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Bangladesh: Paramount Solar Power Project

PART 1: Main Report

Prepared by Dynamic Sun Energy Private Limited for the Asian Development Bank (ADB).

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Resettlement Plan (RP)

for

Proposed 100 MW ac Solar Power Project

in

Pabna, Bangladesh

PREPARED FOR:



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CURRENCY EQUIVALENTS

(as of 1 June 2, 2023)

Currency unit	_	Bangladesh Taka (Tk)
Tk1.00	=	\$0.009
\$1.00	=	Tk 107.295

LIST OF ABBREVIATIONS

ADB	-	Asian Development Bank
AP	-	Affected Person/s
ARIPO	-	Acquisition and Requisition of Immoveable Property Ordinance
Tk	-	Bangladesh Taka
BPDB	-	Bangladesh Power Development Board
CCL	-	Cash Compensation under Law
DC	-	Deputy Commissioner
EA	-	Executing Agency
EIA	-	Environmental Impact Assessment
ESU	-	Environment and Social Unit
GRC	-	Grievance Redress Committee
GRM	-	Grievance Redress Mechanism
IOL	-	Inventory of Losses
JVT	-	Joint Verification Team
LGRC	-	Local Grievance Redress Committee
MOL	-	Ministry of Lands
MPEMR	-	Ministry of Power Energy and Mineral Resources
NGO	-	Non-Government Organization
PGCB	-	Power Grid Company Bangladesh Ltd
PGRC	-	Project Grievance Redress Committee
PMO	-	Project Management Office
PVAC	-	Property Valuation and Assessment Committee
RoW	-	Right of Way
RP	-	Resettlement Plan
SCADA	-	Supervisory Control and Data Acquisition System
SPS	-	Safeguard Policy Statement

EXECUTIVE SUMMARY

There is a huge demand for electricity in our day-to-day life as well as in various sectors of the economy. In this regard, Bangladesh Power Development Board (BPDB) prepared generation expansion plan to add about 25,840 MW from 2022 to 2027 with the aim to provide quality and reliable electricity to all the people across the country for desired economic growth and social development (BPDB, 2021-2022). Responding to the need of the country, the proposed 100 MW (AC) solar power project is planned which is located in the village of Bhabanipur in the Hemayetpur Upazila which is south-west outskirts of Pabna City, in Pabna District, central Bangladesh. The project is planned on a Build, Own, and Operate (BOO) basis under the Implementation Agreement (IA) with the Government of Bangladesh (GoB). Dynamic Sun Energy Pvt. Ltd. (DSEPL) will design, engineer, manufacture, finance, construct, complete, permit, test, commission, insure, own, operate and maintain the plant for the purpose of generating and supplying electricity to Bangladesh Power Development Board ("BPDB") for a period of 20 years on an off-take basis.

The proposed main power plant requires 400 acres of land [for the main power plant, substation area, worker camp, construction / laydown area]. The proponent has already purchased 229 acres of land till August 2023 through willing buyer and willing seller method and the rest of the land is under process which will be purchased within September 2023. The land of main power plant site is non-agricultural char land currently used in places for a one-off seasonal banana cultivation. There were no informal land users who would have been involuntarily displaced, nor any structures been displaced. In addition to that, there was no informal land user, land sellers / users who will be worse off as a result of the land sale / loss through the willing buyer / seller arrangements.

The electricity transmission line (TL) for this power plant has started from the proposed solar power plant (Bhabanipur, Hemayetpur Union) to existing 230/132 KV Grid PGCB Sub-station at Joynagar, Ishwardi, Pabna which is 21.5 km long and contains 79 towers. The transmission tower footings require 0.7642 acres of land which will be used during the project life cycle through Memeorendum of Understanding (MoU). Already MoU has been signed for 76 tower footing areas till August 2023 and MoU of only 3 transmission tower footing areas are under process. In line with Asian Development Bank (ADB) Safeguards Policy Statement (SPS) Safeguard Requirement 2 (SR2) on Involuntary Resettlement (IR), involuntary resettlement for this project is only triggered for land acquisition along TL as the land for transmission tower footing was negotiated purchase but with the company having recourse to legal measures to gain access if negotiations failed. However, studies confirmed that there are no informal land users or any structure along the TL route. Compensation has been and will be given for tower footing area, standing crops in that area, crop damage due to stringing of the line and restricted land use due to RoW. Transmission Line runs mostly through agricultural land which is owned and farmed by households. TL will be strung above ground through transmission towers from the power plant area. After Commissioning of the 132kV TL, DSEPL & PGCB will sign an O & M agreement for Operations and Maintenance (O&M) of the TL.

This Resettlement Plan (RP) is developed to ensure project compliance with ADB SPS SR2 for the TL which requires RP to ensure land owners and users in the TL Right of Way (ROW) and footing areas are compensated in line with SR2. However, this RP is being developed near the end of the land acquisition process but it will be used in conjunction with the findings of the Environmental and Social

Compliance Audit Report (ESCAR) also being developed to satisfy ADB financing requirements to address any gaps from previous land acquisition and to manage any remaining land acquisition impacts for the remaining towers. The document established the standards for the company to ensure outcomes of the land acquisition process for the TL are consistent with the requirements for ADB SPS SR2 on Involuntary Resettlement.

The transmission line incorporates a 10-meter-wide right-of-way (ROW), 5 m on each side of the midline. The line, including the ROW, and the tower locations have been identified in order to ensure that no residential structures will be affected and a minimum of private land needs to be acquired. The selected design option will avoid social and resettlement impacts where possible. The specifications related to land acquisition for the transmission line are the following:

- i. Total length of the route is approx. 21.5 km;
- ii. Transmission line ROW width is 10 m (5 m on each side of the midline);
- iii. Land acquisition for tower footings is 0.7642 acre and
- iv. Estimated number of towers is 79.

The proposed transmission line is anticipated to have impact on only land for the towers and the ROW and trees growing on the tower footing lands and within the ROW. All the land to be acquired is private land that is mainly being used for growing paddy and fruit trees.

The project is not anticipated to have any significant impact on people's livelihoods or on vulnerable persons. No residential structures will be affected and no person will be physically displaced by the project.

Temporary impacts on loss of crops during construction which will mostly be avoided and mitigated and if not, will be compensated. No structures will be affected under the lines. Electric towers will be constructed mainly on the private land with adequate consent from the land owners and appropriate compensation which meets the requirements of ADB SR2 for full replacement value for lost or damaged assets and assessment of impacts on livelihoods to determine if livelihood restoration merausres are also required.

Social economic information of the TL route was collected during the social survey presented in Chapter 3. In TL alignment a total 79 HHs comprises of 257 people will be affected with damages to land or crops. These have all been surveyed. Total 54 HHs will lose only agricultural land and rest of the 28 HHs will lose both land and trees along the TL. None of them will lose permanently 10% or more of economically productive assets as all of them have other cultivable land and also they are not dependent only on the land along the TL. The crops being damaged in the ROW and access will be compensated so no permanent damage or long-term loss will occur to the affected people.

According to the survey, the most prominent age group is 30-60 and the percentage of male populations (55.46%) are greater than female population (44.53%) along the TL route. Child marriage is not that common in the TL area as 66.15% people are married (all aged above 18) and 33.85% are unmarried. Predominant religion in the TL area is Islam (100%). Most of the households around the project area have 3-4 members which is around 77.12%, only 17.72% HHs have 1-2 members. Literacy

rate is higher among male population (40.88%) compared to the female population (33.46%). A variety of occupational choices have been found in the project location, among male population majorities are farmer and female population are mostly unemployed. 29.11% HHs income rate around the TL area falls below the poverty line but they will not be affected due to this project. After the completion of tower construction, the landowner will be permitted to cultivate the land for agricultural use. As a result, no person will be vulnerable due to the project.

For the preparation of resettlement plan, each household was engaged for the detailed Inventory of Losses (IOL) survey on the TL alignment. Additionally, four FGDs and one consultation meeting were carried out between 26th April to 29th April, 2023 at the location of the Solar Power Project. The key objectives of these FGDs and consultation meeting were to disclose the positive and negative impacts of the project to the community and stakeholders as well as to ensure inclusion of views and opinions from project affected persons. FGD participants were of different professional groups including local businessmen, day labor, local elites, member of the union, landowner, female participants, farmers and general people of the area. During FGD meetings participants explained that they understand about this project benefits and they believe it will improve road connectivity and socio-economic condition in their locality. The participants asked prioritize local people and women in suitable jobs during and after the project and demand for compensation for livelihood loss. According to the project affected people demand, the project authority should provide the proper compensation to the affected people and prioritize local people to engage in the project during and after construction phase.

The company has formulated a Grievance mechanism to reduce/redress grievance related to land acquisition, crop damage, tree cutting, land use restriction related compensation at various level for effective & smooth operation of business. To mitigate/redress the grievance the company has been working in three step layers to solve the complaints and concerns more effectively and efficiently within sort period of time which is as below:

1. PAPs Representative Committee:

Name	Position	Contact No.
Mr. Md. Atahar Mondol	Local Representative	+880-1718-964871
Mr. Md. Shahid Bissas	Local Representative	+880-1745-521461
Mr. Md. Bondar Ali Haji	Local Representative	+880-1711-301866

2. Project Management Committee:

Name	Position	Contact No.
Mr. Md Jahurul Islam	DGM (HR & Admin)	+880-1324-724855
Mr. Md Omar Faruk	AGM (Operation)	+880-1725-538929
Mr. Md. Aktaruzzaman	AGM	+880-1324-437720

3. Executive Committee:

Name	Position	Contact No.
Mr. AHM Abdur Rahman	Director (Operation & Administration)	+880-1755-524278
Mr. Md. Robiul Islam	GM & Company Secretary	+880-1713-236107
Mr. Md. Shamim Hossain	Head of Audit	+880-1777-709448

Affected HHs / PAPs are encouraged to raise their issue in writing, in person or by telephone call to PAPs Representative Committee informally in the first instance. Upon getting the query from PAPs, the PAPs Representative Committee attend the issue and conduct the necessary investigations whether the issue related with the project activity and measure the depth of the issue. Then the committee gives a date and sit together with the aggrieved PAP to resolve. Generally, any issue raised by PAPs is resolve within 7 days from the date of coznigence of the committee. If the matter is not resolved, the PAPs Representative Committee submit a letter to Project Management Committee in detail and outline what steps they would like to be taken to redress the issue with their investigation report. Project Management Committee then conduct the necessary investigations then a grievance hearing is held and mitigates the issue within next 7 days. If they fail to mitigate, they forward it to the Executive Committee of the company with their investigation report. Executive Committee takes the decision regarding the complaints or concern issues within 14 days. PAPs have the right to appeal against the Grievance Management decision. In some cases, if the PAPs and Company decide that it would be advantageous to enlist a third party in the dispute resolution process, such mediation to help the parties arrive to a mutually agreeable solution. The grievance process is then temporarily halted in such cases.

The presence of GRM or seeking relief from GRM is not a bar to take grievances and complaints to national courts for arbitration. This includes ADB Accountability Mechanism whereby people adversely affected by ADB-financed projects can express their grievances, seek solutions and report alleged violations of ADB's operational policies and procedures, including safeguard policies.

A total 79 HH lost or will have land and assets affected along the transmission lines. The total estimated cost for land and compensation will be BDT 54,259,331.00. All compensation calculation has been undertaken meeting national requirements and ADB full replacement value. A contingency provision of 5% of the total resettlement budget is set aside to cover the unanticipated costs which may have to be incurred after final engineering designs and inventory of losses are concluded. The RP will be available in English on adb.org.

