

Resettlement and Indigenous Peoples Plan

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India: Assam Solar Project

Part 1 of 3

Prepared by Assam Power Distribution Company Limited, Government of Assam for the Asian Development Bank (ADB).

CURRENCY EQUIVALENTS

(as of 5 July 2024)

| | | |
|---------------|---|------------------|
| Currency Unit | – | Indian rupee (₹) |
| ₹1.00 | = | \$0.01197 |
| \$1.00 | = | ₹83.5026 |

ABBREVIATIONS

| | | |
|----------|---|--|
| ADB | - | Asian Development Bank |
| AHs | - | Affected Households |
| APs | - | Affected Persons |
| APDCL | - | Assam Power Distribution Company Limited |
| BESS | - | Battery storage installation |
| BCS | - | Broad Community Support |
| CTUIL | - | Central Transmission Utility of India Limited |
| DDR | - | Due Diligence Report |
| DPR | - | Detailed Project Report |
| DMS | - | Detailed Measurement Survey |
| EA | - | Executing Agency |
| EPC | - | Engineering Procurement and Construction |
| GoA | - | Government of Assam |
| GRC | - | Grievance Redress Committee |
| GRM | - | Grievance Redress Mechanism |
| HH | - | Household |
| IA | - | Implementing Agency |
| IOL | - | Inventory of Losses |
| IP | - | Indigenous People |
| IPP | - | Indigenous Peoples Plan |
| IR | - | Involuntary Resettlement |
| KAAC | - | Karbi Angolong Autonomous Council |
| LILO | - | Loop-in, Loop-out |
| MW | - | Mega Watt |
| NGO | - | Non-Government Organization |
| PGCIL | - | Power Grid Corporation of India Limited |
| PIB | - | Public Information Booklet |
| PIU | - | Project Implementation Unit |
| PMC | - | Project Management Consultant |
| PMU | - | Project Management Unit |
| PPP | - | Public Private Partnership |
| RFCTLARR | - | Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act |
| RIPP | - | Resettlement and Indigenous Peoples Plan |
| RP | - | Resettlement Plan |
| R&R | - | Resettlement and Rehabilitation |
| SES | - | Socioeconomic Survey |
| SHG | - | Self Help Groups |
| SPP | - | Solar PV Plant |
| SPPI | - | Solar PV Plant Infrastructure |

SPS - Safeguard Policy Statement (SPS, 2009) of ADB
ST - Scheduled Tribes

GLOSSARY

- Affected person (AP)** : Means any person or persons, household, firm, private or public institution that, on account of changes resulting from the project, will have its (i) standard of living adversely affected; (ii) right, title or interest in any house, land, water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence or habitat adversely affected, with or without displacement. APs residing under one roof and operating as a single economic unit are collectively referred to as an affected household (AH).
- Compensation** : Means payment in cash or in kind to replace losses of lands, housing, income and other assets caused by a project. All compensation is based on the principle of replacement cost, which is the method of valuing assets to replace the loss at current market rates, plus any transaction costs such as administrative charges, taxes, registration and titling costs.
- Cut-off date** : Refers to the date set to determine eligibility for compensation and assistance under the project. Anyone who occupies or encroaches into the defined boundaries of the Project area after this date is not entitled to compensation and other assistance for affected assets and incomes.
- Displaced Persons** : SPS 2009 describes displaced persons in a project area could be of three types: (i) persons with formal legal rights to land lost in its entirety or in part; (ii) persons who lost the land they occupy in its entirety or in part who have no formal legal rights to such land, but who have claims to such lands that are recognized or recognizable under national laws; and (iii) persons who lost the land they occupy in its entirety or in part who have neither formal legal rights nor recognized or recognizable claims to such land.
- Eligibility** : Means any person or persons, household, firm, private or public institution who has settled in the project area before the cut-off date, that (i) loss of shelter, (ii) loss of assets or ability to access such assets, permanently or temporary, or (iii) loss of income sources or mean of livelihood, regardless of relocation will be entitled to be compensation and/or assistance.
- Entitlements** : Refers to a range of measures comprising compensation, income restoration support, transfer assistance, income substitution, relocation support, etc. which are due to the APs, depending on the type and severity of their losses, to restore their economic and social base.
- Income Restoration** : Re-establishing productive livelihood of APs to enable income generation equal to or, if possible, better than that earned by the affected persons before being affected.
- Income Restoration Program** : A program with various interrelated activities that aims to support severely affected and vulnerable households in the difficult task of restoring their standards of living to at least pre-project levels through measures that involve enhancing productivity with the remaining human and material assets of the AHs, and/or engaging in new or supplementary livelihood activities. The program is designed to suit the specific needs of the

participating AHs and is subject to opportunities and resources available to the AHs where they are located.

- Involuntary Resettlement** : Resettlement is involuntary when the APs have no right to refuse the land acquisition by the state that result in their displacement. This occurs when land is acquired through (i) expropriation by invoking the eminent domain power of the state, or (ii) (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. In cases where is negotiated in a process and where expropriation will be the consequence of a failure in the negotiation also falls in the category of involuntary resettlement
- Land acquisition** : Refers to the process whereby an individual, household, firm or private institution is compelled by a public agency to alienate all or part of the land it owns or possesses to the ownership and possession of that agency for public purposes in return for compensation at replacement costs.
- Meaningful Consultation** : A process that: (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to APs; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of APs and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.
- Right of Way - ROW** : This is the area which will be cleared of all structures and obstructions.
- Relocation** : This is the physical displacement of an AP from his/her pre- project place of residence and/or business.
- Relocation Assistance** : Support provided to persons who are physically displaced by the project. Relocation assistance may include transportation, food, shelter, and social services that are provided to the displaced persons during their relocation. It may also include cash allowances that compensate APs for the inconvenience associated with resettlement and defray the expenses of a transition to a new locale, such as moving expenses and lost work days.
- Replacement cost** : The calculation of full replacement cost will be based on the following elements: fair market value, transaction costs, interest accrued, transitional and restoration costs, and other applicable payments, if any. Where market conditions are absent or in a formative stage, the information to be obtained will be based on consultation with affected persons and host populations about recent land transactions, land value by types, land titles, land use, cropping patterns, and crop production; and baseline data on housing, house types, and construction materials. For assets and structures, depreciation and salvageable materials will not be taken into account.

- Resettlement and Indigenous Peoples Plan : A time-bound action plan that includes objectives, principles, entitlements, specific activities, responsibilities of concerned agencies, groups and individuals, and budget for addressing the displacement of people from assets, sources of incomes, homes, and communities towards reconstructing their disrupted lives and improving or restoring their standards of living to at least pre-displacement levels.
- Significantly affected Households : This refers to AHs who (i) lose 10% or more of their productive, income generating assets, or (ii) who must relocate (physically displaced).
- Vulnerable groups : These are distinct groups of people who might suffer disproportionately or face the risk of being further marginalized or experience further hardship due to the project. These groups are female-headed households with dependents, households headed by elderly or disabled person with no other means of support, households falling under the generally accepted indicator for poverty, landless households, agricultural tenants, and indigenous peoples/Scheduled Tribes.

NOTE{S}

- (i) The fiscal year (FY) of the Government of India {and its agencies} ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2024 ends on 31 March 2024.
- (ii) In this report, “\$” refers to United States dollars.

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EXECUTIVE SUMMARY

i. The project, "Assam Solar Project" is proposed to be partly financed by ADB. The Project has four output such as (i) Output 1: Sovereign solar photovoltaic electricity capacity and inclusive capacity building for solar and related technologies increased, (ii) Output 2: Private sector investment in solar photovoltaic capacity enabled, (iii) Output 3: Renewable energy-powered battery storage system piloted and (iv) Output 4: Electricity distribution in project areas enhanced.

ii. This is a combined Resettlement and Indigenous Peoples Plan (RIPP). The project is categorized as "A" for involuntary resettlement (IR) and "A" for indigenous peoples (IP) as per ADB's Safeguard Policy Statement, 2009 (SPS). The project falls under the sixth schedule of Indian Constitution where scheduled tribe (ST) population is the dominant population. Scheduled tribes in the project area are considered as Indigenous Peoples (IP) as per ADB's definition of IP and the terminology ST is often used in the RIPP. Power (Electricity) Department of Government of Assam (GoA) will be the executing agency (EA) for overall coordination. Assam Power Distribution Company Limited (APDCL) of GoA will be the implementing agency (IA) for the Project and will be responsible for implementing the project including the implementation of the RIPP. The RIPP covers all the core elements of a Resettlement Plan (RP) and Indigenous Peoples Plan (IPP) per ADB's SPS, 2009.

iii. The RIPP is based on the detailed project Report (DPR). The DPR is based on a preliminary design. The detailed design and the final layout will be done by the developers. However, the RIPP is near to a draft final stage and in an advance stage for implementation as the total land area of the project has been fixed as the Karbi Anglong Autonomous Council (KAAC) has allotted 18,000 bigha land to APDCL for the project. Inventory of losses (IoL)/detailed measurement survey (DMS) and census of affected households have been conducted based on the land details provided by the council. This is an implementation ready RIPP subject to final verification of land ownership, land quantity and valuation of non-land asset by the council and APDCL. The total land area has been fixed and the solar plant will be developed within the total allotted land. The project land is a non-cadastral land; therefore, further verification is needed to finalize the details related to ownership and impacts of the customary land-owners who are losing the land due to the Project. The solar site is quite vast in area and being the non-cadastral land, the verification assessment will be needed during the project implementation and prior to RIPP implementation for any missed land due to land records or other asset impacts including structures and tenants due to lack of formal records on tenants. Therefore, it is pertinent to do final check survey and the RIPP shall be updated if additional impacts are found during the course of final verification and construction. No physical and/or economic displacement until the compensation and other entitlements are fully paid to the affected households No construction will commence until the compensation is paid to the affected households where customary land is being affected and where agricultural tenants are using the land for cultivation. Any change in impacts to the current RIPP will be documented and will be informed to ADB and accordingly the RIPP will be updated along with its budget (or Addendum will be prepared as applicable). The solar PV has been divided into various lots/blocks (6 numbers) and are marked in the google earth image. No physical demarcation has been done on the ground for these lots. The developers for each lot will be making the boundary (barbed wire fencing) for their respective lot. During the final layout, if any lot found to be having no impacts on land acquisition and involuntary

resettlement can be taken up for construction for which a due diligence will be conducted to confirm that there is no impact and shall be submitted to ADB.

iv. A total of 18,000 bigha of land will be required for the construction of solar PV plant and its associated facilities such as boundary, internal roads, staff quarter, switching stations etc. Out of the total 18,000 bigha¹ (2400 ha), 16,511 bigha (2201.5 ha) is KAAC² land and 1,489 bigha (198.5 ha) is customarily owned land by the Indigenous People/ scheduled tribe for which KAAC has issued customary rights to the land users. This makes only 8.2% of the land belongs to customary land/privately owned land which will be acquired. Plantation area will be affected. The area affected by rubber plantation is 270 bigha, chitrana is 480 bigha and bamboo is 50 bigha. Total number of affected household/ family losing land is 1277 from IP group who are customary land owners. From this group a total of 38 residential structures will be affected owned by 32 customary land owners. Two religious structures (church) will be affected. Additionally, 102 number of agricultural tenants (non-IP households) will be affected who are using the customary land owners' land on lease basis and built structures (total 102 structures built by tenants). Census survey was conducted for 1237 (89%) affected customary land affected out of a total of 1277 households. 40 affected households (3%) were missing during the census survey, Similarly, census survey was conducted for 89 number (87%) tenant affected households out of a total of 102 affected tenant households. 13 tenants were missing during the survey. This will be updated during project implementation phase. Socio-economic household survey of 372 affected households (30%) was carried out with special focus on the Indigenous Peoples and a socio-economic profile of the indigenous peoples have been prepared.

v. Consultations were carried out by APDCL and ADB consultants and ADB team attended some of them, with multi stake holders such as (i) Chief Executive Member (Head of the Council) along with council officials, (ii) Affected People, (iii) Indigenous Peoples, affected IP, Community members, village head and council representatives, (iv) Gaon Bura³ (Village Head), (v) General IP community, (vi) Women and Vulnerable, (vii) Affected Tenants, (viii) School Authority near to the project site, (ix) Business operators in the nearby market place and (x) Non-Government Organization (NGO). People were supportive about the project; however, they expect fair assessment and compensation for affected lands and assets. Broad community support (BCS) was obtained from all seven villages through consultation and information disclosure. ADB team have attended the consultations during the project fact-finding mission in February 2024 and ascertaining the BCS. Special attention was given to IPs/STs during the consultation. Consultation will be continued throughout the project cycle for which consultation and participation plan has been prepared and provided in the RIPP.

vi. APDCL will institute a transparent, culturally appropriate and time-bound project-level grievance redress mechanism (GRM) to receive and resolve the APs' and communities' potential grievances and complaints, on the delivery of compensations and entitlements, access to information, environmental and other possible project impacts on them. A three-tier GRM will be established for the solar PV component (Output 1 and 2) requiring land acquisition and involuntary

¹ 7.5 bigha is 1 ha

² KAAC land is being considered as government land in this document

³ *Gaon Burahs* are traditional institutions under the customary law of Karbis as a tribe. After KAAC came into force, traditional Gaon Burahs has been recognized by the Council. It's based on hereditary principle. Generally, local conflicts are addressed by Gaon Burahs in the presence of villagers and accepted by all. Gaon Burahs aren't elected as there are no Panchayati Raj Institutions in Karbi Anglong under Sixth schedule of the constitution

resettlement. The first tier is the grass-roots level mechanism. Grievances of the APs are first dealt with by village *gaon buras* in consultation with field officials, and the contractors of the project. Complaints that cannot be addressed at the level of *gaon buras* will be forwarded to the project-level grievance redress committee (GRC) which is the second tier and will be established at the site office at Bokajan which is within the periphery of the project area. The Gaon Bura and the implementing NGO/Agency responsible for RIPP implementation shall facilitate the complainants to submit the grievance at the second tier GRC. The hearing of the grievance will be done with prior intimation to the complainants and will be done through a consultation process. All costs related to the attendance and participation of complainants during the hearing will be borne by APDCL. The third tier is the appellate GRC at the state level in the Project Management Unit (PMU) of APDCL at the head quarter in Guwahati. APDCL will deal with the complaints and grievances as the appellate GRC. The GRC at second tier will forward the unresolved complaints to the PMU GRC which will be the third tier GRC and will inform the complainants regarding the next level grievance mechanism. The implementing NGO/Agency will further sensitize the complainants regarding the process. APDCL will facilitate and bear all the cost related to the physical presence of complainants during any hearing at the PMU level GRC in Guwahati. APDCL will ensure that the GRC will be free from intimidation and the implementing NGO/Agency will assist APDCL in the GRM. The presence of GRM or seeking relief from GRM is not a bar to take grievances and complaints to national courts for arbitration. All the records pertaining to GRM will be kept and submitted along with the monitoring reports to ADB. Cost related to GRM will be borne by APDCL. Additionally, a separate grievance redress mechanism has been proposed in the IEE for the output 3 and 4 especially for the distribution and battery storage components which do not involve any land acquisition and involuntary resettlement. However, affected persons can avail the solar PV GRM for any grievance that may arise from output 3 and 4.

vii. The legal framework and entitlements for the project is guided by the existing legislation and policies of the Government of India which is the constitution of India and its sixth schedule. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR)⁴ has been taken on to consideration for providing additional resettlement and rehabilitation (R&R) schemes and benefits in addition to the land compensation. Rules and regulation of Government of Assam and the Karbi Anglong Autonomous Council Acts, have been considered. ADB's Safeguard Policy Statement (SPS), 2009 and its policy principles on involuntary resettlement and indigenous peoples is the key policy adopted for the project to comply with ADB's requirements. APs entitled for compensation or at least rehabilitation provisions under the Project are: (i) All APs losing land either covered by legal title/traditional/customary land rights, Legalizable, or without legal status; (ii) Tenants and sharecroppers whether registered or not; and (iv) Owners of buildings, crops, plants, or other objects attached to the land; and, (iii) APs losing business, income, and salaries. Compensation eligibility is limited by a cut-off- date to be decided by APDCL through the KAAC. The cut-off date will be considered as the end of census surveys and final verification surveys which will be declared during the disclosure of RIPP brochure/leaflet and prior to the implementation of RIPP and post the verification. Based on the impact and policy provision a detailed entitlement matrix has been developed and provided in the RIPP. The disbursement of compensation will be through electronic transfer to the bank account of APs (or through cheques if APs do not have or cannot

⁴ The land will not be acquired under the RFCTLARR, however the provision of Resettlement and Rehabilitation (R&R) schemes/benefits/assistance of the RFCTLARR will be provided to the eligible affected households in addition to the land acquisition compensation cost.

open bank account due to lack of documents or other requirements). All the records will be kept for audits and third-party external monitoring and reporting to ADB.

viii. The cash compensation is the preferred mode of compensation for loss of land. However, based on the significance of impact and if affected households prefers land for land, APDCL will work along with KAAC to provide such household land for land compensation of equal or better quality in the vicinity to ensure that the land-based livelihood of such households are restored. APDCL will liaise with KAAC for relocation of displaced households which will be in addition to the payment of compensation of the lost asset. Income restoration and livelihood restoration measures have been proposed in the RIPP. The RIPP implementing NGO/Agency to be engaged for implementation of this RIPP, will undertake a training needs assessment and will develop livelihood restoration measures and plans. Efforts will be made to create linkage with the employment opportunities the project will create and deliver skills training matching the project labor demands for affected persons and ongoing schemes of state/central government for the livelihood restoration plans. This RIPP includes project benefit sharing measures and mitigation measures for IP.

ix. The resettlement cost has been calculated based on the replacement cost compensation. All costs included in the RIPP is considered as part of Project cost and will be contributed as a counterpart fund by APDCL through the Government of Assam. The total estimated cost for the RIPP implementation is INR 2477.35 million (USD 30.58 million) which is equivalent to INR 247.74 crore. The cost includes a 20% of contingency provision. APDCL will provide additional funds as needed if impacts increase in a timely manner. APDCL will be responsible for the timely allocation of the funds needed to implement the RIPP. This is an indicative cost and will be updated based on the actual verification of impacts where needed and will accommodate additional cost if additional impacts arise during the finalization process.

x. Assam Power Distribution Company Limited (APDCL) is the executive agency (EA) and the implementing agency (IA) responsible for project implementation including safeguards. APDCL has already established a Project Management Unit (PMU) with designated core technical team managing safeguards also. APDCL will hire social safeguards specialist in its PMU for this project. APDCL will engage a project management consultant (PMC) who will have social safeguards specialist in its team. APDCL will engage an implementing NGO/Agency which will be responsible for RIPP implementation that will include preparation of micro plans for each affected households containing the land compensation, assistance and allowances. The NGO will also be responsible for developing livelihood restoration plan and will assist APDCL and KAAC in its implementation. Additionally, there will be an external monitoring agency/expert which will be hired for external monitoring of social safeguard and RIPP implementation and submission of semi-annual reports to APDCL for further submission to ADB. APDCL will conduct internal social safeguard monitoring and submits quarterly social monitoring reports to ADB. Further capacity enhancement of APDCL is required for implementation of RIPP and the PMC will provide training and resources as well ADB will conduct and safeguards review and supervisions during the project implementation.

xi. The time for implementation of RIPP will be scheduled as per the overall project implementation. All activities related to the land acquisition and resettlement must be planned to ensure that compensation is paid prior to displacement and commencement of civil works. Public consultation, monitoring and grievance redress will be undertaken throughout the project duration. The RIPP will be monitored internally by APDCL through its PMU with assistance from PMC and RIPP implementing NGO/Agency. Quarterly progress report and semi-annual monitoring report will be submitted to ADB. Project will undertake impact evaluation towards the completion of RIPP implementation. The objective of the evaluation will be to evaluate whether AP's living standard

has been restored or improved. The socio-economic baseline of the RIPP will be considered as the base for evaluation. The RIPP implementation will also be monitored externally by an external monitoring agency/expert and submission of external monitoring reports semi-annually to ADB to be ensured by APDCL.

I. INTRODUCTION

1.1 BACKGROUND

1. This is a combined Resettlement and Indigenous Peoples Plan (RIPP). The RIPP has been prepared for the “Assam Solar Project” (the Project) that is proposed to be financed by the Asian Development Bank (ADB). The project is categorized as “A” for involuntary resettlement (IR)¹ and “A” for indigenous peoples (IP)² as per ADB’s Safeguard Policy Statement, 2009 (SPS). Power (Electricity) Department of Government of Assam (GoA) will be the executing agency (EA) for overall coordination. Assam Power Distribution Company Limited (APDCL) of GoA will be the implementing agency (IA) for the Project and will be responsible for implementing the project including the implementation of the RIPP. The RIPP covers all the core elements of a Resettlement Plan (RP) and Indigenous Peoples Plan (IPP) per ADB’s SPS, 2009.

1.2 RATIONALE AND OBJECTIVE

2. The proposed project will support Government of Assam to address a shortage of renewable energy capacity to meet growing demand and reduce dependency on thermal energy in Assam state. The project will provide sovereign support for the construction of a large-scale solar PV facility and will address shortcomings in the state’s institutional capacity and ability to develop and implement public-private energy transactions. The project will also expand, reinforce and rehabilitate electricity distribution infrastructure in the district adjacent to the solar PV facility and will develop a battery storage pilot project

3. Assam is the second largest state (by area) in India’s northeast region. It also has the largest population and the biggest economy amongst India’s northeast states, contributing around 60% of the region’s economy activity.³ The main contributions to the state’s economy come from services (41%), and industry (26%), although an estimated 60% of Assam’s population are involved directly or indirectly with agriculture, a sector which contributed around 12% of the state’s economic output in fiscal year (FY) 2022. Assam’s proximity to neighboring countries gives it strategic importance: India’s Act East Policy aims to establish stronger trade and business ties with Southeast Asia and other Indo Pacific countries, and Assam is one of the focus states under this policy in terms of access to trade and network connectivity.

4. Unlocking Assam’s full economic potential requires addressing its energy security. Assam state’s electricity supply mix is dominated by coal and gas, which accounted for about 70% in the state’s electricity in 2022. This results in significant volatility in the supply cost with variability in

¹ A proposed project is classified as category A if it includes involuntary resettlement impacts that are deemed significant. A project’s involuntary resettlement category is determined by the category of its most sensitive component in terms of involuntary resettlement impacts. The involuntary resettlement impacts of an ADB-supported project are considered significant if 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan are commensurate with the significance of the potential impacts and risks.

² A proposed project is classified as category A if it is likely to have significant impacts on indigenous peoples. A project’s indigenous peoples category is determined by the category of its most sensitive component in terms of impacts on indigenous peoples. The significance of impacts of an ADB supported project on indigenous peoples is determined by assessing (i) the magnitude of impact in terms of (a) customary rights of use and access to land and natural resources; (b) socioeconomic status; (c) cultural and communal integrity; (d) health, education, livelihood, and social security status; and (e) the recognition of indigenous knowledge; and (ii) the level of vulnerability of the affected indigenous peoples community. The level of detail and comprehensiveness of the indigenous peoples plan are commensurate with the significance of potential impacts on indigenous peoples.

³ Reserve Bank of India. 2022. [Handbook of Statistics on Indian States](#). New Delhi.

fossil fuel prices. Domestic gas prices have more than doubled since early 2021, resulting in an increase in Assam Power Distribution Company Limited's (APDCL) average electricity purchase price of around 15%. Based on the current and projected rate of electricity demand growth of 5.3% and on renewables purchase obligations imposed on the state by central government,⁴ Assam needs to develop or contract for the equivalent of around 3,000 megawatts (MW) of solar capacity by 2030.⁵ In principle, this capacity could either be developed within the state or could be purchased from other states. However, the transmission connection from the rest of India to the northeastern regional grid (of which Assam is the largest state) through the Siliguri Corridor is heavily constrained and has no spare capacity to cater for load growth in Assam and other northeast states. This constraint will be exacerbated by tightening gas supplies (and higher gas prices) in the northeast, limiting opportunities for new gas-fired electricity generation.

5. The scale of investment required to meet Assam's renewable energy obligations through to 2030 is well beyond the capacity of the public sector; private investment will need to be mobilized. India-wide, approximately 50% of installed renewable energy generation capacity is owned by the private sector compared to only about 7% in Assam. This lack of private sector investment in Assam's electricity sector reflects various impediments including lack of a road map for the generation subsector and the absence of investment incentives and limited investment opportunities suitably packaged for private investment. The limited experience and capacity within the government to execute Public-Private Partnership (PPP) is also a factor. The need to increase the involvement of the private sector in the state's renewable energy development is imperative. In this context, the Assam government's renewable energy policy (released in 2022) outlined the government's intention for mobilizing public and private resources for the state's 2027 solar capacity target of 2,000 MW through various private and public-private mechanisms.⁶

6. Scaling up renewable energy is consistent with India's nationally determined contributions. India revised its climate action targets to the United Nations Framework Convention on Climate Change in August 2022 with the following main climate actions: (i) achieving 50% of cumulative installed capacity for electricity generation from non-fossil fuel-based energy sources by 2030, and (ii) achieving a carbon intensity reduction of 45% from 2005 levels by 2030. India has also pledged to become carbon neutral by 2070. The project aligns with the Paris Agreement. It will also support mitigation actions by (i) reducing the share of coal-fired power plants in the generation mix, and (ii) reducing the emission factor and carbon intensity of Assam

⁴ The Gazette of India. 2023. [Notification Regarding Renewable Purchase Obligation](#). 20 October 2023.

⁵ Under the renewables purchase obligation (RPO) scheme, electricity distributors and open access electricity customers are required to procure a certain proportion of their electricity needs from renewable sources, and a certain proportion of that from solar. The states' 2022-23 target for the solar RPO was 23.44% (of total electricity consumed), compared to a total renewable energy obligation of 17% for 2021-22 (a target that Assam missed by almost 50%). The solar RPO target will increase to 33.57% by 2029-30, and the total renewable energy target will increase to 43.33%.

⁶ The Assam Gazette. 2023. [Assam Renewable Energy Policy, 2022](#). 4 November 2022.

1.3 PROJECT IMPACT, OUTCOME AND OUTPUT

7. The project is aligned with the following impact(s): Energy security and renewable energy obligations achieved in Assam (footnote 4). The project will have the following outcomes: (i) solar energy capacity available in the Assam state grid increased to 1,000 MW of which at least 25% is owned by the private sector, (b) electricity supply from renewable energy sources in Assam increased to 22% of total supply, (c) aggregate technical and commercial losses on upgraded distribution feeders in Karbi Anglong and Dimahasao districts reduced to 20% against current 29.7%, and (d) at least 0.9 million tons of CO₂ emissions avoided per year.⁷

8. **Output 1: Sovereign solar photovoltaic electricity capacity and inclusive capacity building for solar and related technologies increased.** The project will finance 500 MW of solar PV electricity generation capacity and related infrastructure in Karbi Anglong district. This will address Assam's need to enhance its energy security by significantly increasing in-state generation capacity. Training to APDCL staff (including 30% women) on solar and other new technologies will be undertaken. APDCL will also target an all-women maintenance workforce for the solar facility.

9. **Output 2: Private sector investment in solar photovoltaic capacity enabled.** Transactional advisory support will be provided for development of additional 250 MW capacity through PPP modality on the adjacent site using the common solar park facilities. In addition to providing the land and common facilities, options will be examined to reduce the offtake tariff through the strategic deployment of concessional finance. ADB will also assist the government in clarifying and strengthening the PPP framework in the state, building the government's capacity in developing, managing and monitoring renewable energy PPP projects.

10. **Output 3: Renewable energy-powered battery storage system piloted.** This output will support the equity contribution of APDCL to set up a joint venture with Oil and Natural Gas Corporation Tripura Power Company to develop a pilot grid-connected battery storage installation (BESS) of at least 25 MW at the Kukurmara Mirza transmission substation. This storage facility, which will be charged using electricity from the solar PV facilities developed under output 1, will improve APDCL's ability to meet peak demand and will provide frequency regulation to improve grid stability.

11. **Output 4: Electricity distribution in project areas enhanced.** The electricity distribution system in the surrounding areas of the proposed solar site in Karbi Anglong district and in the rural parts of the neighboring district of Dima Hasao will be strengthened. The project will finance renovation and upgradation of existing substation, conversion of existing overhead lines to covered conductor⁸ (aerial bundled cable or ABC), and installation of new distribution transformers (DTRs) to be placed on the government land along the road side and associated lines (LT) from each DTRs for capacity enhancement and voltage improvement. Training and awareness programs on safe and efficient use of electricity will be delivered to local communities (including at least 100 women and/or disadvantaged people).

12. The project is aligned with ADB's country partnership strategy for India, 2023–2027, specifically the pillars for accelerating structural transformation and catalyzing climate-resilient green growth and its commitment to an integrated approach for addressing gender inequality and intersecting dimensions of exclusion and vulnerability, including disability, old age, social identity,

⁷ The design and monitoring framework is in the Appendix of the RRP

⁸ New lines are very small and are to be from the DTRs on a low voltage capacity and impact not expected

sexual orientation and gender identity, geographic location, and income.⁹ The project will support (i) ADB's Strategy 2030¹⁰ operational priorities (OP) 1: address remaining poverty and reduce inequalities; OP2: accelerating progress in gender equality; OP3: tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability; and OP6: strengthening governance and institutional capacity; (ii) Sustainable Development Goals (SDG) SDG 5, SDG 7, SDG 10 (reduced inequality), and SDG 13 by providing affordable, clean, and sustainable energy; and (iii) India's climate change mitigation objectives incorporated in the updated nationally determined contributions commitments announced at 26th United Nations Climate Change conference (COP26).¹¹ The project also fully aligns with ADB's energy policy to promote renewable energy to address climate change¹² and to promote inclusiveness in energy access activities.

1.4 RATIONALE FOR COMBINED RESETTLEMENT AND INDIGENOUS PEOPLES PLAN

13. As per ADB's SPS 2009, the indigenous peoples safeguards are triggered if the indigenous people are present in the project area, the project directly or indirectly affects them, can impact the dignity, human rights, livelihood systems, or culture of indigenous peoples or affects the territories or natural or cultural resources that indigenous peoples own, use, occupy, or claim as an ancestral domain or asset. The term indigenous peoples is used in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and (iv) a distinct language, often different from the official language of the country or region. In considering these characteristics, national legislation, customary law, and any international conventions to which the country is a party will be considered. A group that has lost collective attachment to geographically distinct habitats or ancestral territories in the project area because of forced severance remains eligible for coverage under this policy. ADB's SPS, 2009 requires an IPP if project impacts on indigenous peoples are positive or negative, direct, or indirect, temporary, or permanent.

14. Article 366 (25) of the Constitution of India refers to Scheduled Tribes (ST) as those communities, who are scheduled in accordance with Article 342 of the Constitution. This Article says that only those communities who have been declared as such by the President through an initial public notification or through a subsequent amending Act of Parliament will be considered to be Scheduled Tribes. In the Project's context scheduled tribe is considered as indigenous peoples as per ADB's SPS, 2009 definition. Additionally, the Project falls under the Karbi Anglong district which is designated as a notified tribal area under the sixth schedule of the Indian Constitution. All the people residing in the Project area are considered as scheduled Tribes. Karbi Anglong Autonomous Council (KAAC) which is represented as a formal decision-making body with special administrative power and functions independently for the ST people. There will be acquisition of lands that are customarily used, occupied, or claimed by Indigenous Peoples

15. As per ADB's SPS, 2009, the involuntary resettlement safeguard covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement

⁹ ADB. 2023. [Country Partnership Strategy: India, 2023–2027—Catalyze Robust, Climate-Resilient, and Inclusive Growth](#). Manila.

¹⁰ ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila.

¹¹ United Nations. [Sustainable Development Goals. \(Goal 5: Gender Equality; Goal 7: Affordable and Clean Energy; Goal 13: Climate Action\)](#). New York.

¹² ADB. 2021. [Energy Policy Supporting Low-Carbon Transition in Asia and the Pacific](#). Manila (August).

(loss of land, assets, access to assets, income sources, or means of livelihoods) because 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 project will cause both physical and economic displacement.

16. The Project area is predominantly resided by the Indigenous Peoples, i.e, scheduled tribe. People affected by the land acquisition are indigenous peoples/scheduled tribes as the land belongs to the IPs. Project beneficiaries are also mostly STs/IPs. There will be multiple institutions and line agencies which will be involved for both the land acquisition, involuntary resettlement and indigenous peoples planning and implementation. APDCL being the implementing agency will be responsible for both IR and IP Planning and implementation. Considering various common activities, it has been proposed to prepare a combined Resettlement and Indigenous Peoples Plan. However, the RIPP includes all the basic elements of IR and IP Issues as per the SPS, 2009. Separate sections have been provided for IP Impacts beneficial measures and mitigation measures. There is clear identification of institutional roles and responsibilities for IR and IP implementation, mechanism for IR and IP monitoring, and separate budgetary provisions for IR and IP implementation. A combined RIPP will be easy and more effective for its implementation.

