dwellings. What would happen to the households, if their residential land is used for installing towers? Would those affected households be compensated? High voltage transmitted through electricity lines can cause sudden fires in the settlements and, in our livelihood activities, electric shocks and deaths particularly, during storm, wind, lightening, and other natural disasters. Property values may decrease when transmission lines traverse the private land; no one will buy such land, as they cannot build any structures under the electricity lines. If people want to sell their land to spend on children's education or for their medical treatment, nobody will buy such residential land as there will be 	 All necessary safety measures will be taken to avoid potential accidents from towers and lines during construction and project implementation. Installation of towers will exclude residential areas. The project will avoid primary dwellings and business structures. If there are any impacts, the affected people will receive compensation at replacement cost, and other assistance. Issue raised on property devaluation will be reviewed by PGCB. No water pumps or utility services will be affected. If affected, they will be restored at project cost. Or

		 transmission lines traversing the land. Therefore, the project should compensate for land devaluation at least to minimize the gaps of land valuation. Project construction work can affect our water pumps and drinking water sources. We can cultivate the lands under the transmission tower, but the crop production will decrease, as tractors cannot be used under the towers to plough and prepare the land for cultivations. Outsiders including foreigners may intrude into the area during construction period which can disturb the community life; increase the price of goods in the local market; and increase of house rentals. Construction workers can engage in misbehaviors like criminal activities, drug abuse, and eve teasing etc. which can be harmful to the lives of local people. Traffic congestion and environmental pollution can result from the random transportation of the construction work, it will affect people's livelihoods and day today activities. We doubt whether load shedding will be resolved even a substation was constructed. 	 else, compensation will be paid to the APs, enabling them to restore their water pumps. PGCB will request the contractors to engage local labor to avoid bringing labor teams from outside. If any foreign or migrant skilled laborers work in the project areas, there will be a code of conduct for them, so that potential harmful activities from outsiders can be avoided. Project will establish a grievance redress mechanism/committee easily accessible to people so that any affected party can submit their complaints to this committee. Those complaints and grievances will be resolved within a reasonable time frame. Most of the transmission lines are new, and they will traverse new corridors without affecting the existing network. However, for second circuit stringing, lines will traverse the existing RoW. PGCB will investigate the issue of power disconnections to find a solution to minimize impacts. Contractors are obliged to ensure that their transportation of materials does not cause traffic congestion or any and the pulution.
6	Compensation for losses	 Would the project pay compensation to the affected parties, if the transmission lines traversed land and residential structures? Would compensation be paid for the trees to be cut down to clear the path for transmission lines? Affected households should be paid compensation for their loss of land, crops, dwellings etc. Compensation for land area used for installation of towers should be paid to 	 environmental pollution. Compensation will be paid for affected structures, trees, crops, incomes etc. at replacement cost (including costs of shifting and reconstruction of structures, if required). Compensation will be paid for the land area used for installation of tower foundations. All compensation will be paid at replacement cost.

		 the respective landowners. Installation of towers will restrict the land use. In case of relocation, project should pay compensation several times higher (5-8 times) than the value of their residential land and dwellings or provide the displaced families with alternate land of their choice. Compensation for affected residential land should be more than the market value as the demand for land will decrease with the installation of the towers. If construction work is conducted prior to crop harvesting or during cultivation season, farmers should be compensated for crop losses and for their investments. We cultivate three different crop varieties in 2-3 times a year. During project construction, affected households should be provided with a monthly transitional housing allowance in case they are required to shift temporarily. Inconveniences and long delays in the payment of compensation should be avoided. 	 national ARIPA 2017 and ADB safeguards policy. Compensation is paid at replacement cost enabling the APs to buy new land and reconstruct their houses (if relocation is needed). Similarly, compensation will be paid for trees to be removed and crop damages. As in practice, people will be allowed to cultivate underneath the tower base. In case of temporary shifting project will provide transport and transitional shelter allowances.
7	Relocation and resettlement options	 We will not move out to another land as it disrupts our normal lives (majority in most situations). We prefer a land plot beside the road if relocation is required. We prefer a place closer to our present dwellings so that we can still sustain our links with our relations and friends/neighbors. If fair compensation is paid to affected parties without causing inconveniences to them, they will not require any other assistance for their relocation. Authorities should take the full responsibility to ensure proper resettlement of the people. If APs do not own any other land except the land under the transmission line, project should provide them alternate land or else change the alignment. If APs do not own any other residential land, they must reconstruct their houses on agricultural land. In that case, project should provide them at a set of them and them an	relocation of primary residential dwellings and business. If there are any impacts, the affected people will receive compensation at replacement cost, and other assistance. • All options suggested in respect relocation will be reviewed and considered by PGCB for their decision- making.

		special grant for land filling and obtaining utility services.	
8	Suggestions to avoid negative impacts	 Electricity lines should be erected keeping a safe distance from the settlements and, safety measures should be adopted during construction work. Ensure that construction work does not damage the water pumps and water sources. Installation of electricity towers and lines should avoid graveyards, mosques, educational institutions, madrasas etc. If necessary, communities will be able to provide alternate land for mosques, if they were to be relocated. Project authorities should discuss with the relevant communities. Installation of transmission lines should avoid cultivable areas as much as possible. School buildings and playground of Kappotakkho school should be avoided in erecting the conductors (Satkhira-Rupsha TL, Chargram village) Affected people should be provided with access to bank loan facilities at lower interest rates. 	 Safety of the people is the key priority in the project implementation. Around 90% of the transmission lines in this country traverse agricultural land. Projects have used many angle towers to avoid residential areas. During the preliminary planning stage of this project, it has avoided and changed the alignment to save more than 50 community properties. Project will further try to avoid CPRs during final design.

Table 2 - Summary Outcomes of Public Consultations Conducted for New Substations and Bay
Extensions

No	Key areas of discussion	Issues and concerns raised	Response from the Project
1	Communities' previous knowledge of the Project	 We are not aware of the proposed project to construct a substation. We were informed only by this survey team when inviting us for this meeting, and we would like to receive more information. We were notified by PGCB regarding land acquisition, but we have not received any other information. We were informed of the project by Upazila Chairman and, members of the local government. We want to hear more about the project and the land acquisitions. 	• Facilitators explained the background of the project, its purpose and the extent of land to be acquired for the substation.
2	Community support for the Project	 Overall, we have no objection to the project, provided affected parties are provided with alternate land or proper 	 Project will pay 3 times of Mouza rate when land is acquired in terms of the provisions in the ARIPA

		 compensation before commencement of the project. We (three landowners) will not give our land because we did not receive compensation for our land acquired to construct the substation (Satkhira bay extension)³⁴. We (majority) have no objection to the project, because we were adequately compensated for the previous acquisitions of our land for the substation. However, we expect the project to increase the compensation rates this time (Satkhira bay extension). We have no objections to the proposed project, but we also do not want to lose our lands. 	 2017. Moreover, compensation for crops, trees and structures will also be paid at replacement cost. PGCB will inquire into the compensation issues raised by the three landowners and resolve them.
4	Concerns over project implementation	 Who will be responsible for land acquisition and project implementation? Is it the Government or any other private agency? We have no objection, if the project is run by the government. Who planned this project? Is it the Member of Parliament (MP), Chairman of the Upazila or Union Parishad Chairman? What is the specific reason to select this land for the substation when there are several other lands around? Can't the project find alternate land elsewhere? Our lands are used for cultivations in two to three times a year. They are very fertile land. Project should look for land which is either unproductive or abandoned. When would the construction work of this project start? Since the land proposed for substation is only 1 to 1.5 meters below the road surface, people have planned to build houses in future by filling the land. They want to live closer to the roads. They will now lose the land (Hatibanda SS bay extension). 	 PGCB will implement the project with the support of contractors, local government etc. ADB will finance this project. DC will acquire the land according to the provisions in the ARIPA 2017 at the request of PGCB. Project tries to avoid/minimize resettlement impacts and particularly the residential areas, and none of lands earmarked for substations are within the residential areas. Compensation for acquired land will be paid as per the policy of the GoB and ADB, and the compensation amounts are expected to be over and above the current market price. At this stage, only the assessments are done, and people are consulted. PGCB will start project is approved by both GoB and ADB.