Chapter 1: PROJECT DESCRIPTION

1.1 The Background and Introduction

There is a huge demand for electricity in our day-to-day life as well as in various sectors of the economy. In this regard, Bangladesh Power Development Board (BPDB) prepared generation expansion plan to add about 25,840 MW from 2022 to 2027 with the aim to provide quality and reliable electricity to all the people across the country for desired economic growth and social development (BPDB, 2021-2022). Responding to the need of the country, the proposed 100 MW ac solar power project is planned which is located in the village of Bhabanipur in the Hemayetpur Upazila which is south-west outskirts of Pabna City, in Pabna District, central Bangladesh. The project is planned on a Build, Own, and Operate (BOO) basis under the Implementation Agreement (IA) with the Government of Bangladesh (GoB). Dynamic Sun Energy Pvt. Ltd. (DSEPL) will design, engineer, manufacture, finance, construct, complete, permit, test, commission, insure, own, operate and maintain the plant for the purpose of generating and supplying electricity to Bangladesh Power Development Board ("BPDB") for a period of 20 years on an off-take basis.

The proposed main power plant requires 400 acres of land [for the main power plant, substation area, worker camp, construction / laydown area]. The proponent has already purchased 229 acres of land till August 2023 through willing buyer and willing seller method and the rest of the land is under process which will be purchased within September 2023. There are and were no informal land users, structures, economic displacements at main power plant site. As a result, no involuntary resettlement happened at main power plant site. The electricity transmission line for this power plant has started from the proposed solar power plant (Bhabanipur, Hemayetpur Union) to existing 230/132 KV Grid PGCB Sub-station at Joynagar, Ishwardi, Pabna which is 21.5 km long and contains 79 towers. The transmission tower footings require 0.7642 acres of land which will be used during the project life cycle through Memeorendum of Understanding (MoU). Already MoU has been signed for 76 tower footing areas till August 2023 and MoU of only 3 transmission tower footing areas are under process. In line with Asian Development Bank (ADB) Safeguards Policy Statement (SPS) Safeguard Requirement 2 (SR2) on Involuntary Resettlement (IR), involuntary resettlement for this project is only triggered for land acquisition along TL as the land for transmission tower footing was negotiated purchase but with the company having recourse to legal measures to gain access if negotiations failed. However, studies confirmed that there are no informal land users or any structure along the TL route. RP is required only for transmission line for this project as this land will be acquired and accessed based on negotiated settlement, but with TL developers having reliance on law to access such land if negotiations fail.

This Resettlement Plan (RP) is being prepared for the activities under Dynamic Sun following the ADB SPS 2009 and relevant Bangladesh laws and policies. However, this RP is being developed near the end of the land acquisition process but it will be used in conjunction with the findings of the ESCAR to address any gaps from previous land acquisition and to manage any remaining land acquisition impacts for the remaining towers. The document establishes the standards for the company to ensure outcomes of the land acquisition process for the TL are consistent with the requirements for ADB SPS SR2 on Involuntary Resettlement.

1.2 Project Activities

The project is planned on a Build, Own, and Operate (BOO) basis under the Implementation Agreement (IA) with the Government of Bangladesh (GoB). The proposed main power plant requires 400 acres of land [for the main power plant, substation area, worker camp, construction / laydown area]. DSEPL will design, engineer, manufacture, finance, construct, complete, permit, test, commission, insure, own, operate and maintain the plant for the purpose of generating and supplying electricity to Bangladesh Power Development Board ("BPDB") for a period of 20 years on an off-take basis.

SL	Description of Items		Submitted by the Company
1.	Project Location		Bhabanipur & Ratanpur Mouza, Pabna
			Sadar, Pabna, Bangladesh
2.	Plant capacity		100MW(AC)
3.	Solar PV Module	Manufacturer	Selection Process is on going
	Total= 274224 Nos.	Number of PV Module	545Wp X 140,592nos. + 550Wp X
			133,632nos.
			Total= 274224 Nos.
		Output of Each PV	545Wp / 545Wp (Bifacial) / Equivalent
		Module	
4.	Grid Tied Inverter	Manufacturer	Selection Process is on going
	(GTI)	Number of GTI	744 + 16 (Spare) = 760 Nos.
	Total= 760 Nos.	Capacity of Each GTI	215kW / Equivalent
5.	132kV Main	Manufacturer	Xian Electric Engineering Co., Ltd.
	Substation	Power Transformer	33/132kV, 85MVA: 2 Nos.
6.	Block Sub-Station	STEP-UP Transformer	0.8/33kV, 6.5MVA: 31 Nos.
7.	Auxiliary	STEP DOWN	33/0.415kV/ 230V, 1MVA: 02 Nos.
	Transformer	TRANSFORMER	
8.	Earthing	CAPACITY	33/0.415kV, 415kVA: 01 Nos.
	Transformer		
9.	BLACK START DG	Capacity	630 kVA
	SET		
10.	132 kV Switchgear		Brand Name: XD, 132kV
11.	33kV Switchgear		33kV GIS Switchgear Panel
12.	SCADA & PPC for		NR
	Plant & Grid End		
	Plant & Grid End		

Note: km = kilometers, kv = kilo volt.

Source: Bangladesh Power Development Board

1.3 Project Location

The Proposed Power Plant is located at Bhabanipur and Ratanpur Mauza in Hemayetpur Union. The proposed electricity transmission line has started from the proposed solar power plant (Bhabanipur,

Hemayetpur Union) to existing 230/132 KV Grid PGCB Sub-station at Joynagar, Ishwardi, Pabna which is 21.5 km long and contains 79 towers. This power transmission line will pass over Bhabanipur, Bhagiratpur, Bilkeda Khas, Khas Char Bagunda, Char Pratappur, Char Kudulia, Shimul Char, Ratanpur Mouza of Pabna Sadar Upazila and Dadapur, Joynagar, Kamalpur, Kaikunda, Maniknagar, Luxmikunda, Sahapur and Char Silimpur Mouza of Ishwardi Upazila. Administrative location of the main power plant, Existing PGCB substation and the TL route is shown in Figure 1.

During the field visit it was found that there is no industry and factory around the project site. The main power plant site is a vacant land with no settlements, but a small area is currently in use for banana cultivation for only this season. There are some vegetables grown in surrounding areas. A khal originated from the Padma River is located adjacent to the southern side boundary of the project site and 0.5 km away from the west side boundary of the project. The width of this khal varies from 100m to 130m. During monsoon season the local khal has flow but during dry season it becomes stagnant. Padma River is passing to the south side of the project area which is about 1.5 km from the project site. Undulation of land was found all over the area.



Figure 1: Administrative location of project area

1.4 Analysis of Alternatives

Solar power park project requires huge vacant land where no interruption will be found between the Sun and PV modules, so that electricity can be produced efficiently. In this context, Char lands of Bangladesh is considered to be the most favorable places for setting up Solar Power Plants. Moreover, there is a good equipment, machineries and fuel transportation route to the project site via road way. Due to the rural setup and using environment friendly technology, the project won't hamper the environmental condition much. In addition to that, there is also no alternative land for the proposed project as the location of the main power plant site was pre-decided by the Bangladesh Power Development Board (BPDB) (attached as Annexure 1) while providing LOI for the said project. BPDB finalized the project site in a way so that impacts on any residential areas, houses and other structures, and plantation areas can be avoided to the greatest extent possible.

The TL route was finalized by Power Grid Company of Bangladesh (PGCB) (attached as Annexure 2) by conducting survey to find out the most suitable route. The proposed transmission line alignment has been finalized in such a way so that only a minimum impact on land, crops and trees. Impact on houses and/or other primary and secondary structures has been avoided. See Annexure 3 for an overview of the transmission line alignment. Figure 1 provides an overview of the administrative areas along the planned transmission line.

The preparation of the RP was guided by ADB's Safeguard Policy Statement (SPS), 2009 and the relevant national regulatory frameworks in Bangladesh. The RP analyses the project related impacts and provides an Entitlement Matrix that includes cash compensation and other resettlement assistance for persons affected by the project. Overall, the project does not lead to any physical displacements of the population. Impacts are primarily confined to temporary economic displacements, caused from loss of standing trees and crops.

1.5 Methodology of RP Study

The following activities were undertaken for this study:

- Collection of technical details on 100MW Solar power project and tentative line alignment from BPDB;
- Site visits and assessment on the proposed identified 100MW solar power project location;
- Survey of 100MW solar power project to conduct social due-diligence for updating this RP;
- 100% affected persons inventory surveys completed from Pabna 100 MW (AC) Solar Park to Ishwardi 230/132/33 KV grid substation line Collection of details on the existing solar power project where the lines to be connected to assess whether any additional safeguard impact occur;
- Land ownership details have been collected for surveyed areas including assessment and due diligence;
- Regarding the lines, an estimate has been done based on an inventory survey about the potential impacts to be occurred during the construction phase of the distribution line;
- A socioeconomic survey was also carried out of all affected HHs (total 79) along the TL route which is presented in Chapter 3;

- Total 1 public consultation and 5 FGDs were carried out among the community people, land owners and Dynamic Sun power authority including their village head to ascertain the support from communities and to ensure their compensation is Electricity Act 2018 and SR2 compliant during the study period. Additionally, focused group consultations were carried out among women;
- All households were consulted about the project including TL and the draft RP which includes the discussion on affected people (which categories) and measures for compensation etc, and timing on August 17, 2023 at the project site during 2nd public consultation;
- Once the RP is finalized then consultation will be undertaken before IC.

Chapter 2: SCOPE OF LAND ACQUISITION AND RESETTLEMENT

2.1 Impact on Land

2.1.1 Solar Park

The proposed 100 MW (AC) solar power park is located in Bhabanipur village of Hemayetpur Upazila which is south-west outskirts of Pabna City, in Pabna District, central Bangladesh. The proposed main power plant requires 400 acres of land [for the main power plant, substation area, worker camp, construction / laydown area]. Because of the low economic value of the lands and small number of affected households, DSEPL decided to acquire land using a willing buyer-willing seller approach, or in other words, through a negotiated settlement. Negotiation was undertaken in such a way so that it ensures that people who enter into negotiated settlements will maintain the same or better income and livelihood status. The price of the land at which it was bought was and is much higher than the mouza rate and was and is finalized based on current market price and negotiation. The price met full replacement value (FRV) of ADB requirement as there is no transaction cost for that money as maximum payments were made by cash or cash cheque. Banks do not deduct any money for cash cheque. The proponent has already purchased 229 acres of land till August 2023 through willing buyer and willing seller method and the rest of the land is under process which will be purchased within September 2023. There are and were no informal land users, structures, economic displacements at main power plant site.

2.1.2 Land acquisition for transmission line towers

The proposed electricity transmission line has started from the proposed solar power plant (Bhabanipur, Hemayetpur Union) to existing 230/132 KV Grid PGCB Sub-station at Joynagar, Ishwardi, Pabna which is 21.5 km long and contains 79 towers. This power transmission line will pass over Bhabanipur, Bhagiratpur, Bilkeda Khas, Khas Char Bagunda, Char Pratappur, Char Kudulia, Shimul Char, Ratanpur Mouza of Pabna Sadar Upazila and Dadapur, Joynagar, Kamalpur, Kaikunda, Maniknagar, Luxmikunda, Sahapur and Char Silimpur Mouza of Ishwardi Upazila. See Annexure 3 for an overview of the transmission line alignment. Figure 1 provides an overview of the administrative areas along the planned transmission line.