17. The RIPP has been prepared in accordance with the requirements of ADB SPS, 2009, national and state laws and regulation. It is prepared to assist the project to meet safeguard objectives (i) to design and implement projects in a way that foster full respect for indigenous peoples' identity, dignity, human rights, livelihood systems, and cultural uniqueness as defined by the indigenous peoples by themselves; and (ii) so that indigenous peoples receive culturally appropriate social and economic benefits, and do not suffer adverse impacts as a result of projects, and can participate actively in projects that affect them. This RIPP safeguards the rights of indigenous peoples to participate and equitably receive culturally appropriate benefits from the project and addresses the impacts related to involuntary resettlement.

1.5 SCOPE OF THE RIPP

18. The project has four components such as (i) Component 1: Sovereign solar photovoltaic electricity capacity increased, (ii) Component 2: Private sector investment in solar photovoltaic capacity enabled, (iii), Component 3: Renewable energy-powered battery storage system piloted and (iv) Component 4: Electricity distribution in project areas enhanced. The RIPP covers all the components. However, the RIPP contains mostly the impacts related to component 1 and component 2 for which land will be acquired from the IP households. Component 3 does not trigger any IR and IP impacts as this will be installed within a fenced boundary of an existing substation. Component 4 does not have IR and IP impacts as there will be no land acquisition and the constructions will be on the existing lines, however, positive impacts are foreseen in terms of benefits to the IPs. Therefore, the RIPP covers mostly the solar components under the component 1 and component 2 for the IR and IP impacts. Due diligence has also been undertaken for component 3 and component 4. Any impacts that may arise during construction by the EPC and/or construction will be assessed and compensated as per the entitlement matrix and Addendum to this RIPP will be prepared. Since this will be EPC contractor, any impact will be known when the contractor will be on the site and makes on-ground design surveys. For any construction related impacts that cannot be assessed now, APDCL will do line specific social assessment and prepare compensation and mitigation measures and prepare Addendum to RIPP and implement it after ADB approval. There is 6 kilometers of transmission lines for power evacuation which is not being funded by ADB and is not included in the RIPP. The transmission evacuation line is an associated facility which will be developed by Central Transmission Utility of

India Limited (CTUIL) following the national rules and regulations¹³ pertaining to transmission lines. This is to mention here that the CTUIL was formerly known as Power Grid Corporation of India Limited (PGCIL) which has its own environmental and social policy and procedures (ESPP)¹⁴ that complies with ADB's SPS requirements .

1.6 APPROACH AND METHODOLOGY

19. The RIPP has been prepared based on primary and secondary sources. Following approach and methodology were adopted to prepare the RIPP:

- Review of project documents including the project components
- Collection of land details and owner's details by APDCL from the council through the revenue secretary and village headman (Gaon Bura)
- Collection of crop areas by APDCL from council and affected persons
- Inventory of Losses and Census surveys of all affected customary land losers
- Socio- Economic Surveys of affected households (30% sample) with collection of gender segregated Information especially on the indigenous peoples
- Disclosure of initial Project Information Booklet (in Karbi language) in all seven villages including affected people
- Inventory of Losses and census Surveys including key socio-economic information of affected tenant households
- Multi stakeholders' consultations including affected persons, village head, council representative, indigenous peoples, women and vulnerable
- Obtaining the Broad Community Support from all seven villages including the affected persons and community members
- Consultation with project beneficiaries and local people to seek their views and support regarding the project and apprising the people regarding the impacts and mitigation measures.
- Special consultations were carried out for IPs with local people in scheduled tribe areas
- Consultation with NGOs
- Collection of unit cost for land, structures, crops and plantation from the line agencies
- Compilation of all field data, digitization of data and preparation of RIPP

1.7 FUTURE CONDITIONS AND NEED FOR UPDATING THE RIPP

20. The RIPP is based on the detailed project Report (DPR). The DPR is based on a preliminary design. The detailed design and the final layout will be done by the developers. However, the RIPP is near to a draft final stage and in an advance stage for implementation as the total land area of the project has been fixed where the Karbi Anglong Autonomous Council (KAAC) has allotted 18,000 bigha land to APDCL for the project. Inventory of losses (IoL)/detailed measurement survey (DMS) and census of affected households have been conducted based on the land details provided by the council. This is an implementation ready RIPP subject to final verification of land ownership, land quantity and valuation of non-land asset by the council and APDCL. The total land area has been fixed and the solar plant will be developed within the total

¹³

- The Electricity Act, 2003
- Ministry of Power (MOP), Guidelines (2015) for payment of compensation towards right of way (ROW) for transmission lines. This allows payment of 85% of land value compensation under the tower footings and 15% of land value compensation within the RoW. This will be in addition to the compensation for loss of crops, trees and other asset

¹⁴ <https://www.adb.org/news/adb-approves-use-india-s-powergrid-safeguard-system-ADB-financed-projects>

allotted land. The project land is a non-cadastral land; therefore, further verification is needed to finalize the details related to ownership and impacts of the customary land owners who are losing the land due to the Project. The solar site is quite vast in area and being the non-cadastral land, the verification assessment will be needed during the project implementation and prior to RIPP implementation for any missed land due to land records or other asset impacts including structures and tenants due to lack of formal records on tenants. Therefore, it is pertinent to do final check survey and the RIPP shall be updated if additional impacts are found during the course of final verification and construction. No construction will commence until the compensation is paid to the affected households where customary land is being affected and where agricultural tenants are using the land for cultivation. Any change in impacts to the current RIPP will be documented and will be informed to ADB and accordingly the RIPP will be updated along with its budget (or Addendum will be prepared as applicable). The solar PV has been divided in to various lots/blocks (6 numbers) and are marked in the google earth image. No physical demarcation has been done on the ground for these lots. The developers for each lot will be making the boundary (barbed wire fencing) for their respective lot. During the final layout, if any lot found to be having no impacts on land acquisition and involuntary resettlement can be taken up for construction for which a due diligence will be conducted to confirm that there is no impact and shall be submitted to ADB.

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II. PROJECT DESCRIPTION

2.1 OVERVIEW

21. The project will finance following high-priority electricity generation, storage distribution investments in Assam under the following components:

- **Component 1: Sovereign solar photovoltaic electricity capacity increased.** The project will finance 500 MW_{AC} of solar PV electricity generation capacity (Solar PV Power Plant, or “SPP”) and related SPP infrastructure (SPPI) in Karbi Anglong district. This will address Assam’s need to enhance its energy security by significantly increasing in-state generation capacity. Training to APDCL staff (including 30% women) on solar and other new technologies will be undertaken.
- **Component 2: Private sector investment in solar photovoltaic capacity enabled.** Transactional advisory support will be provided for development of 250 MW_{AC} SPP capacity through PPP modality using the common solar park facilities. In addition to providing the land and common facilities, options will be examined to reduce the offtake tariff through the strategic deployment of concessional finance. ADB will also assist the government in clarifying and strengthening the PPP framework in the state, building the government’s capacity in developing renewable energy PPP projects, and monitoring and managing the PPP projects.
- **Component 3: Renewable energy-powered battery storage system piloted.** This output will support the equity contribution of APDCL to set up a joint venture with Oil and Natural Gas Corporation Tripura Power Company to develop a pilot grid-connected battery storage installation (BESS) of at least 25 MW at the Kukurmara Mirza transmission substation. This storage facility, which will be charged using renewable energy which will improve APDCL’s ability to meet peak demand and will provide frequency regulation to improve grid stability.
- **Component 4: Electricity distribution in project areas enhanced.** The electricity distribution system in the surrounding areas of the proposed solar site in Karbi Anglong district and in the rural parts of the neighboring district of Dima Hasao will be strengthened. The project will finance conversion of existing overhead lines to covered conductor (Aerial Bundled Cable), installation of new distribution transformers along the road side and on government owned land to be decided during construction for capacity enhancement and voltage improvement¹⁵. Training and awareness programs on safe and efficient use of electricity will be delivered to local communities (including at least 100 women and/or disadvantaged people).

¹⁵ New lines are very small in capacity mostly LT lines from the distribution transformers to the pole. There are 440 volts lines and impacts not expected.

2.2 SOLAR PV PLANT- COMPONENT 1 AND 2

22. The SPP site is located in the East Karbi Anglong district, on the eastern side of the state of Assam. The district is encircled with Golaghat district on the east, Nagaon & Hojai on the West and Dima Hasao on the southern part. The state of Nagaland covers a significant portion of the eastern side of the district. Diphu is the administrative headquarters of the district. The SPP and SPPI comprises 750MWac of Solar PV Power Plant (SPP) and its associated infrastructure, including pooling substation. Power evacuation will be to the national grid via a switching substation and two loop-in, loop-out (LILO) 400kV lines connecting to an existing 400kV line approximately 6 km west of the SPP.

2.2.1 Sub Components

23. Several sub-components are included within each component, as follows:

Component 1:

24. Works funded by ADB include:

- Sub-component 1a: Package 1 – 250MWac SPP in two lots (125MWac each)
- Sub-component 1b: Package 2 – 250MWac SPP in two lots (125MWac each)
- Sub-component 1c: Package 3 – Pooling Substation
- Sub-component 1d: Package 4 – SPP Infrastructure (SPPI)

25. Works not funded by ADB, but are recognized as associated facilities (AF) will also include:

- Sub-component 1e: Switching Substation
- Sub-component 1f: 400kV LILO Transmission Line

Component 2:

- Works under this output include transactional advisory support for development of 250 MWAC capacity SPP through PPP modality using the common solar park facilities – Sub-component 2a.

26. An Engineering Procurement and Construction (EPC) Contractor will be selected through an international competitive bidding process. The EPC Contractor will undertake the detailed design, carry out civil works, supply and install the solar power plant and operate and maintain the SPP for at least three years, after which the EPC Contractor will hand over O&M activities to APDCL, or continue to perform O&M for additional contractual periods as negotiated between them and APDCL.

2.2.2 Other Associated Infrastructure

27. **Solar Plant: Sub-components (1a, 1b & 2a):** The Construction activities for the SPP are the same for all six blocks, or “lots”. Site layouts vary according to preliminary designs. Each lot comprises:

- Development of 125 MWac Solar Power within the corresponding block (includes all related works for supply and installation of PV modules, inverters or power conditioning units, transformers, electrical switch gears, back up batteries, SCADA system, control

rooms, underground cable works, etc.) up to termination at the 33kV switchgear of the 400/33kV pooling substation.

- Labor accommodation and site offices including water and sanitation, security cabin, fabrication yard and workshops, maintenance buildings, stores, etc.
- Power, safety and security systems with fire detection and protection, lighting and CCTV cameras for the corresponding block.
- Storm water drainage and rainwater harvesting ponds for the corresponding block.
- Strengthening of existing village roads through concrete paving and rehabilitation for access to the corresponding block (approximately 7.4km).
- Construction of approach roads¹⁶ with drainage within the SPP site from the public highway (village roads) for access to the corresponding block (approximately 9.6km).
- Construction of internal roads with drainage within the corresponding block for use during O&M of the SPP (routing determined by contractor).
- Construction of security fence and peripheral road (this will be within the acquired land boundary, adjacent to the solar plant site and within the acquired land) with drainage around the boundary of the corresponding block.

28. **SPP Pooling Substation (Sub-component 1c):** A 400/33kV Pooling substation will be constructed within the SPP boundary. The pooling substation is the interconnector between the SPP and the switching substation. The substation building itself will house various facilities, including three power transformers, bus bays, control room, storage areas, office, meeting room, living quarters, kitchen, and bathrooms with shower space. The pooling substation shall be connected via single circuit to single bay allocated in the adjacent switching substation. The pooling substation shall be placed adjacent to the switching substation, which eliminates the requirement for transmission line towers between both substations. The pooling substation will be approximately 19 hectares in size. This will be within the overall solar plant land

29. **Infrastructure (Sub-component 1d):** Package 2: SPPI, scope includes design, construction and commissioning and will be contracted by APDCL under the Assam Solar Project to comprise:

- Strengthening of existing village roads (this will be within the acquired land boundary, adjacent to the solar plant site and within the acquired land) through concrete paving of carriage way for remaining blocks in the main plant (5.6km approximately)
- Remaining approach roads¹⁷ with drainage from public highway to remaining blocks in the SPP (11 km approximately)
- Construction of internal roads¹⁸ with drainage within the common (administrative) area for use during O&M of the SPP (routing determined by contractor).
- SPP compound wall (54.5 km approximately) encompassing SPP project and associated facilities with gates and watch towers.
- Administration (common) building and parking area with canteen and APDCL staff quarters including water (new borewells) and sanitation.
- Labor accommodation and site offices including water and sanitation, security cabin, quality control laboratory, workshop, garage, stores, etc.
- Common SPP power, safety and security systems including the installation of 33kV underground cabling for the common (administrative) area from the 400/33kV pooling substation with control panel and 33kV/415V transformer, diesel generator set, back up

¹⁶ The construction does not require additional land as no widening will be required and construction of roads will ensure no further land acquisition

¹⁷ No widening is required

¹⁸ Internal roads will be undertaken within the acquired land and within the solar PV boundary.

batteries, air conditioning and ventilation, fire detection and prevention, lighting and CCTV cameras.

30. **Switching Sub-station and 400kV LILO Transmission Line (Sub-components 1e & 1f):** APDCL has made separate power evacuation arrangements with Central Transmission Utility (CTU) which is a wholly owned subsidiary of Power Grid Corporation of India Limited for power evacuation of the entire 750 MW SPP via two 400kV LILO lines. Each LILO is around 6 km in length and connects to an existing transmission line. CTU will also construct a switching substation adjacent to the SPP Pooling SS, outside of the SPP site boundary. Both the LILO and the switching substations are not funded by ADB but are classified as associated facilities.

2.2.3 Core Features and Locations

31. The solar PV Plant will be located in the Karbi Anglong district of Assam state. Core features are described in **Table 1** and the locations are depicted in **Figure 1** and **Figure 2**

Table 1: Project Components

| Particulars | Description |
|------------------------------------|---|
| Project Location/Villages | Part of 7 Villages: Lahorijan Khatkhati Borlengrijan Karagaon Longkathar Lalmati, Nahorijan |
| Tehsil/Division | Diphu |
| District/State | Karbi Anglong District/ Assam, Scheduled Tribe Area |
| Location Co-ordinates | Latitude – 25°56'14.75"N Longitude – 93°42'11.10"E |
| Capacity | 1000 MWp |
| Power Evacuation | The power will be evacuated at 400kV LILO (Line in Line Out) connection at the existing transmission line, which is connected to MISA and MARIANI substation at 100km distance from the project site. |
| Site Condition | Shrub land with woody vegetation |
| Road Accessibility | Through existing National highway 129 and State Highway 29 |
| Nearest Airport | Dimapur Airport, 9.5 km SE |
| Total Area Allotted by the Council | 18, 000 Bigha (2400 hectares) |

Figure 1: Solar PV Location

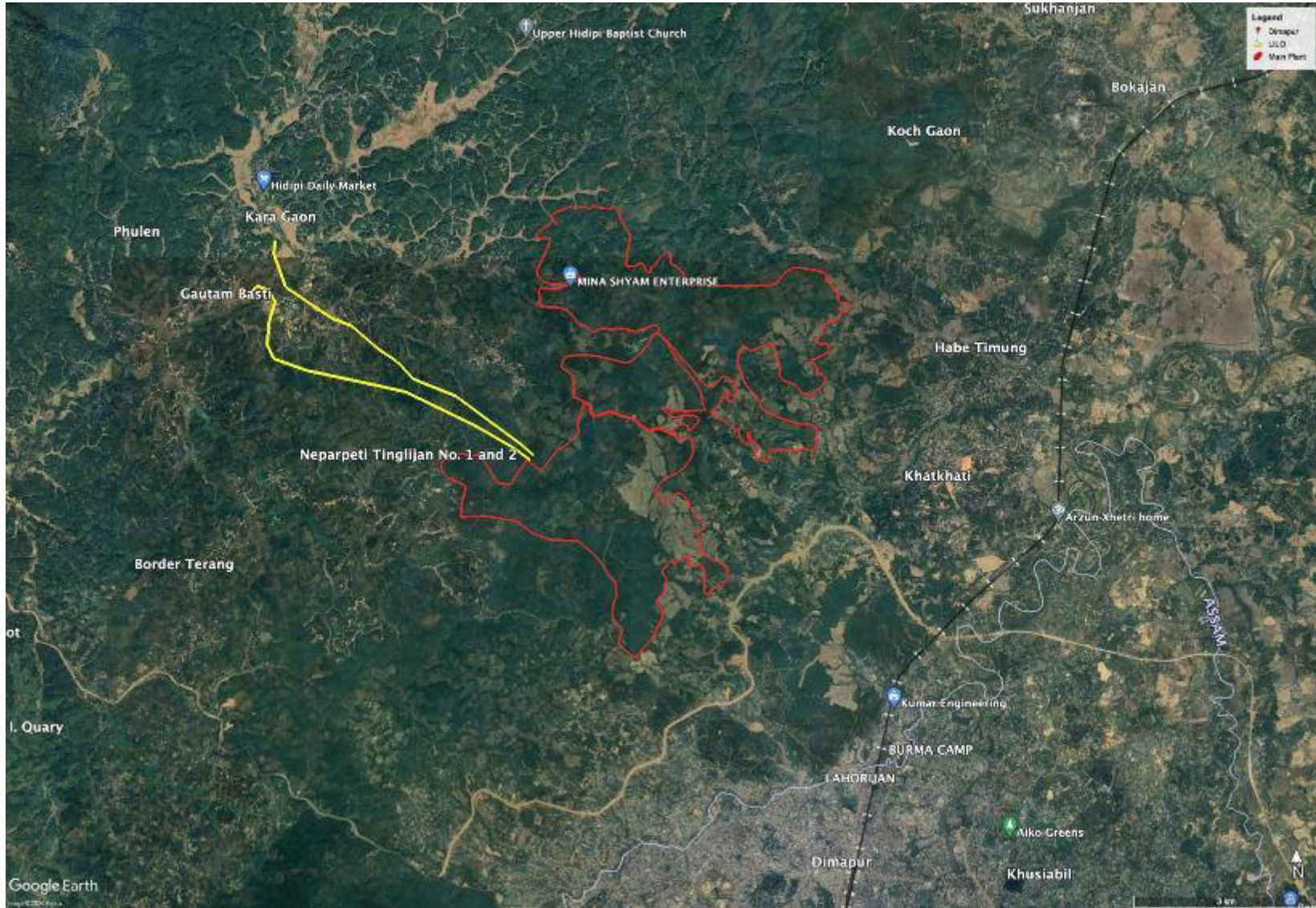
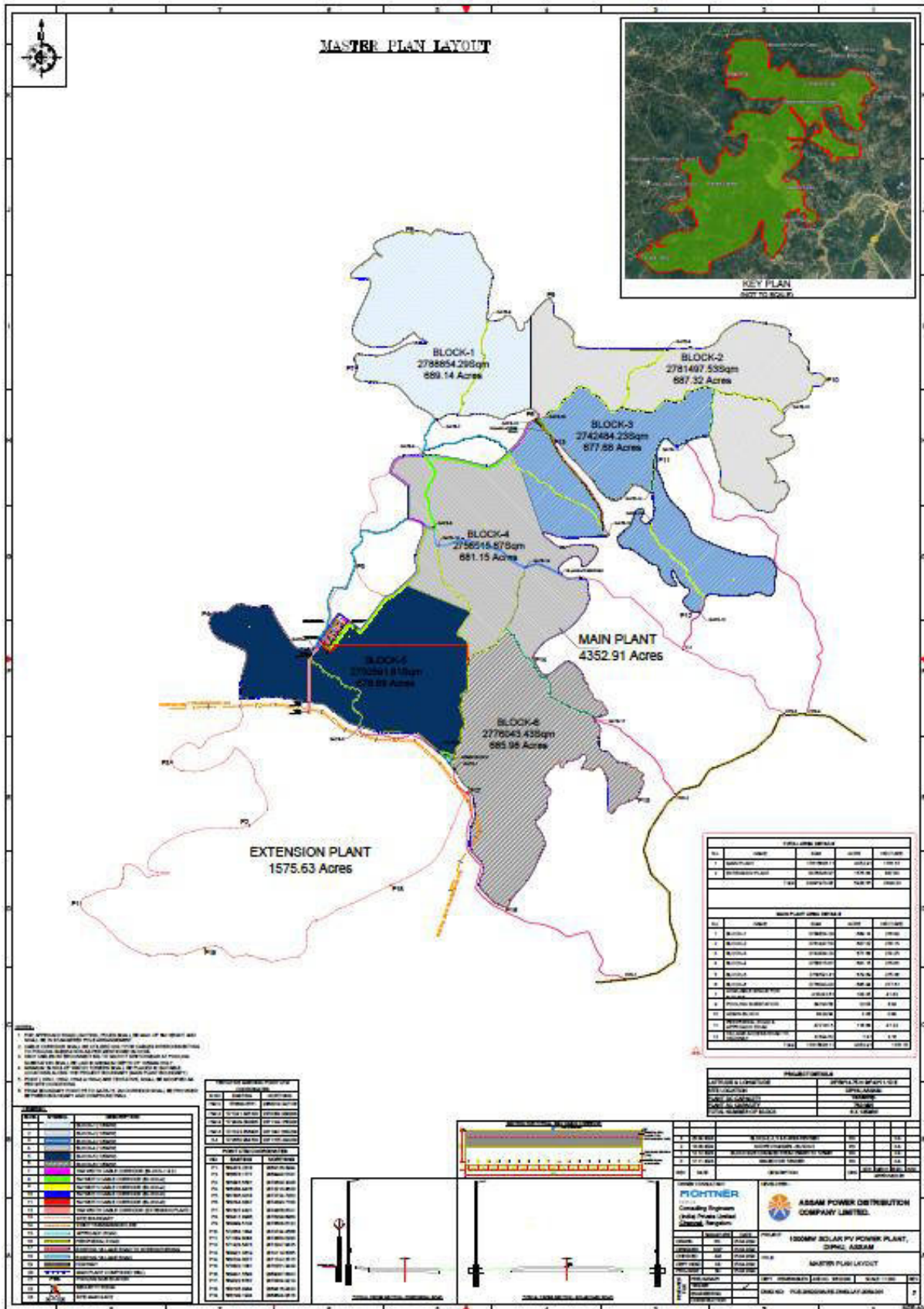


Figure 2: Block Layout



2.3 Renewable Energy-Powered Battery Storage System (Component-3)

32. This output will support the equity contribution of APDCL to set up a joint venture with Oil and Natural Gas Corporation (ONGC) Tripura Power Company to develop a pilot grid-connected battery storage installation (BESS) of at least 25 MW at the Kukurmara Mirza grid transmission substation. This storage facility, which will be charged using electricity from the Solar Power Plant (in Karbi Anglong District) to be developed under Output 1. This will improve APDCL’s ability to meet peak demand and will provide frequency regulation to improve grid stability. The BEES will be installed for the Mirza 400kV grid substations. The grid substation details to be integrated with the BEES is provided under the existing facilities section. The location map is provided in **Figure 3**.

Figure 3: Location Map of BSES

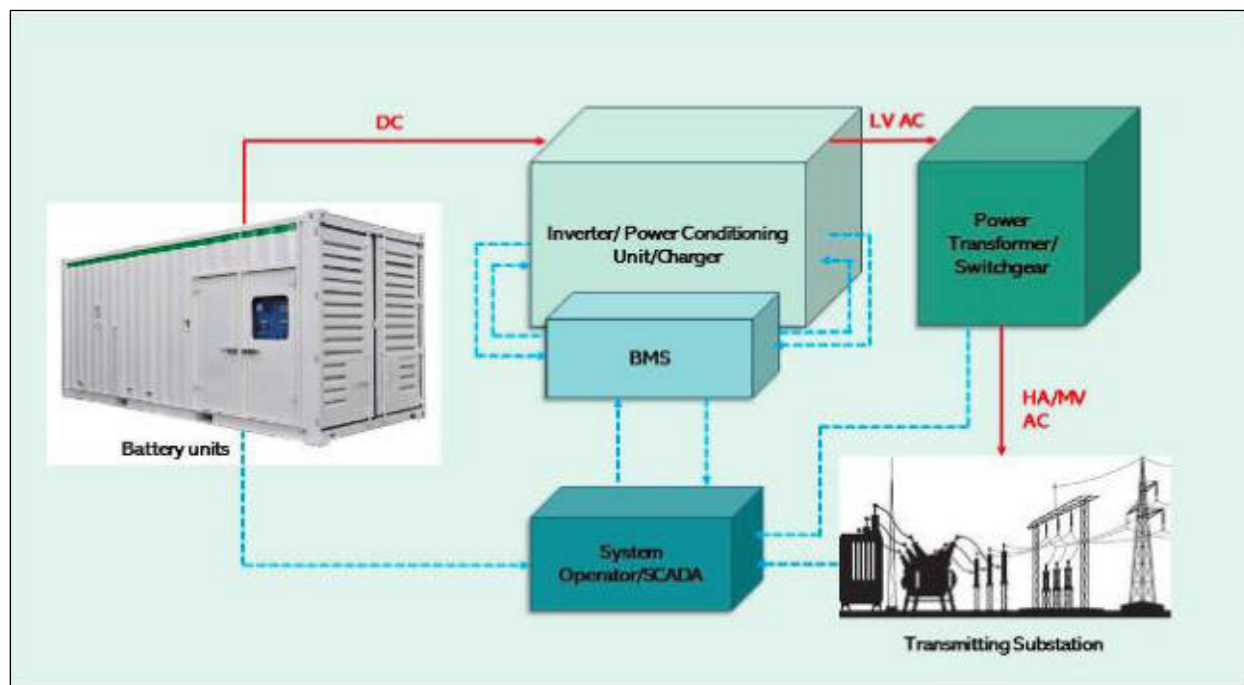


33. Detailed design of the complete BESS project includes power cabling and connectors, temperature considerations, voltage ratings, grounding requirements, thermal management systems, battery management systems, fire suppression systems, Switchyard and grid interface, civil infrastructure such as foundation, fencing, roads. The layout is shown in **Figure 4**. Equipment and components will include the following:

- Battery Modules,
- Battery Management System (BMS),
- Power Conversion System (PCS),
- Energy Management System (EMS),

- Ancillary Equipment: fire suppression, security, and HVAC,
- Enclosures/Containers: for the necessary enclosures and control rooms,
- Cabling and Interconnections, and
- Civil Works: Including foundation, drainage, roads, and fencing

Figure 4: Layout of BSES

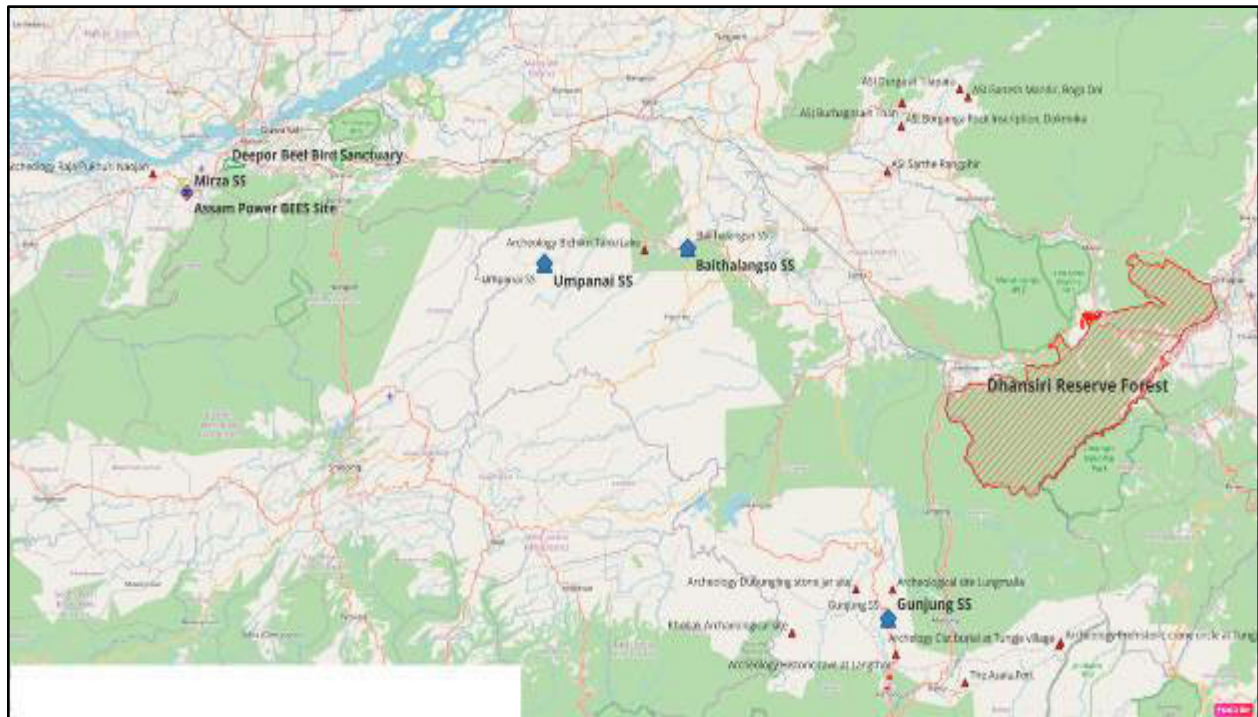


2.4 Electricity Distribution in Project Areas (Component-4)

34. The electricity distribution system in the surrounding areas of the proposed solar site in Karbi Anglong East district and in the rural parts of the neighboring district of Dima Hasao will be strengthened. The project will finance renovation and upgradation of existing 3 (three) substations, reconductoring of bare 11kV lines and conversion to covered conductor (CC), and conversion of bare 0.4 kV low tension (LT) lines to aerial bundled cable (ABC), installation of new distribution transformers and associated lines for capacity enhancement and voltage improvement, and grid extension to bring remaining off-grid electricity consumers if any in the surrounding area to the national grid. This output will so support training and awareness programs on safe and efficient use of electricity will be delivered to local communities (including at least 100 women and/or disadvantaged people). The list of substations under component 4 is given in **Table 2** and the location map is shown in **Figure 5**.

Table 2: Substations R&M Works

| #. | Substation Name | Location (District) | EC | ED | Grid Coordinates | Scope of Work |
|----|-----------------|---------------------|-------|------------|---------------------------------|---|
| 1 | Gunjung | Dima Hansao | Kanch | Haflong | 25°18'18.66"N, 93° 0'52.38"E | <ul style="list-style-type: none"> Replacement of one damaged 5 MVA PTR with a new 3-phase, 50 hertz 5 MVA oil filled PTR sited on new transformer pad |
| 2 | Baithalangso | Karbi Anglong | Kanch | Howrag hat | 25°58'2.54"N, 92°35'50.21"E | <ul style="list-style-type: none"> New 33kV incomer and associated equipment * Installation of 33kV bus isolator with structure and foundation Installation of new 3-phase, 50 hertz 2.5 MVA oil filled PTR with transformer pad |
| 3 | Umpanai | Karbi Anglong | Kanch | Howrag hat | 25°56'25.87"N, 92°17'56.99"E | <ul style="list-style-type: none"> New 33kV incomer and associated equipment * 33kV bus isolator with structure and foundation Installation of new 3-phase, 50 hertz 2.5MVA oil filled PTR with transformer pad |

Figure 5: Location Map of Substations R&M Work

35. Distribution line Work compromise of installing and upgrading 546.5km of 11 kV and low-tension distribution lines. The 11kV and 0.4kV LT lines are all falling under the KANCH Electrical Circle (EC) under Nagaon Zone of Central Assam Region of APDCL and will cover two districts such as Kabi Anglong and Dima Hasao. The scope of works includes reconductoring 11kV distribution lines using covered conductors, new overhead 11kV covered conductor lines, and conversion of bare to ABC overhead lines. Details on the list of distribution lines covered under the Project is provided in **Table 3**.