³⁴ Inquiries revealed that the three claimants have not been paid compensation due to title disputes over their land.

5	Anticipated positive impacts and benefits from the Project	 We like the project, because it will improve the electricity supply in our areas. Our livelhoods are dependent on agriculture. Therefore, we need adequate power supply to operate the cultivations. Our crop productions will increase if our cultivations have a stable supply of electricity. A stable supply of electricity is required for animal husbandry and aquaculture related activities as well. Load shedding would decrease if substation is constructed. There will be significant developments in our areas, if stable power supply is available. More industries will be established (particularly by rich people). Such industries will be established (particularly by rich people). Such industries and factories will create new employment opportunities for people, particularly for unemployed and educated youth. Along with new industrial and commercial developments, our land values will increase. We expect the project to offer employment for local people during its construction period and, if possible, employment for local people during its construction sin operations in our area; solar panels are expensive; and it cannot meet the demand for electricity. We therefore expect electricity connections to our area (Purbachal substation) Landowners affected by land acquisitions should be provided with free electricity connections to their households (Purbachal substation) Landowners affected by land acquisitions should be provided with free electricity connections to their households (Purbachal substation) We are concerned about our personal During construction of
5	fears over the Project	safety. The substation should be constructed far away from the settlements. Building construction of substation, PGCB and the engineering team will introduce necessary safety measures to secure the

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		 Electricity lines traversing residential structures, settlements and cultivation fields pose life-threatening risks. If electricity lines are not properly maintained, people can get electrocuted; and crops and trees can catch fires particularly during natural disasters like heavy winds, storms and lightening. Affected households will experience food insecurities along with the loss of their agricultural produce and incomes. Our land values will decrease or completely lose its market value, if electricity lines traverse the settlements and land. Outsiders may come to the area during project construction period and, they will indulge in misbehaviors and criminal activities such as drug abuse and drug peddling, human trafficking (particularly the women), eve teasing or in disputes with local communities. Influx of outsiders during the construction period may cause rise in consumer goods in the local market and rental accommodation. Transportation of construction material can cause air and sound pollution, dust emissions and traffic congestion. Land filling for substations will require large quantities of sand and other materials. The excavation of sand and soil can have adverse impacts on the natural environment and can affect people's livelihoods, crops and trees. The land identified for the substation is 15-20 feet below the road surface. Thus, it requires land filling in order to raise the level up to the road surface. Land filling can disturb the drainage system and affect the surrounding lands and can cause deterioration of the soil fertility. When our lands are acquired, people will lose land to build their 'dream' houses. 	 construction area and will ensure the safety of the people. Also, the substation and its connected lines will be maintained on a regular basis. Therefore, the risk of accidents will be minimal. People can complain to PGCB's local office or head office if any issues arise. There will be a grievance redress procedure as well, and people will be informed once it is established. Issues and concerns raised by people will be reviewed by PGCB authorities, so that they can propose suitable mitigation measures. Project implementation team, and contractors will manage the labor teams brought from outside. However, priority will be given to recruit people for labor work from the local communities. Contractors will be instructed to bring sand and soil for landfilling only from authorized areas suitable for such excavations. Project will also get the services of registered suppliers. This will avoid any potential risks on the environment, agricultural land and local communities. In the final engineering designs, PGCB will take into consideration the drainage system where landfilling is necessary. Remedial measures will be incorporated to the design to avoid disturbances to drainage systems.
6	Land acquisition	 What is the extent of land required for the project? Would the project provide alternate land for people who lose their land? Would the project pay compensation at replacement value for the land to be acquired? 	 Land required for substations vary. It can vary from 1 acre to 20 acres depending on the design. DC is responsible for the final assessment and disbursement of

<u> </u>		their land because they went to relieve		
		 their land because they want to relieve themselves from the bondages o leaseholders and sharecroppers. Government should provide <i>Khas</i> land in the area for leasing by people who will be affected by land acquisitions. 	f I	
7 Com losse	pensation for es	 What would be the amount or compensation payable to affected parties? We do not want to leave our land without a guarantee of paying us proper compensation. When would the compensation for the acquired land be paid? Before starting the project or after starting the project's construction work? We (some) want compensation more than 3- times of the Mouza rate (4- 5 times) to enable us to buy alternate land. If we (some others) get compensation 3 times higher the Mouza rate, we will be able to buy alternate land. We would be satisfied. If the construction work of the substation starts before harvesting the crops, or during cultivation season farmers should be compensated for loss of their crops and incomes as well as for their investments in cultivations. Compensation due to persons affected by previous land acquisitions. Would the project pay compensation to leaseholders who cultivate the land? Leaseholders who cultivate the land? Leaseholders should be provided with alternate land. They would lose their incomes as some of them are exclusively dependent on leased land for their livelihoods. The process of compensation should be avoided in the process of paying compensation. Sometimes people have to pay third parties or bribe the officers to get their due compensation Full compensation should be paid directly to the landowners via their personal bank accounts before the commencement of the project work. 		The project will pay compensation as per the provisions in the ARIPA, 2017 which stipulates compensation at three times higher the Mouza rate. The affected persons for losing land, crops, trees or any other assets will receive compensation. Compensation is assessed based on current market price and according to the laws of GoB and ADB resettlement policy. Compensation will be paid prior to taking over the possession of the land. In this regard, it is important that landowners/claimants keep all their documents ready to prove their ownership rights so that they would be able to get their compensation without delay. No middlemen will be allowed to intervene in the compensation process and due amounts will be paid directly to the landowners by cheque. Leaseholders and, sharecroppers will receive compensation for their crop losses, incomes etc. from PGCB, and they will also be assisted to identify alternate lands for leasing.