Land acquisition for TL footing has been and is done on the basis of negotiation and land may be accessed through legal means if the land owner refuses access. But no land was acquired or RoW access was gained through legal means. Already footing area for 76 towers has been accessed through MoU till August 2023 and only MoU of 3 transmission tower footing areas is under process. Some MoU is attached in Annexure 4 The project does not lead to any physical displacements of the population in the transmission line area. The land of the TL footing and RoW is mainly agricultural land. There are no informal land users, structures, economic displacements due to land acquisition or use of RoW. Memorandum of Understanding (MoU) has been made for the land of tower footing for project lifecycle. There was no transfer of land ownership. The rate was finalized through mutual understanding and payment was made as one-off payment for the lifetime of project.

Each tower will require a 0.0096 acre at an approximate interval of 300 m, with a total area of

approximately 0.7642 acres of land to be used for the 79 power tower footings. After completion the construction of the Tower, the landowner will retain the right to use the land under tower for agricultural uses.

Impact of the land acquisition for the identified 79 towers are on land, crops and trees only; no houses or other structures are located on the affected land areas.

The land to be acquired for the towers consists mainly 66.76% is agricultural land and 33.24% fruit and timber tress. Table 2 below provides an identification of the areas per type to be acquired for the 79 towers.

2.1.3 Transmission Line Right-of-way

The 230/132 KV capacity transmission line between Bhabanipur to Joynagar, Ishwardi is 21.5 km and a total of 79 transmission towers will be constructed. For constructing transmission tower and installing transmission line, the sub-project requires land. There are no provisions in the Electricity Act-2018 for procuring required land to establish RoW for transmission lines. However, founding tower footings can cause permanent loss of land, and clearing RoW for transmission stringing can cause temporary damage of standing crops and trees during construction period. Clearing width of the RoW to pave the way for constructing transmission lines leads to permanent economic displacement due to removal of trees, and temporary restriction on agricultural activities on land. Land within the ROW will not be permanently acquired but will apply restrictions such as limited height of trees and structures/buildings within the ROW to 5 meters from midpoint. However, the project company ensured compensation for lost crops and trees standing on the land. For transmission line land will be procured or accessed through negotiated settlement where compensation for lost or damaged assets will meet full replacement cost as defined under SR2.

Installation of overhead stringing conductor will have direct and temporary impacts on the crops grown within the clearing width of the 10 m corridor due to its clearing ROW to facilitate the transportation of construction material and the movement of machinery. The extent of the cultivated land under the RoW of the transmission lines is calculated as 53.139 acres (including footing area) of the total land under the 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 10 m corridor due to its clearing to facilitate the transportation of construction material and the movement of machinery.

Tower	TT				AREA(SFT)	Area in	Area in	Status of Land
No.	Tower Type	Name of Mouza	LENGTH(m)	WIDTH(m)	Length * Width	Decimal	Acres	Acquisition
Gantry	Gantry SS	Bhabanipur	-	-	-	-	-	N/A
TT-01/0	1DT6+0 (with Aux- x-arm) (Terminal)	Bhabanipur	8.32	7.344	61.1021	1.51018487	0.015098	N/A
TT-01/1	1DL+6	Bhabanipur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-1/0	1DT6+3	Bhabanipur	9.135	7.882	72.0021	1.77958651	0.017792	RoW Cleared
T-1/1	1D1+9	Ratanpur	5.737	4.855	27.8531	0.68841164	0.006882	RoW Cleared
T-1/2	1DL+4.5	Ratanpur	5.746	3.387	19.4617	0.48101092	0.004809	RoW Cleared
T-1/3	1DL+6	Ratanpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-2/0	1D25+1.5	Ratanpur	7.64	6.69	51.1116	1.26326248	0.0126299	RoW Cleared
T-2/1	1D1+9	Ratanpur	5.737	4.855	27.8531	0.68841164	0.006882	RoW Cleared
T-2/2	1DL+6	Bhagiratpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-2/3	1DL+9	Bhagiratpur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-2/4	1DL+9	Char-Pratappur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-2/5	1DL+3	Char-Pratappur	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-2/6	1DL+3	Char-Pratappur	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3/0	1DT6+3	Char Pratappur	9.135	7.882	72.0021	1.77958651	0.017792	RoW Cleared
T-3/1	1DL+6	Charkudulia	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-3/2	1DL+6	Charkudulia	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-3/3	1DL+3	Charkudulia	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3/4	1DL+6	Charkudulia	5.59	3.486	19.4867	0.48162976	0.004815	RoW Cleared
T-3/5	1DL+6	Charkudulia	5.59	3.486	19.4867	0.48162976	0.004815	RoW Cleared
T-3/6	1DL+3	Charkudulia	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3/7	1DL+3	Charkudulia	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3/8	1DL+3	Charkudulia	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3A/0	1D25+9	Charkudulia	8.993	7.705	69.2911	1.71258193	0.017122	RoW Cleared

Table 2: Total Land Required for Tower Footings (in acres)

Tower	Touron Truco				AREA(SFT)	Area in	Area in	Status of Land
No.	Tower Type	Name of Mouza	LENGTH(M)	WIDTH(m)	Length * Width	Decimal	Acres	Acquisition
T-3A/1	1DL+9	Charkudulia	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-3A/2	1DL+6	Charkudulia	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-3A/3	1DL+4.5	Charkudulia	5.746	3.387	19.4617	0.48101092	0.004809	RoW Cleared
T-3A/4	1DL+6	Kamalpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-3A/5	1DL+3	Kamalpur	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-3A/6	1DL+4.5	Kamalpur	5.746	3.387	19.4617	0.48101092	0.004809	RoW Cleared
T-3A/7	1DL+6	Kamalpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-4/0	1D25+3	Kamalpur	7.865	6.859	53.946	1.33331772	0.013330	RoW Cleared
T-4/1	1DL+9	Kamalpur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-4/2	1DL+9	Kamalpur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-4/3	1DL+6	Kamalpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-4/4	1DL+6	Kamalpur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-4/5	1DL+6	Dadapur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-4/6	1DL+6	Dadapur	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-5/0	1DT6+9	Dadapur	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared
T-6/0	1D1+12	Dadapur	6.03	5.045	30.4214	0.75188705	0.007517	RoW Cleared
T-6/1	1DL+6	Kaikunda	5.901	3.486	20.5709	0.50842526	0.005083	RoW Cleared
T-6/2	1DL+9	Kaikunda	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-6/3	1D1+12	Kaikunda	6.03	5.045	30.4214	0.75188705	0.007517	RoW Cleared
T-7/0	1D25+9	Kaikunda	8.993	7.705	69.2911	1.71258193	0.017122	RoW Cleared
T-8/0	1DT6+6 (Terminal)	Kaikunda	9.849	8.421	82.9384	2.04988702	0.020494	RoW Cleared
T-8AR	1DH-P	Kaikunda	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-8BR	1DH-P	Kaikunda	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-8AL	1DH-P	Kaikunda	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-8BL	1DH-P	Kaikunda	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-9/0	1DT6+9 (Terminal)	Bilkeda Grass	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared

Tower	Terrer				AREA(SFT)	Area in	Area in	Status of Land
No.	Tower Type	Name of Mouza	LENGTH(M)	WIDTH(m)	Length * Width	Decimal	Acres	Acquisition
T-10/0	1DT6+9 (Terminal)	Bilkeda Grass	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared
T-10AR	1DH-P	Bilkeda Grass	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-10BR	1DH-P	Bilkeda Grass	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-10AL	1DH-P	Bilkeda Grass	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-10BL	1DH-P	Bilkeda Grass	5.15	5.15	26.5225	0.65552397	0.006553	RoW Cleared
T-11/0	1DT6+0 (Terminal)	Bilkeda Khas	8.32	7.344	61.1021	1.51018487	0.015098	RoW Cleared
T-11/1	1DL+3	Bilkeda Khas	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-11/2	1DL+1.5	Sahapur	5.466	3.209	17.5404	0.43352432	0.004334	RoW Cleared
T-11/3	1DL+3	Sahapur	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-11/4	1DL+3	Sahapur	5.59	3.288	18.3799	0.45427385	0.004541	RoW Cleared
T-11/5	1DL+9	Sahapur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-12/0	1DT6+9	Sahapur	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared
T-12/1	1DL+9	Sahapur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-13/0	1DT6+9	Sahapur	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared
T-13/1	1D1+12	Sahapur	6.03	5.045	30.4214	0.75188705	0.007517	RoW Cleared
T-14/0	1DT6+9	Sahapur	10.564	8.96	94.6534	2.33943253	0.023389	RoW Cleared
T-14/1	1DL+9	Sahapur	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-14/2	1DL+6	Sahapur	5.901	3.486	20.5709	0.50842526	0.005083	Under Negotiation
T-14/3	1DL+4.5	Maniknagar	5.746	3.387	19.4617	0.48101092	0.004809	RoW Cleared
T-15/0	1DT6+6	Maniknagar	9.849	8.421	82.9384	2.04988702	0.020494	RoW Cleared
T-15/1	1DL+9	Maniknagar	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared
T-16/0	1DT6+9	Maniknagar	10.564	8.96	94.6534	2.33943253	0.023389	Under Negotiation
T-16/1	1DL+9	Maniknagar	6.212	3.683	22.8788	0.56546703	0.005653	Under Negotiation
T-16/2	1D1+12	Maniknagar	6.03	5.045	30.4214	0.75188705	0.007517	RoW Cleared
T-17/0	1DT6+9	Joynagar	10.564	8.96	94.6534	2.33943253	0.0233893	RoW Cleared
T-17/1	1DL+9	Joynagar	6.212	3.683	22.8788	0.56546703	0.005653	RoW Cleared

Tower No.	Tower Type	Name of Mouza	LENGTH(m)	WIDTH(m)	AREA(SFT) Length * Width	Area in Decimal	Area in Acres	Status of Land Acquisition
					<u> </u>			-
T-18/0	1QT6+9	Joynagar	10.564	8.96	94.6534	2.33943253	0.0233893	RoW Cleared
T-18/1	1Q15+15M	Joynagar	10.564	8.96	94.6534	2.33943253	0.0233893	RoW Cleared
T-19/0	1D25+9	Joynagar	8.993	7.705	69.2911	1.71258193	0.017122	RoW Cleared
T-20/0	1DT6-S	Joynagar	11.245	11.445	128.699	3.18089533	0.031802	Inside PGCB Grid Substation Area
	Total Area				33288.552	76.42	0.764200	-

The affected land distribution according to category is presented in the table below. It represents that for solar power plant area, 0% agricultural land will be affected as all land isnon-agricultural land. In case of Transmission line through RoW, total 0.7642 acres of land is required (around 66.76% is agri land and 33.24% is Orchard category). A total of three categories of land have been identified as per census and IOL survey.

SL	Name of Mouza	Total Area required (in Acre)	Agriculture (in Acre)	Orchard (in Acre)	Water bodies (in Acre)
1	Bhabanipur	0.03797	0.03797	0	0
2	Bhagiratpur	0.01073	0.01073	0	0
3	Bilkeda Khas	0.09264	0.09264	0	0
4	Char Pratappur	0.03253	0.01474	0.01779	0
5	Charkudulia	0.07117	0	0.07117	0
6	Dadapur	0.04107	0.04107	0	0
7	Joynagar	0.12475	0	0.09571	0
8	Kaikunda	0.08209	0	0.00752	0
9	Kamalpur	0.05432	0.05432	0	0
10	Maniknagar	0.06751	0	0.0253	0
11	Ratanpur	0.03629	0.03629	0	0
12	Sahapur	0.11315	0	0.03656	0
	TOTAL	0.7642	0.51017	0.25405	0

Table 3: Land Requirements by Category (TL footing only) (In acres)

2.2 Impact on Affected people and Entities

A total of 79 title holders will be affected by the proposed Transmission Tower footing and TL. Total 54 HHs will lose only agricultural land and rest of the 28 HHs will lose both land and trees. Towers will have permanent impacts due to land loss for tower footings during the project life cycle but the land owners can use the land beneathe the tower for cultivation once the footings are constructed and towers are erected. ROW use will cause temporary impact due to crop loss and temporary restriction on land access.