Table 3: Project Distribution Works

| SI No | Scope of Work | Unit | East and West Karbi Anglong District | Dima Hasao District | Total |
|--|--|-----------|--------------------------------------|---------------------|---------------|
| B. Installation of New DTR and Lines | | | | | |
| B1 | Installation of New 11/.415 kV, 100 kVA DTR | nos. | 17 | 8 | 25 |
| B2 | Installation of New 11/.415 kV, 63 kVA DTR | nos. | 19 | 12 | 31 |
| B3 | Installation of New 11/.415 kV, 25 kVA DTR | nos. | 11 | 16 | 27 |
| B4 | Installation of New 11/.415 kV, 250 kVA DTR | nos. | 5 | 0 | 5 |
| | Total (New DTR Addition) | nos. | 52 | 36 | 88 |
| B5 | 11 kV covered conductor associated with New DTR | km | 30.75 | 8.75 | 39.5 |
| G1 | Proposed Associated LT Line (3 Phase) – ABC | km | 29.3 | 7.1 | 36.4 |
| G2 | Proposed Associated LT Line (1 Phase) - ABC | km | 43 | 8.2 | 51.2 |
| | Total (DTR associated LT Line) | | 72.3 | 15.3 | 87.6 |
| D. R&M and Reconductoring of Existing 11 KV Line | | | | | |
| D1 | Reconductoring of 11 KV feeder using GI Steel Tubular Pole SP-56 with Medium Voltage Covered Conductor | km | 36.0 | 23.0 | 59.0 |
| F Conversion of Existing LT line to Arial Bunched Cable | | | | | |
| F1 | Conversion of Existing 3-Ph LT line with 3C x 120 sq. mm + 1C x 95 sq. mm Bare to ABC on SP-22 Poles | km | 92.6 | 29.3 | 121.9 |
| F2 | Conversion of Existing 1-Ph LT line with 1C x 70 sq. mm + 1C x 70 sq. mm Bare to ABC on SP-22 Poles | km | 162.6 | 76.25 | 238.85 |
| | Total (LT Bare to ABC Conversion) | km | 255.2 | 105.55 | 360.75 |
| | Total 11kV CC | km | 66.3 | 31.75 | 98.05 |
| | Total LT ABC | km | 327.6 | 120.85 | 448.45 |
| | Total line (11kV and LT) | km | 393.9 | 152.6 | 546.5 |

III. SCOPE OF LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

3.1. OVERVIEW

36. This chapter provides detailed assessment of impacts on land acquisition and involuntary resettlement for all project components and output. Components 1 and 2 (solar PV) requires land acquisition causing physical and economic displacement. For the solar PV component, detailed inventory of land and non-land asset has been done along with the technical team to assess the impact on land acquisition and involuntary resettlement. Inventory of losses (IOL)/detailed measurement survey (DMS) and census survey (Refer to **Appendix-1** for IOL and census survey questionnaire) of affected households have been undertaken along with collecting basic socio-economic information of affected households. The land, in principle, belongs to the Karbi Anglong Autonomous council. KAAC is responsible for managing the land in the district in terms of allotment of land for various development activities, allotting the user rights to the IPs for residential and agricultural purposes and therefore, KAAC is considered as the owner of the land¹ in the sixth schedule area. KAAC has already agreed in principle to allot and hand over 18,000 bigha (equivalent to 2400 hectares of land) to APDCL (Refer to **Appendix-2** for office order). However, council provides customary land rights to people for use of land for various purposes and 1,277 of private customary land rights will be acquired. There are also 102 agricultural tenants using the land under the private customary rights. Additionally, supplementary census survey (Refer to **Appendix-3** for supplementary questionnaires for Tenants) was undertaken for the agricultural tenants. Component-3 covers the battery storage which will be constructed withing the existing substation. Component-4 covers distribution augmentation which does not require land acquisition. Any minimal temporary impacts as loss of trees or crops may be assessed upon finalizing the alignment by the EPC and compensated before construction and unpredictable ones during construction. Project has taken appropriate measures to minimize resettlement by choosing unused council owned land for solar PV and choosing existing facilities for augmentation and battery storage. Key impacts covered in the following sections are: impacts on land, buildings and structures, crops, trees, loss of business, loss of income and livelihood, impacts on vulnerable affected households, severity of impact on households, and tenant and impact on common property resources.

37. The solar PV has been divided into 6 lots and those lots not expected to have IR impact that has to be confirmed by the APDCL when physical demarcation of each lot will be done by the developer and upon field surveys of the developer/EPC contractor before construction works.

3.2. LAND ACQUISITION AND IR IMPACT FOR COMPONENT 1 AND 2 (SOLAR PV)

3.2.1. MINIMIZING RESETTLEMENT

38. The project planning took various measures to minimize land acquisition and resettlement impacts. Alternate sites were examined during feasibility study to find best suitable site having less safeguards impacts. The site was finalized based on the techno-economic viability and safeguards viability. APDCL consulted with the KAAC to find land which has less productive value

¹ It is accepted phenomenon that hill tribes are yet to receive legal entitlement over land in many areas since they have been cultivating for decades under the communal ownership of the land. According to the customary law of Karbis, land was viewed as communal property and managed by the community through various sets of customary rules over generations. The tribals did not experience any scarcity of land since their headman allotted large amount of jhum land according to the need of the community. There was also no monetary value attached to these lands as these were not considered 'valuable property' rather community property. Its ownership is vested with the community whose leader distributed jhum land to each family. No outsider could claim any plot of land within their territory.

and a smaller number of customary users. APDCL was allotted a total of 18,000 bigha of land of which only 1498 bigha of land is under productive use (12%) and the remaining are not in productive use. Although, there are physical displacement, however the numbers are not huge compared to the total land area required for the solar PV. Another measure was taken where it was found that the site is away from the villages and the villages are not affected entirely except some loss of customary land used for cultivation. Attempt was also made that none of the people become landless. Physical displacement occurred at some places which are addressed through compensation and alternate land for relocation. Any unanticipated impacts in the future will be assessed and minimized further and in unavoidable then it will be compensated.

3.2.2. IMPACT ON LAND

39. A total of 18,000 bigha of land will be required for the construction of solar PV plant and its associated facilities such as boundary, internal roads, staff quarter, switching stations etc. Out of the total 18,000 bigha² (2400 ha), 16,511 bigha (2201.5 ha) is KAAC land and 1,489 bigha (198.5 ha) is customarily owned land by the indigenous people/ scheduled tribe for which KAAC has issued customary rights to the land users. Only 8.2% of the land belongs to customary land/privately owned land which will be acquired. KAAC land is considered as government land without having any customary users where as customary land is considered to be the land being used by individual owners/households.

3.2.2.1. Village Wise Land Acquisition Details

40. Total customary owned land to be acquired is 1489 bigha 1 katha and 05 lessa. Khatkhati Bonogrunng Gaon has the highest impact followed by Long Kathar Block No-1 and Long Kathar Block No-2. Village wise details of land to be acquired is provided in **Table 4**.

Table 4: Village Wise Details of Land Acquisition

| # | Name of village | Total no. of affected family | Area of land | | |
|----|-------------------------------------|------------------------------|--------------|----------|-----------|
| | | | Bigha | Katha | Lessa |
| 01 | Kara Gaon Block No.3 | 3 | 10 | 3 | 5 |
| 02 | Khatkhati Bongrunng Gaon Block No.8 | 997 | 820 | 4 | 17 |
| 03 | Long Kathar Block No.1 | 183 | 310 | 0 | 10 |
| 04 | Long Kathar Block No.2 | 1 | 8 | 1 | 10 |
| 05 | Long Kathar Block No.2 Sheet No.2 | 84 | 262 | 4 | 3 |
| 06 | Long Kathar Block No.4 | 9 | 76 | 2 | 0 |
| | Total | 1,277 | 1,489 | 1 | 05 |

Source: KAAC and APDCL

3.2.2.2. Type of Land

41. The land is unirrigated and rain fed. Usually the land is used for Jhum cultivation³. Details on type of land is given in **Table 5**.

² 7.5 bigha is 1 ha

³ Jhum cultivation is the major source of livelihood pattern of rural tribal people including Karbi and non-Karbi tribal people on high altitude areas of Karbi Anglong District. It is the community farming system and way of life and socio-economic development of the indigenous tribal people. This is a shifting cultivation which is practiced along the hill slopes in Karbi Anglong District for subsistence living. It is an old agricultural system in which plot of land are cultivated temporarily. Shifting cultivation involves cleaning of forest area in hill slope.

Table 5: Type of Land

| # | Type of Land | Number of HH | %Age |
|---|---------------|--------------|-------|
| 1 | Irrigated | 0 | 0.0 |
| 2 | Non-Irrigated | 1237 | 100.0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.2.3. Ownership of Land

42. All the land in the study area is managed by KAAC and KAAC provides user rights to customary land owners. Details on type of ownership is given in **Table 6**.

Table 6: Ownership of Land

| # | Ownership of the Land | Nos | %Age |
|---|---|------|-------|
| 1 | Tribal council land having customary use rights | 1237 | 100.0 |
| 2 | Private | 0 | 0.0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.3. CROP, TREES AND PLANTATION

43. In addition to the land surveys, Zirat survey is undertaken to assess the loss of crops, trees, plantation and any other asset attached to the affected land. Zirat survey is done by the council through its revenue and horticulture department. Zirat surveys shows that there are three types of plantation/crops in the project affected land which are rubber, chitranala and bamboo. The area affected by rubber plantation area is 270 bigha, chitranala is 480 bigha and bamboo is 50 bigha. These crops/plantations are grown by the individual customary owners. Details are provided in **Table 7**.

Table 7: Zirat/Plantation Details

| # | Type of Zirat/Plantation | Area of Cultivation (Bigha) |
|---|--------------------------|-----------------------------|
| 1 | Rubber | 270 |
| 2 | Chitranala | 480 |
| 3 | Bamboo | 50 |
| | Total | 800 |

Source: KAAC and APDCL

3.2.4. IMPACT ON STANDING CROPS

44. The major crops grown in the project area are paddy, brinjal, chilli, vegetables, peas and rajma. About 56.8 bigha of cultivated area is under cultivation of paddy, followed by 9.9 and 9.8 bigha under ginger and vegetables respectively. The maximum yield is for paddy with total yield of 461.91 quintals with average yield of 8.13. The average market price of ginger is highest at Rs. 9000 per quintal, followed by Rajma (Rs. 6000/kg) and peas and chilies (Rs. 5000/kg). The details are given in **Table 8**.

Table 8: Crops, Area Under Cultivation, Yield and Average Price

| # | Name of Crop | No of HH | %age | Cultivated Area (Bigha) | Total Yield in quintals | Average Yield per quintals | Average Market Price per quintals |
|---|--------------|----------|------|-------------------------|-------------------------|----------------------------|-----------------------------------|
| 1 | Paddy | 89 | 7.2 | 56.8 | 461.91 | 8.13 | 2420 |
| 2 | Vegetables | 19 | 1.5 | 9.84 | 51.4 | 5.22 | 3248 |
| 3 | Rajma | 6 | 0.5 | 0.58 | 1.35 | 2.33 | 6000 |
| 4 | Pea | 9 | 0.7 | 0.92 | 3.3 | 3.59 | 5000 |
| 5 | Ginger | 20 | 1.6 | 9.9 | 54.75 | 5.53 | 9000 |
| 6 | Chilli | 25 | 2.0 | 8.5 | 41.85 | 4.92 | 5000 |
| 7 | Brinjal | 13 | 1.1 | 1.44 | 5.75 | 3.99 | 3400 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5. IMPACT ON STRUCTURE – CUSTOMARY OWNERS

45. A total of 38 structures will be affected which are owned by the 32 households/owners. The structures belong to the titled customary owners. All the structures are used for residential purpose and all are located in Rengma Basti in Long Kathar village. Out of the 38 structures, 33 are prime residential structures and other 5 are auxiliary structures associated with the main residential structures. The settlement is in rural area. The residential houses are built in their customary land. The houses are used for residential purpose and does not have any tenants. All the affected households are aware about the project. These households are considered as physically displaced. Additionally, two religious' structures (Church) are affected which needs relocation. Census of all households losing structures have been conducted and measurement was done. Following section describes about the structure details and photographs of each structure are provided in **Appendix-4**.

3.2.5.1. Builder of the Structure

46. Out of the total households surveyed, the owners have themselves built 32 of the structures and one of the structures is religious. Details are given in **Table 9**.

Table 9: Builder of the Structure

| # | who has built | No of HH | %Age |
|---|-------------------------|----------|------|
| 1 | Owner | 32 | 100 |
| 2 | Tennant / Share cropper | 0 | 0 |
| | Total | 32 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5.2. Size of the Affected Structure

47. The total area of the affected structures is 1540.2 sq m. The average height of the structure is 4.06 meter. Details are provided in **Table 10**.

Table 10: Dimension of the Structure

| | | |
|---------------------------------------|--------|---------------|
| Total area of the affected structures | 1540.2 | square meters |
| Average height of the structures | 4.06 | meter |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5.3. Impact on the Affected Structure

48. Scale of impacts was measured for each structure. All the structures are fully affected. Details of the impact on the affected structures are given in the **Table 11**.

Table 11: Scale of Impact

| # | Scale of Impact on structure | No of HH | %Age |
|---|------------------------------|----------|------|
| 1 | Less than 50 % | 0 | 0 |
| 2 | 51 to 90 % | 0 | 0 |
| 3 | 100% | 33 | 100 |
| | Total | 33 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5.4. Type of Construction

49. The type of construction varied from structure to structure, however, these are considered as permanent in nature. Out of the surveyed structures, about 85 % of the structures are made of mud/brick/wood and thatched or tin roof but are considered as permanent in nature. 15 % of the structures are having tiled roof and cement floors. Details are provided in **Table 12**.

Table 12: Type of Construction

| # | Type of Construction | No of HH | %Age |
|---|---|----------|------|
| 1 | Buildings with mud/brick/wood made walls, thatched / tin roof | 28 | 85 |
| 2 | Buildings with tiled roof and normal cement floor | 5 | 15 |
| | Total | 33 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5.5. Age of the Structure

50. Out of the surveyed structures, the age of construction of the maximum structures (42%) is between 5 – 6 years, followed by 7 to 10 years (18%) and 3 to 4 years (15%). Details are provided in **Table 13**.

Table 13: Age of the Structure

| # | Age of the structures | No of HH | %Age |
|---|-----------------------|----------|------|
| 1 | Less than 6 months | 3 | 9 |
| 2 | 1 to 2 years | 2 | 6 |
| 3 | 3 to 4 years | 5 | 15 |
| 4 | 5 to 6 years | 14 | 42 |
| 5 | 7 to 10 years | 6 | 18 |
| 6 | 10 + years | 3 | 9 |
| | Total | 33 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.5.6. Compensation and Relocation Option for the Structure

51. All the affected households prefer cash compensation⁴ for both land and structure loss. The details regarding the options are described in **Table 14**.

Table 14: Compensation Options for Land Loser

| # | Compensation Option for Land loser | No of HH | %Age |
|---|------------------------------------|----------|------|
| 1 | Land for land loss | 0 | 0 |
| 2 | Cash for Land loss | 32 | 97 |
| 3 | NA | 1 | 3 |
| | Total | 33 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

52. Although they prefer cash compensation, however, they still need project assisted relocation support. Out of the 32 affected structures, 26 viewed that they do not have any alternate land under the current ownership where they can shift and they expect that KAAC shall issue alternate land allotment for building new houses after availing compensation⁵.

3.2.5.7. Impact on Church- Religious Structure

53. There are two small semi-permanent Churches which will be affected. The Church is used by the affected persons whose houses are being affected by the project. The church will be relocated on a mutually agreed location through consultation with affected persons and village community. Photographs of the church is depicted in **Figure 6**.

Figure 6: Affected Church



IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6. OTHER FINDINGS OF THE CENSUS SURVEYS

54. This subsection provides details on the other findings of the affected households census surveys. Total affected IP households/family losing customary owned lands are 1,277. However, the survey was conducted for 1237 number households (97% of total 1,277) as the remaining 40

⁴ This is the findings from individual owners from the census survey. Although, during consultations, cash and land for land options was mentioned by some participants

⁵ APDCL ensures that relocation site will be identified by the KAAC prior to displacement and the implementing RIPP NGO/Agency will work with the KAAC and affected households to find out a suitable relocation sites.

households were absentee during the census surveys. The APDCL shall locate the missing households and households' data will be updated prior to the RIPP implementation. Therefore, the following findings are based on the survey of 1237 households.

3.2.6.1. Affected Households and Persons

55. The total affected households found during the census survey losing customary land is 1237. Although total number of affected households 1277 and 40 were absentee during the surveys. Total number of affected persons 4912 (average 4 person per family) of which 2721 are male APs and 2191 are female APs. Details of the affected surveyed households are provided in **Table 15**.

Table 15: Affected Households and Persons

| # | Particulars | Quantity |
|---|---------------------|----------|
| 1 | Affected HH | 1237 |
| 2 | Affected Persons | 4912 |
| 3 | Male APs | 2721 |
| 4 | Female APs | 2191 |
| 5 | Average Family Size | 3.97 |
| 6 | Sex Ratio | 805 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.2. Vulnerable Households

56. In the study area, 100% of the HHs belong to scheduled tribes. Further 16.9% of the HHs are headed by elderly person and 9.3% of the HHs are women headed households. There are 31 HHs living below poverty line. There are no non-titleholders or landless households. There are also no households headed by disabled persons. Details are provided in **Table 16**.

Table 16: Vulnerability Status

| # | Vulnerable Group | HHs | Percent |
|---|----------------------------|------|---------|
| 1 | Woman Headed | 115 | 9.3 |
| 2 | Headed by Disabled | 0 | 0 |
| 3 | Living Below Poverty Line | 91 | 7.3 |
| 4 | Headed by Elderly Person | 209 | 16.9 |
| 5 | Landless Households | 0 | 0 |
| 6 | Non-Titled Households | 0 | 0 |
| 7 | Scheduled Tribe Households | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.3. Religious Composition of Affected Households

57. Although, all the affected households belong to scheduled tribe households, however, they have different religious practices. Most of them are Hindu (97.01%) and remaining are Christian (2.9%). Details are provided in **Table 17**.

Table 17: Religious Affiliation of AHs

| # | Religion | Household | %Age |
|---|-----------|-----------|-------|
| 1 | Hindu | 1201 | 97.1 |
| 2 | Muslim | 0 | 0.0 |
| 3 | Christian | 36 | 2.9 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.4. Caste Composition

58. Caste composition reveals that all the affected households belong to scheduled tribe. Details are provided in **Table 18**.

Table 18: Caste Composition

| # | Caste | Household | %Age |
|---|---------|-----------|-------|
| 1 | General | 0 | 0.0 |
| 2 | SC | 0 | 0.0 |
| 3 | ST | 1237 | 100.0 |
| 4 | OBC | 0 | 0.0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.5. Type of Settlement

59. All the households covered in the project area belong to rural areas. Details are provided in **Table 19**.

Table 19: Type of Settlement

| # | Type of Settlement | Nos of HHs | Percent |
|---|--------------------|------------|---------|
| 1 | Rural | 1237 | 100 |
| 2 | Semi-Urban | 0 | 0 |
| 2 | Urban | 0 | 0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.6. Awareness about the Project

60. Almost all the APs were aware of the project (99.9%). Only one respondent was unaware of the project. The details are given in **Table 20**.

Table 20: Awareness of the Project by the AHs

| # | Aware of the Project | Nos of HHs | Percent |
|---|----------------------|------------|---------|
| 1 | Yes | 1236 | 99.9 |
| 2 | No | 1 | 0.1 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.7. Availability of Land for Cultivation

61. During census, information was also collected regarding the availability of land for cultivation. It is found that most of the households have alternate available land to resume their cultivation. Details are provided in **Table 21**.

Table 21: Availability of Alternate Land

| # | Availability of additional land | Household | %Age |
|---|---------------------------------|-----------|-------|
| 1 | Yes | 1237 | 100.0 |
| 2 | No | 0 | 0.0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.8. Significance of Land Impact

62. The significance of impact is calculated based on the affected land in comparison to the total land holding of each affected household. It is found that most of the households (54.8%) lose less than 10% of their total land followed by 32.9% losing between 10% to 20%. None of the households render landless. Details are provided in **Table 22**.

Table 22: Significance of Impacts on Land

| # | Significance of Impact | Household | %Age |
|---|------------------------|-----------|-------|
| 1 | Less than 10 % | 700 | 54.8 |
| 2 | 10.1 to 20 % | 420 | 32.9 |
| 3 | 20.1 to 30 % | 109 | 8.5 |
| 4 | 30.1 to 40 % | 30 | 2.3 |
| 5 | 40.1 to 50 % | 16 | 1.3 |
| 6 | 50.1 to 60 % | 2 | 0.2 |
| 7 | More than 60 % | 0 | 0.0 |
| | Total | 1277 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.9. Average Earning from Various Sources

63. The average annual earning of the 1237 HHs surveyed is Rs. 406703. About 56 % of the HHs earn between Rs. 1.5 -2.0 lac annually followed by 16.2% of the HHs earning between Rs. 2.0-3.0 lac annually. Only 0.3% of the population earn above Rs. 50 lacs annually. The details of income are given in **Table 23**.

Table 23: Earning Pattern of the Affected Family

| # | Annual Income (Rupees) | Household | %Age |
|---|--------------------------|-----------|------|
| 1 | Up to Rs 100000 | 13 | 1.1 |
| 2 | Rs 100001 to Rs 150000 | 24 | 1.9 |
| 3 | Rs 150001 to Rs 200000 | 696 | 56.3 |
| 4 | Rs 200001 to Rs 300000 | 201 | 16.2 |
| 5 | Rs 300001 to Rs 500000 | 141 | 11.4 |
| 6 | Rs 500001 to Rs 1000000 | 38 | 3.1 |
| 7 | Rs 1000001 to Rs 1500000 | 83 | 6.7 |

| # | Annual Income (Rupees) | Household | %Age |
|----|--------------------------|-----------|-------|
| 8 | Rs 1500001 to Rs 2500000 | 18 | 1.5 |
| 9 | Rs 2500001 to Rs 5000000 | 19 | 1.5 |
| 10 | Above Rs 5000000 | 4 | 0.3 |
| | Total | 1237 | 100.0 |
| | Average Annual Income | 406,703 | |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.6.10. Compensation Option

64. Various options were explored for compensation. Affected Households were asked about their preference for compensation option. It is found from the survey that all the affected households prefer cash compensation as they have alternate land⁶. Details are provided in **Table 24**. Most of the affected persons expect employment opportunities during consultations. Although, it is decided that cash compensation will be provided for loss of land, however, KAAC will explore in identifying alternate land and allowing affected persons for jhum cultivation. This will further be explored during the implementation by the implementing NGO/Agency.

Table 24: Compensation Option

| # | Compensation Option for Land loser | Household | %Age |
|---|------------------------------------|-----------|-------|
| 1 | Land for land loss | 0 | 0.0 |
| 2 | Cash for Land loss | 1237 | 100.0 |
| | Total | 1237 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7. IMPACT ON AGRICULTURAL TENANTS (NON-IPs)

65. In Karbi Anglong District there is “Paikas” system. “Paikas” means a system prevalent under which an amount of money is taken in advance from a cultivator by a settlement holder for cultivation of the land by the cultivator and includes a person who cultivates any land under this system for a specific period. The agricultural tenants are using the land of customary land owners under the “Paikas” system. The tenants are non-IPs and migrated from adjacent districts while having the permanent residence in their respective native districts. Agricultural tenants using the land of the customary land owners will be directly affected by the project. A census survey with the tenants was done to collect data on socio-economic profile, type and extent of land use, and structures and other assets affected. There is a total of 102 agricultural tenants who are using the land of the customary land owners. It is found during the survey that they have built temporary and semi-permanent structures on the leased land for the duration of their stay /lease period to cultivate the land and they stay there with family temporarily for the leased period. IOL and census survey was conducted for 89 affected tenants (87% of the total tenants) and 13 were missing during the census surveys. The missing tenants will be taken in into the list of affected tenants during the implementation and will be eligible for the compensation and assistance. The findings of the survey are described in the below sections and some sample photographs of tenant structures are provided in **Appendix 5**.

⁶ These are the findings from the census surveys from individual landowners. However, some people express their preference for land for land compensation during consultation. This is subject to land availability and council's ability find available suitable lands and make decision. However, alienate land will be provided to physically displaced customary landowners/affected households

3.2.7.1. Location of the Tenants

66. The agricultural tenants are using the customary land by giving annual rents to the land owners. The tenants are using the land for cropping and farming purposes. A total of 89 agricultural tenants were surveyed⁷. All the tenants are engaged in cultivation in the land of customary owners of two villages. Details are provided in **Table 25**.

Table 25: Location of Tenants

| # | Name of village | No of tenants | % |
|---|-----------------|---------------|-----|
| 1 | Longkathar | 33 | 37 |
| 2 | Karagaon | 56 | 63 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7.2. Permanent Place of Residence

67. All the affected tenants have permanent residence in other areas of Assam. The census survey shows that almost all the tenants are from Nagaon, Assam. The place of permanent residence of tenants are presented in **Table 26**.

Table 26: Permanent Residential Place

| # | Place of permanent residence | No of tenants | % |
|---|------------------------------|---------------|-----|
| 1 | Bokajan | 1 | 1 |
| 2 | Golaghat | 1 | 1 |
| 3 | Hojai | 1 | 1 |
| 4 | Kamrup | 1 | 1 |
| 5 | Lakhimpur | 1 | 1 |
| 6 | Sunitpur | 1 | 1 |
| 7 | Nagaon | 83 | 93 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7.3. Lease and Rentals

68. The agricultural tenants give annual rents to the customary land owners for the use of the land. The census survey revealed that most of the tenants pay an annual rent of Rs. 700. A few of the tenants pay a bit higher rent. The rents are finalized based on mutual consent between land owner and tenant. The details are given in **Table 27**.

Table 27: Details on Lease Rentals

| # | Annual rent per bigha | No of tenant | % |
|---|-----------------------|--------------|-----|
| 1 | Rs. 700 | 80 | 90 |
| 2 | Rs. 800 | 2 | 2 |
| 3 | Rs. 1000 | 7 | 8 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

⁷ 13 tenants were missing during the census and will be updated during implementation

3.2.7.4. Affected structures and other non-land assets built by Tenants

69. The agricultural tenants are from other towns of Assam and stay in the temporary structures built by them on the land to undertake the cropping and farming activity. Every tenant has a residential structure on the leased land and therefore, the total structures being affected by the tenant is also 102. Other findings related to the structures are based on the census surveys and therefore, the details of 89 structures are provided. Most of the structures are one or two years old. This means that most the tenants are using the land of customary land owners since the last one or two years while few have longer lease duration. The details are provided in **Table 28**.

Table 28: Duration of Living on Leased Land

| # | Year of the structure | No of structure | % |
|---|-----------------------|-----------------|-----|
| 1 | Less than a year | 4 | 4 |
| 2 | One year | 35 | 39 |
| 3 | Two years | 38 | 43 |
| 4 | Three Years | 4 | 4 |
| 5 | Four Years | 4 | 4 |
| 6 | Five Years | 3 | 3 |
| 7 | Seven Years | 1 | 1 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

70. All the affected structures are used for residential purposes. The details are presented **Table 29**.

Table 29: Type of Structure

| # | Use of the Structure | No of structure | % |
|---|----------------------|-----------------|-----|
| 1 | Residential | 89 | 100 |
| 2 | Commercial | 0 | 0 |
| 3 | Others | 0 | 0 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

71. All the 89 structures are temporary and will be totally affected. The estimated total area of 89 structures is 4178.45 square meter. The residential structure includes the room for staying purpose, and the toilet. In 17 residential structures, animal shed is also part of the structure. The other non-land assets to be affected by the project include tube wells and ring wells. Some tenants have installed tube wells and ring wells to use the ground water for vegetable cultivation purposes. The tenants have used their own money for these installations. Since the lands are non-irrigated, they extract the ground water through the tube well/ring well. The details are given in the **Table 30**.

Table 30: Other Asset

| # | Type of non-land assets | Number |
|---|-------------------------|--------|
| 1 | Tube Well | 8 |
| 2 | Ring well | 2 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7.5. Livelihood & Income

72. The census survey of tenants shows that there is a range of land that is being used by agricultural tenants. The lands are non-irrigated. Break up and various slabs of land use for lease under cultivation are given in **Table 31**.

Table 31: Land Area under Lease for Cultivation

| # | Area of land under cultivation (Bigha) | No of tenants | % |
|---|--|---------------|-----|
| 1 | Up to 5 Bigha | 10 | 70 |
| 2 | 6 to 10 Bigha | 42 | 24 |
| 3 | 11 to 15 Bigha | 21 | 4 |
| 4 | 16 to 20 Bigha | 11 | 2 |
| 5 | 20 + Bigha | 5 | 0 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

73. Almost all the tenants are engaged in vegetable cultivation. The main type of vegetables cultivated by the tenants are chilli, peas, brinjal and bitter gourd. All the tenants engage in double cropping so that the same land is used to plant more than one vegetable per year. The details are presented in **Table 32**.

Table 32: Cropping Pattern

| # | Type of vegetable/crops cultivated | No of tenants | % |
|---|------------------------------------|---------------|-----|
| 1 | Brinjal | 63 | 71 |
| 2 | Chilli | 89 | 100 |
| 3 | Peas | 65 | 73 |
| 4 | Bitter Gourd | 60 | 67 |
| 5 | pointed Gourd | 20 | 22 |
| 6 | Water Melon | 2 | 2 |
| 7 | Paddy | 1 | 1 |
| 8 | Ridge Gourd | 1 | 1 |
| 9 | Tomato | 1 | 1 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

74. The census survey shows that the average family income of tenant is Rs. 4,11,348. The details are presented in **Table 33**. It is pertinent to mention here that both the male and female adult members of the tenant family are engaged in the cultivation activities.

Table 33: Annual Income of Tenant

| # | Annual family Income | No of tenant HH | % |
|---|------------------------------|-----------------|----|
| 1 | Up to Rs. 100,000 | 2 | 2 |
| 2 | Rs. 100,001 to Rs. 150,000 | 4 | 4 |
| 3 | Rs. 150,001 to Rs. 200,000 | 22 | 25 |
| 4 | Rs. 200,001 to Rs. 250,000 | 11 | 12 |
| 5 | Rs. 250,001 to Rs. 500,000 | 37 | 42 |
| 6 | Rs. 500,001 to Rs. 10,00,000 | 5 | 6 |

| # | Annual family Income | No of tenant HH | % |
|---|----------------------|-----------------|-----|
| 7 | Rs. 10,00,000 + | 4 | 4 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7.6. Affected Tenant Households, Persons and Social Category

75. A total of 373 members lives in the 89 tenant households surveyed. The average household size is 4.2. The sex ratio is 719. About one-fourth of the household members (aged above 6 years) are illiterate. The gender wise educational status is presented in **Table 34**.

Table 34: Educational status of members of tenant households

| # | Educational Qualification | Male | | Female | | Total | |
|---|---------------------------|------|-------|--------|-------|-------|-------|
| | | Nos | % | Nos | % | Nos | % |
| 1 | Illiterate | 52 | 27.1 | 31 | 21.7 | 83 | 24.8 |
| 2 | Literate | 14 | 7.3 | 6 | 4.2 | 20 | 6.0 |
| 3 | Pre-school | 2 | 1.0 | 3 | 2.1 | 5 | 1.5 |
| 4 | Primary | 46 | 24.0 | 24 | 16.8 | 70 | 20.9 |
| 5 | Middle | 46 | 24.0 | 44 | 30.8 | 90 | 26.9 |
| 6 | Secondary | 22 | 11.5 | 20 | 14.0 | 42 | 12.5 |
| 7 | Higher Secondary | 8 | 4.2 | 14 | 9.8 | 22 | 6.6 |
| 8 | Graduate | 0 | 0.0 | 1 | 0.7 | 1 | 0.3 |
| 9 | Diploma / ITI | 2 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| | Total | 192 | 100.0 | 143 | 100.0 | 335 | 100.0 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

76. The primary occupation of all the 89 tenants is cultivation. They derive their source of income mainly from cultivation on the lands of customary land owners.

77. The religion of all the agricultural tenants is Muslim. Most of the tenants are from general category. The social category of the tenants is presented in **Table 35**.

Table 35: Social Category of Tenant

| # | Social Category of tenants | No of tenants | % |
|---|----------------------------|---------------|-----|
| 1 | SC | 0 | 0 |
| 2 | ST | 0 | 0 |
| 3 | Other Backward Caste (OBC) | 16 | 18 |
| 4 | General | 73 | 82 |
| | Total | 89 | 100 |

IOL and Census Survey, APDCL, Nov 23-Feb, 2024

3.2.7.7. Vulnerability Category of Tenants

78. As per the vulnerability criteria defined by ADB SPS, 2009, there are 29 tenant HHs who are considered as vulnerable HHs. However, for the project's entitlement, all the tenants will be considered as vulnerable as their livelihood is affected. The vulnerability status of tenant HHs, as per the definition are given in **Table 36**.