8	Relocation and resettlement options	 If relocation is needed, we will find alternate land close by but away from the substation. Compensation for people to be relocated should be paid prior to the commencement of construction work. Costs of relocation should include costs of transportation, labor and sometimes for land filling or leveling of the new lands with sand and soil. If relocation is required, we should be notified at least 6 months in advance. No physical displacement is required for substations based on the survey result. Households requiring relocation will be notified in advance.
9	Suggestions to avoid negative impacts	 The Madhabpur Technical Business Management College, Madhabpur- Jami-Mosque and a local market are located near the proposed substation land. Therefore, it is necessary to maintain a safe distance between the substation and those institutions and avoid any disturbances or damages to those institutions (Bhanga substation) There are more than 20 shops, a primary school, a petrol pump and Union Parishad office located near the project area. Thus, safety measures should be ensured during and after the construction of the substation to avoid any damages or disturbances to those institutions (Domar substation) The Meherpur Upazila Mohila Degree College, Meherpur Primary School, Meherpur High school and Notun Madnadanga-jame- Mosque are located closer to the substation saite. The project should ensure safety measures to avoid any damages or disturbances to these institutions particularly to avoid noise disturbances to these institutions. Paurashava Mohila Degree College, Maheshpur High School, and Patibilapoura Government primary school located near the proposed substation Iand. Project should take safety measures to avoid accidents, damages and disturbances to these institutions (Maheshpur substation). The Madrasa and Malerkandi-jame- Mosque are located near the proposed substation land. Project should adopt necessary measures to avoid noise disturbances to these religious

interest free loans.

Table 3 - Summary Outcomes of Women's Consultations Conducted for Transmission Lines

No	Key areas of discussion	Issues and concerns raised	Response from the Project
1	Communities' previous knowledge of the Project	 Most of the women participants did not have any prior knowledge of the subproject. They were earlier informed of the project by the survey team (when inviting them for the meeting) and by the local government members. However, they preferred to know more about the project. 	The facilitators explained the aims and objectives of the project, and how the project would be implemented including potential impacts of the project.
2	Community support for the Project	 Most of the women would support the project, if it improved the power supply in their communities. Women do not have any objections to the project, provided affected parties are compensated for their losses. Women requested assurance from the project that it will avoid any adverse impacts on schools and religious places. Some women expressed concerns about shifting to a new location (if relocation is needed) as they must leave behind their community/social bondages and feared that they will not be accepted by the host community. Women are also concerned about their children getting admitted to new schools if they must relocate in the middle of a year. Some women will not support the project if they do not get any assurance of the proper compensation. 	 If there are any damages, these will be compensated for reconstruction. Project will not lead to any displacements and resettlement. Project's resettlement and monitoring teams will hold consultations with the host communities to ensure that conflicts do not arise between affected households and host communities. Host communities will be consulted on regular basis, if such relocation is required. Affected persons and households will be provided full compensation for their losses, and they will be given at least 3 months advance notice by PGCB/contractors prior to their displacement.

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3	Project implementation	 Would the project be implemented by the Government? When would the project be started? 	 The project will be implemented by PGCB with financial support of ADB. This is the preparatory stage of the project. Project implementation will commence when the project and the loan are approved by the government and ADB. Thereafter, PGCB will inform the exact time periods of project implementation.
4	Anticipated positive impacts and benefits	 What would be the project's benefits to our communities? Would the project result in reducing load shedding? Would people in our community get opportunity to work in the project? It is necessary to improve the electricity supply, as stable supply of electricity is essential for our livelihood activities. For example, farmers are unable to irrigate their cultivations properly due to inadequate electricity supply. Adequate electricity supply will result in the development of the villages. 	 The project will contribute to reduce load shedding in the country and in the regions once it is in operation. Transmission line network is essential to transfer the electricity produced in the country to different regions. Project will reduce load shedding and increase energy supply. This will benefit the farmers, children's education, housewives with access to clean energy for cooking, and increase of business opportunities etc. PGCB will reach an agreement with the contractors to place their priority in local men and women when recruiting labor teams.
5	Communities' fears over the Project	 The risks of electricity lines traversing the settlements or cultivation fields are high. There may be situations where people can be electrocuted and get killed. Or trees and crops may catch fires and get burnt. These can happen during lightening, storms, and other natural disasters. If electricity lines traverse residential structures, our lives will be in danger. We will lose our cultivation fields due to land acquisition which can cause food crisis in our communities. Therefore, people should be paid sufficient compensation for their land losses or else they should be given alternate land. 	 If there are any damages, these will be compensated for reconstruction. Project will not acquire any land under the transmission lines. People can continue to live and cultivate under the transmission lines once the construction work is over. Compensation for land acquired will be paid at replacement cost, so that people can buy new land for cultivations. Contractors with the support of PGCB will

		 Outsiders may come to the area during construction period and their possible misconduct such as drug abuse, eveteasing, and fighting with local communities etc. can disrupt our community life. Household activities of women can get disrupted when construction workers install electricity lines either over or closer to their houses. 	 manage the labor influx. Project will try to engage local labor as much as possible from the community to avoid/minimize bringing labor from outside. There will be a code of conduct for the laborers and communities will be informed about it through consultation meetings during implementation stage. Project will ensure that laborers do not create problems to the local communities and their women during construction period. A Grievance Redress Mechanism will be set up to receive complaints and grievances from the people. Also, the local communities can directly
			complain to the contractors and PGCB during the project period.
6	Compensation for losses	 What kind of compensation will be paid to the affected households? How much compensation will be paid to the affected parties? What are the policies and rules that would apply to determine compensation eligible for affected parties? If compensation is paid three times higher the market value of our land, we will be able to purchase alternate land. Our lands are very fertile. We cultivate crops three times a year. Project should pay enough compensation taking into account the productivity of the land, crop losses and investments made by people. Affected farmers and others should receive fair compensation for the loss of their properties. Compensation for loss of residential structures should be five times higher than the market value. Or else, alternate residential land should be provided. Compensation payments should be arranged in such a way that it does not 	 Compensation will be paid according to the government and ADB policies. Compensation will be paid at replacement cost for substation land, and affected trees, crops, structures, and livelihoods under transmission lines. Compensation will include cost for any damages caused to properties by the project. It will also include costs for reconstruction of the structures if it is required. Project will also support the restoration of any lost livelihoods and incomes. According to the Electricity Act 2018, no compensation will be paid for the land under transmission lines. No land under the transmission lines will be

		cause inconveniences to affected parties. Long delays to pay compensation should be avoided.	 acquired. Therefore, ownership of land will remain unchanged. Higher compensation of three times the market value will be paid only if the land was acquired. Land will be acquired only for the substations. All compensation will be paid by cheque and on due time. Nobody will be asked to displace prior to payment of full compensation.
7	Relocation and resettlement options	 Some women do not like relocation because it disrupts their day today lives. What would happen to the households who do not have other alternate land for relocation? Women like resettlement sites to be located beside the roads. Resettlement sites should not be far away from our original homesteads, so that we can sustain our relationships with our relations and neighbors who always come to our help in times of need. Relevant authorities should take the full responsibility for the resettlement of the people. 	 All suggestions from the people will be considered by PGCB, and project will try to avoid any resettlement as much as possible. However, project may not construct any resettlement site for the project. Project will support affected households during resettlement, if required.
8	Suggestions to avoid negative impacts	 Project should engage local people as much as possible to avoid labor influx. Some of the households do not have any land except the land they have under transmission lines. If these households are evicted from the clearing RoW, project should provide them alternate land or adequate compensation to buy new land. Land value under the transmission lines will decrease due to construction of transmission lines. Project should compensate for the devaluation of land so that people will be able to sell the land and buy a new parcel of land. Giving alternate land to farmers should be a priority. Affected farmers should be helped to access bank loans on easy terms and conditions. 	 Project will make the contractors obliged to engage local labor as much as possible. All mitigation measures and suggestions will be reviewed by PGCB. Within the existing legal framework of the country, project will try its best to implement people's suggestions during project implementation. The project will assist the affected households to access credit/grants to improve their livelihoods.