SL	Status of Land	Amount of Land (Acres)	Nature of Land	Number of affected People	Number of affected HH			
TRANSMISSION LINE								
1.	Transmission Tower Footing	0.7642	Agricultural Land	257	79			

SL	Name of Place	Agricultural Land Affected HH	Land and Trees Affected HH	Total		
1	Bhabanipur	2	6	8		
2	Bhagiratpur	0	1	1		
3	Charkudulia	7	3	10		
4	Char Pratappur	6	2	8		
5	Dadapur	5	0	5		
6	Joynagar	1	5	6		
7	Kamalpur	7	0	7		
8	Kaikunda	8	1	9		
9	Maniknagar	2	3	5		
10	Sahapur	8	3	11		
11	Bilkeda Khas	3	0	3		
12	Ratanpur	2	2	4		
	TOTAL	51	28	79		

Table 5: Number of Affected Entities for Transmission Tower

2.3 Impact on structures

A total of 0.7642 acres of land is required for construction of the transmission line and 79 HH will be affected for land, trees and crops. No person will lose their structure for implementation of this project. There will be no physical displacement or loss of structure due to construction of tower.

2.4 Impact on Trees

A total of 573 different trees are expected to be affected by the TL footing and will need to be removed. Trees are categorized based on their character and then size. All trees are perennial except banana plants which are seasonal. Most of the affected trees are small trees. Details of the trees affected due to tower footings are presented the table below.

	Table 0. Fotal Hamber of frees Affected by the project						
SL No.	Type of Trees	Timber	Fruit	Timber with Fruit	Total		
1	Large	0	12	30	42		
2	Medium	12	22		34		
3	Small 2			20	41		
	117						
4	Fruit bea	ring minor trees	s with one-	time fruit	94		
	·	Sub Total (B)			94		
5	Banana			362	362		
	Sub Total (C)						
Total (A+B+C)					573		

Table 6: Total Number of Trees Affected by the project

Land within the ROW will apply restrictions such as limited height of trees within the ROW to 5 meters from midpoint (10 meters total ROW width). None of the trees are required to be cut along the RoW

but some trees may need to be trimmed. Though the RoW runs through some orchard or fruit garden but as the trees are far apart so local vehicle (non-motorized van) can pass between the trees.

2.5 Significantly affected households

A household is identified to be significantly affected if, due to a project:

- i. the household will lose 10% or more of its total income as a result of land acquisition through impacts on business operation or commercial trees;
- ii. the household will lose 10% or more of its total affected productive land, i.e. rice land or orchard;
- iii. the household's main structures will be affected equal to 50% or more but do not require relocating from the existing location; and
- iv. a household whose main structure will be relocated from the existing location.

The Project will not affect structures, but impacts will be on land, crops and trees only. Of the identified land owners for the tower footing land to be acquired, none of them will lose more than 10% of their productive land and therefore none of them are or will be severely affected by the project.

2.6 Impact on Vulnerable HHs:

Vulnerable affected households are people who might suffer disproportionately or risk to be marginalized due to project impacts on them, and specifically include:

- i. female-headed households with dependents;
- ii. households with disabled household head;
- iii. elderly households with no means of support;
- iv. landless households; and
- v. ethnic minority households.

During the studies and surveys no Indigenous groups and female head households are identified along the TL route. Through survey of all affected housheolds including TL and tower footings, no vulnerable households were found.

2.7 Impact on Land use

Since there are no land acquisitions required for transmission line ROW, 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 7.

DSEPL will maintain 10m wide RoW and 8m Electrical height clearance from lower conductor. As a result, the land owners can easily conduct their agricultural activity. 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.

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

Table 7: Transmission line voltages

Source: PGCB

2.8 Impact on gender

A total of 0.7642 acres of agricultural land in various areas and a total of 79 HH will be affected for the construction of the TL. A total 257 people will be affected for tower footing land acquisition. A total 115 women in the impact areas are engaged in multiple activities. Apart from their reproductive 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. There is no female headed family along the TL route and none will be impacted. No women will be disproportionally affected by the land acquisition and access activities.

2.9 Impact on Indigenous people

The Project is located in Pabna District. According to the census survey of Transmission line area, there is no Indigenous People (IP) within the project's area of impact). The project does not pass-through tribal lands and the areas and districts with indigenous population are far from the project site. The project sites are not even located close to any ethnic minority towns or villages. Thus, it is not expected to have any adverse impact on ethnic minorities. The project does not affect Indigenous People (neither positively nor negatively) and thus does not trigger ADB's Safeguard Policy Statement (SPS 2009) Safeguards on Indigenous People and no IP Plan needs to be prepared.

Summary of impacts are provided in Table 8.

Table 8: Summary of Involuntary Resettlement Impacts for TL including 79 Transmission Towers and RoW

Project Activities	Unit	Qty.	Impact on Land Acquisition, Involuntary Resettlement and Indigenous Peoples
			Transmission Line
132kV Transmission Line	km	21.5	 Nos. Transmission Tower: 79 Nos. Only land acquisition/requisition are required for the towers (0.76 Acre)

Project Activities	Unit	Qty.	Impact on Land Acquisition, Involuntary Resettlement and Indigenous Peoples			
	Transmission Line					
Total Land Required	Acre	0.7642	 No structures are expected to be affected under the lines Temporary impacts on loss of crops during construction which will mostly be avoided and mitigated and if not will becompensated. 573 different trees will be cut-off Trees may need to be trimmed Trees are mostly in community forest, so unlikely affected much. In case of privately owned trees, the loss will be compensated Transmission Line Tower (footings required only:) 0.7642 acrs 			
and affected crops for tower footing			 land Banana: 0.0598 acre Jute: 0.0923 acre Litchi: 0.1478 Pady: 0.3316 acre Wheat: 0.0546 acre Vegetable: 0.0781 acre 			
Temporary affected Land and crops for ROW	Acre	52.3758	Total 52.3758 acres of land will be temporarily affected during construction. (Length 21.5km and wigth-10m) Banana: 4.1002 Acre Jute: 6.3177 Acre Litchi: 10.1322 Acre Pady: 22.7184 Acre Wheat: 3.7354 Acre Vegetale: 5.3719 Acre			
Total Affected HHs for Transmission Tower and ROW Total Number of trees for Transmission Tower	Nos	79 573	 Transmission Tower: 79 and total 257 people affected for TL Large tree: 42 Medium tree: 34 Small tree: 41 Fruit bearing minor trees with one-time fruit: 456 			

2.10 Project Benefits

The successful implementation of the Solar Power project will involve power distribution system and will improve reliability of supply bresidential and commercial customers a reliable electricity supply will lead to social and economic benefits and improved conditions for schools, hospitals, and other social services. Improved efficiency of the power distribution network will help in meeting the peak demand and will reduce the energy loss.

In addition to that, due to the project intervention the land price of the surrounding area increased

which increased the asset value of the people of the surrounding area and lots of local business flourished in that area which improved the economic condition of the project area.

Moreover, the project will generate and is generating number of direct and indirect employment opportunities in the neighboring villages both during construction and operation phase.

Chapter 3: SOCIO ECONOMIC INFORMATION AND PROFILE

3.1 Introduction

This section deals with the general baseline socio-economic profile of the TL area affected households. For this project, land of the main power plant area has been purchased following willing buyer and willing seller process and there were no informal land users who would have been involuntarily displaced, nor any structures been displaced. In addition to that, there was no informal land user, land sellers / users who will be worse off as a result of the land sale / loss on the main site.

Involuntary resettlement for acquisition of land along the TL is initiated as the IR trigger mentioned above is negotiated for purchase of land for transmission tower under SR2. There is no informal land user or any structure along the TL route. There will be compensation for tower footing area, standing crops in that area, crop damage due to stringing of the line and restricted land use due to RoW. A detailed survey of all the affected HH due to this TL has been conducted to establish the socio-economic conditions of the households within the TL and identify project impacts and their mitigating/management measures. The socio-economic profile of the surveyed HHs is consequently presented following demographic profile of the HHs. A total of 79 HHs comprises of 257 people has been surveyed with average HH size 3.25.

Category	Total				
Number of total surveyed Households /Units	79				
Number of total Population	257				
Average HHs Size	3.25				

Table 2: General Profile of Surveyed Population

Source: Census and IOL survey conducted by Dynamic Sun, March, 2023

3.2 Demographic Profile of Surveyed HHs

Demographic profile of the affected community has been analyzed as a part of socio- economic profile of the project area. This comprises of gender profile and age-sex distribution of the project affected communities. Precisely, it can be stated that the area lacks gender parity as 100% male headed headed HHs are found during census period. The general scenario in Bangladesh is same as most of the HHs head are male. Age-sex ratio indicates that majority of the population are within the age limit of 15-59.

3.3 Age and Sex Distribution of Surveyed Population

Age-sex distribution of the surveyed 79 HHs was measured during the census and IOL survey. It was found that population density increases respectively from the age group of 1-60. According to the age band, the most prominent group is 30-60. The number of surveyed persons steadily decreases with increasing age limit above 60. It is the almost similar to the national scenario. Details see in **Table 10**.

SL	Age Group			Female		Total	Overall
	(Yrs.)	Number	%	Number	%	Number	%
1	01 to 05	0		2	1.73913043	2	0.77821012
2	06 to 15	26	18.3098592	14	12.173913	40	15.5642023
3	16-30	35	24.6478873	38	33.0434783	73	28.4046693
4	31-60	76	53.5211268	57	49.5652174	133	51.7509728
5	61-65	2	1.4084507	2	1.73913043	4	1.55642023
6	Above 65	3	2.11267606	2	1.73913043	5	1.94552529
	Total	142	100	115	100	257	100

Table 3: Age Sex Distribution of Surveyed Population

Source: Census and IOL survey conducted by Dynamic Sun, 2023

3.4 Sex Profile of Surveyed HHs

It represents that the percentage of male populations are greater than female in the project area. At project area total of 256 populations has been surveyed where 142 are male and 114 are female, which represents that percentage of female population in the project area is less compared to the male population.



Figure 2: Sex Profile of Surveyed HHs

3.5 Marital Status

The following Table shows the marital status of the population (HH members). It is to be noted that among the 257 surveyed population, 170 people are above 18 years. Any person below 18 years are not allowed to marry in Bangladesh. This section describes the marital status of the people above 18 years only. No people are found married below the age of 18. It is found that 66.15% people are married against 33.85% unmarried. This means child marriage is not common in the project area and widows were not found in the survey area.

SL	Marital Status	Male	%	Female	%	Total	%
1	Married	89	62.68	81	70.43	170	66.15
2	Unmarried	53	37.32	34	29.57	87	33.85
3	Abandoned	0	0	0	0	0	0
4	Widow	0	0	0	0	0	0
	Total	142	100	115	100	257	100

Table 4: Marital Status of Male & Female population (18 year above)

Source: Census and IOL survey conducted by Dynamic Sun, June-July, 2020

3.6 Socio-Economic Profile of Surveyed 79 HHs

The socio-economic profile deals with various socio-economic details of the surveyed 79 households (257 numbers of people were covered under the survey) based on the finding of the survey. Socioeconomic information along with potential impacts on the people and community were collected from the people during the survey.

3.6.1 Household by Religion

It is found that Islam is the predominant religion in the study area (100%). Among the surveyed people there is no other religion.