Table 36: Vulnerability Category of Tenant

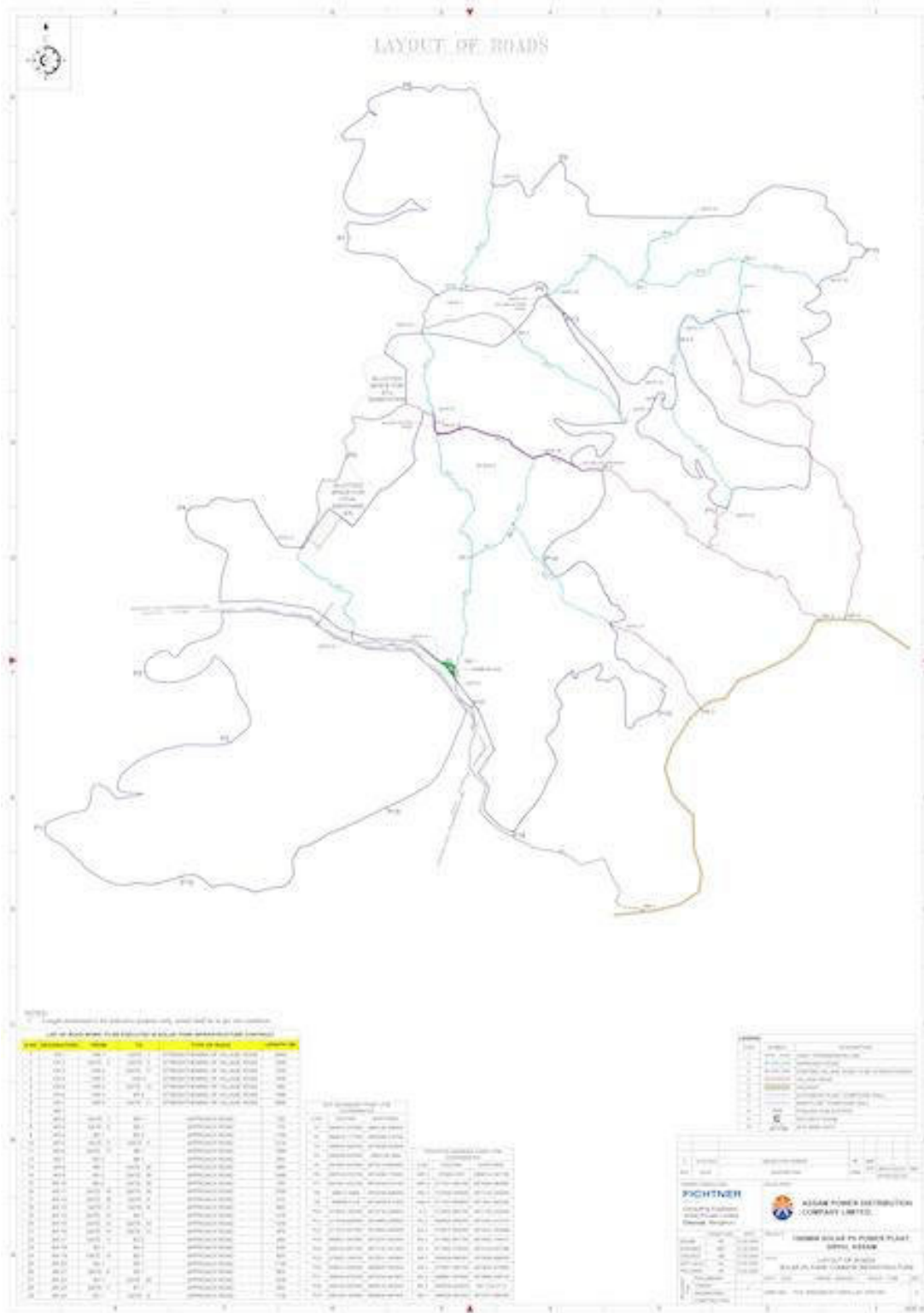
| # | Vulnerable category | No of HHs | % |
|---|---|-----------|-----|
| 1 | Woman headed household | 0 | 0 |
| 2 | Headed by disabled person | 0 | 0 |
| 3 | Below Poverty Line (BPL) ⁸ | 18 | 20 |
| 4 | Headed by elderly person (Above 60 Years) | 11 | 12 |
| 5 | Landless household | 0 | 0 |
| 6 | SC | 0 | 0 |
| 7 | ST | 0 | 0 |
| | Total | 29 | 100 |

3.2.8. OTHER IMPACTS DUE TO SOLAR PV (APPROACH ROAD AND RESTRICTIONS)

79. There will be approach roads which needs upgradation but does not require widening. Therefore, no additional land will be required. Any unanticipated impact that may arise will be assessed and compensated during implementation as per the entitlement matrix of the RIPP. The project boundary is very vast and there could be some internal path restrictions within the solar plant. Therefore, project design has made provisions for providing internal access to the local people by providing various gates in the boundary. It is also found that access road to the villagers of Kanya Hanse will become restricted. The project ensures that the village access remains open. It will also affect villagers access to water source. As an alternative, the Jal Jiwan Mission water supply program is underway for installation of water supply for the village and APDCL will coordinate that water supply by this program will become functional prior to any restrictions by Project on villagers' access to the water source. However, if the Jal Jiwan Mission water supply program will not become functional prior to any restrictions on villagers' access to the water source, APDCL shall ensure the villagers access to water through other alternatives in sustainable way (e.g. borewell) before construction on this site. The Project shall ensure that the villages access remains open via the closest path (e.g. through the solar park). The layout design of various internal road access is depicted in **Figure 7**.

⁸ This is a card issued by the government to define the below poverty line households. This is not based on the income.

Figure 7: Alternate Internal Road Access



3.3. IMPACT ON RENEWABLE ENERGY-POWERED BATTERY STORAGE SYSTEM (COMPONENT-3)

80. The battery storage will be constructed in an existing substation boundary which is fenced. No additional land will be required. There are no informal settlers found in the premises. A due diligence has been conducted to conform no impacts on land acquisition and involuntary resettlement. The summary of the due diligence is presented in **Table 37**. photograph is depicted in **Figure 8**.

Table 37: Social Due Diligence Findings of the Battery Storage

| Particulars | Response |
|--|---|
| Location Details | Name of the Substation: 400 KV Kukurmara (Mirza) GSS, AEGCL Name of the Village: Gosaihat Name of the Panchayat: Name of the Sub Division: Mirza Name of the District: Kamrup Rural Coordinate: Longitude: 26.066753 Latitude: 91.553266 |
| How long since the substation has been built (Year of Commissioning)? | 2014, 10 years |
| What is the approximate area of the substations? | 202 Bigha, the proposed battery storage will be within the campus and will use approximately 10 Bigha. |
| Is the substation well fenced and is there any encroachment? | The sub-station is properly fenced with brick walls with pillars and there is no encroachment of anyone inside the campus. |
| What is the nearest habitat from the substation (distance in meters) and how many households in the just in the vicinity? | From the boundary wall nearest habitation is at 100-200 meters. There is no nearby habitation, some office and warehouse are under construction at distance places from the sub-station. Rest of the vacant places are agricultural fields. |
| Are there any social infrastructure (schools, hospitals, temples, monastery etc)? If yes, name and distance from the substation | School is there at a distance of 2 kilometres. Hospital is there at a distance of 2 kilometres. |
| What was land ownership prior to construction of substation? | Ownership is with AEGCL Assam Electricity Grid Corporation Ltd since last 10 years. |
| Is additional land required for Battery Storage? | No |
| If private land, has the land been acquired or mutually purchased or voluntarily donated? | NA |
| Was there any displacement due to the land acquisition, if yes provide details | No |
| Are there any informal settlers currently | No |
| Employees Details | Number of Technical Staff (Male= 14) (Female= 0) Number of Non-technical Staff (Male= 2, Female=0) Number of Temporary Staff (Male= 9, Female=0) |
| Was there any complaints raised by the people due to the existing substation. If yes, what kind of complaints and how it was documented and resolved | No complains as there is no public dealings. |

| Particulars | Response |
|---|----------|
| Are there any tribal or indigenous people living in the vicinity of the substation. If yes, name of Schedule Tribe and number of households | No |
| Any suggestion (Any complaints or positive feedback regarding the existing S/S) | Nil |

Name of the substation in charge: Jeetender Kr Prajapati (deputy Manager)
 Mobile Number: 9577343550

Figure 8: Photographs of Battery Storage



3.4. IMPACT ON DISTRIBUTION AUGMENTATION SYSTEM (COMPONENT-4)

81. **Substation Augmentation and Distribution Transformers:** Augmentation of three of 33/11 kV substations will be done within the preexisting substation where land is available for additional work. The new transformers will be placed within the fenced boundary of the substation. Site visits have been conducted and assessment was done through a social due diligence and it is confirmed that there will be no impact on land acquisition and involuntary resettlement for the substation augmentation. The distribution transfers (DTRs) need small space (2X2 meters) which will be placed along the road side and on vacant government owned land (council land) which will be on open space and will be free from encumbrances. Location of such DTRs (either pole based or ground mount) will be decided by the EPC contractor and APDCL will ensure that none of the DTRs will be placed on customary land owners.

82. **Strengthening of Distribution Lines:** The electricity distribution system in the surrounding areas of the proposed solar site in Karbi Anglong East district and in the rural parts of the neighboring district of Dima Hasao will be strengthened to maximize the project benefits to the project communities which are mostly IPs. This will include reconductoring, conversion to AB cable and covered conductors etc. All these activities will be undertaken within the existing right of way without causing any impacts and any new lines that will go through the existing roads and road right of way. These are low voltage line. Construction activities mostly follow existing right-of-way. Anticipated project impacts are very minimal and may be nil. Any impacts that may arise during construction will be temporary in nature in terms of loss of crops and trimming of trees at some places which shall be avoided and minimized during construction. A social due diligence/audit has been conducted for three existing substations and sample lines survey which found that there will be no impacts.

83. **New Lines:** The distribution lines are of different types and the capacity is 11 kV voltage and LT lines (440 volts). There will be several individual lines which are very small in length (48.9 ckm) of 11 kV to be associated with the new DTRs and also new LT lines (100.9 ckm) associated with the new DTRs. These will be new lines and EPC contractor will do the final routing and it will avoid impacts on land structures. The impacts are mostly temporary to be occurred during construction and is avoidable. All these lines are pole based and hence no land acquisition required. LT lines are meant to be provide connections to households and therefore, there will be habitat areas as well as business and township areas through which the line will traverse. However, it is not to affect any house and will not traverse over any houses or structures. There may be the need of some tree cutting or trimming or loss of crops if the line passes through agricultural land. IR Impact assessment checklists will be filled out for each line before start of construction works. Any impacts that may arise during final alignment and during construction by the EPC will be assessed and compensated as per the entitlement matrix and Addendum to this RIPP will be prepared. Since this will be EPC contractor, any impact will be known when the contractor will be on the site and makes on-ground design surveys. For any construction related impacts that cannot be assessed now, APDCL will do line specific social assessment and prepare compensation and mitigation measures and prepare Addendum to RIPP and implement it after ADB approval. Budgetary provision has been made in this regard and has been mentioned as a line item in the RIPP budget to take care of cost related to any compensation that may be required during construction.

84. **R&M and Conversion:** There will be R&M and Reconductoring of Existing 11 KV Line having a total length of 105.2 ckm. Additionally, there will be Conversion of Existing LT line to Arial Bunched Cable (ABC). These activities will be undertaken within the existing lines and mostly replacement of existing lines and will not trigger any impacts. A sample survey was

conducted along these existing lines to assess the current status. The sample covers 63 ckm of 11 kV lines out of a total of 105.2 ckm (63% sample coverage). Similarly, sample due diligence was carried out for the LT lines covering 105.5 ckm of lines out of a total of 457.9 ckm (23% sample coverage). It is found that the R&M, reconductoring and the conversion of LT lines will have no impacts on the land acquisition and involuntary resettlement. Although there are residential areas, commercial areas, agricultural land area etc, however, it is to be noted that these are existing lines which have been in existence from a long time. Reconductoring work will not require additional right of way, however, it is a simple construction method of taking out the bare conductors and putting the covered and ABC cables. This is for the safety and reliability where people do not have any objections. Therefore, no such impacts occur and if any such impacts occur, the same will be mitigated and the losses will be compensated. The objective of this output is to provide benefits to the local people who are IP beneficiaries. The detailed findings of the due diligence on distribution components are provided in **Appendix 6**.

3.5. SUMMARY IMPACTS

85. Summary of impacts pertaining to land acquisition is provided in **Table 38**.

Table 38: Summary IR and IP Impacts

| # | Impacts | Unit | Quantity |
|----|---|---------------|---|
| 1 | Total land requirement for the project | Bigha/Hectare | 18,000 bigha/ 2400 ha |
| 2 | Government land/KAAC land | Bigha/Hectare | 16,511 bigha/ 2201.5 ha |
| 3 | Customary land required for acquisition | Bigha/Hectare | 1,489bigha/ 198.5 ha) |
| 4 | Affected area under the standing crop cultivation | Bigha/Hectare | 76.5 bigha/ 10.2 ha |
| 5 | Area under rubber plantation | Bigha/Hectare | 270 bigha/ 36 ha |
| 6 | Area under Chitramala plantation | Bigha/Hectare | 480 bigha/ 64 ha |
| 7 | Area under bamboo plantation | Bigha/Hectare | 50 bigha/ 6.7 ha |
| 8 | Residential houses/dwelling/structure | Number | 32 |
| 9 | Total area of the affected residential structure | Square meter | 1540.5 |
| 10 | Auxiliary Structures | Number | 6 |
| 11 | Structures needing Relocation | Number | 32 |
| 12 | Religious Structure (Church) | Number | 2 |
| 13 | Agricultural Tenant | Number | 102 |
| 14 | Structure made by agricultural tenant | Number | 102 |
| 15 | Tubewell constructed by tenant | Number | 8 |
| 16 | Ring well-constructed by tenant | Number | 2 |
| 17 | Vulnerable Households (HH) | Number | 1277 (ST owner) +102 tenant= Total= 1,379 |
| 18 | Total Affected Households (HH) | Number | 1277 (ST owner) +102 tenant= Total= 1,379 |
| 19 | Affected Persons | Number | 4912 (ST) +373 (tenant) = Total= 5285 |

IV. IMPACT ON INDIGENOUS PEOPLES

4.1 OVERVIEW

86. The main project component falls in the Karbi Anglong District of Assam which is a sixth schedule district under the Indian Constitution. The land acquisition, involuntary resettlement and impact on indigenous peoples are more relevant and significant in the Karbi Anglong district as the solar PV components will be established in this district and most of the impacts will occur for this component. However, there is a distribution augmentation component which will also cover another sixth schedule district which is Dima Hasao. The impacts in the distribution augmentation component will have more positive impacts on indigenous peoples in Dima Hasao district.

87. The project sites are located in Karbi Anglong and Dima Hasao autonomous districts of the State of Assam. Dima Hasao autonomous district covers an area of 4,888 sq km and has a population of 214,102. The Karbi Anglong autonomous district covers an area of 10,434 sq km and has a total population of 906,313 (2011 Census Report, GoI). The two autonomous districts are sparsely populated: 92 persons per sq km in the Karbi Anglong autonomous district, and 44 persons per sq. km in the Dima Hasao autonomous district. The average population per sq. km in the two districts is substantially lower than that of the State of Assam (SOA)'s average density of 398 persons per sq km (2011 Census Report, GoI).

88. The major scheduled tribes living in the Dima Hasao autonomous district are Dimasas, ZemeNagas, Biatae, Hmars, Kukis, Hrangkhawls, Vaipheis, Karbis, Khasi-pnars and Khelmas. The scheduled tribes in the Karbi Anglong autonomous district are Rengmas, Dimasas and Koch. Gorkhas, Kuki-Chin Peoples such as Kukis, Hmars and Mizos, Garos, Tiwas, Khasis and Chakmas also live in the district. As mentioned earlier, in the Karbi Anglong autonomous district, nearly 60 percent of the total population belong to scheduled tribes, and in the Dima Hasao autonomous district, 71 percent of the population belong to scheduled tribes. There are no distinctive differences between the tribal peoples and other rural dwellers. All of them depend on leased land to earn their living either as cultivators or wage workers. As the majority populations in both autonomous districts the scheduled tribes share their co-identity of scheduled tribes with other tribes. They together with other rural dwellers share vulnerabilities in coping with rapid urbanization, finding employment, and getting higher education opportunities for their children.

89. As per the 2011 Census Report, in Dima Hasao autonomous district, 70.9 percent of the total population were tribal peoples. In the Karbi Along autonomous district, 59.4 percent population were tribal peoples. Tribal populations constituted 14 percent of SOA's population. Ratio of females to males in the Karbi Anlong autonomous district was 951:1,000. In the Dima Hasao district, the ratio was 932:1,000. Ratios in both districts were lower than that of the SOA which was 958:1,000 (2011 Census Report, GoI).

90. In 2011, the percentage of literate persons in Dima Hasao was 77.54 percent which was higher than that of SOA's average of 72.19 percent. In Karbi Anglong autonomous district, the literacy rate was 69.25 percent which was lower than the literacy rate of the SOA. The female literacy rate was lower than that of the male in the districts: in Karbi Anglong autonomous district, the male literacy rate was 76 percent, and the female literacy rate was 63 percent, whereas in the Dima Hasao autonomous district, male literacy rate was 83 percent, and only 71 percent of women were literate. The level of urbanization in 2011 in both districts was low: in the Dima Hasao district, it was 12 percent and in Karbi Anglong autonomous district, it was 29 percent. Details are provided in **Table 39**.

91. Historically, Karbis have had their own traditional administrative system for centuries under various clan heads which still continue to exist as living memories of the past. There had

been Karbi kingdoms, with territorial demarcation and extent of influences, which were ruled by Kings with sacerdotal functions. These Kings were known as Recho (or Lindokpo) who ruled over four distinct territories namely Rongkhang, Chinthong, Amri and Killing within the present geographical boundary of Karbi Anglong. When the British occupied the Karbi territories, they did not draw any administrative boundary for the Karbi inhabited areas immediately. Only in 1884, with the enactment of 'Assam Frontier Regulations', the 'Mikir Hill Tract' was constituted which almost bisected Nowgung district into half from north to south.

92. The Government of India Act (1935) came up with some legislation with far reaching consequences. According to this legislation, the tribal areas were divided into 'Excluded Area' and 'Partially Excluded Areas' with separate sets of administrations. According to this legislation, the Mikir Hills along with the British portion of Khasi & Jaintia Hills and Garo Hills came under the 'Partially Excluded Areas'. According to this design, Lushai, Naga and NC Hills, Sadiya Frontier Tract, Balipara Frontier Tract, and Lakhimpur Frontier Tract were placed under 'Excluded Area' with the provisions that the 'provincial ministry had no jurisdiction' and 'expenditure incurred in these hills areas was also not voted by the provincial legislature Area' with the provisions that the 'provincial ministry had no jurisdiction' and 'expenditure incurred in these hills areas was also not voted by the provincial legislature.

93. In 1951, the 'United Mikir and North Cachar Hills District' was formed. On the 23rd June 1952, the Mikir Hills Autonomous District Council was constituted under the provision of the Sixth Schedule of the Constitution. Mikir Hills and North Chars Hills were bifurcated into two separate districts in 1970, both with separate 'Autonomous District Councils' governed under the provisions of the Sixth Schedule of the Constitution. Mikir Hill became 'Karbi Anglong Autonomous District Council'. The two Autonomous District Councils became full-fledged separate districts their respective head-quarters at Diphu and Haflong. In 1995, the two Autonomous District Councils were renamed by dropping the word 'District'. Under the new names, they became known as 'Karbi Anglong Autonomous Council' and 'North Cachar Hills Autonomous Council'. North Cachar Hills underwent another name change on 30th March 2010 and under the new nomenclature, the Hill district is known as 'Dima Hasao Autonomous Council.

Table 39: Demographic Profiles of Karbi Anglong and Dima Hasao Districts of Assam

| Topic | Karbi Anglong | Dima Hasao |
|---|---------------|------------|
| Population | 906,313 | 214,102 |
| Rural Population | 799,277 | 151,606 |
| Urban Population | 107,036 | 62,496 |
| Male | 490,167 | 110,802 |
| Female | 466,146 | 103,300 |
| Decadal ⁹ Growth Rate (percentage) | 17.58 | 13.84 |
| Area (sq. km) | 10484 | 4888 |
| Population Density (sq km) | 92 | 44 |
| Sex Ratio (females per 1,000 males) | 951 | 932 |
| Average Literacy (percentage) | 69.25 | 77.54 |
| Male Literacy (percentage) | 76.14 | 83.29 |
| Female Literacy (percentage) | 62.5 | 71.33 |
| Scheduled Tribes in district Population (percentage) | 59.4 | 70.9 |
| District scheduled tribal population as a percentage of the Sate Population | 13.9 | 3.9 |

Source: Census of India, 2011.

⁹ Decadal means 10 years; here it is Census Year 2011.

94. The Sixth Schedule to the Constitution of India provides for administration of specified tribal areas with certain executive, legislative, judicial and financial powers. The Autonomous Councils are empowered to exercise certain Legislative Powers on matters of (a) allotment, occupation, use and setting apart of land, (b) management of forests (excluding state reserved forests), (c) use of any canal or water course for agriculture, (d) regulation of the practice of Jhum or other forms of shifting cultivation, (e) establishment of village or town committees or regional councils and their powers, (f) village or town administration including Public Health and Sanitation and inheritance of property, (g) succession or appointment of chiefs or headmen, (h) inheritance of property, (i) marriage and divorce, and (f) social customs.

95. Under Executive powers, Autonomous Councils have power to establish, construct or manage Primary Schools, dispensaries, markets, cattle pounds, ferries, fisheries, roads, road transport and waterways. Autonomous Councils also have powers to assess, levy and collect within the Autonomous Districts, revenues in respect of land and buildings, taxes on professions, trades, callings and employments, animals, vehicles and boats, tolls on passengers and goods carried in ferries, and the maintenance of schools, dispensaries or roads.

96. Judicial Powers – Autonomous Councils are vested with the powers to create Village and District level courts within their constitutional jurisdictions to administer customary judiciary where both parties belong to the tribal communities or scheduled tribes as specified by the constitution. These customary courts in the District level are empowered to exercise the powers of a court of appeal in case of all suits and cases that may be tried by village courts.

97. The Autonomous Councils are also vested with certain Financial Powers which empowers them to make rules for management of their finances with prior approval of the Governor. The Autonomous Councils also have powers to collect land revenues, levy and collect taxes on lands, holdings, shops, entry of goods into market and tolls etc. It also includes the concurrent power to levy taxes on professional trades, professions, trades, callings, employments, animals, vehicles and huts. The Autonomous Councils also have power to collect royalty on licences or leases for the extraction of minerals within their respective jurisdictions.¹⁰

98. **KAAC:** The land ownership and distribution are governed by various KAAC Acts, rules, and regulations. Under the Mikir Hills Land and Revenue Act, 1953, the District Council is empowered to make laws with respect to the allotment, occupation or use, or the setting apart, of land, other than any land which is a reserved forest. KAAC has the ownership of land and individual households are allocated land for use for a specific period. The Mikir Hills District (Transfer of Land) Act, 1959 deals with control over transfer of land in KAAC area. The Karbi Anglong District (Land Reforms) Act, 1979 provide for regulation and control of use of agricultural land owned by the settlement holder in the KAAC area.

99. There is miadi patta/ periodic Patta under the cadastral land rights which is issued to the people. Earlier, it was allotted for the highest 30 years and currently this has been reduced to 10 to 15 years. They pay Khajana/ tax every year to Council for the miadi patta and the cadastral land rights is issued for a specific year. Once the term completed one may or may not get cadastral land rights. There is non cadastral (NC) and the land, though under possession of people, but the council has supreme rights on them. NC land completely belongs to the Council. No sale purchase is allowed in case of cadastral or non-cadastral land or even for miadi patta land. Tribal land can be transferred with NOC from traditional GB and SGB in the form of gift deed (Dan Patra) where no price is mentioned. Tribals can't transfer their land to Non Tribals. Miadi Patta owners also can't sale their land. It's all in the form of gift deed (Dan Patra). But change of ownership can be done at Revenue/Settlement office for Miadi Patta Dan Patra. No price involved in Miadi Patta

¹⁰ https://shodhganga.inflibnet.ac.in:8443/jspui/bitstream/10603/358867/4/04_chapter%201.pdf

Gift deed. Council is the supreme authority of land irrespective of the categories of land. All the powers are vested with Council. Allotted land can be taken back by the Council any time. If there is any petition on any dispute regarding land, one has to approach Council and abide by their decision. The allotted land to APDCL (project affected land) by the council falls under non cadastral land category.

100. **Gaonbura:** Gaon Burahs are traditional institutions under the customary law of Karbis as a tribe. After KAAC came into force, traditional Gaon Burahs has been recognized by the Council. It's based on hereditary principle. Generally, local conflicts are addressed by Gaon Burahs in the presence of villagers and accepted by all. Gaon Burahs aren't elected as there are no Panchayati Raj Institutions in Karbi Anglong under Sixth schedule of the constitution.

101. There is also a Sarkari Gaon Bura (SGB) who are appointed by Council till he is able to perform his duty. There is no upper age limit. He is removed from his post if he is involved in illegal activities but that's very rare. It's almost like traditional Gaon Burah but nominated by the council and they work together with the traditional Gaon Burah.

4.2 IMPACT ON INDIGENOUS PEOPLES

102. Based on the social impact assessment and nature of intervention proposed under the Project, it is found that the Project will have adverse impacts on indigenous peoples in terms of loss of land, loss of dwelling, physical displacement, loss of income, loss of livelihood, loss of cultural property and partial restrictions to ancestral domain. This is relevant for the solar PV component. The impacts are not disproportionate as all the affected households are from scheduled tribes only and the dominant group. There will be positive impacts as well in terms of local employment, improved electricity access, and gender intervention in the project. The distribution components will give positive impacts to the indigenous peoples in terms of reliable electricity supply which will indirectly enhance the socio-economic conditions of the beneficiaries. The affected IPs are predominantly Karbi with some presence of Naga (Rengma) tribe in the project affected area.

103. Jhum cultivation - The Karbis traditionally practiced Jhum cultivation (slash and burn) in the hill areas and grew varieties of crops. The people who were dwelling in the interior areas which were covered with natural forest and hills practiced Jhum cultivation for their survival with the application of simple technology. The whole operation starts at the onset of winter. The herbs, shrubs and trees are cut down in the month of February and left to dry for more than a month, and then set on fire.

104. Traditional house type - A Karbi house influenced by Khasi/Jaintia type is constructed on a wooden platform at a height of approximately one and a half feet from the ground. The area beneath the platform is utilized for storing firewood and other miscellaneous articles. The walls, roof, and floor are mainly made of wood, bamboo, and soil. The traditional hut of the Karbi people is known as Tsang-ghar. It was prepared on the Tsang or tower and accordingly the name originated. Prior to construction, a bamboo pole is erected and allowed to remain there for three days and three nights. If there are some evil effects, it will get noticed, otherwise it will be treated as auspicious. Generally, a Tsang-ghar is fifty feet in length, fifteen feet in width and six feet in height. It consists of three main parts-(i) outer zone, (ii) inner zone, (iii) rear zone. Bamboo is an important material for the construction of houses. Flat areas are always preferred for house construction.¹¹

105. Religion: The Karbis are originally animists but, in the present scenario, we see the existence of other religions like Christianity, Bhaktitam, Buddhist etc. The animist Karbis do not

¹¹ https://serialsjournals.com/abstract/76312_8.pdf

worship idols nor do they have organised system of worship on a temple. They offer sacrifices like eggs, chicken, goat, pig etc. for prosperity, good health and success. They have traditionally been the worshippers of 'Hemphu Mukrang'. There is no Karbi equivalent to exactly describe the term – 'religion'. A Sanskrit derivative 'dhorom' is used to convey the sense of a religion in the modern day Karbi vocabulary.¹²

106. Dress: The Karbis have their distinctive traditional attire which is artistically designed and woven at their family looms. There are separate dresses for men and women. The men use an intricately designed shirt called Sulsang and the lower part of the body is wrapped with a dhoti. They use a cloth around the neck like a gamucha called topola. The Karbi women and girls generally use, a piece of cloth tied around the waist like a Mekhela known as Panik. A blouse known as Sula is worn underneath. A piece of traditional cloth is used by them to cover the upper part of their body like a dupatta which is called a topola. A very highly artistic waistband called ringkok is also used by every woman and girl. The dress of the Karbis living in the hills and the plains vary in their names and the style of wearing it. During any festival or ceremony, the male member wears a headband where the string is made from bamboo and leaves of tulusi, and mirpulpul are tied to it. The wearing of their dress in any kind of ritualistic ceremony, wedding, or any kind of community function is very important, else it is considered to imply disrespect towards the community.

107. Food: The eating pattern of the Karbis forms an important part of their lifestyle. The Karbis are known to restrict their diet to completely boiled food. No spices or oil is to be used while cooking. Their food is usually comprised of ground rice which is made at home and Khar (which is a liquid, made out of a banana tree). The tree is burnt and the ashes of the burnt tree are mixed with lukewarm water and sieved. The water which remains after sieving is somewhat black in colour and this product is known as Khar. Consumption of fried food in any form is usually avoided. Another important component of their food is their traditional drink known as Hor, which is a kind of distilled rice-wine. An intoxicating ingredient known as thinkur is mixed with boiled rice and kept overnight for two days during winters and one day during summer. After the preservation time is over the blended drink is strained through a sieve known as aru and served. The Hor is one of the key items that is a pre-requisite in every function, ceremony, as well as part of their daily routine. Serving Hor is a must on every occasion.