No	Key areas of discussion	Issues and concerns raised	Response from the Project
1	Communities' previous knowledge of the Project	 We have not heard about the project before coming to this meeting. 	 The facilitators explained the purpose of the project, its impact area and the extent of land to be acquired for the substations.
2	Community support for the Project	 We have no objection to the project if compensation is paid for any losses. We (a few) do not support the project because it can destroy the fruit bearing trees in this area. We (some) oppose land acquisitions because some of the landowners were not paid compensation in the previous acquisitions for the substation (Satkhira bay extension).³⁵ 	 Compensation will be paid for both fruit bearing trees as well as timber trees separately, considering their age, productivity, size, timber value etc. Additional compensation will be provided for fruit-bearing trees. Outstanding issues regarding compensation for previous acquisitions will be reviewed by PGCB and appropriate action will be taken to address them. New acquisitions will be under the ARIPA 2017 and compensation will be paid accordingly. Possession of the lands will not be taken over until full compensation is paid to the affected parties. APs will be given at least 3 months advance notice to handover the land.
3	Concerns over project implementation	 Who is the implementing agency of the project? Would the construction of the substation reduce load shedding in our areas? When would the construction work of the substation start? 	 Project will be implemented by PGCB with the financial support of ADB. Project will contribute to reducing the load shedding, and it will increase livelihood opportunities for local people. When the project is approved by GoB and ADB, PGCB will conduct another round of consultation meeting with local people to inform the project's implementation plan.

Table 4 - Summary Outcomes of Women's Consultations Conducted for New Substations and Bay Extensions

³⁵ Inquiries revealed that they were not paid compensation due to title disputes over their land.

4	Land acquisition	 We recommend that affected landowners are given alternate land wherever possible. Can the project reconsider the acquisition of this land because many families occupy and live on part of the land belonging to Bangladesh Water Development Board (BWDB) (Hatibanda substation) earmarked for acquisition? We should be given alternate land prior to the commencement of the construction work (Hatibanda substation). 	 PGCB will discuss the land issue of BWDB and explore alternative options. However, there is only one non-titleholder who is dependent on the part of the land to be acquired from BWDB. Rest of the land will be acquired from 5 private parties. Compensation for lost properties will be paid at replacement cost. This will enable APs to buy new land or invest in their other properties. Giving alternate land is not possible because PGCB does not have any government land. PGCB will help the APs to find new land. The project will also compensate for the stamp duty fees, if any APs are interested to buy new land.
5	Anticipated positive impacts and benefits	 What are the benefits to our communities from the substation? Would the subproject offer work opportunities for us? Would the substation after its construction offer any employment based on our educational qualifications? We hope the project will help in improving the electricity supply to our areas so that our farmers can irrigate their cultivations. Our areas will be developed with the construction of the substation. We expect regular supply of electricity to our areas after the construction of the substation. 	 The project will contribute to improve power supply, reduce load shedding/power loss, and create job opportunities, save the environment and reducing pollution, clean energy for housewives and increasing the livelihood opportunities. Electricity will support regular irrigation of crops. Children will be benefited as lighting is one of the key requirements to study at nighttime. Businessmen will be able to extend their business hours until nighttime. Women will be able to find work in the project during construction period.
6	Communities' fears over the Project	 If electricity lines from the substation are erected over houses, settlements and cultivation fields, it will threaten our personal safety. People can get electrocuted and killed, can cause accidents, and trees and crops can catch fires and get burnt particularly 	 Project and the contractors will ensure people's safety during construction period as well as during their operations. Any negligence on the part of contractors to disregard

		 during heavy winds, storms and lightening. Loss of land for the project can cause food insecurities for families unless they are provided with alternate land or proper compensation to cope with their losses. During project construction, outsiders may come and reside in the area who will engage in misconduct such as drug peddling and drug abuse, eve teasing and disputes with local community. These can disturb the daily life of the communities. 	 safety measures can be reported to PGCB. There will be a grievance redress committee established with the participation of the representatives of the local government. People affected by the project can submit their grievances to this committee for resolution. The contractors will be asked to recruit local labor as much as possible so that bringing labor teams from outside can be minimized. The contractors will be responsible to introduce a code of conduct for their labor teams, both local as well as for those coming from outside. Any violation of the code of conduct will be severely dealt with by PGCB and the contractor.
7	Compensation for losses	 What would be the compensation given to the affected households? What would be the amount of compensation paid to affected parties? What are the policies and laws that would determine compensation? Affected parties should receive fair compensation for acquired land is paid three times higher the Mouza rate as provided in the ARIPA, 2017, we would be able to buy alternate land. (Some women said) the project should consider giving them at least the market value of the land to be acquired. The land to be acquired is very fertile and productive, and they constitute a major source of income for families. Therefore, when compensation is determined, it should consider the productivity of the land, loss of crops and investments made by people for their cultivations. Compensation for acquired land should be 4-5 times higher the Mouza rate so that landowners can buy alternate land. 	 Compensation will be at replacement cost according to the ADB policy and the provisions in the ARIPA 2017. This would enable people to buy alternate land or construct new houses. Any assets of the people that are damaged by the project during construction will be compensated or restored. Compensation will be provided for crop losses and loss of livelihoods. Crop and income losses of sharecroppers and leaseholders will be compensated. If compensation was not paid for their losses, APs can complain to the GRC.

8	Relocation and resettlement options	What will be the relocation options for the affected people and schools?	 As substations are not affecting any residential structures, physical displacements of people are not envisaged. Compensation will be paid for the land acquired for the project at replacement cost to enable the APs to buy new land. Project in its final designs will take appropriate measures to avoid impacts on public institutions. If any schools, mosques or any religious/educational institutes are affected, the damages will be compensated at replacement cost. Project will also ensure that no
			schools are closed even for a day due to project activities.
9	Suggestions to avoid negative impacts	 Safety measures should be adopted when erecting electricity lines to avoid any accidents to community members. People who lose their livelihoods due to land acquisitions should be given training to help them finding alternate employment. Affected households should be given access to low interest and concessionary loans. 	 Contractors will erect bamboo sheds above the built structures during conductor stringing to avoid any damages and potential accidents. Suggestions will be considered by PGCB and will act upon them within its policy framework.