3.6.2 Distribution of Household Population

Distribution of HH population is presented in the table below. It indicates that majority of the HHs have 3-4 members. It is interesting that 14 HHs have only 1-2 members. HH size of within 7 to 8 members was minimal in the area. Distribution of HH population is presented by area-wise in the illustration:

SL No.	Number of household	Total			
	members	нн	%		
1	1 to 2	14	17.72		
2	3 to 4	61	77.22		
3	5 to 6	3	3.80		
4	7 to 8	1	1.27		
5	9 to 10	0	0		
6	10+	0	0		
	Total	79	100		

Table 5: Distribution of HH population

Source: Census and IOL survey conducted by Dynamic Sun, June-July, 2020

3.6.3 Education Level of Surveyed Population (6 Years and above)

Education level of the surveyed population is presented in the table below. Among the surveyed 257 populations, 251 populations are at the age of above 6 years and 6 people are below the age of 6 years who has not started the school yet. The table demonstrates that primary and secondary level education entrance is high in the area and considered the people above the age of 6 (251 population). But dropout rate is very high as the number of people sharply decreases from secondary certificate achievers. It also indicates that education rate is higher among male population than female. Also, illiteracy is higher among female population than male population.

SL	Education Level	Male	%	Female	%	Total	%
1	Up to class five/ Ebtedaye	31	21.8309859	22	19.1304348	53	20.6225681
	Madrasa						
2	Class six to ten	23	16.1971831	30	26.0869565	53	20.6225681
3	SSC or equivalent	27	19.0140845	12	10.4347826	39	15.1750973
4	HSC or equivalent	18	12.6760563	18	15.6521739	36	14.0077821
5	BA or equivalent	6	4.22535211	4	3.47826087	10	3.89105058
6	MA or equivalent	0	0	0	0	0	0
7	Illiterate	18	12.6760563	10	8.69565217	28	10.8949416
8	Can sign only	19	13.3802817	19	16.5217391	38	14.7859922
	Total	142	100	115	100	257	100

Table 6: Level of Education of Surveyed Population (6 Years and above)

Source: Census and IOL survey conducted by Dynamic Sun, April, 2023

3.6.4 Occupation of the Population

There are varieties number of occupations have been identified during survey of the project. The population distribution according to gender engaged in various Primary Occupations is presented in tabular form below. A variety of occupational choices have been found in the project location, and majority are farmer. Female population are mostly unemployed. In addition to agriculture, the other significant occupations are involvement with business, service, day labour, service, doctor and mason etc. Apart from these, a minimal number of populations have been identified as unemployed in the form of retired person and aged persons.

SL No.	Occupation	Male	Female	Total	%
1	Agriculture	31	1	32	13.62
2	Service holder	6	2	8	3.40
3	Housewife/Househusband	2	78	80	34.04
4	Business	1	0	1	0.43
5	Day labour	31	1	32	13.62
6	Driver	3	0	3	1.28
7	Mason	0	0	0	0

 Table 7: Distribution of Surveyed People by occupation (15 years and above)

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SL No.	Occupation	Male	Female	Total	%
8	Carpenter	0	0	0	0
9	Unemployed	0	0	0	0
10	Doctor	0	0	0	0
11	Ayurveda physician	1	0	1	0.43
12	Student	46	29	75	31.91
13	Aged Person	1	1	2	0.85
14	Retired Person	1	0	1	0.43
	Total	123	112	235	100

Source: Census and IOL survey conducted by Dynamic Sun, April, 2023

3.6.5 Per capita income of surveyed HHs

The total surveyed based on per capita income. **Table 14** demonstrates per capita income distribution of the project area. It is clear that out of the 79 HHs surveyed, 23 incomes fall below the poverty line.

	· · · · · · · · · · · · · · · · · · ·		
SL	Yearly Level of Income (BDT)	T	otal
JL		No.	%
1	Up to 100000	16	20.25
2	100000 to 120000	2	2.53
3	120001 to 180000	22	27.85
4	180001 to 240000	11	13.92
5	240001 to 360000	21	26.58
6	360001 to 480000	3	3.80
7	480001 to 600000	3	3.80
8	Above 600000	1	1.27
	Total	79	100

Table 8: Per capita income of surveyed HHS

Source: Census and IOL survey conducted by Dynamic Sun, April, 2023

3.6.6 Drinking Water Facility

In transmission line area, 92.04% of general households have got the facility of drinking tube well water, 4.1% tap water and the remaining 3.86% household gets water from other sources.

SL	Drinking Water source	Total			
		No.	%		
1	Tube well	72	92.04		
2	Tap water	3	4.1		
3	Other sources	4	3.86		
	Total	79	100		

Table 16: Drinking Water Facility of surveyed HHS

Source: Field survey of AECL team

3.6.7 Sanitation

In the transmission line area, 67% of general household use sanitary facility, 27.6% non-sanitary latrine and 4.3% have no toilet facility.

SL	Sanitation Facility	Total		
JE	Sumation Facility	No.	%	
1	Proper sanitary latrine	53	67	
2	Non- sanitary latrine	21	26.4	
3	No toilet facility	5	6.6	
Total		79	100	

Table 17: Sanitation Facility of surveyed HHS

Source: Field survey of AECL team

3.6.8 Access to Electricity

The entire Pabna Sadar upazila have brought under the Rural Electrification Program. However, a total of 68.7% of the survey households in transmission line area reported to have electricity connection. (*Source: Field survey of AECL team*)

Chapter 4: INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

4.1 Introduction

Land acquisition for TL footing has been and is done on the basis of negotiation and preparing MoU for land use for the entire life span of the project. No land was acquired or RoW access was gained through legal means. Already MoU for footing area has been completed for 76 towers till August 2023 and only MoU for 3 transmission tower footing areas is under process.

DC, Pabna has notified a "Gono Bigyopti" to make people know about the project and co-operate with the project authority which is attached as Annexure 5 after PGCB approved the route (attached as Annexure 2) Before the RP study, DSEPL authority consulted with the landowners of the footing area and affected people due to damaged crop and tree cutting through the local representative of PAPs committee of the GRM. Firstly, DSEPL identified the land, crop and tree owners and then sat with them in presence of local representative and negotiated for the price or compensation according to the current market rate and government guideline for compensation. After agreeing on a price by both parties, MoUs were prepared and signed and cash payment was made for tower footings. For compensation of damaged crops and trees cash payments were made and a registrar book was maintained where recipient of the compensation signed and received the cash for damaged crop or tree according to the rate finalized by Agricultural Extension Department. Agrrement for tower footing is attached as Annexure 6. Same methods will be followed for the remaining 3 towers footing land.

4.2 Consultations

Consultations were carried out with groups of men and women and their community-based organizations and members of the local government authorities (union parishad) in the project affected areas for the purpose of disclosing information about the project and its various subcomponents and eliciting their views and concerns by the consultant team. The persons affected by land acquisitions to date and for the remanining TL land acquisition 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 client to minimize the gaps from previous land acquisition and to manage any remaining land acquisition impacts for the remaining towers. Furthermore, consultation outcomes were also helpful in identifying the key issues and concerns of the local communities on the past, ongoing and potential impacts of the project on their economic and social assets, specifically on land and livelihoods, assessing the level of compensation received and that 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.

As an integral part of the safeguards planning process, various stakeholders were consulted including

local people and communities during the preparation of the RP. It ensured that the affected people and other stakeholders are informed, consulted and allowed to participate actively in the process of project preparation and aware about the positive and negative impact of the Project and payment of compensation proceedings for any loss. The FGD will continue through ought project cycle with various stakeholders such as affected people, concerned line department such as revenue, horticulture, agriculture departments and local administration.

For the preparation of this resettlement plan, a total 5 FGDs were conducted at various locations along the TL alignment. The key objectives of the consultation meetings were to disclose the positive and negative impacts of the project to the community and stakeholders as well as to ensure inclusion of views and opinions from project affected persons.

4.3 Objective of Public Consultations

Following are the main objectives of the consultations:

- To seek the overall no objection from the local on the acceptability of the project
- To seek communities' support toward the project.Make people aware about the project and its potential impacts with proposed mitigationmeasures.
- Understand the views of the people affected, with reference to loss of land, assets and its due compensation.
- Develop a thorough coordination between all stakeholders for the successful implementation of the project.
- To incorporate stakeholder and community inputs into the project design.
- To make the aware about the next plan of action relating to project implementation.
- Make them aware about the project implementation schedule, compensation methods, grievance redress mechanism etc. and seeking their views on continued participation.

4.4 Category of Participants for these FGD:

For this Resettlement Survey, FGD participants were of different professional groups. Local Businessmen, Day labor, Local Elites, Member of the Union, Landowner, Female participants, Farmers and general people of the area, non-Title group, and Probable Project affected persons were the participants of the FGD. Participant List of the FGD and Consultation Meeting is attached as Annexure 7.
SL No.	Meeting Type	Location	GPS	No of Participants	Date	Participants Group
1	Focus Group Discussion	Sahapur, Pabna	24.0797N 89.0873E	13	26 th April, 2023	Affected Group
2	Focus Group Discussion	Manik Nagar, Ishwardi, Pabna	24.0794N 89.0903E	6	26 th April, 2023	Affected Group
3	Focus Group Discussion	Char Gorgoria, Lokkhi Kunda	23.5953N 89°0805E	6	27 th April, 2023	Farmer Group
4	Focus Group Discussion	Char Kurulia, Pabna	23.9682N 89.1554E	9	28 th April, 2023	Women Group
5	Consultation Meeting	DSEPL Project Site Office, Bhabanipur, Hemayetpur, Pabna	23.9657N 89.1580E	32	28 th April, 2023	Consultation Meeting

Table 18: List of FGD & Consultation Meetings

FGD Findings and Recommendations:

In this Resettlement Survey, 04 FGDs and 01 Consultation Meeting have been carried out and the findings and recommendations that were received from the sessions have been briefly stated below-

- The participants informed that they have heard about this Project regarding Solar Energy Plant. They heard it from representatives of Dynamic Sun Energy Ltd. and public representatives etc.
- They gave land for the development of the country. At first many were non-cooperative not knowing the project and its long-term benefits, but now they fully understand.
- The project authority to finish the land acquisition process as early as possible providing the exact amount of compensation to the affected people. Moreover, it was emphasized that the company to give priority to local people to engage in the project during and after construction phase.
- Participant explained the importance of the improvement of the existing road of their locality and also expressed that due to the project it has already developed to a certain level and requested them to further contribute in that. They also requested to contribute for the betterment of the socio-economic condition time to time.
- Participant wanted that woman should get priority in suitable jobs during and after the project. They can easily engage themselves in agricultural works at the project site.
- Various participants commented about the overall development and loss of income for farmers and landowners, hence they expected to be given priority for the cash crop cultivation beneath the solar panels during the project operation.
- Participants of the FGD supported the solar power plant and said that it will add electricity to the national grid and reduce the problem of electricity load shedding and improve their livelihood. Economically they will benefit.
- The participants informed that DSEPL has paid more compensation than the rate finalized by Department of Agricultural Extension for crops;
- The participants confirmed that beside providing compensation, DSEPL has appointed many of the

dwellers around the project for construction related works within the project;

- They requested for construction debris removal from site / dumping on adjacent agricultural land after completion of civil works;
- They confirmed that local business has been boost up due to the project, as DSEPL authority is procuring necessary construction materials from local suppliers based on availability. Besides that, workers and staffs depend on local shops to fulfil the daily necessaries;
- They thanked DSEPL authority for developing the road which has paved the way to socio-economic development of the locality;
- The land owner of the rest of the 3 tower footing ensured that most of them have already received compensation for damaged crops of the RoW and they are communicating regularly with the PAPs committee to have a negotiation meeting so that their lands for footings are acquired.
- The participants thanked the project company and the government for adopting a realistic plan aimed at ensuring the "Electricity for All" program through the development and installation of new solar energy plants.