108. The settlement pattern of the Karbis is in the form of a village. The village headman known as Bangthe is appointed by the members of the village. The Bangthe appoints Risa Bangthe, who is the leader of the youth. The Bangthe usually looks after the everyday affairs of the elderly people of the village while the Risa Bangthe does the same for the younger people. Two panchayat meetings are held in a year, for addressing any kind of crisis faced by the people. At least one member from every household in the village is required to be present in the panchayat meeting. A fine is paid usually comprising of meat and hor for the elder members of the village in case of absence. The Bangthe is responsible for all the events and activities of the village. He appoints a collector known as Talukdar, who is responsible for collecting money for community events and present an annual report of the collection and expenses. All the welfare work of the village like renovating the temple, cemetery, building of a new temple are taken into account by the Bangthe, who appoints separate members to look after the assigned work, and they in turn report to the Talukdar. In case of marriage, the particular family responsible has to inform the entire community one month before the actual wedding, which is usually done in the panchayat meetings in case it coincides or a meeting is called by the Bangthe for the people of the village to assemble and the marriage announcement is made. Even though inter-community marriage is

¹² <https://ijcrt.org/papers/IJCRT2003251.pdf>

accepted among the Karbis, but inter-religious marriage is strictly forbidden, which amounts to expulsion from the village community.¹³

109. The Karbis have their own language called Arleng. The language is grouped as Mikir according to the latest classification. The Karbis, however do not have a script of their own as is the case with most hill tribes of the Northeast. Traditionally, Karbi society is patriarchal and is composed of five major clans, called Kur in Karbi language. They are Ingti (also known as [aka] Lijang), Enghi (aka Ejang), Terang (aka Hanjang), Timung (aka Tungjang) and Teron (aka Kronjang), which are again divided into many sub-clans. These clans are exogamous, or, in other words, marriage between the members of the same clan or sub-clan is not allowed.¹⁴

4.3 PROJECT OUTPUT AND IMPACT ON INDIGENOUS PEOPLES

110. There are four project output and its impacts on indigenous peoples are provided in **Table 40**.

Table 40: Project Output and Impact on Indigenous Peoples

| # | Output | Impacts |
|---|---|---|
| 1 | <p><u>Component 1: Sovereign solar photovoltaic electricity capacity increased.</u> The project will finance 500 MW_{AC} of solar PV electricity generation capacity (Solar PV Power Plant, or “SPP”) and related SPP infrastructure (SPPI) in Karbi Anglong district. This will address Assam’s need to enhance its energy security by significantly increasing in-state generation capacity. Training to APDCL staff (including 30% women) on solar and other new technologies will be undertaken.</p> <p><u>Component 2: Private sector investment in solar photovoltaic capacity enabled.</u> Transactional advisory support will be provided for development of 250 MW_{AC} SPP capacity through PPP modality using the common solar park facilities. In addition to providing the land and common facilities, options will be examined to reduce the offtake tariff through the strategic deployment of concessional finance. ADB will also assist the government in clarifying and strengthening the PPP framework in the state, building the government’s capacity in developing renewable energy PPP projects, and monitoring and managing the PPP projects.</p> | <p>Impacts are mostly adverse as below:</p> <ul style="list-style-type: none"> • Land Acquisition • Involuntary Resettlement • Loss of Crops and Trees • Loss of Income and livelihood • Loss of restrictions to natural resources at some places • Loss of access to ancestral domain • Loss of cultural asset • Loss of dwelling • Loss of access to ancestral domain such as losing customary and land and also loss of access to cultural asset such as church. <p>Positive Impacts are as below:</p> <ul style="list-style-type: none"> • Employment opportunities during construction • Benefits to Women in project construction • More new economic opportunity |
| 2 | | |
| 3 | <p><u>Component 3: Renewable energy-powered battery storage system piloted.</u> This output will support the equity contribution of APDCL to set up a joint venture with Oil and Natural Gas Corporation Tripura Power Company to develop a pilot grid-connected battery storage installation (BESS) of at least 25 MW at the Kukurmara Mirza transmission substation. This storage facility, which will be charged using renewable energy which will improve</p> | No Impacts. Existing facility |

¹³ <https://www.jetir.org/papers/JETIR2112080.pdf>

¹⁴ <http://www.jiarm.com/Aug2014/paper16992.pdf>

| # | Output | Impacts |
|---|--|--|
| | APDCL's ability to meet peak demand and will provide frequency regulation to improve grid stability. | |
| 4 | <p><u>Component 4: Electricity distribution in project areas enhanced.</u> The electricity distribution system in the surrounding areas of the proposed solar site in Karbi Anglong district and in the rural parts of the neighboring district of Dima Hasao will be strengthened. The project will finance conversion of overhead lines to covered conductor (Aerial Bundled Cable), installation of new distribution transformers for capacity enhancement and voltage improvement. Training and awareness programs on safe and efficient use of electricity will be delivered to local communities (including at least 100 women and/or disadvantaged people).</p> | <ul style="list-style-type: none"> • Positive impacts in terms of better electricity supply and IPs as beneficiaries • Temporary employment • IP women empowerment through training |

4.4 DETAILED IMPACT MATRIX

111. A detailed impact matrix covering various areas of IP impacts is provided in **Table 41**.

Table 41: Social Impact Matrix on Indigenous Peoples

| # | Impact Domain | Impacts for Assessment | Status | Assessment | Positive or Adverse | Remarks |
|---|-------------------|---|----------|--|---------------------|--|
| 1 | Economic Benefits | Improved and reliable power supply | Relevant | Output-1 and Output-2 will generate 100 MW solar power which will contribute towards the overall capacity of the state of Assam in power generation and will have indirect benefits to the people in the project area. However, Out-4 will contribute towards better distribution system through reliable power supply which will have direct positive impacts on the people in the project area. | Positive | Direct and indirect impact in general |
| 2 | Economic Benefits | Increased employment (primarily low skilled and semi-skilled workforce) and short-term income-earning opportunities | Relevant | The project will provide limited short-term employment opportunities for low skilled and semi-skilled workers in the project area. There will be opportunities for creation of temporary jobs during the project construction and also permanent job opportunities during operation and maintenance. Construction contractor will engage local labor during construction where feasible. All those local labors who will be engaged temporarily will be provided with health and safety tools for construction work. | Positive | APDCL will encourage the contractor to hire local labor that may include indigenous peoples with due consultation with tribal people's representatives at village level especially Gaon Bura. |
| 3 | Economic Benefits | Long-term benefits from capacity enhancement of local labor through on-the-job and formal training opportunities | Relevant | Training and awareness programs on safe and efficient use of electricity will be delivered to local communities (including at least 100 women and/or disadvantaged people). Affected persons (affected household member) will receive training and will gain skills matching the project labor demand for low and medium skills, and affected persons (households) are employed in the project construction works. These affected persons are IPs | Positive | Identification of training needs at various levels. The skills matching trainings for the project labor demands will be developed and delivered as part of the Livelihood restoration plan that will be developed during the project implementation. |
| 4 | Social Benefits | Provision for better and reliable power supply to | Relevant | Reliable electricity will have direct positive impacts on social infrastructure such as | Positive | Indirect |

| # | Impact Domain | Impacts for Assessment | Status | Assessment | Positive or Adverse | Remarks |
|---|-------------------------------------|--|--------------|--|---------------------|----------------|
| | | social infrastructure | | hospitals, schools, Anganwadis and community structures etc. Currently, the existing power supply is not enough to sustain the demands of uninterrupted electric supply to such facilities. Therefore, the project will indirectly contribute to better testing equipment in hospitals, eagerness of children for attending the schools and Anganwadis etc. where the women and other vulnerable section of people will benefit. Additionally, the local area development schemes will include better reliable electricity supply to such social infrastructures where IPs are the beneficiaries | | |
| 5 | Resettlement (Physical or Economic) | Loss of land, dwellings, and other physical resources | Relevant | The project has assessed that there will be loss of 1498 bighas of land by the IPs where 1277 number of affected IP households will be losing part of their customary land. 32 IP households will be losing dwelling and will be physically displaced. | Adverse | High impacts |
| 6 | Resettlement (Physical or Economic) | Loss of crops and trees | Relevant | Loss of standing crops, loss of citronella plantation, loss of bamboo plantation and loss of rubber plantation have been found to be affected which are being cultivated by IPs. | Adverse | Medium impacts |
| 7 | Resettlement (Physical or Economic) | Loss of natural resources and grazing land and access to natural resources for traditional medicines | Relevant | The project will impact 18,000 bighas land and the solar site will be restricted zone. Therefore, the access to such resources will be restricted at few places. However, there is plenty of land available outside of the project areas where such activities will be continued. | Adverse | Medium Impact |
| 8 | Resettlement (Physical or Economic) | Loss of land rights and entitlements and livelihood | Relevant | The IPs will be losing their customary land through partly and not fully. The rights will not be lost however, there will be loss of livelihood and | Adverse | Medium Impact |
| 9 | Resettlement (Physical or Economic) | Disruption of social networks and relationships | Not relevant | The project is not anticipated to disrupt social networks and relationships. The physical displacement of the affected IP households are | Adverse | Low Impacts |

| # | Impact Domain | Impacts for Assessment | Status | Assessment | Positive or Adverse | Remarks |
|----|--|--|--------------|--|---------------------|---|
| | | | | only 32 and they will be resettled near the village. | | |
| 10 | Resettlement (Physical or Economic) | Disruption of shrines and cultural and religious and heritage properties/ resources | Relevant | Only two churches are being affected which the IPs use for their worship and prayers and these will be relocated at a convenient place acceptable to the IPs | Adverse | Low Impacts |
| 11 | Resettlement (Physical or Economic) | Temporary restrictions to existing structures/buildings/shops in market area due to installation of solar panel | Relevant | No such impacts are found. | Adverse | No impacts |
| 12 | Food Insecurity | Disruption to the ability of affected people to grow/produce food (equivalence for agricultural sustenance depends on labor, productivity and cash) | Not relevant | The project is not anticipated to have direct impacts on ability of people to produce food. The project though acquires land but will not impede complete loss of access to agricultural lands. Construction works will not compete for labor resources and will not affect land productivity. | Adverse | Low Impact |
| 13 | In-Migration and Population Growth/Concentration | Temporary influx of outside workers in the communities, risking tensions between outside (partly possibly expatriate) labor and local population, due to differences in wealth and culture | Relevant | The project is not anticipated to pose significant influx risks. Contractor will bring the labors only during the construction period which is maximum up to 24 months and will be stationed at the construction camps. Most of the labor will also be locally hired. The in migration is temporary | Adverse | Low impact and will be mitigated through the core labor standards and environment management plan |
| 14 | Health and Welfare | Increased crime | Not Relevant | The project will be constructed under the strict supervision of the Gaon Bura and the KAAC and there will be no such criminal instances anticipated. | Adverse | No impact |
| 15 | Health and Welfare | Impact on community health and safety due to exposure to electric currents, hazardous materials, electromagnetic fields etc | Relevant | Solar plant will be restricted and nobody will be allowed to enter in to the solar plant boundary. However, some of the distribution lines may pass through the village areas or through the town area where buildings and structures may be found near to the lines. There may be habitats near to the preexisting substations boundary which needs attention | Adverse | Low impacts and Impacts are mitigatable |

| # | Impact Domain | Impacts for Assessment | Status | Assessment | Positive or Adverse | Remarks |
|----|--------------------|---|--------------|--|---------------------|---|
| 16 | Health and Welfare | Impact on labor health and safety due to exposure to electric currents, hazardous materials, electromagnetic fields etc. | Relevant | There may be some indirect impact which are addressed in the environmental assessment. | Adverse | Mitigation measures proposed under the environment management plan |
| 17 | Health and Welfare | Management of community concerns linked to impacts associated with construction phase issues (like air and dust emissions, traffic, influx and community safety and security, noise and vibration, etc.) and adverse impact/inconveniences resulting from it. | Relevant | This is assessed in detail in the environmental assessment. | Adverse | Mitigation measures are proposed under the environment management plan |
| 18 | Health and Welfare | Access to sufficient potable water | Not relevant | Access to potable water in the project area is not going to be affected by the project setting. | Adverse | Project will arrange its own water requirements and will avail required clearances for any water use. |
| 19 | Health and Welfare | Increased risk of HIV/AIDS and other diseases | Relevant | The risk is minimal. The influx of outside migrant and labor force will be minimal in case of distribution related project activities. | Adverse | Impacts are mitigatable |
| 20 | Health and Welfare | Increased risks of traffic safety incidents on public roads | Relevant | People living close to access roads and road may face temporary disruptions during construction. The project sites are having existing accessible roads which will be strengthened | Adverse | Impacts are mitigatable and Mitigation measures are proposed under the environment management plan |
| 21 | Social Conflicts | Disruption of social networks and relationships and disruption due to competition between groups for employment and other economic benefits | Not relevant | The project is not anticipated to disrupt social networks and relationships as there is no such permanent influx of in-migrant population except some temporary laborers. | Adverse | No impacts |
| 22 | Social Conflicts | Disruption due to tensions between resettles household and | Relevant | The level of physical displacement is low and all the physically displaced households belong to one IP | Adverse | Low Impacts |

| # | Impact Domain | Impacts for Assessment | Status | Assessment | Positive or Adverse | Remarks |
|----|--|--|--------------|--|---------------------|---|
| | | residents in host areas and neighboring areas | | group and they will be relocated with due consultation with the administration and local host community. They will be relocated in the IP area itself. | | |
| 23 | Governance Impacts | Increased demand for basic infrastructure and services | Relevant | Reliable power supply offers indirect benefits in terms of new economic opportunities and business. The project will create demand for creation of new infrastructure such as creation of industries, business hubs, social infrastructure such as schools, hospitals, and community centers etc. | Positive | Indirect positive impacts |
| 24 | Dignity, human rights and culture of Indigenous People | Disruption of existing socio-cultural setup of indigenous peoples due to project intervention and construction | Not relevant | The scheduled tribe population living in the project area are well integrated and are dominant with usual agricultural and economic activities including employment in government and private sector. Since the proposed intervention will be to enhance the electricity supply through solar power and rehabilitating and modernizing existing distribution system, therefore, no impacts on dignity of indigenous people is perceived. | Adverse | No Impacts |
| 25 | Territories or natural or cultural resources that Indigenous Peoples own, use, occupy, or claim as an ancestral domain or asset. | Project's impact on land acquisition or disrupting the ancestral domain | Relevant | The project will acquire IP land which is the customary land and ancestral domain. However, the project will not cause landlessness. Natural resources will be affected which are not significant and there is sufficient available land for such continued activities. | Adverse | Medium Impacts |
| 26 | Commercial development of the cultural resources | Nature of project activities and intervention | Not Relevant | The proposed project and the intervention have no such components which lead into commercial development of any cultural resources that belong to the tribal community. | Adverse | No Impacts except the fact that there will be private sector operation under the out-2 where solar power will be developed by private sector. |

V. SOCIO-ECONOMIC INFORMATION AND PROFILE OF INDIGENOUS PEOPLES

5.1 OVERVIEW

112. This chapter describes the socio-economic profile of the project area including the indigenous peoples. The solar PV project will be implemented in the district of Kabi Anglong whereas the distribution components will cover both Karbi Anglong and Dima Hasao which are considered to be notified tribal districts under the sixth schedule. The distribution components do not have any adverse impacts. The socio-economic profile of the project areas is based on general information collected from various secondary sources and a primary survey that was carried out through a sample household survey of the affected scheduled tribe households due to land acquisition. A structured socio-economic questionnaire (**Appendix-7**) was administered at the household level covering 372 affected households (approximately 30% of the total affected households) to elicit the socio-economic profile of the affected scheduled tribes living in the villages located near to the proposed solar park site. Following section describes about the socio-economic profile of project area.

5.2 FINDINGS OF THE SOCIO-ECONOMIC HOUSEHOLD SURVEYS

113. This chapter is segregated into various sections as below and the following section provides information on various socio-economic baseline of surveyed households section wise.:

- Section-1: Basic Household Characteristics: This section describes the household characteristics like socio-religious composition, household condition and access to basic amenities and access to energy and public infrastructures in the survey area.
- Section-2: Socio-economic Profile: This chapter provides a detailed account the demographic profile, employment, source of earning, possession of assets, agricultural land, pattern of agricultural practise, live stocks and annual incomes and expenditure pattern, loan, benefit from schemes, and health seeking behaviour.
- Section-3: Status of Women: This section discusses about the women in the project area about their literacy and education level, economic activity, economic participation, participation in decision making at the household level, ownership in property and their associational life in SHGs and acquired skills.
- Section-4: Summary of Findings: This section provides the summary of all the sections.

5.3 BASIC HOUSEHOLD CHARACTERISTICS

5.3.1 Type of Settlement

114. The Project area falls under the rural area and the affected people live in the rural setup. All the households covered in the project area belong to rural areas. For details, please refer **Table 42**.

Table 42: Type of settlement

| # | Type of Settlement | Nos | %Age |
|---|--------------------|-----|------|
| 1 | Rural | 372 | 100 |
| 2 | Semi-Urban | 0 | 0 |
| 3 | Urban | 0 | 0 |
| | Total | 372 | 100 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.2 Awareness about the Project

115. The respondents were asked whether they were aware about the proposed solar park project and will they support the project. Findings revealed that all the respondents were aware about the project and all of them expressed willingness to support it. For details, please refer **Table 43**.

Table 43: Awareness and Support to Project

| # | | Nos | %Age |
|---|------------------------|-----|-------|
| 1 | Awareness and Support | 372 | 100.0 |
| 2 | Support to the project | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.3 Religious Composition of the Households

116. The project area has a predominantly Hindu population of 99.7 %. Details are presented in **Table 44**.

Table 44: Religion of the Households

| # | Religion | Household | %Age |
|---|----------|-----------|-------|
| 1 | Hindu | 371 | 99.7 |
| 2 | Other | 1 | 0.3 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.4 Social Composition

117. All the households covered under the socio-economic survey belong to Scheduled Tribes, and they belong to Karbi Tribe. The details are given in **Table 45**.

Table 45: Social Composition of the Households

| # | Caste | Household | %Age |
|---|---------|-----------|-------|
| 1 | General | 0 | 0.0 |
| 2 | SC | 0 | 0.0 |
| 3 | ST | 372 | 100.0 |
| 4 | OBC | 0 | 0.0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.5 Type of Family

118. The findings revealed that the majority of the households in the survey area stay in nuclear families (84%) and the remaining 15 % in Joint families. For details refer **Table 46**.

Table 46: Type of Families

| # | Family Type | Household | %Age |
|---|-------------|-----------|-------|
| 1 | Joint | 56 | 15.1 |
| 2 | Nuclear | 316 | 84.9 |
| 3 | Single | 0 | 0.0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.6 Vulnerability

119. In the project area, only 8.3 % of the Households are BPL Households and 5.6% are women headed households¹⁵. Landless households are non-existent and a physically challenged person is present in only one of the households. For details refer **Table 47**.

Table 47: Vulnerable Household

| # | Vulnerable Household | Number | %age |
|---|---|--------|------|
| 1 | BPL Household | 31 | 8.3 |
| 2 | Household with Physically challenged person | 1 | 0.3 |
| 3 | Landless Household | 0 | 0 |
| 4 | Women Headed Household | 21 | 5.6 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.7 Years of living in the area

120. On an average the people (from affected IP households) are living in the area for the last 26 years. In the project area majority about 75 % are residing for 21 to 30 years and 22 % are living for last 20 years. Only 3.5 % are living in the area for more than 30 years. For details refer **Table 48**.

Table 48: Years of living

| # | Years | Household | %Age |
|---|--------------------|-----------|-------|
| 1 | Up to 10 years | 2 | 0.5 |
| 2 | 11 to 20 Years | 80 | 21.5 |
| 3 | 21 to 30 years | 277 | 74.5 |
| 4 | More than 30 years | 13 | 3.5 |
| | Total | 372 | 100.0 |
| 5 | Average years | 26 years | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.8 Allocation of land by Tribal Council

121. All the households are allocated agricultural land by the tribal council and where as 41 % of the families are additionally allocated residential lands. For details refer **Table 49**.

Table 49: Allocation of Land by the Tribal Council

| # | Allotted by the Council | Household | %Age |
|---|-------------------------|-----------|-------|
| 1 | Residential Land | 153 | 41.1 |
| 2 | Agricultural Land | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.9 Tenure of using the Agricultural Land

122. The people in the project area are using the agricultural land for about 20 years on an average. About two third of the households (67 %) are using for last 10 to 20 years. Similarly, nearly one-third are using it for more than 20 years. For details refer **Table 50**.

¹⁵ This 31 is from the sample households. It was found that 91 HH as BPL from the customary owners. Tenants have separate BPL numbers which is mentioned in the tenant sections.

Table 50: Tenure of using the agricultural land

| # | Tenure | Household | %Age |
|---|--------------------|-----------|-------|
| 1 | Less than 10 years | 4 | 1.1 |
| 2 | 10 to 15 years | 124 | 33.6 |
| 3 | 16 to 20 years | 122 | 33.1 |
| 4 | 20 to 25 years | 88 | 23.8 |
| 5 | More than 25 years | 31 | 8.4 |
| | Total | 369 | 100.0 |
| 6 | Average years | 19.5 | |
| 7 | No response | 3 | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.10 Possession of Land Document

123. All the households stated that they have land Patta in their name as possession document for agricultural land. Further they pay annual tax of Rs. 50 per bigha to the revenue department. For details, refer to **Table 51**.

Table 51: Percentage households having Patta

| # | Have Patta/land document | Household | %Age |
|---|--------------------------|-----------|-------|
| 1 | Yes | 372 | 100.0 |
| 2 | No | 0 | 0.0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.11 Land Titles

124. All the households covered in the survey have customary land titles on it. For details, refer to **Table 52**.

Table 52: Land Titles

| # | Titles | Yes | | No | |
|---|--------------------------------------|-----------|-------|-----------|-------|
| | | Household | %Age | Household | %Age |
| 1 | Legally Titled Household (Customary) | 372 | 100.0 | 0 | 0 |
| 2 | Encroached Household | 0 | 0 | 372 | 100.0 |
| 3 | Squatter | 0 | 0 | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.12 Distance of the Households from the project area

125. The sample size socio-economic survey was conducted on affected households near the project area, where 7 of the villages are covered adjacent to the land to be acquired for the proposed solar park. About 35 % of the households were covered between 11 to 15 kilometers, 33 % within 6 to 10 kilometers and 13 % within 21 to 30 kilometers with only 5 % within 5 kilometers from the project site. The average distance of the households from the project site is 14 kilometers. For details refer **Table 53**.

Table 53: Distance from the project

| # | Distance from the project | Household | %Age |
|---|---------------------------|---------------|-------|
| 1 | Within 5 kilometers | 17 | 4.6 |
| 2 | 6 to 10 kilometers | 121 | 32.6 |
| 3 | 11 to 15 kilometers | 128 | 34.5 |
| 4 | 16 to 20 kilometers | 56 | 15.1 |
| 5 | 21 to 30 kilometers | 49 | 13.2 |
| | Total | 371 | 100.0 |
| 6 | Average Distance | 14 kilometers | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.13 Types of Roofs of the Houses

126. The roofs of houses are predominantly made-up of Metal / Galvanised Iron (GI) with 92% of the roofs made of GI. 2% roofs are made of RCC concrete and cement fiber and a few houses also have mud, glass mixture and slate roofs. For details refer **Table 54**.

Table 54: Types of Roofs of the houses

| # | Roof Type | Household | %Age |
|---|-----------------------|-----------|-------|
| 1 | Mud | 3 | 0.8 |
| 2 | Mud and grass mixture | 2 | 0.5 |
| 3 | Palm / bamboo | 1 | 0.3 |
| 4 | Finished wood | 1 | 0.3 |
| 5 | Metal /GI | 342 | 91.9 |
| 6 | Asbestos | 3 | 0.8 |
| 7 | Cement fiber | 8 | 2.2 |
| 8 | RCC/ Concrete | 9 | 2.4 |
| 9 | Slate | 3 | 0.8 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.14 Types of Walls of the Houses

127. More than 50% (57%) of the houses have used Bamboo with Mud for the construction of the walls while 19% have used unburnt brick and 11% used GI metal and only 9 % used cement for wall construction. For details refer **Table 55**.

Table 55: Types of Walls of the houses

| # | Walls Type | Household | %Age |
|---|--------------------------|-----------|-------|
| 1 | Mud | 3 | 0.8 |
| 2 | Grass / Reeds / Thatched | 2 | 0.5 |
| 3 | Bamboo with Mud | 211 | 56.7 |
| 4 | Stone with mud | 1 | 0.3 |
| 5 | Cardboard | 1 | 0.3 |
| 6 | Unburnt brick | 72 | 19.4 |
| 7 | GI metal / tin | 42 | 11.3 |
| 8 | Cement | 34 | 9.1 |
| 9 | Others | 6 | 1.6 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.15 Types of Floors of the Houses

128. About half of the households have concrete cemented floors and 47% have natural sand, mud and dung floors. While ceramic tiles, raw wood and brick floors are minimally used. For details refer **Table 56**.

Table 56: Types of Floors of the houses

| # | Floor Type | Household | %Age |
|---|---------------------------------|-----------|-------|
| 1 | Natural floor (Mud/ sand/ dung) | 175 | 47.0 |
| 2 | raw wood planks/ palm / bamboo | 2 | 0.5 |
| 3 | Brick | 5 | 1.3 |
| 4 | Ceramic Tiles | 4 | 1.1 |
| 5 | Cement | 186 | 50.0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.16 Number of Living Rooms

129. The average number of living rooms per household is 4.57 in the project area. About 47% of the households have three rooms, 33% have four rooms and 18% have more than four rooms in their dwellings. For details refer **Table 57**.

Table 57: Possession of number of rooms

| # | Number of rooms | Household | %Age |
|---|-----------------|-----------|-------------|
| 1 | One | 7 | 1.9 |
| 2 | Two | 3 | 0.8 |
| 3 | Three | 174 | 46.8 |
| 4 | Four | 122 | 32.8 |
| 5 | More than four | 66 | 17.7 |
| | Total | 372 | 100.0 |
| | Average | | 4.57 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.17 Source of Drinking Water

130. The majority of households use handpumps for drinking water (65%) while 33% use well water, and only 4% have access to piped water supply. Among them 70% have access to drinking water within the premises and 30% have outside the premises. Details are given in **Table 58**.

Table 58: Source of drinking water for the Households

| # | Source of drinking water | Household | %Age |
|---|--------------------------|-----------|-------|
| 1 | Piped supply | 14 | 3.8 |
| 2 | Well | 122 | 32.8 |
| 3 | Pond / river | 1 | 0.3 |
| 4 | Hand Pump | 241 | 64.8 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

131. The survey found that 46% of the household collect water within 10 meters and 43% collect water within 11-25 meters and 7% of the household collect from over 50 meters. The

average distance of the source of drinking water is 22.6 meters and the average time spent is 6.58 minutes for collection of water. For details refer **Table 59**.

Table 59: Distance of Main source of Water

| # | Distance of the main source of water | Household | %Age |
|---|--------------------------------------|--------------|-------|
| 1 | Within 10 meters | 50 | 45.5 |
| 2 | 11 to 25 meters | 47 | 42.7 |
| 3 | 26 to 50 meters | 5 | 4.5 |
| 4 | More than 50 meters | 8 | 7.3 |
| | Total | 110 | 100.0 |
| 5 | Average distance | 22.6 meters | |
| 6 | Average time for collection | 6.68 minutes | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

132. The survey found that in 95 % of the households, both men and women are responsible for collecting water from outside premises while in only 5% of the household, only women have the responsibility to collect water from outside sources. For details refer **Table 60**.

Table 60: Collection of water from outside sources

| # | Person | Household | %Age |
|---|--------|-----------|-------|
| 1 | Men | 0 | 0.0 |
| 2 | Women | 5 | 4.5 |
| 3 | Both | 105 | 95.5 |
| | Total | 110 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.18 Toilet Facility

133. It was found that all the households are having a toilet facility either a pour flush or a dry pit latrine at their homes. About 63 % of the households are having a pour flush toilet. The rest of the families are having a dry pit latrine (36%). Only two households did not have a toilet. The details are shown in **Table 61**.

Table 61: Type of toilet facilities at the households

| # | Toilet Facility | Household | %Age |
|---|-----------------|-----------|-------|
| 1 | Pour flush | 235 | 63.2 |
| 2 | Dry pit latrine | 135 | 36.3 |
| 3 | No Toilet | 2 | 0.5 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.19 Energy Use Pattern

134. Availability of Electricity and Years of Electrification: All the 372 households in the project area are found to be electrified. Majority of the households were electrified within the last 10 to 20 years and 9% having been electrified for over 20 years. The average electrification period in the rural region covered is 17.4 years. The details are given in **Table 62**.

Table 62: Duration of Electrification

| # | Years of electrification | Household | %Age |
|---|--------------------------|------------|-------|
| 1 | Up to 10 years | 31 | 8.3 |
| 2 | 10 + to 20 years | 308 | 82.8 |
| 3 | More than 20 years | 33 | 8.9 |
| 5 | Total | 372 | 100.0 |
| | Average | 17.4 Years | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

135. **Purpose of Electricity:** In all the households surveyed, electricity is mainly used for lighting of the houses. The other uses of electricity are cooking (5 %) and pumping water for agriculture (11 %). The details are given in **Table 63**.

Table 63: Purpose of Electricity

| # | Purpose of electricity | Household | %Age |
|---|-------------------------------|-----------|-------|
| 1 | Lighting | 372 | 100.0 |
| 2 | Cooking | 18 | 4.8 |
| 3 | Pumping water for agriculture | 40 | 10.8 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

136. **Availability of Electricity:** The availability of electricity in the project area is found to be low. The daily supply in summer and winter is almost similar at 12 hours per day. However, during the monsoon, the availability is very low, recorded to be 8.98 hours. For details refer **Table 64**.

Table 64: Availability of electricity

| # | Average hours of availability of electricity | Total |
|---|--|-------|
| 1 | Summer | 12.8 |
| 2 | Winter | 11.6 |
| 3 | Monsoon | 8.98 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

137. **Monthly consumption and average expenditure on electricity:** Majority of the household (44%) reported spending of INR 251 to 300 per month on electricity, while 22% spent INR 301 to 500 resulting in an average monthly expenditure on electricity being INR 358. For details refer **Table 65**.

Table 65: Monthly consumption of electricity

| # | Monthly Expenditure | Household | %Age |
|---|---------------------|-----------|-------|
| 1 | Up to Rs. 200 | 35 | 9.5 |
| 2 | Rs. 201 to 250 | 65 | 17.6 |
| 3 | Rs. 251 to 300 | 163 | 44.1 |
| 4 | Rs 301 to 500 | 83 | 22.4 |
| 5 | Rs 501 + | 24 | 6.5 |
| | Total | 370 | 100.0 |
| | Average | 358 | |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

138. Use of Non-Electric Energy: In the absence of reliable supply of electricity, about 90 % of the households are using some form of non-electric energy. For details refer **Table 66**.

Table 66: Use of Non-Electric Energy

| # | Use non electric energy | Household | %Age |
|---|-------------------------|-----------|-------|
| 1 | Yes | 363 | 97.6 |
| 2 | No | 9 | 2.4 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

139. About two-third of the households use kerosene/Diesel as non-electric energy and more than 50 % use battery as non-electric energy. About 8 % of the households use gas and very few households (only 1%) are using solar energy. For details refer **Table 67**.

Table 67: Source of Non-Electric Energy

| # | Source of non-electric energy | Household | %Age |
|---|-------------------------------|-----------|-------|
| 1 | Kerosene/ Diesel | 249 | 66.9 |
| 2 | Battery | 210 | 56.5 |
| 3 | Gas | 31 | 8.3 |
| 4 | Solar | 4 | 1.1 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

140. Satisfaction on Electric flow and requirement: Majority (86%) of the household are dissatisfied with the current electricity flow. Further 82% expressed a need for more power. For details refer **Table 68**.

Table 68: Satisfaction and Requirement of Power

| # | Particulars | Household | %Age |
|---|---|-----------|------|
| 1 | Satisfied with current electricity flow | 52 | 14.0 |
| 2 | Requirement of additional electricity | 306 | 82.3 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.20 Cooking Fuel

141. Households use more than one kind of fuel for cooking. LPG and wood are the common cooking fuel used by majority of the households. About 98 % of the household use LPG and 92 % used wood as cooking fuel and only 5% use electricity for cooking. The most preferred cooking fuel is wood for the residents as these are available for free of cost from the nearby village forests. For details refer **Table 69**.

Table 69: Types of cooking fuel used by the households

| # | Cooking fuel | Household | %Age |
|---|--------------|-----------|-------|
| 1 | Wood | 343 | 92.2 |
| 2 | Gas | 365 | 98.1 |
| 3 | Electricity | 19 | 5.1 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.21 Public transport system

142. The government transport system of running busses is limited in the project area. As a result, the households (80%) rely more on local vehicles like auto rickshaws and jeep for commutation. For details refer **Table 70**.

Table 70: Types of Public Transportation used by the households

| # | Public transport | Household | %Age |
|---|--|-----------|-------|
| 1 | State bus | 44 | 11.8 |
| 2 | Local vehicles like auto rickshaws and jeeps | 297 | 79.8 |
| 3 | Own Arrangement | 109 | 29.3 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.3.22 Availability of Other Services

143. Socio-economic survey also explored the availability of other services like dispensary, ambulance, schools and local market. Findings revealed that 97 % of the households has access to both primary school and secondary school. Medical services are provided through PHC and subcenter and 92% of the household visit either of the center to avail treatment. Ambulance service is also available as stated by 97 % of the households. Similarly, the availability of a local market is not a problem as stated by 98% of the households. For details refer **Table 71**.

Table 71: Availability of other services

| # | Availability of other services | Household | %Age |
|---|--------------------------------|-----------|------|
| 1 | Ambulance | 362 | 97.3 |
| 2 | Local Market | 364 | 97.8 |
| 3 | Primary School | 363 | 97.6 |
| 4 | Secondary School | 361 | 97.0 |
| 5 | Sub center / PHC | 345 | 92.7 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4 SOCIO-ECONOMIC PROFILE

5.4.1 Population Distribution

144. the average family size is found to be 3.75 among the surveyed households which was 4.85 according to the 2011 census of India. Similarly, the sex ratio of the families found to be 899 females per 1000 males which was 958 according to the 2011 census of India for Assam. The overall literacy rate among the sampled household members is 94 % which was 72 % according to the 2011 census. The male and female literacy has increased when compared to the census data of 2011. For details refer to **Table 72**.

Table 72: Status of Key Demographic Indicators

| # | Key Indicators | Project area | Assam All* |
|---|---------------------|--------------|------------|
| 1 | Average Family Size | 3.75 | 4.85 |
| 2 | Sex Ratio | 899 | 958 |
| 3 | Literacy | | |
| | All | 93.90% | 72.10% |

| # | Key Indicators | Project area | Assam All* |
|---|----------------|--------------|------------|
| | Male | 95.40% | 77.85% |
| | Female | 92.20% | 66.27% |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

* Census of India 2011

5.4.2 Educational Status

145. The overall literacy rate among the surveyed household members is 94 % which was 72 % according to the 2011 census. Among the male members according to the socio-economic survey the literacy rate is 95.4 % which was 77.85 % according to census of 2011. Similarly, among the female the literacy rate is 92.2 % which was 66.27 % according to census of 2011.

146. Most of the family members have either completed or are in primary, middle or secondary level of education and there is marked difference between the male and female members in this age group. Higher education like graduation achieved by nearly 11 % of the household members almost equal for both the sexes. In the project area very few household members have any technical degree like diploma or ITI. For details refer **Table 73**.

Table 73: Educational Qualification of the Household members aged above 6 years

| # | Level of Education | Male | | Female | | Total | |
|----|------------------------|--------|-------|--------|-------|--------|-------|
| | | Number | %age | Number | %age | Number | %age |
| 1 | Illiterate | 33 | 4.6 | 50 | 7.8 | 83 | 6.1 |
| 2 | Literate | 5 | 0.7 | 7 | 1.1 | 12 | 0.9 |
| 3 | Anganwadi / pre-school | 4 | 0.6 | 8 | 1.3 | 12 | 0.9 |
| 4 | Primary | 138 | 19.3 | 108 | 16.9 | 246 | 18.2 |
| 5 | Middle | 168 | 23.5 | 159 | 24.9 | 327 | 24.2 |
| 6 | Secondary | 148 | 20.7 | 128 | 20.1 | 276 | 20.4 |
| 7 | Higher Secondary | 145 | 20.3 | 105 | 16.5 | 250 | 18.5 |
| 8 | Graduate (gen) | 65 | 9.1 | 61 | 9.6 | 126 | 9.3 |
| 9 | Graduate (Tech) | 7 | 1.0 | 11 | 1.7 | 18 | 1.3 |
| 10 | Diploma/ITI | 3 | 0.4 | 1 | 0.2 | 4 | 0.3 |
| | Total N | 716 | 100.0 | 638 | 100.0 | 1354 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

147. Further all the respondents covered in the survey admitted that they can write, speak and understand the official language which is Assamese and Karbi. For details refer **Table 74**.

Table 74: Percentage respondent who can write official language

| # | Write the official language | Frequency | Percent |
|---|-----------------------------|-----------|---------|
| 1 | Yes | 372 | 100.0 |
| 2 | No | 0 | 0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.3 Occupational Status

148. Among the surveyed households there are about 1130 members, male 596 and female 534 in the age group of 18 years and above. The overall work force participation rate is 47.8%, 77.3 % among the male members which was 53.1 % according to census of 2011 for rural families and only 14.8 % among the female members which was 23.7 % according census of 2011 for Assam (rural).