Section	ARIPA	Stipulated Time Frame in the ARIPA (in days)		Comments
		Priority Projects	General projects	
4 (1)	Publication of preliminary notice of acquisition	1	1	
4 (8)	If the AP is not happy with the joint verification assessment, he/she can complain to DC within 07 working days of issuing section 4(1) notice.	7	7	This situation arises only if someone changes the status of land or structure with bad motive after the assessment under 4(3) (a).
4 (9)	Hearing by DC within 15 working days after receiving the complaints. In case of govt. priority projects hearing will be within 10 working days.	10	15	
5 (1)	Objection against acquisition within 15 working days of issuing section 4(1) notice.	15	15	
5 (2)	DC submits hearing report within 30 working days after the date of section 5(1) notice. In the case of government priority projects, it will be 15 working days.	15	30	
5 (3)	DC submits his report to (i) govt. if proposed land exceeds 16.50 acres and (ii) to divisional commissioner if it does not exceed 16.5 acres.	15	30	This requirement applies only for Kaliganj GIS as the land to be acquired is 18 acres. No permission from the government is required for rest of the
	If no objection is raised within the period specified in section 5(1), DC makes decision within 10 working days or 30 working days with the written permission of Divisional Commissioner. In the case of government priority projects, it will be 15 working days.			land to be acquired for substations.
6 (1)(a)	Govt. makes the final decision on acquisition within 60 working days after receiving report from DC under section 5(3) notice.	60	60	Applies only for Kaliganj substation land
6 (1)(b)	Divisional Commissioner makes decision within 15 working days or 30 working days.	15	30	Except for Kaliganj land, Divisional Commissioner's approval is required for rest of the lands
7(2)	Interested parties submit their interest on the property and	7	15	

Annex 9: Time frame for land acquisitions and payment of compensation under aripa

	claims for compensation within			
	15 working days. In the case of			
	government priority projects, it			
	will be 07 working days.			
8(3)	DC informs the award of compensation to the interested parties and sends the estimate of compensation within 07 working days	7	7	
8 (4)	The requiring agency deposits the estimate award of compensation to the DC within 120 working days of receiving the estimates.	120	120	If PGCB deposits compensation money with DC earlier than 120 days, time duration can be reduced.
8 (5)	DC prepares the estimates within 30 working days under section 07 notice. In the case of government priority projects, it will be 15 working days.	15	30	
	Time required to commence	287 (13	360 (16	
	the compensation payments	months)	months	
11 (1)	DC awards the compensation to the entitled parties within 60 days of receiving the deposit from the required agency.	60	60	
	Time required to complete the compensation payments	347 (16 months)	420 days (19 months)	

Annex 10: Breakdown of summary Budget

Table A: Compensation for land to be acquired for Substations

SI. No.	Category of loss	Unit (in acre)	Rate in Tk Per acre/sft/No	To be paid by DC including 200% premium per decimal	Total to be paid by DC	Provisions to fill compensation gaps	Estimated cost (in Tk)
Α	COMPENSATION FOR LAND TO BE ACQUIRED						
A.1	Compensation for land to be acqu	ired for new	v substations (in a	acres)			
A.1. 1	Bhanga GIS 132/33 kV		\				
1	Crop Land	2.03	7,025,000	5,460,000	11,083,800	3,176,950	14,260,750
	Sub-total	2.03			11,083,800	3,176,950	14,260,750
A.1. 2	Domar GIS 132/33 kV						
1	Crop Land	5.00	9,321,900	9,321,900	46,609,500	-	46,609,500
	Sub-total	5.00			46,609,500	-	46,609,500
A.1. 3	Hatibandha GIS 132/33 kV						
1	Crop Land	3.04	4,863,900	4,863,900	14,786,256	-	14,786,256
	Sub-total	3.04			14,786,256	-	14,786,256
A.1. 4	Jhalokhathi GIS 132/33 kV						
1	Crop Land	5.00	3,551,400	3,551,400	17,757,000	-	17,757,000
	Sub-total	5.00			17,757,000	-	17,757,000
A.1. 5	Moheshpur GIS 132/33 kV						
1	Crop Land	3.03	5,963,100	5,963,100	18,068,193	-	18,068,193
	Sub-total	3.03			18,068,193	-	18,068,193
A.1. 6	Monirampur GIS 132/33 kV						
1	Crop Land	3.00	3,718,800	3,718,800	11,156,400	-	11,156,400
	Sub-total	3.00			11,156,400	-	11,156,400
A.1. 7	Meherpur GIS 132/33 kV						
1	Crop Land	3.00	7,557,500	1,973,100	5,919,300	16,753,200	22,672,500
	Sub-total	3.00			5,919,300	16,753,200	22,672,500

SI. No.	Category of loss	Unit (in acre)	Rate in Tk Per acre/sft/No	To be paid by DC including 200% premium per decimal	Total to be paid by DC	Provisions to fill compensation gaps	Estimated cost (in Tk)
A.1. 8	Phultala GIS 132/33 Kv						
1	Crop Land	2.00	7,872,600	7,872,600	15,745,200	-	15,745,200
	Sub-total	2.00			15,745,200	-	15,745,200
A.1. 9	Pirojpur GIS 132/33 kV						
1	Crop Land	3.00	5,206,200	5,206,200	15,618,600	-	15,618,600
	Sub-total	3.00			15,618,600	-	15,618,600
A.1. 10	Shibchar GIS 132/33 kV						
1	Crop Land	5.00	14,391,131	9,996,900	49,984,500		71,955,657
						21,971,117	
	Sub-total	5.00			49,984,500	21,971,117	71,955,657
A.1. 11	Bhola GIS 230/33 kV						
1	Crop Land	5.00	4,210,500	4,210,500	21,052,500	-	21,052,500
	Sub-total	5.00			21,052,500	-	21,052,500
A.1. 12	Purbachal 2 GIS 230/132 kV (alr RAJUK but payment pending)	eady acquire	ed 1.32 acre by				
2	Pond/Water bodies/ others	1.32	864,025,758	864,025,758	1,140,514,000	-	1,140,514,00 0
	Sub-total	1.32			1,140,514,000	-	1,140,514,00 0
A.1. 13	Rupsha GIS 230/132 kV + 132/33 l	κV			·		
1	Crop Land	5.35	71,631,690	71,631,690	383,229,542	-	383,229,542
	Sub-total	5.35			383,229,542	-	383,229,542
A.1. 14	Kaliganj GIS, Gazipur (Future 132	kV Provisio	n)				
1	Crop Land	4.05	7,210,000	6,372,600	25,809,030	3,391,470	29,200,500
2	Pond/Water bodies	14.00	22,803,600	22,803,600	319,250,400	-	319,250,400

SI. No.	Category of loss	Unit (in acre)	Rate in Tk Per acre/sft/No	To be paid by DC including 200% premium per decimal	Total to be paid by DC	Provisions to fill compensation gaps	Estimated cost (in Tk)
	Sub-total	18.05			345,059,430	3,391,470	348,450,900
A.1. 15	Purbachal GIS 400/230 Kv						
1	Crop Land	2.10	8,195,000	909,000	1,908,900	15,300,600	17,209,500
2	Pond/Water bodies	12.00	7,355,000	1,500,000	18,000,000	70,260,000	88,260,000
	Sub-total	14.10			19,908,900	85,560,600	105,469,500
	TOTAL COMPENSATION FOR LA	ND TO BE A	CQUIRED FOR N	EW SUBSTATIO	NS		
1	Crop Land	50.60			638,728,721	60,593,377	699,322,098
2	Pond/Water bodies	27.32			527,364,400	70,260,000	597,624,400
	Total for New Substation Land	77.92			1,166,093,121	130,853,377	1,296,946,49 8
A.2	Compensation for land to be acqu	uired for exis	sting Satkhira sul	ostation			
1	Crop Land	3.00	4,860,600	4,860,600	14,581,800	-	14,581,800
	Sub-total	3.00			14,581,800	-	14,581,800
	Total compensation for land to be	acquired fo	r New and Existi	ng substations			
1	Crop Land	53.60			653,310,521	60,593,377	713,903,898
2	Pond/Water bodies	27.32			527,364,400	70,260,000	513,110,400
	Total A	80.92		-	1 1,180,674,921	130,853,377	1,227,014,29 8