4.5 Disclosure meeting on Darft RP report

Second Formal Public Consultation Meeting was conducted on August 17, 2023 at the project site. This consultation was mainly with the direct impact communities and relevant stakeholders where the identified impacts and measures taken was discussed, highlighting how the concerns of the communities and stakeholders from previous consultations were addressed in the draft RP. Participants' list of second public consultation meeting is given in Annexure 8.

The information about public consultation meeting was published in The Daily Asia Bani and The Muslim Times newspaper shown in Figure below.

Representing Organization	Name and Designation			
DSEPL	Md. Robiul Islam (Company Secretary)			
AECL	Shanjana Haider (Environmental Consultant);			
	Burhan Uddin (Social and Resettlement Consultant);			
	Md Golam Rasul (Consultant);			
	Shahriar Ebn Bashar (Consultant);			
	Sabrina Islam Labonno (Consultant);			
	Md. Mosaddaqur Rahman (Consultant)			

Table 19: Project attendees of Formal Public Consultation

নময় সভার এই মর্মে সর্বসাধারনের অবগঠির জন্য জানানো যাচেছ যে, ভাইনামিক সান এনার্জি প্লাইতেট লিমিটেড এর ১০০ মেগাওয়াট এসি সোলার গাওয়ার প্রান্ট প্রজেষ্টের পরিবেশগত ও সামাজিক সমীক্ষা প্রতিবেদন (ই এস আই এ) প্রণয়নের ষংশ হিসাবে আগামী ১৭ আগস্ট,২০২৩ রোজ বৃহস্পতি বার, ১১.৩০ মটিকায় সময় ১০০ মেগাগুয়াট এসি সোলার প্রান্ট প্রজেষ্ট এরিয়ায় (চবানীপুর হেমায়েতপুর, ণাবনা) ২য় মতবিনিময় সভার আয়োজন করা হয়েছে। ATTHE NACES STATES ক সান এনাজি প্রাহতেট লামচে য়েট এনভায়রনমেন্ট কনসালটেন্টস লি The Daily Asia Bani NOTICE FOR 2nd PUBLIC CONSULTATION MEETING A Public Consultation Meeting will be held as a part of Environmental & Social Impact Assessment (ESIA) studyfor the proposed 100MW ac Solar Power Plant Project on 17 August 2023, Thursday at 11:30 am. Your kind participation in the meeting will be highly appreciated.

Organized by: Dynamic Sun Energy Private Limited & Adroit Environment Consultants Ltd.

The Muslim Times

Figure 3: Circular in the Newspaper

The photographs are shown in **Figure 3**. Findings of the public consultations are given below:

- The participants informed that DSEPL has paid more compensation than the rate finalized by Department of Agricultural Extension for crops;
- The participants confirmed that beside providing compensation, DSEPL has appointed many of the dwellers around the project for construction related works within the project;
- They requested for construction debris removal from site / dumping on adjacent agricultural

land after completion of civil works;

- They confirmed that local business has been boost up due to the project, as DSEPL authority is procuring necessary construction materials from local suppliers based on availability. Besides that, workers and staffs depend on local shops to fulfil the daily necessaries;
- They thanked DSEPL authority for developing the road which has paved the way to socioeconomic development of the locality;
- The land owner of the rest of the 3 tower footing ensured that most of them have already received compensation for damaged crops of the RoW and they are communicating regularly with the PAPs committee to have a negotiation meeting so that their lands for footings are acquired.



Consultation Meeting



Resettlement Plan (RP) for Proposed 100 MW ac Solar Power Project in Pabna, Bangladesh



FGD



Disclosure meeting on Darft RP report Figure 4: FGD and Consultation Meetings

4.6 Information Disclosure on Transmission Tower Location and ROW alignment

During FGD conducted for the project, information related to engineering designs and line routes of the project, potential impacts of the project both positive and negative and direct and indirect, entitlements of the affected parties and grievance redress procedures were shared with APs during consultations. The company will continue its communication with APs and other stakeholders and disclose information like census of affected households, assessment method, project related impact, specific entitlements of APs, compensation mechanism, grievance redressal mechanism as per GOB Act and SR2.

Brochures and posters containing relevant project information will be printed in local languages and they will be made available/displayed at places easily accessible to APs and other interested parties. A copy of the draft RP will be disclosed on ADB's website as well as on the websites of the project company. Once the draft RP is finalized with updated information, the same procedure of disclosure will be followed.

4.7 Followup after RP is prepared

Once approved, this draft RP will be disclosed on ADB and DSEPL websites. Summary of this draft RP will be disclosed to the affected persons and communities through village, commune and district

offices.

The updated RP will be disclosed on ADB website (www.adb.org) as required by the ADB SPS 2009 and Public Communication Policy 2011. An updated project information leaflet in TL area will be made available for the affected communities in public consultation meetings and in project office.

Follow up at end of TL development should be undertaken by DSEPL to confirm all activities finalised, all compensation paid, status of any RP activities ongoing, and grievances discussed in Chapter 5. Final close out will take place when all activities end and after that only GRM will remain open for O&M related impacts.

Chapter 5: GREIVANCE REDRESS MECHANISM

The legal framework of Bangladesh does not provide any institutional mechanism, other than the court of law for resolving project-based grievances that may be raised by project affected parties. Furthermore, the rights of non-titled persons are not well recognized, there is no mechanism to hear and redress grievances of such affected persons. Therefore, it is necessary that a project specific Grievance Redress Mechanism (GRM) is established outside the courts of law which is easily accessible and cost-effective to the affected peoples and immediately responsive to the grievances reported by the APs. This project- based GRM will also serve to avoid lengthy and costly court actions that APs may recourse to thereby causing considerable delays in project implementation. It adopts a transparent and time-bound procedure in the grievance resolution process. The existing GRM does not impede access to the country's judicial or the other administrative remedies.

The GRM will function throughout the life cycle of the project implementation and 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 public using the abovementioned modes of communication. Furthermore, the project will provide orientation and training to the members of the GRM on effective grievance handling procedures. Site level grievance box will be set to receive grievance and the box will be hung on a place where grieving person can access easily and drop the complaint without any fear or hesitation. All expenses related to the functioning and use of the GRM will be borne by the project. DSCL 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.

The company has formulated a Grievance mechanism to reduce/redress grievance related to land acquisition, crop damage, tree cutting, land use restriction related compensation at various level for effective & smooth operation of the project during both construction and operation phases and for both TL and main power plant site. To mitigate/redress the grievance the company has been working in three step layers to solve the complaints and concerns more effectively and efficiently within sort period of time which is as below:

1. PAPs Representative Committee:

Name	Position	Contact No.
Mr. Md. Atahar Mondol	Local Representative	+880-1718-964871
Mr. Md. Shahid Bissas	Local Representative	+880-1745-521461
Mr. Md. Bondar Ali Haji	Local Representative	+880-1711-301866

2. Project Management Committee:

Name	Position	Contact No.
Mr. Md Jahurul Islam	DGM (HR & Admin)	+880-1324-724855
Mr. Md Omar Faruk	AGM (Operation)	+880-1725-538929
Mr. Md. Aktaruzzaman	AGM	+880-1324-437720

3. Executive Committee:

Name	Position	Contact No.
Mr. AHM Abdur Rahman	Director (Operation & Administration)	+880-1755-524278
Mr. Md. Robiul Islam	GM & Company Secretary	+880-1713-236107
Mr. Md. Shamim Hossain	Head of Audit	+880-1777-709448

Framework of Grievance

Received the Grievance	Investigation	Hearing	Resolve and Close out

Procedure of Grievance Redressal & its Mitigation:

- 1. PAPs should be encouraged to raise their issue in written or oral to PAPs Representative Committee informally in the first instance;
- 2. Upon getting the query from PAPs, the PAPs Representative Committee attend the issue and will conduct the necessary investigations whether the issue related with the project activity and measure the depth of the issue;
- 3. Then the committee give a date and sit together with the aggrieved PAP to resolve;
- 4. Generally, any issue raised by PAPs, it should be resolve within 7 days from the date of coznigence of the committee;
- 5. If the matter is not resolved, the PAPs Representative Committee submit a letter to Project Management Committee in detail and outline what steps they would like to be taken to redress the issue with their investigation report;
- 6. Project Management Committee will conduct the necessary investigations then a grievance hearing will be held and mitigate the issue within next 7 days.
- 7. If they fail to mitigate, they forward it to the Executive Committee of the company with their investigation report;
- 8. Executive Committee will take the decision regarding on the complaints or concern issues within 14 days;
- 9. PAPs have the right to appeal against the Grievance Management decision. In some cases, if the PAPs and Company decide that it would be advantageous to enlist a third party in the dispute resolution process, such mediation to help the parties arrive to a mutually agreeable solution. The grievance process may be temporarily halted in such cases.

Resettlement Plan (RP) for Proposed 100 MW ac Solar Power Project in Pabna, Bangladesh

For any kind of grievance any members of the PAPs representatative committeeshoulhd be contacted. During operations, the GRM will be open for Operations and Maintenance related complaints and that this will be contained in the main project GRM. The RP will be available in English on adb.org for access to the affected people.

DSEPL should recruit one dedicated officer as GRM & CSR Manager or Community Relations Officer (CRO) to ensure remaining land acquisition and access impacts are managed in accordance with this RP, and to ensure any remaining supplementary measures required to be undertaken for the past land acquisition impacts that have not been addressed in line with the requirement of this RP will be undertaken promptly. Similarly, the GRM & CSR Manager or CRO will undertake engagement with PAHs to determine if there are any grievances or issues that require resolution.

The GRM in place is being used by the community to raise complaints. But no complaint has been raised by the community till now. Right now, the Site supervisors manage GRM at site. Till now only one complaint was raised and it was related to an office staff who was not listening to his superiors, the staff was alerted about that and now he is following the rules. The complaint is resolved now. No grievance has escalated to legal claims till date. The GRM is gender responsive. Community people and workers are aware of the GRM. Photograph of GRM logbook is attached as Annexure 9.



Chapter 6: POLICY AND LEGAL FRAMEWORK

6.1 Introduction

The Government of Bangladesh (GoB) does not have a national policy on involuntary resettlement. Eminent domain law is applied for acquisition of land for infrastructure projects where it is evident as required for public interest. However, in projects with external financing, the GoB adopts projectspecific policy on land acquisition and resettlement. The legal and policy framework of this RP is based on the Acquisition and Requisition of Immovable Property Act (ARIPA) of 2017; the Electricity Act of 2018; and ADB's Safeguard Policy Statement (SPS), 2009.

6.2 The Acquisition and Requisition of Immovable Property Act, 2017:

The Acquisition and Requisition of Immovable Property Act (ARIPA) 2017 Act 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.

The Ministry of Land (MOL) has the 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 has to 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.

Under the ARIPA 2017, The Deputy Commissioner (DC) determines the value of the acquired assets as at the date of issuing the notice of acquisition under section 4(1) of the Act. The DCs thereafter enhance the assessed value by 200% for land and another 100% premium for loss of standing crops, structures and income due to compulsory nature of the acquisition. The compensation such determined is called the Cash Compensation under Law (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 khas land are not included in the acquisition proposal and therefore excluded for considerations for compensation under the law. Lands acquired for a particular public purpose cannot be used for any other purpose. ARIPA 2017, section 4 (2) also facilitates the private organizations to request 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. The government is obliged to pay compensation for the assets acquired.