149. The major occupation of the family members is farming (cultivators), where 54.5 % males and 3.2 % of the females are engaged. Nearly 6 % of the household members are in business and small trades where 8 % males and little less than 6 % of the females are engaged. Overall, 5 % are in government jobs, more males than the females. Similarly in private jobs about 4 % males and 2.6 % females are engaged. Unemployment is recorded to be around 4 % and nearly 3 % of the family members found not working (retired) due to old age. Among the female members a large percentage (59.2 %) are homemakers. Around 17 % are students almost equal for both the sexes. Details are described in **Table 75**.

Table 75: Primary Occupation (18 Years and above)

| # | Primary Occupation | Male | | Female | | Total | |
|----|---------------------------------------|--------|-------|--------|-------|--------|-------|
| | | Number | %age | Number | %age | Number | %age |
| 1 | Farmer / Cultivator | 325 | 54.5 | 17 | 3.2 | 342 | 30.3 |
| 2 | Agricultural Labourer | 19 | 3.2 | 2 | 0.4 | 21 | 1.9 |
| 3 | Both Agri & Non-Agricultural Labourer | 4 | 0.7 | 2 | 0.4 | 6 | 0.5 |
| 4 | Business | 48 | 8.1 | 19 | 3.6 | 67 | 5.9 |
| 5 | Govt. Service | 40 | 6.7 | 18 | 3.4 | 58 | 5.1 |
| 6 | Private Job | 25 | 4.2 | 14 | 2.6 | 39 | 3.5 |
| 7 | Skilled workers | 0 | 0.0 | 7 | 1.3 | 7 | 0.6 |
| 8 | Student | 96 | 16.1 | 95 | 17.8 | 191 | 16.9 |
| 9 | House wife | 0 | 0.0 | 316 | 59.2 | 316 | 28.0 |
| 10 | Unemployed | 13 | 2.2 | 31 | 5.8 | 44 | 3.9 |
| 11 | Retired/ Old | 18 | 3.0 | 13 | 2.4 | 31 | 2.7 |
| 12 | Others | 8 | 1.3 | 0 | 0.0 | 8 | 0.7 |
| | Total N | 596 | 100.0 | 534 | 100.0 | 1130 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.4 Below Poverty Line Families

150. Among the surveyed households about 8 % of the households reported to be BPL families as issued by the government. Details are described in **Table 76**.

Table 76: Percentage of BPL families

| # | BPL Household | Household | %Age |
|---|---------------|-----------|-------|
| 1 | Yes | 31 | 8.3 |
| 2 | No | 341 | 91.7 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.5 Possession of Ration card

151. There are two types of ration card such as Below Poverty Line (BPL) ration card and Above Poverty Line (APL) ration card. Out of the 372 households covered about 8 % are having below poverty line ration card, 87 % possess an above poverty line ration card and the rest 5 % do not possess a ration card. Details are shown in **Table 77**.

Table 77: Types of ration card possessed by Households

| # | Type of ration card | Household | %Age |
|---|------------------------------|-----------|-------|
| 1 | BPL | 30 | 8.1 |
| 2 | APL | 324 | 87.1 |
| 3 | Do not possess a ration card | 18 | 4.8 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.6 Possession of Household Assets and Users

152. Among the surveyed households, a mobile phone is present with nearly 99 % of the households and this is used by both male and female members in 52 % of the households. In 4 % of the households only female are users which means that in at least 56 % of the households a woman is using a mobile phone. Similarly, an LPG connection is there with 92 % of the families where 52 % users are both male and females and in 45 % families only women are the users. A television is there in 85 % of the households and is used by both male and female members in 89 % of the families. A radio is possessed by 24 % of the households, which is used more by the women of the households.

153. For transportation a bicycle is there with 74 % of the families where in 49 % of the families a male member and in 47 % of the families a female member is a user. Similarly, a two-wheeler is there in 49 % of the households and are used by males in 57 % of the households and by females in 41 % of the households. A car is there with 15 % of the households, where in 58 % households a male and in 38 % of the households a female is a user.

154. Further a computer or lap top is there in 20 % of the households where in 62 % of the families a female is a user. A washing machine is mostly used by female members which is possessed by 15 % of the households. Appliances like air conditioner, geyser and room heater are possessed by 5 or less percent of the households. For details refer **Table 78**.

Table 78: Possession of Household assets

| # | Items | No of HH | %Age | User %Age | | |
|---|--------------------------------|----------|------|-----------|--------|------|
| | | | | Male | Female | Both |
| 1 | Radio | 87 | 23.4 | 36 | 5 | 60 |
| 2 | Mobile | 367 | 98.7 | 14 | 2 | 84 |
| 3 | Bicycle | 276 | 74.2 | 49 | 3 | 47 |
| 4 | Tractor | 26 | 7.0 | 77 | 4 | 19 |
| 5 | Pump set with generator | 39 | 10.5 | 33 | 3 | 56 |
| 6 | Television | 315 | 84.7 | 4 | 6 | 89 |
| 7 | L.P.G Connection/ Gas Cylinder | 343 | 92.2 | 3 | 45 | 52 |
| 8 | Computer/laptop | 73 | 19.6 | 30 | 8 | 62 |

| # | Items | No of HH | %Age | User %Age | | |
|----|---------------------|----------|------|-----------|--------|------|
| | | | | Male | Female | Both |
| 9 | Refrigerator | 115 | 30.9 | 5 | 2 | 93 |
| 10 | Washing Machine | 55 | 14.8 | 13 | 18 | 69 |
| 11 | Motor cycle/Scooter | 183 | 49.2 | 57 | 2 | 41 |
| 12 | Car | 55 | 14.8 | 58 | 4 | 38 |
| 13 | Air Conditioner | 13 | 3.5 | 46 | 0 | 54 |
| 14 | Geyser | 16 | 4.3 | 25 | 0 | 75 |
| 15 | Room heater | 19 | 5.1 | 11 | 0 | 89 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.7 Possession of Live stocks

155. Live stocks like pig, cow, goat, poultry, sheep and buffalo are there with the households covered under the survey. Pigs are there with 43 % of the households with an average possession of 2.6 pigs per household. Similarly, cow is possessed by 34 % of the households with average possession of 2.7, goat with 25 % of the households with average possession of 5.9, poultry with 17.5 % with average possession of 9.5 per households respectively. The unit cost of cow and buffalo being maximum at Rs. 20000/- pig, sheep and goat respectively. Details are described in **Table 79**.

Table 79: Possession of Livestocks

| # | | No of HH | %Age | Total Number | Average possession | Value In INR | Unit Cost |
|---|----------------------|----------|------|--------------|--------------------|--------------|-----------|
| 1 | Live Stock (Cow) | 126 | 33.9 | 196 | 1.6 | 3971000 | 20260 |
| 2 | Live Stock (Buffalo) | 6 | 1.6 | 16 | 2.7 | 320000 | 20000 |
| 3 | Live Stock (Goat) | 93 | 25.0 | 547 | 5.9 | 2541000 | 4645 |
| 4 | Live Stock (Sheep) | 17 | 4.6 | 64 | 3.8 | 347000 | 5422 |
| 5 | Live Stock (Poultry) | 65 | 17.5 | 610 | 9.4 | 435500 | 714 |
| 6 | Live Stock (Piggery) | 161 | 43.3 | 421 | 2.6 | 4004000 | 9511 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.8 Cropping Pattern

156. Among the surveyed household's rice is the major crop cultivated by 95 % of the households. Chilies and potatoes are some of other crops cultivated by the people in the project area. Rice is cultivated by 95 % of the households in a total area of 617.14 bighas and the average yield per bigha is 7.88 quintals. The average price per quintal of rice is Rs. 1998. Chilies are cultivated by 6.2 % in a total area of 15.4 bighas and the average yield per bigha is 5 quintals. The average price per quintal of rice is Rs. 5000. Details are given in **Table 80**.

Table 80: Cropping pattern and average yield

| # | Crops | No of HH | %Age | Total Area (Bigha) | Total Yield in Quintals | Average yield in quintals | Price per unit /quintal (Rs) |
|---|----------|----------|------|--------------------|-------------------------|---------------------------|------------------------------|
| 1 | Rice | 353 | 94.9 | 617.14 | 4861 | 7.88 | 1998 |
| 2 | Wheat | 2 | 0.5 | 1.1 | 12 | 10.91 | 2667 |
| 3 | Maize | 2 | 0.5 | 1.2 | 4.5 | 3.75 | 3000 |
| 4 | Oilseeds | 2 | 0.5 | 0.6 | 6 | 10.00 | 3500 |
| 5 | Pulses | 5 | 1.3 | 1.62 | 20 | 12.35 | 4000 |

| # | Crops | No of HH | %Age | Total Area (Bigha) | Total Yield in Quintals | Average yield in quintals | Price per unit /quintal (Rs) |
|---|---------|----------|------|--------------------|-------------------------|---------------------------|------------------------------|
| 6 | Brinjal | 3 | 0.8 | 3 | 90 | 30.00 | 3667 |
| 7 | Chilli | 23 | 6.2 | 15.4 | 78.2 | 5.08 | 5000 |
| 8 | Potato | 18 | 4.8 | 6.1 | 215 | 35.25 | 2000 |
| 9 | Cabage | 3 | 0.8 | 0.62 | 6 | 9.68 | 1667 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.9 Household Economic Activities

157. Household members not only perform their primary occupation but also engaged in various other activities to earn a livelihood. In the project area, families have multiple sources of income and they are engaged in other small income generating activities. This highlights the diverse income sources and responsibilities of household members. The different types of economic activities that most household members are engaged in are agriculture, wage labor in non-agricultural sector, livestock management while some are working in government sector and running business. Overall, 91% of household members are engaged in agriculture, while 49 % are engaged as wage laborers in non-agricultural sector and 28 % are doing livestock practices. About 15 % of the household members are working in government jobs and nearly 9 % in private sector. In 13 % of the households' members are engaged in business. In all the profession more male members are engaged than the females except in livestock management. For details refer **Table 81**.

Table 81: Types of economic activities of the households

| # | Types of economic activities | Household | %Age | Total Men Involved | Total Women Involved |
|----|---|-----------|------|--------------------|----------------------|
| 1 | Agriculture/Cultivation | 340 | 91.4 | 400 | 281 |
| 2 | Wage labour (Agriculture) | 20 | 5.4 | 24 | 7 |
| 3 | Wage labour (Non-agriculture) | 183 | 49.2 | 198 | 19 |
| 4 | Livestock | 105 | 28.2 | 61 | 101 |
| 5 | Lease cultivation (Lease out) | 7 | 1.9 | 7 | 0 |
| 6 | Lease cultivation (Lease in) | 3 | 0.8 | 3 | 2 |
| 7 | Small enterprise (Home based enterprises) | 5 | 1.3 | 5 | 2 |
| 8 | Service in Govt. Sector | 55 | 14.8 | 41 | 18 |
| 9 | Service in Private Sector | 32 | 8.6 | 28 | 12 |
| 10 | Business | 49 | 13.2 | 44 | 13 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.10 Income Pattern

158. The households have more than one source of earning. Agriculture (farming) is one of the major sources of income for the families which is reported by 93 % of the households living in the project area. The next source of income is from wage labour work, reported by half of the households, and one third reported income from livestock management. Business contribute income for 15 % of the families, government job for 13 % and private job for 8 % of the households respectively. For 6 % of the household's income from self-employment is one of the sources. About 5 % of households cited other sources like income form NREGA, rent, land lease out and pension.

159. The total average income of the families from all the sources is Rs. 193509. The average annual income from government job is Rs. 406,776 is the highest followed by income from private job which is Rs 183,871, and from business which is Rs. 158,796. From wage labour the average annual income is Rs. 779,68. The income from agriculture where majority of the households are engaged is the lowest at Rs. 40,702. Details are given in **Table 82**.

Table 82: Sources of Income for the households

| # | Source | No of HH | %Age HH | Average Annual Income |
|----|----------------------------|----------|---------|-----------------------|
| 1 | Agriculture | 347 | 93.3 | 40702 |
| 2 | Live stocks/ | 126 | 33.9 | 41754 |
| 3 | Government Service/Job | 49 | 13.2 | 406776 |
| 4 | Private Service/Job | 31 | 8.3 | 183871 |
| 5 | Business | 54 | 14.5 | 158796 |
| 6 | Wage Labour | 186 | 50.0 | 77968 |
| 7 | Professional/Self Employed | 22 | 5.9 | 85182 |
| 8 | Pension | 1 | 0.3 | 50000 |
| 9 | Income from rent | 3 | 0.8 | 150000 |
| 10 | Land lease out | 3 | 0.8 | 106667 |
| 11 | Others | 12 | 3.2 | 99833 |
| | Total | 372 | 100.0 | 193509 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.11 Expenditure Pattern

160. The average annual expenditure of the households is Rs. 119,183. The households spend around 23 % of their total expenditure on food. The other major expenditures are on transportation (8.1%), gas (8%), on education (7.4%), clothing (7.2%) and on social functions (7%). About 3.4 % of the total annual expenditure is on electricity. For details refer **Table 83**.

Table 83: Annual expenditure pattern

| # | Items | Average In Rs | %age to Total |
|----|---|---------------|---------------|
| 1 | Food | 27242 | 22.9 |
| 2 | Transportation/Conveyance | 9661 | 8.1 |
| 3 | Clothing | 8612 | 7.2 |
| 4 | Health | 7274 | 6.1 |
| 5 | Education | 8817 | 7.4 |
| 6 | Interest payment on loans | 38 | 0.0 |
| 7 | Social functions/festival | 8355 | 7.0 |
| 8 | Agriculture (such as seeds, hiring of farm implements etc.) | 4853 | 4.1 |
| 9 | Minor consumer items (Soap, powder) | 3788 | 3.2 |
| 10 | Electric Bill | 4047 | 3.4 |
| 11 | Mobile bill | 4297 | 3.6 |
| 12 | Cigarette / Tobacco | 463 | 0.4 |
| 13 | House Maintenance | 8166 | 6.9 |
| 14 | Animal Husbandry | 1898 | 1.6 |
| 15 | Gas | 9480 | 8.0 |
| 16 | House rent | 712 | 0.6 |

| # | Items | Average In Rs | %age to Total |
|----|-------------|---------------|---------------|
| 17 | Any other | 11481 | 9.6 |
| | Grand Total | 119183 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.12 Coverage under Government's Benefit Schemes

161. Only 4 % of the households reported of receiving benefit from different government schemes. For details refer **Table 84**.

Table 84: Benefit from Schemes

| # | Any benefit from schemes | No of HH | %Age |
|---|--------------------------|----------|-------|
| 1 | Yes | 14 | 3.8 |
| 2 | No | 358 | 96.2 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

162. Among the 14 households those reported of benefitting from any schemes, majority about 79 % are the women and the rest 21 % are males who have benefitted from the schemes. For details refer **Table 85**.

Table 85: Person benefitted from the Scheme

| # | Person in the family | No of HH | %Age |
|---|----------------------|----------|-------|
| 1 | Man | 3 | 21.4 |
| 2 | Woman | 11 | 78.6 |
| 3 | Both | 0 | 0.0 |
| | Total | 14 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

163. The benefit received is loan as reported by 50 % of the households and one each received training and employments. For details refer to **Table 86**.

Table 86: Kind of Benefit

| # | Kind of benefit | No of HH | %Age |
|---|-----------------|----------|-------|
| 1 | Loan | 7 | 50.0 |
| 2 | Training | 1 | 7.1 |
| 3 | Employments | 1 | 7.1 |
| 4 | Others | 5 | 35.7 |
| | Total | 14 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.13 Availability of Bank Account

164. Most of the households (99.7%) covered are having a bank account. For details refer **Table 87**.

Table 87: Households having a bank account

| # | Bank account | No of HH | %Age |
|---|--------------|----------|-------|
| 1 | Yes | 368 | 99.7 |
| 2 | No | 1 | 0.3 |
| | Total | 369 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

165. The bank accounts are there in the name of the man and woman and few of the households have joint account. About 95 % of the households reported having bank account in the name of male members and in 76 % of the households the account is in the name of the female members. The joint account is there in 5 % of the households. For details refer **Table 88**.

Table 88: Account Holders

| # | Whose name | No of HH | %Age |
|---|---------------|----------|-------|
| 1 | Man | 350 | 95.1 |
| 2 | Woman | 278 | 75.5 |
| 3 | Joint Account | 19 | 5.2 |
| | Total | 368 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.4.14 Health Status

166. Among the surveyed households very few reported of illness of their family members. Only 7 % of the households reported illness of their family members during last one year preceding the survey. For details refer **Table 89**.

Table 89: Major illness in the family during last one year

| # | Illness | No of HH | %Age |
|---|---------|----------|-------|
| 1 | Yes | 25 | 6.7 |
| 2 | No | 347 | 93.3 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

167. Among these 25 families only one member had fallen ill during the last one year. The incidence of appendicitis, stroke, kidney stone, chest infection, dengue, stomach pain etc reported by the households. All of them have taken allopathic treatment and the average cost of treatment reported to be INR 3500. For treatment the families spend from their own income and not taken any loan.

5.4.15 Coverage under Insurance

168. Among the households about 22 % reported of having a social or health insurance. For details refer **Table 90**.

Table 90: Family covered under social / health insurance

| # | Family covered | No of HH | %Age |
|---|----------------|----------|-------|
| 1 | Yes | 81 | 21.8 |
| 2 | No | 291 | 78.2 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

169. The social and health insurance are in the joint names of the male and female members in majority of the households (59%). In 35 % of the households only a male member and in 6 % of the household only a woman is covered. For details refer **Table 91**.

Table 91: Person covered under social / health insurance

| # | Person covered | No of HH | %Age |
|---|----------------|----------|-------|
| 1 | Man | 28 | 34.6 |
| 2 | Woman | 5 | 6.2 |
| 3 | Both | 48 | 59.3 |
| | Total | 81 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5 STATUS OF WOMEN

5.5.1 Educational Status of Women in Project Area

170. Most of the women in the villages perceive education as very important for both boys and girls. In every village, there is at least a primary school and women feel education is must for all, especially for the girls. The education of girls is crucial as it fosters independence and strength, and no one can dominate an educated girl. From the gender consultation it was found that higher education among females is less, found in all the seven affected villages covered gender consultation. Girls are mostly educated till class 10th and 12th. The distance of the colleges and cost of the traveling unfortunately is a bottleneck for higher education.

171. Finding of the socioeconomic survey revealed that educational scenario for the girl child between the age group of 6 to 15 years is good, as all the girls are enrolled in schools. Details on the educational status is described in **Table 92**.

Table 92: Educational Qualification (6 to 15 years)

| # | Level of Education | Male | | Female | | Total | |
|---|---------------------------|------------|-------|--------|-------|--------|-------|
| | | Number | %age | Number | %age | Number | %age |
| 1 | In Anganwadi / pre-school | 4 | 3.7 | 8 | 9.5 | 12 | 6.2 |
| 2 | Primary | 55 | 50.5 | 31 | 36.9 | 86 | 44.6 |
| 3 | Middle | 41 | 37.6 | 35 | 41.7 | 76 | 39.4 |
| 4 | Secondary | 8 | 7.3 | 7 | 8.3 | 15 | 7.8 |
| 5 | Higher Secondary | 1 | 0.9 | 3 | 3.6 | 4 | 2.1 |
| | Total N | 109 | 100.0 | 84 | 100.0 | 193 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.2 Women's Participation in Economic Activities

172. The survey findings revealed that women in the project area are engaged in various economic activities to supplement their family income, in addition to household work. Majority (75%) of women are engaged in agriculture and about 44% are engaged in animal husbandry and 17% are involved in activities like dairy, poultry and sheep rearing. However, only a small percentage of women are involved in trade and business or doing service. Women's participation in agricultural activities is higher than their involvement in labour work, which is low among the surveyed households. For details refer **Table 93**.

Table 93: Women involvement in income activities

| # | Women involvement in income activities | No of HH | %Age |
|---|--|----------|------|
| 1 | Cultivation | 279 | 75.0 |
| 2 | Trade & Business | 19 | 5.1 |
| 3 | Agricultural Labour | 8 | 2.2 |
| 4 | Non-Agricultural Labour | 12 | 3.2 |
| 5 | Small, home-based enterprises run by women | 3 | 0.8 |
| 6 | Service | 33 | 8.9 |
| 7 | Households Work | 333 | 89.5 |
| 8 | Animal Husbandry | 163 | 43.8 |
| 9 | Diary/Poultry/Sheep rearing | 63 | 16.9 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.3 Women's Contribution to household Income

173. In the project area women contribute significantly to household income. They are engaged in various economic activities beyond their household work. About 72 % of the household reported that their women are contributing to the household income. In 15 % of the household, women are contributing up to 11-20% to household income, 7% contributing 21 to 30% and 37% contributing up to 10%. However, in a small percentage of households, women contribute more than 75% to household income. For details refer **Table 94**.

Table 94: Women contribution to household income

| # | Women involvement in income activities | No of HH | %Age |
|---|--|----------|--------|
| 1 | No contribution | 104 | 28.0 |
| 2 | Up to 10 % | 137 | 36.8 |
| 3 | 11 to 20 % | 57 | 15.3 |
| 4 | 21 to 30 % | 26 | 7.0 |
| 5 | 31 to 50 % | 22 | 5.9 |
| 6 | 51 to 75 % | 17 | 4.6 |
| 7 | More than 75 % | 9 | 2.4 |
| | Total | 372 | 100.00 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.4 Women's Participation on Financial Decision Making

174. Women do play a role in the financial decision-making process. The decision of women is relatively stronger on aspects related to savings/ amount to be saved whereas on family/ household expenditures women sometimes have a say in the allocation of their earnings. Only in 32% of the household women always has a say on the earned money to be spent. For details refer to **Table 95**.

Table 95: Women's say on the money she earns

| # | Women say | No of HH | %Age |
|---|---|----------|------|
| 1 | Women <u>always</u> have a say on the earned money to be spent | 119 | 32 |
| 2 | Women <u>sometimes</u> have a say on the earned money to be spent | 229 | 61.6 |
| 3 | Women decide amount to be saved | 326 | 87.6 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.5 Women's Participation on Family Expenditures and Assets

175. It was found that both men and women participate in the decision-making process for family or household expenditures and assets. About 90% of the household stated that both men and women make decisions on buying expensive items, buying items for personal use or spending money on personal recreation. Similarly, 85% of the household stated that both men and women decide on selling or buying expensive assets like car or house. This indicates equal participation of men and women in the decision-making process on expenditures. For details refer to **Table 96**.

Table 96: Women's Participation in Household's Financial Decision Making

| # | Family/Household expenditures | Men | Women | Both |
|---|---|------|-------|------|
| 1 | Expenditure on food | 0.5 | 5.9 | 93.5 |
| 2 | Decision on Buying expensive items | 9.6 | 0.6 | 89.9 |
| 3 | Decision of buying items for personal use | 8.7 | 0.8 | 90.4 |
| 4 | Spending money for personal recreation | 9.9 | 0.3 | 89.9 |
| 5 | Selling and buying items like car, house | 14.0 | 0.6 | 85.4 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.6 Property Ownership by Women

176. Women have lesser rights on property ownership than men. Only about 9 % of the women stated that they have rights on household property or their name is there in the household property. For details refer to **Table 97**.

Table 97: Households having Women Ownership

| # | Property in the name of the women | No of HH | %Age |
|---|-----------------------------------|----------|-------|
| 1 | Yes | 34 | 9.1 |
| 2 | No | 338 | 90.9 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.7 Women's Role on Education of the Children

177. Women play a key role in the decision-making process of children education, particularly regarding school admission. This highlights women significant role in ensuring the well-being of children. More than 90 % of the women asserted that they have a say on the child's admission in the school. On other aspects such as teaching children and purchasing school items, both genders contribute to the decision-making process. About 88 % of the households reported that both men and women teach children and 92% agree on buying school uniform and stationaries. For details refer **Table 98**.

Table 98: Women's Participation Child's Education

| # | Women participation in child education | No of HH | %Age |
|---|--|----------|------|
| 1 | Women has a say on child school admission | 244 | 90.4 |
| 2 | Both men and women teach children | 245 | 88.4 |
| 3 | Both men and women decide buying school uniform and stationaries | 267 | 91.8 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.8 Women's Role on Decision on Health

178. When it comes to family illness, both men and women work together to care for the sick member. In more than 90% of the household both men and women collaborate to care for sick family members and contribute equally to decision making process regarding health aspects such as visiting a health facility, taking the sick child to hospital or providing health care to child at home. This collaborative approach ensures equal care for all family members. For details refer to **Table 99**.

Table 99: Women's Participation on Family Health (In row %age)

| # | Women's role in decision to health | Men | Women | Both |
|---|--|-----|-------|------|
| 1 | Decision on health facility to be visited | 4.8 | 0.8 | 94.4 |
| 2 | child is sick who takes him/her to hospital | 1.4 | 4.0 | 94.6 |
| 3 | Person provides health care to child at home | 1.4 | 4.0 | 94.5 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.9 Women's Role on Social Function

179. The findings revealed that both men and women play a crucial role in the decision- making process related to social function such as marriages, rituals and festivals within families. In 78% of household both men and women participate and take decisions on social function. However, in 10% of the household women only participate in family social function. For details refer to **Table 100**.

Table 100: Women's Participation on Family's social function

| # | Social Function and Marriage | No of HH | %Age |
|---|------------------------------|----------|-------|
| 1 | Men | 42 | 11.9 |
| 2 | Women | 34 | 9.6 |
| 3 | Both | 277 | 78.5 |
| | Total | 353 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.10 Men and Women's participation in Household Chores

180. Traditionally women have been the primary caregivers in household, be it preparing the food, cleaning the house or utensils or washing clothes. However there has been a shift in nuclear families, where men now support these tasks, with women working to earn an income. Findings revealed that in majority of the household, i.e., above 70% women are performing household chores like cooking and washing while in 40% of the household both men and women perform cleaning and in one fourth of household both perform work like cooking and washing clothes. For details refer to **Table 101**.

Table 101: Women's Participation in Household Chores

| # | Household chores | Men | Women | Both |
|---|------------------|-----|-------|------|
| 1 | Cooking | 0.3 | 70.0 | 29.7 |
| 2 | Washing | 0.3 | 71.7 | 28.0 |
| 3 | Cleaning | 0.8 | 59.5 | 39.7 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.11 Women's participation in SHG

181. Women self-help groups (SHGs) exist in the state of Assam. About 82 % of households stated that SHGs are operating in their localities / villages. Among the households 17% reported to be a member of SHGs, which is very low. These details are given in **Table 102**.

182.

Table 102: Women Membership in SHGs

| # | SHG details | No of HH | % |
|---|---------------------|----------|------|
| 1 | Any SHG operational | 303 | 81.5 |
| 2 | Membership in SHG | 64 | 17.2 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.12 Women's Acquired Skills

183. More than 97 % of the women informed that they do not have any traditionally acquired specific skills. Few of them reported of having handicraft skills. For details refer to **Table 103**.

Table 103: Women having Acquired Skill

| # | Have any Skills | No of HH | % |
|---|----------------------|----------|------|
| 1 | No skills | 360 | 96.8 |
| 2 | Handicrafts/Handloom | 12 | 3.2 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.13 Women's Participation in skill trainings

184. Only about 3 women reported that they have taken skill training on handicraft and handloom. For details refer to **Table 104**.

Table 104: Women reported of taking any skill training

| # | Skill Training | No of HH | %Age |
|---|----------------|----------|--------|
| 1 | Yes | 3 | 0.8 |
| 2 | No | 369 | 99.2 |
| | Total | 372 | 100.00 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.5.14 Women's perception on Solar Park

185. In 95% of the household women feel that Solar Park will be useful and 4% of the household women are not aware of its benefits. For details refer to **Table 105**.

Table 105: Women Perception of Solar Park Benefits

| # | Beneficial | No of HH | %Age |
|---|----------------------|----------|-------|
| 1 | Yes | 354 | 95.2 |
| 2 | No | 3 | 0.8 |
| 3 | Do not Know/Cant Say | 15 | 4.0 |
| | Total | 372 | 100.0 |

Source: Socio-Economic Survey, APDCL, Nov 23-Feb, 2024

5.6 SUMMARY FINDINGS

186. All the households covered in the survey belong to the rural areas. People are aware of the project and support the proposed Project. All the households belong predominantly to the Hindu religion (99.7%) and all of them belong to Scheduled Tribe. Majority of the households are nuclear family (84%) and only 8.3 % of them comes under BPL households and 5.6% are women headed. There are no landless households and only one physically challenged person lives in only one household. On an average, 26% of the people are living in the project area for the last twenty years. Majority (about 75 %) are residing for 21 to 30 years and 22 % are living for living for last 20 years. Only 3.5 % are living in the area for more than 30 years.

187. All the households are allocated agricultural land by the tribal council. 41% of the people are also allocated residential land. The average land size allocated by the Tribal Council is 1.94 Bigha per family. About 32 % has been allocated land in the range of 1 to 1.5 Bigha, nearly 29 % has been allocated 1.51 to 2 Bigha of land and nearly one fourth has been allocated 2 Bighas or more. The people in the project area are using the agricultural land for about 20 years on an average. About two third of the households (67 %) are using for last 10 to 20 years. All the households stated that they possess land and have land Patta in their name as possession document for agricultural land.

188. Most of the houses in the project area have roofs made of metal/ GI (92%) are made of brick. More than fifty percent (57%) of the houses have constructed walls with bamboo with mud. 50% of the houses have concrete cemented floors and 47% have natural sand, mud and dung floors. The availability of rooms is not a problem as the average possession of rooms is almost 4.57 rooms per households. About 47% of the households have three rooms, 33% have four rooms and 18% have more than four rooms in their dwellings. For drinking purpose, hand pumps is the major source and for seventy percent of the households have the availability of water within their premises. About 46% of the household collect water within 10 meters and 43% collect water within 11-25 meters and 7% of the household collect from over 50 meters. The average distance of the source of drinking water is 22.6 meters and the average time spent is 6.58 minutes for collection of water. In most of the households (95%), both men and women are responsible for collecting the water. There is access to toilet for almost all the households with 63 % having pour flush toilet and 36% have dry pit latrine.

189. All the houses are electrified in the project area. The main purpose of using electricity is lighting and the other uses are cooking and pumping water for agriculture. The availability of electricity in the project area is found to be low. The daily supply in summer and winter is almost similar at 12 hours per day and in monsoon, the availability is even lesser (9 hours per day). The average expenditure on electricity consumption is INR 358 per month. There is demand of more electricity as reported by 82 % of the households surveyed in the project area. In the absence of reliable supply of electricity, about 90 % of the households are using some form of non-electric energy. About two-third of the households use kerosene/Diesel as non-electric energy and more than 50 % use battery as non-electric energy. About 8 % of the households use gas and very few households (only 1%) are using solar energy. The households used more than one kind of fuel for cooking. LPG (98%) and wood (92%) are the common cooking fuel used by majority of the households.

190. In the project area the average family size of the sampled household is found to be 3.75. The sex ratio of the households is 899 females for 1000 males, marginally lower than the national sex ratio of 958 females for 1000 males as per the Census carried out in 2011. The overall literacy is 93.9 %, for the males it is about 95.4 % and among the female's literacy is about 92.2 %.

191. In the age group of 6-15 years all the children are enrolled in schools and most of them have either completed or are in primary or middle level. In this age group more females are in middle level and more male are in the primary level. Among the adolescents and the youth in the age group of 16 to 25 years, most of them have achieved either secondary or higher secondary level of education. None in this group have achieved post-graduation level of education. Further no one have any technical degrees. Among the females in this age group about 3 % are illiterates and no one among the males are illiterate. The overall literacy rate among the surveyed household members is 94 % which was 72 % according to the 2011 census. All the respondents can read and write Asamese and Krabi.

192. Most of the population is cultivators (54.5 % males and 3.2 % females). The household members are engaged in other occupation like business and small trades (6%), government jobs (5%), private jobs (3.5%). Among the female members a large percentage (59.2 %) are homemakers. Around 17 % are students almost equal for both the gender. Only 8% of the population live below the poverty line and they have BPL ration cards. 87% of them possess above poverty line ration cards and 5 % do not have any ration cards.

193. Household assets like a mobile phone, television, LPG connection is adequately present in the households. A computer or a laptop is possessed by 20 % of the households. A radio and bicycle are available in less than 20 % of the households. Washing machines are used by only 15 % of the households. Appliances like air conditioners, geysers, room heaters is possessed by only 5 % or less of the households. For transportation, bicycle is present in 74% of households, 2-wheelers in 49 % of households and cars in 15% of households. Similarly, livestock like pigs, cow, goat, sheep, buffalo are present in all households.

194. All the households in the project area are having agricultural lands the average possession being 1.85 bighas. About 29 % are having 0.5 to 1 Bigha, 21 % are having 1 to 1.5 Bigha and 26 % are having land in the range of 1.51 bigha to 2 Bigha. Only less than 10 % are having 3 or more Bighas. The cost per bigha of the agricultural land is very high at Rs. 300000. The government circle rate is Rs. 200000.