SL	Name of the sub-stations	Total cost (in BDT)	Cost in lac
1	Bhanga GIS 132/33 kV	15,340,319	153.40
2	Domar GIS 132/33 kV	50,991,372	509.91
3	Hatibandha GIS 132/33 kV	15,161,021	151.61
4	Jhalokhathi GIS 132/33 kV	19,682,099	196.82
5	Moheshpur GIS 132/33 kV	19,827,019	198.27
6	Monirampur GIS 132/33 kV	12,392,902	123.93
7	Meherpur GIS 132/33 kV	23,499,065	234.99
8	Phultala GIS 132/33 Kv	17,368,248	173.68
9	Pirojpur GIS 132/33 kV	17,447,022	174.47
10	Shibchar GIS 132/33 kV	79,037,192	790.37
11	Bhola GIS 230/33 kV	23,198,996	231.99
12	Purbachal 2 GIS 230/132 kV (already acquired by RAJUK)	105,600,000	1056.00
13	Rupsha GIS 230/132 kV + 132/33 kV	412,624,176	4126.24
14	Kaliganj GIS, Gazipur (Future 132 kV Provision)	376,575,615	3765.76
15	Purbachal GIS 400/230 kV	108,572,888	1085.73
	Total New Sub-stations	1,297,317,933	12,973.18
16	Existing substation Satkhira	16,147,935	161.48
	Overall	1,313,465,868	13,134.66

Table A: Total Cost for Sub-station (including land, crops, structures etc)

Table B.1: Additional Compensation for crops and fish stocks affected by land acquisitions for substations

SL	Loss Item	Unit	Rate	Estimated cost (in Tk)			
	nsation for standing crops and fish stocks (in aquacultur	e ponds) o	n land to b	be acquired			
	stations - (onetime cash grant of Tk100,000/Acre)						
B.1.1	Bhanga GIS 132/33 kV	2.03	100,000	203,000			
B.1.2	Domar GIS 132/33 kV	5.00	100,000	500,000			
B.1.3	Hatibandha GIS 132/33 kV	3.04	100,000	304,000			
B.1.4	Jhalokhathi GIS 132/33 kV	5.00	100,000	500,000			
B.1.5	Moheshpur GIS 132/33 kV	3.03	100,000	303,000			
B.1.6	Monirampur GIS 132/33 kV	3.00	100,000	300,000			
B.1.7	Meherpur GIS 132/33 kV	3.00	100,000	300,000			
B.1.8	Phultala GIS 132/33 Kv	2.00	100,000	200,000			
B.1.9	Pirojpur GIS 132/33 kV	3.00	100,000	300,000			
B.1.10	Shibchar GIS 132/33 kV	5.00	100,000	500,000			
B.1.11	Bhola GIS 230/33 kV	5.00	100,000	500,000			
B.1.12	Purbachal 2 GIS 230/132 kV (already acquired by RAJUK)	0.00		-			
B.1.13	Rupsha GIS 230/132 kV + 132/33 kV	5.35	100,000	535,000			
B.1.14	Kaliganj GIS, Gazipur (Future 132 kV Provision)	18.05	100,000	1,805,000			
B.1.15	Purbachal GIS 400/230 kV	14.10	100,000	1,410,000			
	Sub Total New Sub-stations	76.60		7,660,000			
B.2 Exi	B.2 Existing substation Satkhira						
1	Existing substation Satkhira	3.00	100,000	300,000			
	Total B1 & B2 (Existing and New)	79.60		7,960,000			

Table B.2: Additional compensation for crops, fish stocks and land affected by transmission lines
and transmission towers

SL	Loss Item	Unit (in acre)	Rate (in Tk)	Estimated cost (in Tk)
B.2.1	Compensation for crops and land affected by transm	nission lines	and tower	'S
2	Onetime cash grant of Tk 100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) within the RoW of the transmission lines	1009.70	100,000	100,970,000
3	Onetime cash grant of Tk 4,400,000/Acre for land lost for tower footing/foundation areas at ground level of the transmission towers	0.5977	4,400,00 0	2,629,880
	Sub Total TL (B2.1)	1,010.30		103,599,880
B.2.2	Compensation for crops and land affected by transm			
1	Onetime cash grant of Tk 100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) within the RoW of LILOs	33.17	100,000	3,316,650
2	Onetime cash grant of Tk 4,400,000/Acre for land lost for tower footing/foundation areas at ground level of the transmission towers -	0.0467	4,400,00 0	205,480
	Sub Total LILOs (B.2.2)	33.21		3,522,130
B.2.3	Compensation for land affected by Underground/Ov	verhead cabli	ng section	S
1	Onetime cash grant of Tk 100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) within the RoW of UG and OH cabling sections	0.86	100,000	86,000
2	Onetime cash grant of Tk 4,400,000/Acre for land lost for tower footing/foundation areas at ground level of UG and OH sections	0.0020	4,400,00 0	8,800
	Sub Total UG/OH (B.2.3)	0.86196		94,800
	Total of Other Resettlement Benefits for crops underground/overhead (B.2.1, B.2.2 & B.2.3)	and land	affected f	for TL/LILOs/
1	One-time cash grant @ BDT 100,000/Acre for affected standing crops and fish stocks (in aquaculture ponds) within the RoW of the transmission lines for	1043.73	100,000	104,372,650
2	One-time cash grant @ BDT 4,400,000/Acre for land lost for tower footing/foundation areas at ground level of the transmission towers	0.6463	4,400,00 0	2,844,160
	Total (B2)	1044.37		107,216,810

Table C.1: Compensation for primary structures within the RoW (an estimate of 20% of the primary structures that may be damaged)

SL	Loss Item	Unit (no.)	Rate per Unit	Estimated Cost (Tk)				
C.1	Compensation for primary structures	-	-					
C.1.1	Compensation for primary structures within RoW of transmission lines							
1	Pucca structures (sft)	594	1,800	1,068,480				
2	Semi pucca structures (sft)	1,693	1,100	1,861,860				
3	Tin-made structures (sft)	5,344	600	3,206,400				
4	Kutcha structures (sft)	1,948	300	584,400				
	Sub Total C.1.1	9,578		6,721,140				
C.1.2	Compensation for primary structures within LILOs							
1	Pucca structures (sft)	150	1,800	270,000				

SL	Loss Item	Unit (no.)	Rate per Unit	Estimated Cost (Tk)
2	Semi pucca structures (sft)	235	1,100	258,060
3	Tin-made structures (sft)	354	600	212,160
4	Kutcha Structures (sft)	133	300	39,960
	Sub Total (C.1.2)	871		780,180
C.1.3	Compensation for primary structures within	n undergroui	nd/overhead	sections
1	Tin-made structures (sft)	67	600	40,200
	Sub Total (C.1.3)	67		40,200
	Total cost for 20% of the primary structures C.1.2 & C.1.3)		-	
1	Pucca structures (sft)	744	1,800	1,338,480
2	Semi pucca structures (sft)	1,927	1,100	2,119,920
3	Tin-made structures (sft)	5,765	600	3,458,760
4	Kutcha Structures (sft)	2,081	300	624,360
	Total (C.1)	10,517	3800	7,541,520
C.1.4	Compensation for Auxiliary structures			
C.1.4. 1	Compensation for auxiliary structures on the			on lines
1	No. of tube-well	9.6	14,000	134,400
2	No. of sanitary toilet	3	25,000	80,000
3	No. of slab toilet	12	5,000	61,000
4	Tin-made Boundary wall (rft)	76	350	26,600
5	Pucca Boundary wall (rft)	43	900	38,700
6	No. of RCC Pillar	0.60	1,000	600.00
	Sub Total (C.1.4.1)	145		341,300