Relevant Sections in 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)	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.	Deputy Commissioner
(1)	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 household has changed the status of the land for beneficial purposes, changed status will not be added to the joint verification notice.	Deputy Commissioner
Section 4 (8)	If the affected person is not happy with the joint verification assessment, he/she can complain to Deputy Commissioner within seven days of issuing sec 4(1) notice.	Affected Person
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 raised within 30 days of inquiry. In case of government priority project, it will be 15 days	Deputy Commissioner
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

Table 9: Land Acquisition Process under ARIPA, 2017

Resettlement Plan (RP) for Proposed 100 MW ac Solar Power Project in Pabna, Bangladesh

Relevant Sections in ARIPA, 2017	Steps in the Process	Responsibility	
Section 7 (2)	ection 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).		
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 be acquired as at the date of issuing Section 4 Notice; determine the compensation; and apportionment of compensation among parties interested.	Deputy Commissioner	
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)	The requiring agency deposits the estimated award of compensation with the Deputy Commissioner within 120 days of receiving the estimate.	Requiring Agency	
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)	For land, 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)	For other assets, additional 100% compensation on top of the current market price for impacts mentioned under section 9(1).	Deputy Commissioner	
Section 9 (4)	Appropriate action will be taken for relocation on top of the above-mentioned subsections.		
Section 11 (1)	Section 11 (1) Deputy Commissioner awards the compensation to entitled parties within 60 days of receiving the deposit from the requiring agency/person.		
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 Commissioner, and providing evidence in support of his/her claim.	Deputy Commissioner Affected Persons	

Resettlement Plan (RP) for Proposed 100 MW ac Solar Power Project in Pabna, Bangladesh

Relevant Sections in ARIPA, 2017	Steps in the Process	Responsibility
Section 12	When the property acquired it 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

ARIPA 2017 provide 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 the notice of acquisition issued (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 Deputy Commissioner is reinforced with additional 200% for Land and 100% for other assets under ARIPA due to compulsory nature of land 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 Deputy Commissioner in determining the market value of the property to be acquired.

In determining such market value, the Deputy Commissioner shall take into account damages caused to any standing crops or trees on the property as a result of acquisition; any severance of the property from other property held by the interested parties; any injurious affection on other properties, movable or immovable, in any other manner, or the earnings of the interested parties; 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 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.

The land of the TL footing and RoW is mainly agricultural land. There are no informal land users, structures, economic displacements due to land acquisition or use of RoW. Memorandum of Understanding (MoU) has been made for the land of tower footing for project lifecycle. There was no transfer of land ownership. The rate was finalized through mutual understanding and payment was made as one-off payment for the lifetime of project. So, ARIPA, 2017 will not be applicable for tower footing land acquisition process. But compensation for the standing crops and trees in the footing area and RoW should be paid following the ARIPA 2017. For this project the RP consultant calculated and proponent paid the compensation for standing crops and trees according to the ARIPA 2017 which also complies the ADB SPS 2009, full replacement value.

6.3 The Electricity Act, 2018

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 maybe, do necessary civil works, with intimation to the concernedperson or the local authority, as the case may be, for supplying electricity to that area. Licensee must take consentfrom 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 thesite 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 haveto be repaired and the garbage shall have to be removed immediately after such works.
Chapter 3, section 12 Compensation If any damage, harm or inconvenie works under this Act, the licensee prescribed by rules, pay compensa- the owner of the land affected for		If any damage, harm or inconvenience is caused while doing civil works under this Act, the licensee shall, in such manneras 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 I and and the space above or underground there licensee shall inform the land owner in writi		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 thereof: 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 Transmission tower, 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 forconstructing any connection line with power station, sub- station or grid substation the licensee may purchase oracquire such land from the concerned landowner in accordance with the existing laws and regulations regarding land acquisition.
Chapter 5, Accidents and section 29 investigation any other work, the person affected or		If any accident occurs or any risk arises due to powergeneration, 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, maygive notice in writing to the Authority of such incidence or damage.

Table 10: Key issues of Electricity Act 2018

6.4 ADB Safeguard Policy Statement (SPS) 2009

The Asian Development Bank's Involuntary Resettlement Safeguard 2 (SR2) requirements detailed in Safeguard Policy Statement (2009) directs how any project's social impacts, that is financed by ADB should be managed. The SPS Involuntary Resettlement key principles are summarized below:

- a) Determination of scope of involuntary resettlement through a social impact assessment;
- b) Consultation & Participation, Grievance mechanism set up;
- c) Improve or at least Restore Livelihoods;
- d) Provide Transitional and Relocation Assistance;
- e) Improve Standards of Living of Vulnerable and Poor Affected Persons;
- f) Ensure Transparent Procedures to Ensure Negotiated Settlement;
- g) Eligibility of Non-Title Affected Persons for assets on public land;
- h) Careful Planning of Resettlement Process through the development of a Resettlement Plan;
- i) Transparency: local and international disclosure of resettlement documentation
- j) Conceive of the RP as a development program (pro-poor);
- k) Pay compensation and resettlement assistance prior to physical/economical displacement; and
- I) Monitoring and evaluation of the RP's impacts;

Overall, the Safeguard Policy Statement (SPS) of ADB (2009) includes safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the SR2 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 pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups. SR2 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 the SPS 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. SR2 gives special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions.

6.5 Gap between Government Laws and ADB Policies

There are still evident gaps in the Government's 2017 Law for land acquisition, electricity act 2018 and ADB policies SR2 and guidelines related to land acquisition, compensation and involuntary resettlement. A brief description of the gaps between the Government laws and ADB policy along with the summary of gaps and gap-filling measures is presented below:

• Generally, the 2017 Law does not recognize unauthorized occupants on the Government land and there is no clear indication about avoiding or minimizing displacement. ADB policies strongly require avoidance or at least minimization of adverse impacts through alternative

design options.

- The adverse social impacts are not entirely recognized by the 2017 Law for instance, there
 are no provisions for resettlement of the displaced population, whereas ADB policies require
 not only resettlement sites and support but uphold and at least restorepre-Project standard
 of living of the affected people.
- The 2017 Law pays very little attention to public consultation and stakeholders' engagements in Project planning and execution. ADB policies require meaningful consultation with the affected people and other stakeholders to disseminate Project goals and objectives to obtain stakeholder's views and inputs in Project planning and implementation.
- Electricity Act 2018 recognizes full compensation for damage, detriment or inconvenience caused for construction of transmission or distribution lines by the project. However, the law does not have any guidelines on the compensation for the affected land by the tower or electric polls construction.
- Finally, ADB policies pay special attention to gender issues and vulnerable groups in the resettlement processes, particularly the non-titled and the affected poor households.

The policy gaps have been bridged by additional project specific measures adopted in the RP. Adequate compensation; replacement cost (for lost assets and income); and rehabilitation and livelihood assistance will be provided so that APs can improve or at least restore their standard of living at pre-Project level. Special attention will be given to vulnerable APs including elderly and women headedhouseholds. In sum, the added measures in this Project fully comply with ADB social and resettlement safeguard policies. These measures are derived from "good practices" in resettlement management in other externally funded(i.e., ADB, World Bank) projects in Bangladesh.

6.6 Involuntary Resettlement Safeguard Principles applicable to the Project TL only

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 (APs) will be disclosed in a timely manner and will be made available in places easily accessible to them and in local languages.
- Negotaited settlement preferred rather compulsory land acquisition
- In case of land purchase, due diligence needs to confirm that: (a) functioning land markets exist; (b) the transaction has taken place with the owner's informed consent; (c) the owner was aware that it was possible to refuse to sell, and would not be subject to compulsory acquisition; and (d) the owner was paid a fair price based on prevailing market values.
- Construction of lines shall follow existing roads and shall be planned during the off-crop season and in case of unavoidable impacts the losses will be compensated.
- Consultations will be carried out with APs 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 value
- Civil construction works will be scheduled for off-farming seasons to minimize adverse impacts on crops and cultivations.
- All entitlements and compensation will be paid to the APs prior to the commissioning of the civil construction work.
- Livelihoods and incomes of all displaced persons will be restored and improved.
- Grievance redress mechanisms will be established at different levels from construction sites to the project level to receive and resolve any grievances from APs 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 on local population and property.
- A resettlement plan will be developed incorporating APs entitlements, compensation procedures, plans for livelihood and income restoration and improvement, grievance redress mechanisms etc. and will be disclosed in an accessible place and in a form and language(s) understandable to APs and other stakeholders.
- Compliance with the safeguards policies and principles by company and the outcomes and impacts of resettlement will be monitored internally.

Chapter 7: ENTITLEMENTS, ASSISTANCE AND BENEFITS

7.1 Eligibility

The implementation of the project can cause a variety of losses to numerous people. The losses mainly include Nonagricultural land, crops and trees. The persons affected by the project comprise legal titleholders, formal land users (tenants, sharecroppers etc.), and in formal land users and occupants. For this project there is no informal land users along the TL route and all those affected by the TL development are the owner / users of the land, with no residences affected. All APs who are identified in the project-impacted areas will be entitled to compensation for their affected assets, and rehabilitation measures. Category of entitled people are:

- i. land owners losing land assets to towers footing
- ii. land owners and users losing crops and trees as a result of the construction of the towers, stringing of wire and use of RoW
- iii. those affected by restrictions on land use in the ROW

7.2 Entitlements

Affected households will be eligible and entitled for compensation for loss of any assets such as trees, crops and restriction etc. Lack of legal documents of their customary rights of occupancy or land titles shall not affect their eligibility for compensation, however people having no land record or informal settlers will be eligible and entitled for non-land assets. In the instant case, there is no involuntary land acquisition involved; mostly temporary damage will occur during construction of distribution line for which compensation will be paid if the impacts are not avoided during construction. Compensation towards temporary damages to all eligible affected persons including non-titleholders is paid as per the entitlement matrix. All affected households are paid compensation for actual damages. The entitlements matrix will be applied retrospectively to those that have already had land acquired or affected during prior land acquisition or access for the Towers and ROW developed to date. As an additional assistance, construction contractors are encouraged to hire local labour where feasible that has the necessary skills for all losses. If the entitlement matrix has not covered any particular impact or the valuation rates set in the RP do not correspond to the replacement cost, the entitlement matrix will be updated after the final census of the APs to include entitlements that have not been covered and to adjust the rates to match the replacement cost.

An entitlement matrix for the subprojects is given in **Table 22**.

No.	Type of Loss	Affected persons	Entitlement	Details
1	Land for Transmission Tower. Private land for	Land owners Legal titleholders	Direct purchase by company from the landowner through negotiated settlement after payment of agreed compensation of the land value and other attached assets and improvements to the land Consent for	Negotiation process will be based on meaningful consultation
2	ROW	Legal menolders	transmission tower erection	 The towers and lines will follow existing roads or vacant public area or government land where possible, and avoid privately held land to extent possible If there is any interruption or damage to private land, consultation and prior consent will be sought with 3rd party signature. For impact unavoidable and unacceptable to the owners of assets, compensation for standing crops and trees will be provided at replacement cost It will not severely affect living standards of affected people.
3	Loss of trees for tower construction and ROW	All affected households (titled holder and non-titled holders)	Cash compensation at replacement cost	 Full compensation at replacement cost based on the type, age, productivity and lost income.
4.	Loss of crops for Tower and RoW	All affected households (title holders and non-titled holders)	Cash compensation at replacement cost and rehabilitation and restoration assistance	 Full compensation at replacement cost considering the market value of a given variety of crop, average seasonal production of the cultivated land and the number of seasons lost to the farmer
5.	Vulnerability	Vulnerable		Dynamic Sun explore opportunities through contractor to involve

Table 11: Entitlement Matrix

No.	Type of Loss	Affected persons	Entitlement	Details
		households ¹		local people who are vulnerable households for project related temporary jobs during construction where feasible
6.	Unforeseen impacts	Affected persons	Unforeseen impacts will be documented and mitigated based on the principles in the RP	 Impacts will be assessed by the Company and contractor will be compensated at replacement cost

¹ it will only be applicable if unanticipated vulnerability occurs as according to the social survey, no HHs either were or will be made vulnerable as a result of the TL and ROW

Chapter 8: RELOCATION AND INCOME RESTORATION

The subproject will not require physical displacement nor any long term of permanent economic displacement. The impacts are limited to temporary loss/loss of crops during construction of the TL for which adequate compensation will be provided as per the entitlement matrix which will be as per current market value after completion of socio-economic assessment. Dynamic Sun will ensure that advance notice is issued to the affected persons prior to the start of construction works and that compensation is also completed before then when required to be paid. In case of future maintenance work, BPDB and Dynamic Sun will pay affected persons for loss of crop due to work activities. Should construction activities result in unavoidable livelihood disruption, compensation for lost income for the period of disruption will be provided. The company will also negotiate with the contractors to offer employment to vulnerable households to be identified.