195. Rice is the major crop cultivated by majority of households. Chilies and potatoes are some of other crops cultivated by the people in the project area. Rice is cultivated by 95 % of the households in a total area of 617.14 bighas and the average yield per bigha is 7.88 quintals. The average price per quintal of rice is Rs. 1998.

196. The households have different sources of earnings. Agriculture (farming) is one of the major sources of income for the families which is reported by 93 % of the households living in the project area. The next source of income is from wage labour work, reported by half of the households, and one third reported income from livestock management. Business contribute income for 15 % of the families, government job for 13 % and private job for 8 % of the households respectively. For 6 % of the household's income from self-employment is one of the sources. About 5 % of households cited other sources like income from NREGA, rent, land lease out and pension.

197. The total average income of the families from all the sources is Rs. 193509. The average annual income from government job is Rs. 406,776 is the highest followed by income from private job which is Rs 183,871, and from business which is Rs. 158,796. From wage labour the average annual income is Rs. 779,68. The income from agriculture where majority of the households are engaged is the lowest at Rs. 40,702.

198. The average annual expenditure of the households is Rs. 119,183. The households spend around 23 % of their total expenditure on food. The other major expenditures are on transportation

(8.1%), gas (8%), on education (7.4%), clothing (7.2%) and on social functions (7%). About 3.4 % of the total annual expenditure is on electricity.

199. In the project area except for one household, none of the families have taken loan. Only 4% of the households have reported of receiving benefits from different government schemes. Out of the people taking benefit from government schemes, 79% of women and 21% men have taken the benefit. The benefit received is loan in case of 50% of households and trainings and employment received by 7% each.

200. Majority of the households in the project area have bank accounts (99.7%). About 95 % of the households reported having bank account in the name of male members and in 76 % of the households the account is in the name of the female members. The joint account is there in only 5 % of the households. There is no migration reported except one household in the project area.

201. There is no major incidence of illness in the project area as reported by the households. Only 7 % of the households reported illness of their family members during last one year. The common diseases reported are appendicitis, stroke, kidney stone, chest infection, dengue, stomach pain. All of them have taken allopathic treatment and the average cost of treatment reported to be INR 3500. The respondents did not take any loan for the treatment. About 22 % of the households reported to have a social or health insurance. The social and health insurance are in the joint names of the male and female members in majority of the households (59%). In 35 % of the households only a male member and in 6 % of the household only a woman is covered.

202. Education is considered very important for girls and boys as reported by the women in the project area. It is found that higher education amongst females is less than males. Girls are mostly educated till 10th or 12th standard. The distance of the colleges and cost of the traveling is a bottleneck for higher education for girls. The educational scenario for the girl child between the age group of 6 to 15 years is good, as all the girls are enrolled in schools. The women in the project area are engaged in various economic activities to supplement their family income, in addition to household work. Majority (75%) of women are engaged in agriculture and about 44% are engaged in animal husbandry. About 72 % of the household reported that their women are contributing to the household income.

203. Women has healthy participation in household decision making process. The participation of women is relatively stronger on aspects related to savings/ amount to be saved whereas on family/ household expenditures women sometimes have a say in the allocation of their earnings. It was found that both men and women participate in the decision-making process for family or household expenditures and assets. About 90% of the household stated that both men and women make decisions on buying expensive items, buying items for personal use or spending money on personal recreation.

204. Women play a significant role in the household financial decision-making but they have lesser rights on property ownership. Only about 9 % of the women stated that they have rights on household property or their name is there in the household property. Women play a key role in the decision-making process of children education, particularly regarding school admission. This highlights women significant role in ensuring the well-being of children. More than 90 % of the women asserted that they have a say on the child's admission in the school.

205. Similar is the situation on health where in more than 90% of the household both men and women collaborate to care for sick family members and contribute equally to decision making process regarding health aspects such as visiting a health facility, taking the sick child to hospital

or providing health care to child at home. Further both men and women play a crucial role in the decision- making process related to social function such as marriages, rituals and festivals within families.

206. Women self-help groups (SHGs) exist in the state of Assam. About 82 % of households stated that SHGs are operating in their localities / villages. Most of of the women informed that they do not have any traditionally acquired specific skills. Only about 3 women reported that they have taken skill training on handicraft and handloom. Almost all the women feel that the solar project will be beneficial. Most of the women (82%) perceive that uninterrupted supply of electricity will help them carrying out household works and about 46 % feels that it will help in the education of the children.

VI. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

6.1 GENERAL

207. The purpose of the stakeholder consultation and public participation process is to ensure that stakeholders, interested and affected parties as well as the public are informed of the proposed project and activity, to solicit their views and opinions about the project. According to the ADB Safeguard Policy Statement (2009): “The borrower and client will carry out meaningful consultation with affected people and other concerned stakeholders, including civil society, and facilitate their informed participation. Meaningful consultation is a process that:

- (i) Begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;
- (ii) Provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people;
- (iii) Is undertaken in an atmosphere free of intimidation or coercion;
- (iv) Is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and
- (v) Enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

208. As an integral part of the safeguards planning stakeholders’ consultations were carried out during the month of January and February 2024 including indigenous peoples, scheduled tribe and communities during the preparation of the RIPP. The process of consultation will be continued during project implementation. Future consultations will be carried out with all the stakeholders

6.2 OBJECTIVE OF THE CONSULTATION

209. Following are the main objectives of the consultations:

- To share the project’s scope information and benefits with the people and to ascertain consensus of tribal and indigenous people on the acceptability of the project
- To seek their support for project design and implementation to avoid any potential negative impact
- To seek their Consent for project to avoid any potential negative impact
- Make people aware about the project and its potential adverse impacts including temporary land impact and loss of crops, trees with proposed mitigation and compensation measures.
- Develop thorough coordination between all stakeholders for the successful implementation of project
- To make the people aware about the next plan of action relating to project implementation.
- Make them aware about the project implementation schedule, mitigation measures, grievance redress mechanism etc. affected persons and communities’ consultations requirements and plans, and seeking their views on continued participation.
- To seek consent from the head of the council and respective village heads (Gaon Bura) of the indigenous peoples
- Seeking the broad community support (BCS) for the project as per ADB SPS.

6.3 STAKEHOLDERS IN THE PROJECT

210. Following are the key stakeholders in the Project:

- Chief Executive Member (Head of the Council) along with council officials
- Affected People
- Indigenous Peoples, affected IP, Community members, village head and council representatives
- Gaon Bura (Village Head)
- General IP community
- Women and Vulnerable
- Affected Tenants
- School Authority near to the project site
- Business operators in the nearby market place
- Non-Government Organization (NGO)
- IP beneficiaries in the distribution components (output 3 and 4)

6.4 METHODS OF PUBLIC CONSULTATIONS

211. Methods used for consultation and participation with concerned stakeholders are described in Table 106.

Table 106: Method of Consultations

| Stakeholders | Purpose | Method |
|---|--|---|
| Officials of APDCL, ASSAM including women staff | <ul style="list-style-type: none"> • To seek their participation in the safeguards planning activities. • To discuss about ADB's SPS and broad policy and principles and safeguards requirement • To discuss with women staff on gender issues and their expectations from the project on future training and capacity building training. | Individual and group meetings |
| Chief Executive Member (Head of the Council) along with elected council officials and representatives | <ul style="list-style-type: none"> • For information sharing about the project • Seeking their support to the project • Seeking their participation in the land acquisition, involuntary resettlement and indigenous peoples planning • Seeking support for the RIPP implementation • Seeking support for sharing project benefits and local area development | Formal Official meetings at the district council head office at Diphu |
| General Consultation with Scheduled tribe or indigenous people in the project areas. | <ul style="list-style-type: none"> • For information sharing about the project • Discussing about the IP benefits and potential impacts and mitigation • To know about the local condition especially socio-cultural setup of scheduled tribes or indigenous peoples • Seeking their views on the project impact and risks, obtain suggestion on the possible mitigation of risks • Discuss plan of action such as project implementation and timeline. • Discuss about Institutional setup and Grievance Redress Mechanism • Seeking their participation during the project implementation • Disclosure of project brochure • Benefit sharing measures | Public consultations at some villages through FGDs and also scheduled tribes in the project villages. |

| Stakeholders | Purpose | Method |
|---|--|--|
| | <ul style="list-style-type: none"> • Preferred compensation option | |
| Consent Seeking Consultations with Traditional Village Head (Gaon Bura) along with Affected persons of the Villages | <ul style="list-style-type: none"> • Disclosure of project brochure in Local language • For information sharing about the project • Seeking their views on the project impact and risks, obtain suggestion on the possible mitigation of risks • Project benefits • Impacts • Discuss plan of action such as project implementation and timeline. • Discuss about Institutional setup and Grievance Redress Mechanism • Seeking their participation during the project implementation • Consent from the Affected HH • Preferred compensation option | Informed Public consultations through FGD at 7 affected Village along with APDCL officials |
| Agricultural Tenant Consultation | <ul style="list-style-type: none"> • Information Sharing about the project. • To ascertain the impacts of the project • To ascertain the impact of livelihood on them • Project Benefits • Discuss about Institutional setup and Grievance Redress Mechanism • Future action • Mitigation measures in case of issues. • Preferred compensation option | Consultation through FGD |
| Business/Shop Operators in nearby villages and School | <ul style="list-style-type: none"> • To make them aware about the project • Seeking their feedback for any potential risks • Providing responses as mitigation measures | Consultation through FGD |
| Women | Gender equality and social inclusion in the project planning | FGDs with women |
| NGO | Seeking intervention and participation in project benefit sharing for the women and livelihood | Meeting with NGO officials |
| Broad Community - Indigenous People/Scheduled Tribes (Affected and non-affected) | To seek broad community support | Community Consultations at project affected tribal villages |

ADB= Asian Development Bank, FGD= Focused Group Discussion

6.5 FINDINGS OF THE CONSULTATIONS

212. Findings of each consultation are provided below in various subsections and the summary of consultations showing the stakeholders, period and number of participants (gender segregated) is provided in **Table 107**.

Table 107: Summary Details of Consultations

| # | Type of Consultations | Period From-to | Male | Female | Total Participants |
|---|---|-----------------|------|--------|--------------------|
| 1 | Consultation Meeting with the Head of the Council and Representatives | Feb 2024 | 32 | 7 | 39 |
| 2 | General Community Consultations including Indigenous Peoples | Jan to Feb 2024 | 52 | 0 | 52 |
| 3 | Consultations with Tribal Leaders – Gaon Bura | Jan 2024 | 7 | 0 | 7 |
| 4 | Consultation with Agricultural Tenants | Jan 2024 | 32 | 19 | 51 |
| 5 | Consultation with Shop Owners and School | Feb 2024 | 22 | 10 | 32 |
| 6 | Consultation with Women | Jan to Feb 2024 | 0 | 163 | 163 |
| 7 | Consultation with IP Beneficiaries in Distribution Component | Jan 2024 | 19 | 5 | 24 |
| 8 | Broad Community Support | Jan 2024 | 207 | 132 | 339 |
| | | | 371 | 336 | 707 |

6.5.1 Consultation Meeting with the Head of the Council and Representatives

213. Formal consultation meeting with the head of the council and their representatives. ADB officials, Consultants and APDCL officials met the Chief Executive Member (CEM), Karbi Anglong Autonomous Council along with concerned Executive Members (EMs), Members and officials of the Council to kick start the discussion on the proposed Solar Power Project before the start of the field visit as part of the fact-finding mission at the Conference Hall of the KAAC on 19 February 2024. CEM welcomed all the participants of the meeting and assured all help and support for the proposed project. The Council agreed to undertake fair compensation to the land losers through proper verification of the Affected Households. The Council agreed to undertake developmental activities like upgradation of roads, developmental of school and health infrastructure of the affected area. Though the land rights are customary, the Council agreed to follow the ADB guidelines for compensation for the loss of land and non- land assets to the Affected Council agreed to conduct Zeerat (Proper Survey to ascertain the actual loss) for non-land assets like houses, trees and crops to be considered for compensation. Council rendered their full support for the planning and implementation of RIPP. Details of the participants' list and photographs are provided in **Appendix- 8**.

6.5.2 General Community Consultations including Indigenous Peoples

214. Consultations were carried out at 5 locations in the Solar Project affected area during January and February 2024 with tribal population. Karbi Anglong District is a Sixth schedule area

under the Constitution of India. Consultations with the scheduled tribe people in the project area will be continued further during the project implementation. A total 52 people (scheduled tribe) attended the consultations. Locations and number of participants are described in **Table 108** and summary findings of the consultations are described in **Table 109**. The summary of the issues raised and their clarification and mitigation are given in **Table 110**. Details on each consultation in IP villages along with responses and list of participants are provided in **Appendix- 9**.

Table 108: Locations and Participants in Consultations with Indigenous People

| # | Location | District | Date | Male | Female | Total |
|--------------|-------------|---------------|------------|-----------|----------|-----------|
| 1 | Nahorijan | Karbi Anglong | 27.01.2024 | 10 | 0 | 10 |
| 2. | Long Kathar | Karbi Anglong | 30.01.2024 | 14 | 0 | 14 |
| 3 | Karagaon | Karbi Anglong | 29.01.2024 | 13 | 0 | 13 |
| 4 | Khat Khati | Karbi Anglong | 02.02.2024 | 9 | 0 | 9 |
| 5. | Lalmati | Karbi Anglong | 30.01.2024 | 6 | 0 | 6 |
| Total | | | | 52 | 0 | 52 |

Table 109: Summary Findings of Public Consultations – Indigenous Peoples

| ISSUES | Response |
|--|--|
| Name of the Tribes What is the common language What is the official language Are there non-tribal households If yes, name and percentage What is the general occupation of the tribal people? | The major tribes found in the area are Karbi and Naga tribes. Karbi and Assamese are the common languages. Yes, there are non-tribals like Nepali, Assamese, Bengali Out of total HHs, non-tribals are very less. Main occupation is farming |
| What are the general economic activities performed by the tribal people in your area. Are there existing traditional activities performed by the indigenous people in this area for livelihood such as jhum cultivation, hunting, collection and sale of any forest products? | There are two types of cultivation: Plantation: Rubber, teak, bamboo and Chitronala Crops: Paddy, Mustard, sesame etc. Jhum cultivation, collection of firewood, vegetables, green leaf etc. |
| Land ownership: Do you have registered revenue land? Do you have any customary land? | Most of the HHs have Customary rights |
| What are the major crops and how many crops you cultivate in a year? What is the general output of the agricultural produce per acre in your area and the cost of the products per quintals or Kg. | The major crops grown are paddy, mustard, sesame. The average output of the crops is as follows: Paddy per acre 5 to 7 quintals Mustard per acre 2 to 3 quintals Sesame per acre 1 to 2 quintals |
| Are all houses electrified and if yes then what is average hours of electricity per day for consumption? | 100% of the houses are electrified. |
| Do tribal people use any traditional and indigenous mode of energy for household activities? | Firewood is used for cooking and heating during winter. |

| ISSUES | Response |
|--|---|
| Do tribal people have access to social infra structure such as schools, hospitals, market and transport? | Yes, the villagers have access to all the social institutions and we take benefits out of it.. |
| Do the tribals have access to the forest land and what kind of use the tribals do of the forest land? | Yes, collection of firewood, some vegetable and leaves for curry |
| Do the tribals have any customary rights to land. If yes then please explain what are those. | Under Sixth Schedule: land rights are customary only. |
| Is there any specific development programme initiated for the development of the tribal people in your area by the government? If yes what are those and what benefits it has given? | No specific program for Tribals. It's all general in nature and for all like APDCL, Social pension etc. |
| What are the kind of durable goods like television, refrigerator, AC, two and four wheelers the tribal people possess in your area? | Few HHs have TV and Refrigerator, two-wheeler. One or two family from each village have cars. |
| What are the concerns that the people in your area face on the current electricity supply? | Low voltage, irregular supply. Worst during Summer and Rainy season |
| Are there any traditional / religious festivals / rituals/ fare observed by tribal people in this area, if yes and when? | Rongker pooja, Karbi New year, Chumankan, Christmas, New year etc. |
| The project is about modernization and upgradation of electricity transmission and distribution system in Assam. What is your opinion about this Project? | Electricity supply system should be upgraded for better power supply. Upgradation of the capacity of the existing Transformer, additional transfers etc. |
| Will you support this project and how? | Yes, the villagers will support but the project should address their issues relating compensation for land. Loss of Plantations, employment to locals etc. |
| Do you have any specific concerns related to the project, probe for any safety issues, loss of cultural heritage, etc.? Please share how best it can be mitigated? | There should be proper road for Transportation by Trucks, traffic management, safety during construction etc. There are primary schools on the road side, special attention should be made for the safety of school children during school hours to prevent accidents, to reduce noise and air pollutions etc. |
| Do you perceive any threat from the project. If no, will the tribal people will provide their consent for the project? | Loss of land is the most important threat. If compensation is provided for loss of land, then the local people will support. |
| Do you perceive any threat to the cultural or indigenous heritage sites in your locality due to this project? If yes please provide details. | No such threat is perceived. |
| Do you all perceive any threat to the existing socio-cultural setup due to influx of outside workers during project construction? | Yes, the local people foresee some threats for their women and socio-cultural identity. |

| ISSUES | Response |
|--|--|
| Will there be participation of indigenous people during project implementation such as providing laborers, etc? | Yes, all the people were willing to work in the project. Project should give priority to the local people including women. |
| Any wild endemic and endangered animals in the project area? Any hunting practices by the tribal area? please provide details. | No such animals in project area and there is no of hunting of animals. |
| Is there any religious and heritage trees which tribals considered as sacred, in your area? | No |
| What positive impacts and/or benefits do you think the project will have? | The local people expect employment opportunity, better electricity supply, scope for small business for locals |
| What negative impacts do you think the project will have? | Loss of land permanently for the project which will disturb the livelihood. |
| Any criteria you would like to be considered for project design, construction at operation stage? | Proper traffic and safety measures to avoid accidents, regular consultations with locals to mitigate issues |
| Are there any local NGO or CBOs, if yes then mention the name and nature of work they do? Any specific work they do for the tribal people? Please provide details. | No such NGO available in our area. Only WSHGs are working for the benefit of women. |
| Suggest any potential intervention which you may expect from the project in terms of enhancing the livelihood opportunities of the tribal people. | Employment during construction for the local people including women, Skill development training if require to work in solar project, Skill development for women in weaving traditional handloom shawl, animal husbandry etc. |
| Other issues raised/discussed and responses provided | Compensation for loss of our land, trees in actual terms as we will lose those permanently. Livelihood opportunity should be created and supported by the project. Full time employment should be provided to one family members from each affected HH. That will take care of the loss of land and non-land assets. |
| Other issues raised/discussed and responses provided | Infrastructure facilities should be developed in the project affected Villages such as construction of Anganwadi Centers, Health Sub-centers, development of school boundaries etc, |
| Other issues raised/discussed and responses provided | There should be one committee for each village to mitigate issues during project execution and operation headed by Gaon Bura, Village elders and women |

CBO = community-based organization, kV = kilovolt, NGO = nongovernmental organization

Table 110: Summary of Issues Raised and Response

| # | Location/ Date | Tribal Area (yes/No) | Total Particip ants | Issues raised by the participants | Clarification, Mitigation and Issues Management |
|---|---|----------------------------|---------------------------|---|--|
| 1 | KARAGAON Date of consultation: 29/01/2024 | YES | 13 | <ul style="list-style-type: none"> • Loss of land and non-land assets for the proposed project • Loss of livelihood due to loss of land and non-land assets like Rubber, teak, bamboo and Citronella plantation etc. • The population is increasing in the area and this will lead to increase in power demand and might cause electricity problems, therefore the modernization is required. • Lack of social infrastructure in the area | <ul style="list-style-type: none"> • There is a demand for proper compensation for loss of land and non-land assets due to project. • Locals will get employment opportunities during the implementation of the project. • Electricity supply system will be upgraded for better power supply. Upgradation of the capacity of the existing Transformer, additional transfers etc • Project will take active interest to develop social infrastructure in the area like, construction of roads, Anganwadi Centers, health sub-centers, boundary wall for the schools etc. |
| 2 | Suromanthi, Khat Khati Date of consultation: 02/02/2024 | YES | 09 | <ul style="list-style-type: none"> • Loss of land and non-land assets for the proposed project • Loss of livelihood due to loss of land and non-land assets like Rubber, teak, bamboo and Citronella plantation etc. • The population is increasing in the area and this will lead to increase in power demand and might cause electricity problems, therefore the modernization is required. • Lack of social infrastructure in the area | <ul style="list-style-type: none"> • There is a demand for proper compensation for loss of land and non-land assets due to project. • Locals will get employment opportunities during the implementation of the project. • Electricity supply system will be upgraded for better power supply. Upgradation of the capacity of the existing Transformer, additional transfers etc • Project will take active interest to develop social infrastructure in the area like, construction of roads, Anganwadi Centers, health sub-centers, boundary wall for the schools etc. |
| 3 | Lalmati Date of consultation 30/01/2024 | YES | 6 | <ul style="list-style-type: none"> • Loss of land and non-land assets for the proposed project • Loss of livelihood due to loss of land and non-land assets like Rubber, teak, bamboo and Citronella plantation etc. | <ul style="list-style-type: none"> • There is a demand for proper compensation for loss of land and non-land assets due to project. • Locals will get employment opportunities during the implementation of the project. • Electricity supply system will be upgraded for better power supply. Upgradation of the |

| # | Location/ Date | Tribal Area (yes/No) | Total Particip ants | Issues raised by the participants | Clarification, Mitigation and Issues Management |
|---|---|----------------------------|---------------------------|--|--|
| | | | | <ul style="list-style-type: none"> The population is increasing in the area and this will lead to increase in power demand and might cause electricity problems, therefore the modernization is required. Lack of social infrastructure in the area. | <p>capacity of the existing Transformer, additional transfers etc</p> <ul style="list-style-type: none"> Project will take active interest to develop social infrastructure in the area like, construction of roads, Anganwadi Centers, health sub-centers, boundary wall for the schools etc. |
| 4 | Long Kathar Date of Consultation: 30/01/2024 | YES | 14 | <ul style="list-style-type: none"> Loss of land and non-land assets for the proposed project Loss of livelihood due to loss of land and non-land assets like Rubber, teak, bamboo and Citronella plantation etc. The population is increasing in the area and this will lead to increase in power demand and might cause electricity problems, therefore the modernization is required. Lack of social infrastructure in the area. | <ul style="list-style-type: none"> There is a demand for proper compensation for loss of land and non-land assets due to project. Locals will get employment opportunities during the implementation of the project. Electricity supply system will be upgraded for better power supply. Upgradation of the capacity of the existing Transformer, additional transfers etc Project will take active interest to develop social infrastructure in the area like, construction of roads, Anganwadi Centers, health sub-centers, boundary wall for the schools etc. |
| 5 | Noharjan Date of Consultation: 27/01/2024 | YES | 10 | <ul style="list-style-type: none"> Loss of land and non-land assets for the proposed project Loss of livelihood due to loss of land and non-land assets like Rubber, teak, bamboo and Citronella plantation etc. The population is increasing in the area and this will lead to increase in power demand and might cause electricity problems, therefore the modernization is required. Lack of social infrastructure in the area. | <ul style="list-style-type: none"> There is a demand for proper compensation for loss of land and non-land assets due to project. Locals will get employment opportunities during the implementation of the project. Electricity supply system will be upgraded for better power supply. Upgradation of the capacity of the existing Transformer, additional transfers etc Project will take active interest to develop social infrastructure in the area like, construction of roads, Anganwadi Centers, health sub-centers, boundary wall for the schools etc. |

6.5.3 Consultation with Tribal Leaders- Gaon Bura- and Consent Seeking

215. Consultation was carried through key informant interviews among the Gaon Bura i.e. traditional village heads who are representative of the local community. Consultations focused on collecting information on the existing socio-cultural systems among the indigenous peoples. Project benefits were shared with the community leaders including the mitigation measures. Because the area is dominated by the tribal habitats, consent have been obtained from the tribal leaders as no objection to the project and support towards the project. Key issues discussed; response received are summarized in **Table 111**.

Table 111: Summary Consultation among Tribal Leaders

| | | | | | | | |
|---|---|--|---|---|---|--|---|
| Village | Long Kathar | Karagaon | Nahorjan | Lalmati | Borlingrijan | Lahorijan | Khat Khati |
| District | Karbi Anglong, Assam | Karbi Anglong, Assam | Karbi Anglong, Assam | Karbi Anglong, Assam | Karbi Anglong, Assam | Karbi Anglong, Assam | Karbi Anglong, Assam |
| Type of area | Rural | Rural | Rural | Rural | Rural | Rural | Rural |
| Date | 22/01/2024 | 25/01/2024 | 25/01/2014 | 27/01/2024 | 27/01/2024 | 30/01/20124 | 25/01/2024 |
| Local Governance | Traditional Village Head (Gaon Bura) | Traditional Village Head (Gaon Bura) | Traditional Village Head (Gaon Bura) | Traditional Village Head (Gaon Bura) | Traditional Village Head (Gaon Bura) | Sarkari Gaon Bura (appointed by KAAC) | Traditional Village Head (Gaon Bura) |
| Name of the leader | Vinod Engti Katha | Rajen Rongpi | Roman Terang | Sanjay Rongphar | Modon Taro | Heera Chhetri | Rohini Bey |
| Sex | Male | Male | Male | Male | Male | Male | Male |
| Age | 63 years | 53 years | 41 years | 45 years | 53 years | 59 Years | 43 years |
| Ethnic group | Karbi | Karbi | Karbi | Karbi | Karbi | Nepali | Karbi |
| A. General Information about the people | | | | | | | |
| Ethnic group people associated in the village | 100 % Karbi | 100 % Karbi | 60 % Karbi 40% others | 70% Karbi 10% Adivasi 10% Nepali Others 10% | Karbi 20% Naga 70% Others 10% | Naga 95% Others 5% | Karbi 100% |
| Official Language | The language of the Karbi people is Karbi and Assamese. Some of them can speak in Hindi and few in English. | The language of the Karbi people is Karbi and Assamese. | The language of the Karbi people is Karbi and Assamese. Some of them can speak in Hindi and few in English. | The language of the Karbi people is Karbi and Assamese. Some of them can speak in Hindi and few in English. | The language of the people is Karbi, Nagamese and Assamese. Some of them can speak in Hindi and few in English. | The language of the people is Nagamese, Nepalese and Assamese. Some of them can speak in Hindi and few in English. | The language of the Karbi people is Karbi and Assamese. Some of them can speak in Hindi and few in English. |
| Religion followed by the community | 100 % Hindu (Honghari). | 100 % Hindu (Honghari). | 100 % Hindu (Hongari and others) | 100 % Hindu (Hongari and others) | 30% Hindus, 70% Christians. | Christians 95% | 100% Hindu (Hongari) |
| Duration of the community living in this place | 101 years. | 130 Years. | 150 years | 180 Years | 94 years | 80 Years | 120 years |
| Migration | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. | No in or out migration happen during the last 5 years in this village. |
| B. Local Leadership and Organisation | | | | | 1. | 2. | 3. |

| | | | | | | | |
|--|--|---|---|--|--|--|--|
| Local community organisation | Gaon Bura is the head of the village and has customary law to lead the village., WSHG Nehru Yuva Kendra. | Gaon Bura is the head of the village and has customary law to lead the village., WSHG | Gaon Bura is the head of the village and has customary law to lead the village., WSHG | Gaon Bura is the head of the village and has customary law to lead the village., WSHG. | Gaon Bura is the head of the village and has customary law to lead the village., WSHG. | Gaon Bura is the head of the village and has customary law to lead the village., WSHG. | |
| Selection. | Traditional under customary law and mostly hereditary. | | | | Sarkari Gaon Bura, Village Head appointed by KAAC | Traditional under customary law and mostly hereditary. | |
| C. Cultural heritage | | | | | | | |
| Presence of culturally important natural places or constructions / buildings | NA. | There are four Gumpa in the village. | Lake, Caves, Stone and Gumpa are there as culturally important places. | There are 3 monasteries within the village. | There are 6 monasteries and 2 temples within the village. | Church and Temple | |
| Important festivals | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun. | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun, Christmas, New Year. | Christmas, New Year, Durga Pooja etc. | Rongker pooja, Karbi New Year, Chumangcan, Cho-Jun |
| Conflict resolution | | | | | | | |
| Method of solving conflicts in the village | Under the leadership of Traditional Village Head (Gaon Bura), and Sarkari Gaon Bura in case of Lahorijan, all the conflicts at local level are resolved. | | | | | | |
| Opinion/views and concerns about the planned project | | | | | | | |
| Awareness about the project | All the Gaon Bura including Sarkari Gaon Bura are aware of the project from the beginning as KAAC has called meetings with them in the council Diphu and they were involved during field visits of APDCL and KAAC officials. | | | | | | |
| Positive impacts | Project will create employment opportunities for affected Villagers. Project will boost business opportunities for locals to start their small business during implementation and operation. Project may create tourism as this will be the largest solar power project in Assam bordering Nagaland. Project will boost infrastructure. Project will enhance electricity supply. | | | | | | |
| Negative impact | Loss of land, loss of livelihood as most of the land losers are involved in farming, Plantations etc. | | | | | | |
| Can you give any recommendations for how to prevent or mitigate those problems or risks? | proper compensation for loss of Land and non-land assets, employment for locals, development of local area infrastructure etc.. | | | | | | |
| Any suggestions | proper compensation for loss of Land and non-land assets, employment for locals, development of local area infrastructure etc.. | | | | | | |

6.5.4 Consultation with Agricultural Tenant

216. Consultations were carried out at 4 locations in the Solar Project affected area during January 2024 with Agricultural Tenants involved in agricultural activities based on periodic lease from the Tribal people. A total 52 people (Family members of Agricultural tenants) attended the consultations out of which 33 were males and 19 were females. Locations and number of participants are described in **Table 113** and summary findings of the consultations are described in **Table 112**. Details on each consultation with agricultural tenants along with responses and list of participants are provided in **Appendix –10**.