	Compensation for auxiliary structures on the Ro	W of the LILO	Os	
C.1.4.	. ,			
2			-	-
1	No. of tube-well	0.04	14,000	5,600
2	No. of sanitary toilet	0.04	25,000	10,000
3	No. of slab toilet	0.08	5,000	4,000
	Total (C.1.4.2)	1.6		19,600
	Total of Compensation for auxiliary structures	s within tran	smission I	ines and LILOs
	(C.1.4.1 & C.1.4.2)			
1	No. of tube-well	10	14,000	140,000
2	No. of sanitary toilet	4	25,000	90,000
3	No. of slab toilet	13	5,000	65,000
4	Tin-made Boundary wall (rft)	76	350	26,600
5	Pucca Boundary wall (rft)	43	900	38,700
6	No. of RCC Pillar	.6	1,000	600
	Total	146		360,900

Table C.2: Compensation for structures on land to be acquired for sub-stations

SL	Loss Item	Unit	Rate per	Estimated cost				
		(no.)	Unit	(Tk)				
C.2.	Compensation for primary structures within land to be acquired for New Sub-stations							
1								
1	Kutcha Structures (sft)	150	300	45,000				
	Total (C.2.1)	150		45,000				
C.2.	Compensation for auxiliary structures	on land to	be acquired for	New Substations				
2								

1	No. of Deep tube-wells	2	35,000	70,000
	Total (C.2.2)	2		70,000

SL	Loss Item	Unit (in no)	Rate per Unit (Tk)	Estimated Cost (Tk)
D. 1	Compensation for trees to be affect	ted by transmission		
	Fruit Bearing			
1	(> 10 m height)	7,054	11,783	83,114,522
2	(5-10 m height)	5,691	9,109	51,837,587
	Sub-total	12,745		134,952,109
	Non-Fruit Bearing (Timber)			
1	(> 10 m height)	2,525	17,588	44,410,294
2	(5-10 m height)	6,499	12,982	84,372,312
	Sub-total	9,024		128,782,606
	Medicinal			
1	(> 10 m height)	122	8,000	976,000
2	(5-10 m height)	222	6,667	1,480,000
	Sub-total	344		2,456,000
	Total (D1)	22,113		266,190,715
D. 2	Compensation for trees affected by	LILOs		
2	Fruit Bearing			
1	(> 10 m height)	59	11,783	695,174
2	(5-10 m height)	59	9,109	537,413
2	Sub-total	118	3,103	1,232,587
	Non-Fruit Bearing (Timber)	110		1,252,507
1	(> 10 m height)	45	17,588	791,471
2	(5-10 m height)	93	12,982	1,207,359
~	Sub-total	138	12,302	1,998,829
	Medicinal	100		1,000,020
1	(> 10 m height)	4	8,000	32,000
2	(5-10 m height)	5	6,667	33,333
-	Sub-total	9	0,001	65,333
	Total (D2)	265		3,296,750
D.	Compensation for trees affected by		lead cabling section	
3				
	Fruit Bearing		44 700	
1	(> 10 m height)	0	11,783	0
2	(5-10 m height)	192	9,109	1,748,870
	Sub-total Non-Fruit Bearing (Timber)	192	+	1,748,870
4		0	17 500	^
1	(> 10 m height)		17,588	0
2	(5-10 m height)	164	12,982	2,129,106
	Sub-total Modicinal	164	++	2,129,106
4	Medicinal		0.000	^
1	(> 10 m height)	0	8,000	0
2	(5-10 m height)	0	6,667	0
	Sub-total	0	+	2 977 075
	Total (D3)	356	d a nama	<u>3,877,975</u>
	Total Compensation for Trees affect	cted by TL/LILOS/ un	aerground/overne	aa (D.1, D.2 & D.3
	Fruit Bearing			

Table D - 1: Compensation for Affected Trees

SL	Loss Item	Unit (in no)	Rate per Unit (Tk)	Estimated Cost (Tk)
1	(> 10 m height)	7,113	11,783	83,809,696
2	(5-10 m height)	5,942	9,109	54,123,870
	Sub-total	13,055	0,100	137,933,565
	Non-Fruit Bearing (Timber)			,,
1	(> 10 m height)	2,570	17,588	45,201,765
2	(5-10 m height)	6,756	12,982	87,708,776
	Sub-total	9,326	,	132,910,541
	Medicinal	,		, ,
1	(> 10 m height)	126	8,000	1,008,000
2	(5-10 m height)	227	6,667	1,513,333
	Sub-total	353		2,521,333
	Total (D1 to D3)	22,734		273,365,440
D.	Compensation for Trees on land to be a	acquired for New	Sub-stations	
4		•	<u>. </u>	
	Fruit Bearing			
1	(> 10 m height)	15	11,783	176,739
2	(5-10 m height)	5	9,109	45,543
	Sub-total	20		222,283
	Non-Fruit Bearing (Timber)			
1	(5-10 m height)	34	12,982	441,400
	Sub-total	34		441,400
	Medicinal			
1	(> 10 m height)	2	8,000	16,000
	Sub-total	2		16,000
	Total (D4)	56		679,683
	Compensation for trees affected by t stations (D1 TO D4)	ransmission line	es and land acc	uisitions for sub-
	Fruit Bearing			
1	(> 10 m height)	7,128	11,783	83,986,435
2	(5-10 m height)	5,947	9,109	54,169,413
	Sub-total	13,075		138,155,848
	Non-Fruit Bearing (Timber)			
1	(> 10 m height)	2,570	17,588	45,201,765
2	(5-10 m height)	6,790	12,982	88,150,176
	Sub-total	9,360		133,351,941
	Medicinal			
1	(> 10 m height)	128	8,000	1,024,000
2	(5-10 m height)	227	6,667	1,513,333
	Sub-total	355		2,537,333
	Total (D)	22,790		274,045,122

Table D-2: Other Resettlement Benefits - Additional 30% compensation for affected fruit bearing trees

SL	Type of Losses	Unit (in Tk)	Rate (in Tk)	Estimated cost (in Tk)
E.1	Fruit bearing trees affected by transmission lines			
E.1.1	Kaliganj-Moheshpur 132 (KV)	2,856,696	30%	857,009
E.1.2	Bagerhat-Pirojpur-Bhandaria 132 (KV)	103,721,130	30%	31,116,339
E.1.3	Kusthia-Meherpur 132 (KV)	2,706,609	30%	811,983
E.1.4	Satkhira-Monirampur 132 (KV)	11,026,500	30%	3,307,950