As project impacts are generally temporary and economic in nature and will adequately compensate all permanent and temporary economic losses after socio-economic assessment, no significant longterm income impact is envisaged for this project. No livelihood restoration programs will be required as compensation will adequately address all impacts. No PAHs will be worse off a result of the project once compensation has been paid and lievlihoods will be affected beyond the temporary loss of access to crops. PAHs have been consulted about the provision of compensation and the temporary nature of the impacts.

Chapter 9: LAND ACQUISITION AND RESETTLEMENT PLAN BUDGET

9.1 TRANSMISSION LINE RESETTLEMENT BUDGET

Since the TL has already been largely developed so the budget and implementation details focus on:

- i. what the gaps are between the compensation according to FRV and paid amount
- ii. what has been paid and what is now required for client to meet the requirements of the entitlement matrix (e.g., to meet full replacement cost).
- iii. what the remaining amounts are for the towers yet to be developed.

The resettlement budget is prepared for the 79 Transmission Towers and the distribution line. It was prepared based on several technical assumptions, current market values of trees as reported by community members during consultations and rate finalized by Department of Agricultural Extension for crops I 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 trees and crops. Furthermore, provisions have been made to cover the costs of conducting consultations, updating the RP, grievance redress and monitoring.

Land acquisition for TL footing has been and is done on the basis of negotiation and preparing MoU for land use for the entire life span of the project. No land was acquired or RoW access was gained through legal means. Already MoU for footing area has been completed for 76 towers till August 2023 and only MoU for 3 transmission tower footing areas is under process.

According to Mouza rate collected from Pabna Land office (attached as Annexure 10), the price of per decimal land of Dadapur, Joynagar, Kamalpur, Kaikunda, Maniknagar, Luxmikunda, Sahapur and Char Silimpur Mouza varied between BDT 6,170.00 ~ 50,133.00 per decimal but DSEPL has made an MoU with the land owner of the tower footing area at BDT 230829.00 per decimal which is much higher than the mouza rate and was finalized based on current market price and negotiation. The price was paid through cash and no transfer charge is applicable for this. As most of the land owners are villagers so they didn't and don't want to take hassle to go to banks at Pabna town to collect the money. The documentation of MoU with the land owners and handing over the cash money against the MoU is attached as Annexure 4. Negotiation was undertaken in such a way so that it is ensures that people who enter into negotiated settlements will maintain the same or better income and livelihood status. The rate was finalized through mutual understanding and payment was made as one-off payment for the lifetime of project.

There was and is no agreement or MoU made for access of RoW as a notification published by District Commissioner which instruct that all project affected people along the ROW should co-operate during the installation and stringing of tower. In addition to that, according to Bangladesh Electricity Act 2018 (Chapter 3, Section 13), "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 landowner in writing before laying of power supply lines and doing civil works within a reasonable time." So, no agreement or MoU is required according to the Bangladesh Electricity Act 2018.

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There was total 573 no. of trees within the footing area and along the RoW. Price of these trees were fixed based on current market values of trees as reported by community members during consultations.

Crops and trees affected for the tower footing and RoW were compensated at Full Replacement Value (FRV). Compensation amount was provided by following the rate for crops (2 times compensation for one season crop at the rate finalized by Department of Agricultural Extension) and for trees (compensation for one season crop at the rate finalized by Department of Agricultural Extension + harvests affected until replaced plants are ready for harvest). There is no transaction cost as payment was made by cash as most of the affected people are from village and they don't have any bank accounts or even if they have, they want to take the hassle to go to bank to collect the money. Crop rate finalized by Department of Agricultural Extension is attached as Annexure 6;

Paddy is the predominant crop cultivated by the farmers. However, a variety of other seasonal crops such as jute, litchi, banana, wheat is also cultivated intermittently in the affected land. However, compensation for lost crops has been and will be provided for single cropping season which is Rabi/dry season to facilitate the civil construction works. Value for crops is assessed according to the methods of Department of Agricultural Extension (DAE). Value of standing crops is presented in the Table 23 below:

As all the compensation made and will made meets FRV so there is a no difference between the amount paid previously and what is required to meet full replacement cost. Compensation for affected crops and trees for 76 tower footings and RoW to access those Tower footing area has already been paid till August 2023.

A contingency provision of 5% of the total resettlement budget is set aside to cover the unanticipated costs which may have to be incurred after final engineering designs and inventory of losses are concluded.

SL. No.	Name of Crops	Amount of Land (Acre)	Production of Crop (M. Ton)	Production of Crop(kg)	Rate per KG	Amount (TK)	Payable Amount (Actual Cost +100% Premuim)
1	Banana	4.1002	66.4	66400	30	1992000	3984000
2	Jute	6.3178	15.34604	3341.14	60	200468.4	400936.8
3	Litchi	10.1322	53.48974	53489.7	200	10697948	21395896
4	Paddy	22.7185	43.78116	43781.2	32	1400997.12	2801994.24
5	Wheat	3.7355	4.99118	4991.18	40	199647.2	399294.4
6	Vegetable	5.3717	97.87336	97873.4	20	1957467.2	3914934.4
	Total	52.3759				16448527.92	32897055.84

Table 23: Cash Compensation of Standing Crops for ROW Clearance-one-time cash grant

		-		_	amount				
SL. No.	Name of Crops	Amount of Land (Acre)	Time required for harvesting fruits from new trees in same amount	Production of Crop (M. Ton)	Production of Crop (kg)	Given Rate per KG	Amount (TK)	Payale Amount (Actual Cost +100% Premuim)	Top up for harvesting fruits from new trees in same amount
1	Banana	0.0598	1	0.9684 m.ton	968.42	30	29052.6	58105.2	0
2	Jute	0.0922	1	0.2239 bales	223.9	60	13434	26868	0
3	Litchi	0.1478	4	0.7802 m.ton	780.29	200	156058	312116	624232
4	Paddy	0.3315	1	0.6388 m.ton	638.84	32	20442.88	40885.76	0
5	Wheat	0.0545	1	0.0728 m.ton	72.81	40	2912.4	5824.8	0
6	Vegetable	0.0783	1	1.4265 m.ton	1426.51	20	28530.2	57060.4	0
Total		0.7641					250430.08	500860.16	624232.00
	Grand Total						1,125,092.16		

Table 24: Cash Compensation of Standing Crops for Tower Footing-one-time cash grant and top up to get harvesting fruits from new trees in same

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		25. Resettie					
SL.	Category of losses	Units Decimal	Unit Cost		Estimated budget in BDT		
1	Transmission Tower Footing						
	Transmission Tower Footi						
1.1	Already Purchased	73.52 230829		16,970,548.08			
	Under Process	2.90		669,404.1			
	Sub Total	76.42		17639952.18			
1.2	Trees including Timber value	573		Actual Cost	Payale Amount (Actual Cost +100% Premuim)		
	Large	42	6667	280014	560028		
	Medium	34	4532	154088	308176		
	Small	41	500	20500	41000		
	Fruit bearing minor trees with one-time fruit	94	500	47000	94000		
	Banana	362	500	181000	362000		
	Cash Compensation of Standing Crops, fruits for Tower Footing	Table 24		-	1,125,092.16 (100% Premuim+4 Years Fruit Compensation)		
	Sub Total				2490296.16		
2	ROW						
2.1	Cash Compensation of Standing Crops and fruits for ROW Clearance-one-time cash grant	52.3758 acre (Table 23)		16448527.92	32897055.84		
3		Admi	n cost				
3.1	Preparation and implementation of RPs	Lump	sum	150,000			
3.2	Monitoring and reporting Lump sum			200,000			
	Sub Total	350,000					
4	5% contingency of the reset	881998.9846					
	Grand Total	54,259,331.00					

Table 25: Resettlement Budget

*All rate collected through Inventory Survey

Chapter 10: INSTITUTIONAL AND IMPLEMENTATIONARRANGEMENTS

10.1 Introduction

The construction and commissioning of the TL is being undertaken by DSEPL. After Commissioning of the 132kV Transmission Line, DSEPL & PGCB will sign an O & M agreement for operation & maintenance of Power Evacuation Line. In this case, DSEPL is the Owner of the Transmission Line and the Employer of O & M Service provider company. As per O & M Contract, PGCB will be responsible for operation & maintenance of the transmission Line. DSEPL will be responsible for coordination & liaison with PGCB O & M team to ensure uninterrupted power evacuation from the DSEPL Solar Power Plant.

10.2 Institutional Arrangements

The DSEPL is responsible for all aspects of the RP implementation including planning, consultation, procurement and financial management, including compensation payments. The monitoring and supervision of the construction work at field level will be entrusted to the Solar Power Project. The General Manager and GRC of the Dynamic Sun Power Development Company Limited will also be responsible for the implementation of the RP, resolution of project related grievances at field level, payment of compensation for any losses caused by the project.

10.3 Current Implementation Status and Capacity Building Requirement

There is no permanent social safeguard expert during the implementation stage. Company will hire a GRM & CSR Manager or community relations officer who will ensure remaining land acquisition and access impacts are managed in accordance with this plan, and to ensure any remaining supplementary measures required to be undertaken for the past land acquisition impacts that have not been addressed in line with the requirement of this RP will be undertaken promptly. Similarly, the GRM & CSR Manager or CRO will undertake engagement with PAHs to determine if there are any grievances or issues that require resolution.

Chapter 11: MONITORING AND REPORTING

Dynamic Sun Energy Pvt. Ltd. will have the overall responsibility for monitoring the project processes, outputs, outcomes and impacts in periodic intervals. They will establish the necessary institutional arrangements required for monitoring of the implementation of the RP

The GRM & CSR Manager or CRO will undertake regular field visits to project sites and engage in communication with affected peoples (AP) and ensure that consultations are conducted regularly and effectively. The monitoring process will also focus on (i) the progress of the implementation of the RP, (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 APs for substations and distribution lines, and other stakeholders and (iv) the level of consultations conducted with APs and other stakeholders to address gaps in RP implementation and to identify necessary measures to mitigate, avoid or minimize adverse impacts arising from project implementation and (v) redressal of APs' grievances.

The company will submit consolidated bi-annual reports for review by ADB on the progress of the implementation of resettlement activities and any compliance issues and corrective actions adopted. The indicators for safeguards monitoring will include the following:

- Status of the RP conduct of surveys and census after the completion of the final engineering designs and updating the RP, disclosure to APs and other stakeholders and obtaining approval
- Public consultations and information disclosure type of consultations conducted, participation of APs and other stakeholders, issues discussed and addressed, status of information disclosure, outcomes of consultations and measures adopted to address them in the updated and final RP
- Payment of compensation status of compensation paid
- Mitigation of adverse impacts arising from construction work progress of construction work and any adverse effects on adjacent communities
- Grievance redress –status of handling grievances and grievance redress.