SL	Type of Losses	Unit (in Tk)	Rate (in	Estimated
			Tk)	cost (in Tk)
E.1.5	Domar -Hatibandha 132 (KV)	200,391	30%	60,117
E.1.6	Niamatpur-Patnitala 132 (KV)	1,297,022	30%	389,107
E.1.7	Satkhira-Rupsha 230 (KV)	8,105,761	30%	2,431,728
E.1.8	Gopalganj (N) – Shibchar 230 (KV)	3,310,870	30%	993,261
E.1.9	Purbasadipur-Domar 230 (KV)	1,430,304	30%	429,091
E.1.10	Kaliganj - Purbachal 400 (KV)	296,826	30%	89,048
	Sub-Total (E1)	134,952,109		40,485,633
E.2	Fruit bearing trees affected by LILOs			
E.2.1	LILO of Goalpara-Bagerhat 132 kV double	1,184,370	30%	355,311
	circuit line at Rupsha			
E.2.2	LILO of Tongi -Ghorashal 230 kV double	9,109	30%	2,733
	circuit at Kaliganj			
E.2.3	LILO of Tongi -Ghorashal 400 kV double	39,109	30%	11,733
	circuit at Kaliganj			
	Sub Total (E2)	1,232,587		369,776
	t bearing trees affected by Underground/over	head section		1
E.3.1	Purbachal - Purbachal 2 (Overhead	1,784,870	30%	524,661
	Section) 230 KV			
	Sub Total (E3)	1,784,870	-	524,661
E.4	Total Fruit bearing trees affected by land ac			
E.4.1	Shibchar GIS 132/33 kV	11,783	30%	3,535
E.4.2	Pirojpur GIS 132/33 kV	117,826	30%	35,348
E.4.3	Phultala GIS 132/33 kV	65,348	30%	19,604
E.4.4	Domar GIS 132/33 kV	27,326	30%	8,198
	Total (E4)	222,283		66,685
	Total (E)	138,155,848		41,446,754

Table E: Other Resettlement Benefits – Special Allowances for Vulnerable and Significantly Affected Households

SL	Other Resettlement Benefits	Unit (in No)	Rate in Tk Per Acre/sft/n o	Estimate d cost (in Tk)
F.1	Special allowances for vulnerable households affected b	y transm	nission lines	
F.1.1	Onetime grant of Tk10,000 per male headed household living below the official poverty line	11	10,000	110,000
F.1.2	Onetime grant of Tk10,000 per woman headed household living below the official poverty line	3	10,000	30,000
F.1.3	Onetime grant of Tk10,000 per household headed by elderly over 70 years	4	10,000	40,000
F.1.4	Onetime grant of Tk10,000 per household without legal title to land	7	10,000	70,000
F.1	Sub Total of TL (F1)			180,000
F.2	Special allowances for vulnerable households affected b	y LILOs		
F.2.1	Onetime grant of Tk10,000 per male headed household	2		20,000
	living below the official poverty line		10,000	
F.2.2	Onetime grant of Tk10,000 per household without legal title	1		10,000
	to land		10,000	
F.2	Sub Total of LILOs (F2)	3		30,000
	Special allowances for vulnerable households affected b	y transm	nission lines	and LILOs
	Onetime grant of Tk10,000 per male headed household	13		130,000
	living below the official poverty line		10,000	

SL	Other Resettlement Benefits	Unit (in No)	Rate in Tk Per Acre/sft/n o	Estimate d cost (in Tk)
	Onetime grant of Tk10,000 per woman headed household living below the official poverty line	3	10,000	30,000
	Onetime grant of Tk10,000 per household headed by elderly over 70 years	4	10,000	40,000
	Onetime grant of Tk10,000 per household without legal title to land	8	10,000	80,000
	Sub Total of (F1 and F2)			280,000
F.4	Special allowances for vulnerable and significantly affect acquisitions for New Substations	ted hous	eholds affect	ted by land
F.4.1	Livelihoods restoration grants of Tk15,000 (Tk5,000 for training and Tk10,000 grant for tree planting, other livelihood restoration activities etc.) for significantly affected household	207	15,000	3,105,000
F.4.2	Onetime grant of Tk10,000 per male headed household living below the official poverty line	19	10,000	190,000
F.4.3	Onetime grant of Tk10,000 per women headed household living below the official poverty line	2	10,000	20,000
F.4.4	Onetime grant of Tk 10,000 per household headed by elderly over 70 years	26	10,000	260,000
F.4.5	Onetime grant of Tk10,000 per household without legal title to land	1	10,000	10,000
F.4	Sub Total for New Substations (F4)			3,585,000
F.5	Special allowances for vulnerable and significantly affect	ted hous	eholds affect	ted by land
	acquisitions for Existing Substation			
F.5.1	Livelihoods restoration grants of Tk15,000 (Tk5,000 for training and Tk10,000 grant for tree planting, other livelihood restoration activities etc.) for significantly affected household	11	15,000	165,000
F.5.2	Onetime grant of Tk10,000 per male headed household living below the official poverty line	11	10,000	110,000
F.5.3	Onetime grant of Tk 10,000 per household headed by elderly over 70 years	1	10,000	10,000
F.5	Sub Total of Existing Substation (F5)			285,000
	Special allowances for vulnerable and significantly substations	affecte	ed househo	lds of all
1	Livelihoods restoration grants of Tk15,000 (Tk5,000 for training and Tk10,000 grant for tree planting, other livelihood restoration activities etc.) for significantly affected household	218	15,000	3,270,000
2	Onetime grant of Tk10,000 per male headed household living below the official poverty line	30	10,000	300,000
2 3	Onetime grant of Tk10,000 per male headed household	30 2	10,000 10,000	20,000
	Onetime grant of Tk10,000 per male headed household living below the official poverty line Onetime grant of Tk10,000 per women headed household living below the official poverty line Onetime grant of Tk10,000 per household headed by elderly over 70 years			
3	Onetime grant of Tk10,000 per male headed household living below the official poverty line Onetime grant of Tk10,000 per women headed household living below the official poverty line Onetime grant of Tk10,000 per household headed by elderly	2	10,000	20,000

SL	Other Resettlement Benefits	Unit (in No)	Rate in Tk Per Acre/sft/n o	Estimate d cost (in Tk)
	Total Special allowances for vulnerable and significantly by transmission lines, LILOs, and substations	affected	households	of affected
1	Livelihoods restoration grants of Tk15,000 (Tk5,000 for training and Tk10,000 grant for tree planting, other livelihood restoration activities etc.) for significantly affected household	218	15,000	3,270,000
2	Onetime grant of Tk10,000 per male headed household living below the official poverty line	43	10,000	430,000
3	Onetime grant of Tk10,000 per women headed household living below the official poverty line	5	10,000	50,000
4	Onetime grant of Tk10,000 per household headed by elderly over 70 years	31	10,000	310,000
5	Onetime grant of Tk10,000 per household without legal title to land	9	10,000	90,000
	Total (F)			4,150,000

Table F: Grievance Redress, External Monitoring and Administrative Cost

SL	Loss Item	Total in Tk	Estimated cost in USD
1	Cost for GRM consultation Meeting and RP Update	4,200,000	50,000
2	External Safeguards Monitoring Expert for 8 months over the period of 4 years @ USD 5,000/month	3,360,000	40,000
3	Administrative Cost (fees charged by DC for land acquisition)	73,760.180	878,097
4	Aministrative cost for TLs	7,287,260	86,753
	Total	78,540,652	935,008