Table 112: Agricultural Tenant Consultation

| # | Location | District | Date | Male | Female | Total |
|--------------|----------------------------|---------------|------------|-----------|-----------|-----------|
| 1 | Longkup Tokbi, (A)Karagaon | Karbi Anglong | 08.01.2024 | 3 | 3 | 6 |
| 2. | Longkup Tokbi, (B)Karagaon | Karbi Anglong | 08.01.2024 | 9 | 4 | 13 |
| 3 | Longkup Tokbi, (C)Karagaon | Karbi Anglong | 09.01.2024 | 13 | 6 | 19 |
| 4 | Longkathar | Karbi Anglong | 14.01.2024 | 8 | 6 | 14 |
| Total | | | | 33 | 19 | 52 |

Table 113: Summary Findings of Public Consultations – Agricultural Tenants

| ISSUES | Response | | | | | | | | | | | | | | | | | | |
|--|---|--------------------------|----------------------------|--------------------------|--------------|--------------------------|----------|-----|--------------------------|----------|----------|--------------------------|----------|---------------|----------------|----------|---------------|----------------|----------|
| Status of the Tenants | The status is Agricultural tenants/non-titleholders | | | | | | | | | | | | | | | | | | |
| Average Bighas of land per Tenants under cultivation. | 5 to 20 Bighas of land based on lease | | | | | | | | | | | | | | | | | | |
| Primary Occupation/Livelihood | Agriculture/Farming on lease | | | | | | | | | | | | | | | | | | |
| How much lease fees you are paying per bigha per annum to the Landowners | Mostly its 700-1000 INR per bigha of land per annum. | | | | | | | | | | | | | | | | | | |
| Land ownership: | Non-titleholders Lease, for Three to five years | | | | | | | | | | | | | | | | | | |
| Do they have their houses inside the project area? | Yes, they have constructed Temporary houses with Bamboo wall and tin roof which is easy to dismantle and move in case they change their location. | | | | | | | | | | | | | | | | | | |
| Use of the structure | For residential and in some cases cow shed. | | | | | | | | | | | | | | | | | | |
| Are they living with their family | Yes, they live with their family as the cultivation activities are performed by their own family including women. | | | | | | | | | | | | | | | | | | |
| Average family size living here. | Two to six members live here. | | | | | | | | | | | | | | | | | | |
| Do you own Houses and property in your original area. | Yes, they have their own houses and property in the original area where they come from. Some of the family members live there too. | | | | | | | | | | | | | | | | | | |
| Since how many years are at this location | Most of them are here for two to five years. Once the lease term ends, they move to other location within project site and find out different patch of land for farming. Average lease period is three to five years. | | | | | | | | | | | | | | | | | | |
| Yield of vegetables per bigha with market rate per quintal. | <table border="1"> <thead> <tr> <th>Name of the vegetable</th> <th>Yield per bigha in quintal</th> <th>Market price per quintal</th> </tr> </thead> <tbody> <tr> <td>Green chili,</td> <td>15.44 quintals per Bigha</td> <td>Rs. 7500</td> </tr> <tr> <td>Pea</td> <td>11.89 quintals per bigha</td> <td>Rs. 5000</td> </tr> <tr> <td>Brinjal,</td> <td>28.85 quintals per bigha</td> <td>Rs. 2800</td> </tr> <tr> <td>Bitter Gourd,</td> <td>19.44 quintals</td> <td>Rs. 5000</td> </tr> <tr> <td>Pointed gourd</td> <td>28.33 quintals</td> <td>Rs. 4500</td> </tr> </tbody> </table> | Name of the vegetable | Yield per bigha in quintal | Market price per quintal | Green chili, | 15.44 quintals per Bigha | Rs. 7500 | Pea | 11.89 quintals per bigha | Rs. 5000 | Brinjal, | 28.85 quintals per bigha | Rs. 2800 | Bitter Gourd, | 19.44 quintals | Rs. 5000 | Pointed gourd | 28.33 quintals | Rs. 4500 |
| Name of the vegetable | Yield per bigha in quintal | Market price per quintal | | | | | | | | | | | | | | | | | |
| Green chili, | 15.44 quintals per Bigha | Rs. 7500 | | | | | | | | | | | | | | | | | |
| Pea | 11.89 quintals per bigha | Rs. 5000 | | | | | | | | | | | | | | | | | |
| Brinjal, | 28.85 quintals per bigha | Rs. 2800 | | | | | | | | | | | | | | | | | |
| Bitter Gourd, | 19.44 quintals | Rs. 5000 | | | | | | | | | | | | | | | | | |
| Pointed gourd | 28.33 quintals | Rs. 4500 | | | | | | | | | | | | | | | | | |

| ISSUES | Response |
|--|---|
| What will be the impacts? | They will lose livelihood for which we aren't comfortable at present after learning about the proposed project. They have come more than 200 kms away from our village in search of livelihood. They have worked hard to develop the soil for cultivation and now earning decent income to support their family here and parents and kids at our original villages. |
| What about other impacts? | They have constructed temporary houses, few have Borewell for irrigation. |
| What's your annual income you generate here? | 02 lakh to 07 lakh based on the bighas of land allotted to each affected HH per annum. |
| What should be done for your loss of livelihood.? | Compensation of money per bigha of land they presently cultivate for the remaining years of lease should be provided. |
| What about your structures and other assets loss? | Compensations for the Assets and Borewell should be provided to us as they are also the citizens of Assam. |
| If displaced permanently, what your expectations from the Executing agency.? | Shifting allowances should be provided for transporting all our materials to our original locations which is more than 200 KM from the current location. |
| Do you have livelihood opportunity in your original location? | Not much, as the land holdings are very small to undertake farming like here. |
| If displaced from the current location. What will you do to earn and support your family? | We will try to find out patch of land outside the project area to continue farming here. But that option is very limited it seems now. Second option is to migrate Kerala to work in factories or work as daily laborers to support our family. We can start small business at our own location like tea stall, small grocery shops etc. |
| Would you like to suggest anything which you think will be helpful for the project design? | If compensation is paid for our loss of livelihood, structure and other assets, that will be great for all of us as well as for the project implementation. |

6.5.5 Consultation with Shop Owners and School

217. Consultations were carried out at 3 locations in the market area and Institutions outside of the Solar Project affected area during February 2024 with Shopkeepers and Institutions. A total 32 people (shopkeepers and members of two institutions) attended the consultations out of which 22 were male and 10 were female. Locations and number of participants are described in **Table 114** and summary findings of the consultations with shopkeepers and schools are described in **Table 115** and **Table 116** respectively. Details on each consultation with shopkeepers and institutions in IP villages along with responses and list of participants are provided in **Appendix-11**

Table 114: Location and Number of Participants

| # | Location | District | Date | Male | Female | Total |
|--------------|---|---------------|------------|-----------|-----------|-----------|
| 1 | Long Kathar market | Karbi Anglong | 03.02.2024 | 15 | 0 | 15 |
| 2. | Vivekananda kendra, Suromanathi, Khat Khati | Karbi Anglong | 06.02.2024 | 5 | 8 | 13 |
| 3 | Suromanathi English LP School | Karbi Anglong | 06.02.2024 | 2 | 2 | 4 |
| Total | | | | 22 | 10 | 32 |

Table 115 : Summary Findings of Public Consultations in Market

| ISSUES | Response |
|--|--|
| Are you aware of the Proposed Project? | Yes, they have heard regarding this project since very long from the people of this area. This will be a very big solar project. |
| Will you support the Project? | We will support the Project, as it will bring good to the area. |
| Primary Occupation/Livelihood | Small business. Selling vegetables, fruits, tea stall, groceries, digital services etc. |
| What's the average annual income? | It varies from 1.5 lakh to 3 Lakh INR per annum. |
| What's the current electricity condition in your area? | Maximum time its low voltage, irregular power supply during summer and rainy seasons. |
| What's the percentage of electrification in your locality? | Its 100% |
| What will be the impact on your livelihood? | We expect more income if this project is executed as, it will create more business opportunities for us and can add more shops like restaurants, big grocery shops etc. |
| Is there any negative impact you foresee? | Yes, there will be negative impact in terms of movement of heavy trucks, vehicles, traffic and road safety etc. |
| How to mitigate those negative impacts? | First of all, the road condition is very bad. Project authority should build good road for heavy vehicles. Project authority should plan for proper road safety mechanism to avoid any accidents in the market area. |
| Is there any positive impact you foresee? | Lots of positive impacts will be there. Road will be developed. Business opportunities for existing shopkeepers will be enhanced as well as it can create new business opportunities for others. Employment opportunities for local people during the project cycle. |
| Is there any threat of displacement due to the project? | There is no threat of displacement. |
| Do you have any other concern for the project which you want to suggest? | First: proper road should be developed for the movement of heavy vehicles before the start of the project. Second: proper road safety measures should be taken to avoid any accidents. Third: there should be a committee to resolve any issues arising during the project implementation. Fourth: issues should be resolved peacefully. Fifth: employment should be provided to local people. |

Table 116: Summary Findings of Public Consultations at School

| ISSUES | Response |
|--|--|
| Are you aware of the Proposed Project? | Yes, the people are aware of this project since a very long from the people of this area. This will be a very big solar project. |
| Will you support the Project? | There is support the Project, as it will bring good for the area. |
| What are the facilities provided by your institution? | Providing education to the local students from Nursery to class VI. There are skill development centers for girls and women, we have a hostel for students and teachers inside our campus, health and wellness facilities etc. |
| What's the current electricity condition in your area? | Maximum time its low voltage, irregular power supply during summer and rainy seasons. |
| What's the percentage of electrification in your locality? | 100% |
| Is there any negative impact you foresee? | Yes, there will be negative impact in terms of movement of heavy trucks, vehicles, traffic and road safety during school hour, noise and air pollution due to movement of vehicles etc. |
| How to mitigate those negative impacts? | <p>First: the road is narrow for heavy vehicles; Road isn't good enough for heavy traffic.</p> <p>Second: Project authority should build good road for heavy vehicles.</p> <p>Third: Project authority should plan for proper road safety mechanism to avoid any accidents during school hour (7.30 am to 3.30 pm).</p> <p>Fourth: Vehicular movements will create noise and air pollutions.</p> <p>Fifth: Old Assamese patterned (semi-permanent) school buildings may be damaged due to movement of heavy vehicles. Project authority should look into such matters and if any damage happen, then project authority should construct new building for the school.</p> <p>Sixth: There are no boundary walls, that will be concern for us. Request project authority to construct boundary walls for the safety of students.</p> |
| Is there any positive impact you foresee? | <p>Expect lots of positive impacts from the project.</p> <p>Roads will be developed.</p> <p>Employment opportunities for locals will be generated.</p> <p>Business opportunities for locals will be enhanced.</p> <p>Better quality electricity supply for the local area.</p> <p>Infrastructural development around the project affected villages.</p> |
| Is there any threat of displacement due to the project? | No, this isn't inside the project area hence, no threat of displacement. |
| Do you have any other concern for the project which you want to suggest? | <p>First: proper road should be developed for the movement of heavy vehicles before the start of the project.</p> <p>Second: proper road safety measures should be taken to avoid any accidents.</p> <p>Third: there should be a committee to resolve any issues arising during the project implementation.</p> <p>Fourth: issues should be resolved peacefully.</p> <p>Fifth: employment should be provided to local people.</p> |

6.6 CONSULTATION WITH WOMEN

218. Women consultation was conducted at 9 sites through focused group discussions between January 2024 to February 2024. The objective of the consultations was to make gender inclusive project planning. A total 163 women participated in the group discussions. Summary details on the locations and number of participants are provided in **Table 117** and the findings are provided in below. Details on each public consultation along with the responses and list of participants along with photographs are provided in **Appendix-12**.

Table 117: Location and Participants Details of Gender Consultations

| # | Location | District | Date | Female |
|--------------|-----------------------------|---------------|------------|------------|
| 1. | Long Kathar | Karbi Anglong | 30.01.2024 | 21 |
| 2. | Karagaon | Karbi Anglong | 29.01.2024 | 17 |
| 3. | Khat Khati | Karbi Anglong | 02.02.2024 | 30 |
| 4. | Nahorjan | Karbi Anglong | 02.02.2024 | 21 |
| 5. | Lalmati | Karbi Anglong | 30.01.2024 | 39 |
| 6. | Borlingrijan (Wophong Taro) | Karbi Anglong | 29.01.2024 | 15 |
| 7. | Lahorijan | Karbi Anglong | 30.01.2024 | 20 |
| Total | | | | 163 |

219. During the gender consultation the women stated that education of the girl child is very important. It makes them independent and strengthens their ability to face difficult situations. Education is essential for both boys and girls, as it enables independence, job opportunities, and financial stability. A group during a gender consultation emphasized that education empowers girls and leads to prosperity. Moreover, educated girls gain respect in society, find suitable partners, and can effectively guide their families.

220. Daily wage work, animal rearing and farming, are the major occupation of the women in all the 7 sites covered under gender consultation. In all the villages women are engaged as daily wage earners. In three of the villages more than 70 % of the women are working as daily wage workers, in three of the villages 30-40 % of the women are working as daily wage earners. Only in one village about 10 % of the women are working as daily wage earners. In most of the villages, women work within their village areas and gets work for at least 15 to 20 days in a month. In Naharjan women mostly go outside of their village to Dimapur to get work. In few of the site women are also engaged in farming, in two of the sites 80 % do farming and in one site about 35 % are farmers.

221. Women are also engaged in livestock management. In Lahorijan and Lalmati all the households have animals and in Khatkati and Borlengri more than 50 % of the women are having livestock. In other sites women also have livestock. Pigs, goats, cows and hen are the common live stocks possessed by the households. Some of the families have 8 to 10 pigs in the project area and a minimum of 2 to 3 pigs. In Khatkhati about 80 % have cows and they have at least 5 to 6 cows. Here the women reported that a family earn about Rs 20000 to Rs. 40000 annually from the livestock. In Lahorijan all the women are involved in livestock management and they possess pigs, (4-10) ducks, cow (1 or 2), goats (6-7), etc.

222. In Khatkhati about 50 % of the women are also engaged in the collection of Citronella which they use to produce disinfectant oil which is used to repel mosquitoes and insects. This work is seasonal (June to January). In Lalmati some of the women are also engaged in silk production. There is no non-government organization in the project area working for the community. However, there are SHGs where women are members.

223. Women reported of getting Rs.300 as wages. The wages for men vary in the ranges of Rs. 400 to Rs. 700 depending on the skills. The women in Borlengri stated that if the women do not work for less pay, then the contractor or the employer may hire other women for work. So, they have

very less opportunity for women to bargain as less work is available. Women are part of political parties and members of Booth level committee. Women also contest in COUNCIL and ASSEMBLY elections but very rare from the project area. Their representations in the political decision-making process are limited. However, as voters, they have influence

224. Women could not say on livelihood opportunity that reliable electricity can provide. But they are hopeful that it will definitely help in the education of the children and for cooking. In few of the site women feel that reliable electricity will bring more development and will create more opportunities for business. In Lalmati women says it may help in running sewing machines, oven for making biscuits. It may help in weaving. All the women and girls are keen to get a job at the proposed solar park. They are ready to accept work on solar module maintenance. On this during the induction time they require training and handholding from the government (APDCL) or other agencies.

225. All the women who have participated in the gender consultation reported that they are aware of the project. Out of the 7 villages only families in 2 villages, the household will lose land. Women are working as farmers and also work as daily wage workers on the affected land. As they may lose their livelihood so they want get compensation as well as a job at the Solar Park. In one of the villages, the women feel that the proposed solar park may radiate more heat which may affect their health. women in the project area did not see any negative impacts due to the project. They also feel that there will be no safety issue for women. They expect that women should be employed during the construction and operation stage. It should provide employment to the local people during operational stage. There should be attempt to bring overall development of the region by providing roads, drinking water facilities, and better health facility.

6.7 CONSULTATION WITH NGO/INSTITUTION

226. Consultations were conducted with the staff of two NGOs 1) SeSTA Seven Sisters Development Assistance at Diphu (Karbi Anglong) and 2) SELCO foundation at Guwhati through meetings. The objective of the discussion was to understand the possibility of engaging NGOs in supporting the livelihood interventions and gender action plan prepared for the project area.

227. SeSTA is engaged in development work to empower communities in remote rural areas of NE India. They work with women SHGs and rural communities. They work for the socio-economic development in NE states by building capabilities of poor communities, promoting and strengthening their institutions to facilitate them out of poverty. In the project area they also work with women SHGs and rural farmers. The consultation with SeSTA was mainly to understand their work their reach in the project area and their collaboration with Assam State Rural Livelihood Mission (ASRLM). Their work in livelihood sector and with women SHGs was also assessed. Similarly, SELCO foundation is national level NGO having a office in Guwhati. SELCO is working in providing sustainable energy solution to the poor in India. They are also actively engaged in Assam and provides training and capacity building of youth on various vocational streams and also provide renewable energy solutions in the farming and nonfarming sector. They supported the project and showed their willingness to get involved in the project for gender and livelihood intervention.

6.8 CONSULTATION WITH IP BENEFICIARIES IN DISTRIBUTION COMPONENTS:

228. Consultations have been carried out with the local people especially the IP beneficiaries in the distribution components under the output 4. Consultations were conducted at 5 locations through focused group discussions in the month of January 2024. The objective of the consultations was to share the project benefits with the consumers who are IPs. A total of 24 participated in the group discussions which includes 19 male and 5 female participants. Summary details on the locations and number of participants are provided in **Table 118**.

Table 118: Location and Participants Details of Distribution Components

| # | Location | District | Date | Male | Female | Total |
|----|------------------------|---------------|------------|------|--------|-------|
| 1. | Balijan | Karbi Anglong | 12/01/2024 | 4 | | 4 |
| 2. | Borlengri Adivasi gaon | Karbi Anglong | 13/01/2024 | 2 | 3 | 5 |
| 3. | Longkathar | Karbi Anglong | 19/01/2024 | 5 | 1 | 6 |
| 4. | Longki Teron | Karbi Anglong | 19/01/2024 | 5 | 1 | 6 |
| 5. | Lonki Adivasi | Karbi Anglong | 12/01/2024 | 3 | | 3 |
| | | | Total | 19 | 5 | 24 |

229. Summary findings of the consultations are provided in **Table 119**. Details on each public consultation along with the responses and list of participants along with photographs are provided in **Appendix-13**.

Table 119: Consultaion Summary Findings of Distribution Components

| Issues | Participants' opinion, comments and suggestions |
|---|--|
| Have you heard about the Project or Do you have any information about the project (If not please share the project brief and benefits through a brochure) | Yes, we have heard about the upcoming project in our area. 1000 MW Solar Power project |
| What is your opinion about this Project | The project will help generate sufficient power through Solar. Will improve power distribution and supply system in our locality |
| Do you support this Project | Yes, we support this project. This will be game changer for the locality and will bring many opportunities for locals. |
| Total households in the village and how | 60 HH to 150 HH based on the locality |
| Are all houses electrified and if yes then | 95 % to 100% houses are electrified |
| what are average hours of electricity do you get | 18 to 20hr supply. |
| Are there separate agriculture connections in the village and if yes then what is the percentage of farmers who have existing agriculture connections | No such separate agricultural connections in our locality. |
| What are the major crops and how many crops you cultivate in a year. | Major crops cultivated are: paddy and seasonal vegetables |
| Do you face any problem regarding current electric supply as far as home connection and agriculture connections are concerned? | Yes, we face low voltage and during storm and rain, power connections disconnected for very long hours |
| What are your main concerns/issues about the project | So far as power supply and distribution enhancement is concerned, no serious concerns. We rather support the project. |
| Can you suggest how best to address your concerns/issues | Safety measures should be taken in the new set up to avoid any accidents in future. |

| Issues | Participants' opinion, comments and suggestions |
|---|--|
| The Project is about distribution strengthening. The existing lines will be upgraded at some places. There might be loss of crops and trees during construction. Would you volunteer to cooperate with the APDCL during construction? | There is no threat to loss of crops, trees during the upgradation. We will fully cooperate with the APDCL. |
| Specifically, what concerns/issues do you have on the implementation of the project with respect to the following: <ul style="list-style-type: none"> • Community health and safety • Land • Agricultural production • Trees • Crops • Cultural heritage • Displacement • Loss of income and business • Others (Specify) | Community health and safety: Boundary wall covering the new upgraded transformer for distribution and cable line instead of naked wire to avoid accidents in future. Sufficient land is available for upgraded Transformers. Others: No concern. |
| What positive impacts and/or benefits do you think the project will have | Better power supply, quality of power supply will improve. |
| What negative impacts do you think the project will have | We don't foresee any negative concern. |
| How safe do you think or consider the distribution feeder? | At present it's not that safe. The new feeder line will come with all safety measures like cable instead of naked wire. |
| Any criteria you would like to be considered for project design, construction and operation stage? | Safety measures like boundary wall, cables etc. |
| How long have you been living in this area | Since generations. |
| Are there any indigenous people/tribal people or ethnic minority living in this area? If yes, how far and what is the name of tribe group and what is their number of households etc. | Mixed population. Tribals are there like Adivasi, karbi etc. |
| Health status, Availability of Hospitals and over all environmental condition. | Generally, people are healthy as hard-working people. Hospital available at Bokajan. |
| Did you ever use the APDCL customer care number for raising the complaints? What is the kind of complaints in general and was it resolved in timely manner | We contact local lines man in case of any issues. |
| Is the consultation useful | Ver useful. |
| Would you support and participate during the implementation of Project | Yes, we will support and cooperate. |
| Any other Suggestions if any | We will support and cooperate with APDCL for this project implementation as it will improve the Supply and distribution. |

6.9 BROAD COMMUNITY SUPPORT

6.9.1 Need for Broad Community Support

230. IP policy principle 4 of SPS, 2009, states that “Ascertain the consent of affected Indigenous Peoples communities to the following project activities: (i) commercial development of the cultural resources and knowledge of Indigenous Peoples; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of Indigenous Peoples. For the purposes of policy application, the consent of affected Indigenous Peoples communities refers to a collective expression by the affected Indigenous Peoples communities, through individuals and/or their recognized representatives, of broad community support for such project activities. Broad community support (BCS) may exist even if some individuals or groups object to the project activities”. The project entails land acquisition and involuntary resettlement of indigenous peoples which is the scheduled tribe households in this case.

6.9.2 BCS Seeking Process

231. Initial step was to the BCS was to undertake consultations with the IP representative along with villagers for the initial consent seeking exercise. This includes (i) Disclosure of project brochure in Local language for information sharing about the project, (ii) Seeking their views on the project impact and risks, obtain suggestion on the possible mitigation of risks, (iii) Sharing Project benefits, (iv) Sharing Potential Impacts and Suggestive mitigation Measures, (v) Discuss plan of action such as project implementation and timeline, (vi) Discuss about Institutional setup and Grievance Redress Mechanism, (vii) Seeking their participation during the project implementation and (viii) Consent from the village head of the IPs

232. The detailed process follows the consultations at various locations for seeking BCS. The entire process of obtaining BCS is a participatory approach which involves multi stakeholders such as affected IP households, the IP leaders or village head which is Gaon Burahs³⁸, their administration which is a tribal council, women representatives etc. Although Gaon Buras were consulted for consent seeking exercise, however the villagers were also the participants and consulted. The decision of the Gaon Bura is not just the ultimate decision for providing the consent, however, the demands and conditions of the people were also equally considered and recorded. Villagers and the APs, were consulted along with Gaon Buras and their views were also considered and their conditions were also noted. It is not necessary that APs are subject to accept the decision of the Gaon Bura rather they have their own views and demands which were recorded by the project team. The Consultation and BCS process includes various steps and includes key issues such as (i) information sharing about the project, (ii) Discussing about the IP benefits and potential impacts and mitigation, (iii) To know about the local condition especially socio-cultural setup of scheduled tribes or indigenous peoples,

³⁸ Gaon Burahs are traditional institutions under the customary law of Karbis as a tribe. After KAAC came into force, traditional Gaon Burahs has been recognized by the Council. It's based on hereditary principle. Generally, local conflicts are addressed by Gaon Burahs in the presence of villagers and accepted by all. Gaon Burahs aren't elected as there are no Panchayati Raj Institutions in Karbi Anglong under Sixth schedule of the constitution.

There is also a Sarkari Gaon Bura (SGB) who are appointed by Council till he is able to perform his duty. There is no upper age limit. He is removed from his post if he is involved in illegal activities but that's very rare. It's almost like traditional Gaon Burah but nominated by the council and they work together with the traditional Gaon Burah.

(iv) Seeking their views on the project impact and risks, obtain suggestion on the possible mitigation of risks, (v) Discuss plan of action such as project implementation and timeline, (vi) Discuss about Institutional setup and Grievance Redress Mechanism, (vii) Seeking their participation during the project implementation, (viii) Disclosure of project brochure, (ix) obtaining their demands and conditions pertaining to BCS, (x) making resolutions and (xi) Benefit sharing measures. Additionally, ADB's safeguards team fielded mission to the project site from 23 Feb 2024 to 26 February to check and verify the impacts as participated in various consultations to verify whether the BCS was obtained fairly and whether peoples demands are met.

233. Steps followed include the following activities:

- Conducted with villagers/ members of AH, women, elders in small groups to listen to their concerns and suggestions before finalizing the dates and venue for the BCS meeting.
- Project information brochure in IP language were distributed in such conversations, so that they should understand the Project benefits and impacts.
- Took their opinion on the venues and dates where they will be comfortable to come without any issues.
- Regarding the venue, they all agreed to conduct BCS in Traditional Village Heads Residence, which will be comfortable for all the villagers.
- Dates were decided after consulting the Gaon Bura and selected villagers.
- On the day of the BCS meeting, transportation was provided for women and elders to reach the Venue and traditional ceremony was observed along with refreshment
- Project information brochures were distributed among all the Participants in Karbi language again.
- Attendees were APDCL officials, Villagers, affected persons, other villagers
- All the issues were discussed with the villagers and answered their questions and concerns.
- Attendance was taken from all the participants.
- Concerns raised and conditions of the IP were recorded in presence of the APDCL
- Resolution was passed by the community supporting the project with some conditions.
- Assurances were provided by the APDCL to meet the conditions
- Finally, BCS was obtained in written form with signature from the APs, IP head, IA and EA officials and the tribal council
- Documents containing all the proceedings along with attendance, photographs, resolution etc. were prepared and shared.

234. The overall process and steps were participatory and sequential in nature. The printed information in Karbi language was shared which provided the broad project scope, positive and negative impacts, impacts of land acquisition and involuntary resettlement, mitigation measures, compensation eligibility etc. The information was shared in advance through the general IP consultations at various villages prior to the BCS process. It ensured that people who are illiterate understood about the project information. The process was not just distribution of printed information; however, the information distribution was through consultation where volunteers were there from each affected villages to translate and explain about the entire project to the people who were illiterate and who were unable to read or write. People were also made aware about the future consultation process and disclosure of the RIPP leaflet etc. The dates and venues were discussed with the Gaon Bura in advance and the BCS meetings were held at common places where all the participants were free to participate. In most of the cases, the consultations were undertaken in public places such as community hall or the office of the Gaon Bura and the local office of KAAC. Such meetings were held in the Gaon Burah house which helped in providing the affected households a free and familiar atmosphere to share their views without any coercion or threat. Participants were facilitated to reach to the venue and special measures were taken to ensure the old and vulnerable are well taken care of and ensured safety transportation for the pickup and drop off. Traditional ceremony was followed to start the process including the opening remarks by the Gaon Bura followed by APDCL's opening remarks including the description of projects and its

technical details and then the various issues to land acquisition, involuntary resettlement and indigenous peoples etc. The process ensured that there was no cost implication on the IPs regarding the participation and all costs related to BCS was taken care by the project team. IPs in the project area are integrated with mainstreams and women are quite pro-active in household as well as economic activities and equally share the voice in the decision-making process. Consultations during the BCS observed quite a good number of participation of women and youth. IPs being affected by land acquisition were also key stakeholders and participants including those who are physically displaced or significantly affected. The consultations process during the BCS followed by listening to the concern and demands of the people, explanation by the project team and KAAC on its mitigation measures, noting the key demands and conditions and arriving at a resolution to be jointly signed and through a fair negotiation. The resolutions were read out by the Gaon Bura to the participants prior to the signing of the resolution to ascertain common agreements and no dissents.

235. The entire process was documented. All the issues raised by the participants were noted by the project team and the responses provided by the project team was also noted. Minutes of the meetings were also prepared. The entire process was also video graphed by the project team as well representatives from each village including the Gaon Bura. People did not have any objections to such records as many of the participants were also taking the videography. All the written forms and records were kept and signatures were taken from each participant. All these records are appended to the RIPP in its relevant sections.

6.9.3 Outcome of the BCS and Key Findings of the Consultations and Resolution

236. Consultations were carried out with villagers at 07 locations during January-February 2024. These villages are the villages affected by the Solar Projects. A total of 339 participants attended the consultations of which 207 were males and 132 were females. Locations and number of participants are described in **Table 120** and the issues raised during the consultations are described in **Table 121**. **Table 122** gives the summary of resolutions of the community support consultations. Details on each consultation, findings, responses, minutes and resolutions along with list of participants and signatures are provided in **Appendix-14**.

Table 120: Locations and Participants in BCS

| # | Location | District | Date | Male | Female | Total |
|--------------|--------------|---------------|------------|------------|------------|------------|
| 1. | Long Kathar | Karbi Anglong | 22.01.2024 | 34 | 19 | 53 |
| 2. | Karagaon | Karbi Anglong | 25.01.2024 | 28 | 19 | 47 |
| 3. | Khat Khati | Karbi Anglong | 25.01.2024 | 79 | 15 | 94 |
| 4. | Nahorjan | Karbi Anglong | 27.01.2024 | 24 | 15 | 39 |
| 5. | Lalmati | Karbi Anglong | 27.01.2024 | 25 | 27 | 52 |
| 6. | Borlingrijan | Karbi Anglong | 29.01.2024 | 8 | 16 | 24 |
| 7. | Lahorijan | Karbi Anglong | 30.01.2024 | 9 | 21 | 30 |
| Total | | | | 207 | 132 | 339 |

Table 121: Issues and Response During BCS

| Core Issues Raised/Discussed by the Participants | Responses by the Project Officials |
|---|--|
| Details about the Project | Assam Power Distribution Corporation Limited (APDCL) has planned to establish 1000mw Solar power Plant under Diphu/Bokajan area in Karbi Anglong District. Asian Development Bank (ADB) has agreed to provide loan to finance the project. The project is known as Mukhya Mantri Sauro Shakti Prakolp. This project will help generate electricity to mitigate the demand and supply gap as well as providing better electricity supply in Karbi Anglong in particular and Assam in general. |
| Land for the project. | Karbi Anglong Autonomous Council (KAAC) has given its consent to provide required land to APDCL for the project from which maximum land belongs to KAAC and some land belong to Private individuals. |
| We need more clarity on land impact | As per the opinion of the KAAC, land rights belong to the KAAC. Individuals' rights on land are Customary rights given by KAAC for land use. It's the decision of the KAAC to categorize the rights of the land. |
| What about compensation for Land which belongs to Villagers. | APDCL has received letter from KAAC regarding the compensation for the land belonging to private individuals. APDCL will submit the amount to KAAC for the distribution of compensation to the affected land losers. |
| Amount of compensation per Bigha | KAAC will decide the price amount per bigha of land to be compensated to the land losers. |
| No clarity on loss of land by individual House Hold so far as we don't have proper land records with us. The land under our possession is from generations without proper records | KAAC will decide on this matter in accordance with the established practices. APDCL will abide by the KAAC's decision and deposit the compensation amount with KAAC for the disbursal amongst affected House Hold. |
| Compensation for the loss of land. | APDCL will deposit the amount of compensation with KAAC. KAAC will disburse the compensation to the individual affected households for the loss of land. |
| What about loss of Trees as we have Rubber Plantation, Bamboo Plantation, Teak Plantation, Chitronala Plantation etc. No structure will be affected in our village. | KAAC has agreed to undertake correct assessment of zirat to ascertain non-land assets to finalize compensation for such losses as per KAAC guidelines. On receiving the report of such losses and amount of compensation as demanded by the Council, APDCL will abide by the demand of the Council and deposit the amount with council for disbursal amongst affected Households (HH). |
| How disbursal of compensation will be made to the affected HH/land losers by the council. | During Zirat, KAAC will collect bank details of the affected HH/land losers for record. Based on the calculation of loss of land and non-land assets, KAAC will transfer the compensation amount to the bank account of the affected HH/land losers digitally. KAAC will hand over all such transaction to APDCL for accounting and audit purpose. |
| What will happen if land losers do not receive compensation as per their actual loss of land or the amount decided by the KAAC for compensation | APDCL will have official dialogue with KAAC to sort it out for the successful execution of the proposed project. |
| Handover of land after compensation only. | Yes, compensation will be provided before acquisition of land from affected HH/land losers. If there will be any issue on compensation, APDCL in consultation with KAAC will decide the next course of action to mitigate issues. |

| Core Issues Raised/Discussed by the Participants | Responses by the Project Officials |
|--|---|
| In case of dispute/issue of proper compensation: we will prefer land allotment against actual loss of land. Karbi Anglong district under KAAC has plenty of land. | In this matter APDCL will consult with KAAC to convince them to consider such demand. But the final authority remains with KAAC as the owners of the land. |
| Employment opportunities for our Karbi people including women during execution of the solar project. | APDCL will try to accommodate as many as possible to provide employment to the locals during the execution of the project based on their skills. At the same time, demand for permanent employment won't be possible and hence, we can't commit on permanent employment. |
| Are there any specific development activities for women? | APDCL has a women centric development plan which is at a draft stage. Will disclose, once finalised at the highest decision-making level. |
| Are there any plan to enhance electricity distribution system in the project affected area? | APDCL will undertake to upgrade the capacity of the existing distribution transfers, add new transfers according to the demand of power supply. Will take steps to use AB cable instead of naked wires in the area. If required, APDCL will set up a new Sub-station to provide better electricity supply in these areas. |
| We have issues like education, health (Malaria and dengue) and infrastructure such as roads, safe drinking water etc. Is there any plan in the project to provide such basic facilities to the affected village. | APDCL will take up with KAAC and other concerned department for the development of roads, school buildings, hospital buildings etc. APDCL along with KAAC will try to provide safe drinking water to the project affected villages. |
| There are natural water bodies in the form of streams. Request authorities not to disturb such water bodies during the execution of the project. | APDCL will ensure to take necessary stapes to preserve such natural water bodies during the execution of the project. APDCL will also take necessary steps to maintain other such issues for a better environment. |
| how to resolve issues/conflicts during the execution of the project? | APDCL will propose a Grievance Redressal Mechanism to resolve any issue, conflict involving Gao Bura, Village elders, members of KAAC, APDCL Project management Unit etc through continuous dialogue in a peaceful manner. |
| <p>Resolution: We the villagers/affected House Holds/land losers of Long kathar hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> • Compensation for the land as per the law of the land. • Compensation for the loss of non-land assets as per the law of the land. • Employment opportunities for the locals during execution of the project. • To create special opportunities for women. • To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. • To provide better electricity supply system in our area. • To have mechanism to resolve issues/conflicts during execution of the project. • To ensure justice for the affected HH in terms of compensation • To protect and preserve existing natural water bodies etc. <p>Under the leadership of our Gaon Bura (Traditional Village Head), once again we affirm our decision to support the project.</p> | |

Table 122: Summary Resolutions at each Villages during BCS

| ## | Location/Date | Total Participants | Male Participants | Female Participants | Resolutions |
|----|--|--------------------|-------------------|---------------------|--|
| 1. | Long Kathar Date of consultation: 22/01/2024 | 53 | 34 | 19 | <p>Resolution: We the villagers/affected House Holds/land losers of Long kathar hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> • Compensation for the land as per the law of the land. • Compensation for the loss of non-land assets as per the law of the land. • Employment opportunities for the locals during execution of the project. • To create special opportunities for women. • To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. • To provide better electricity supply system in our area. • To have mechanism to resolve issues/conflicts during execution of the project. • To ensure justice for the affected HH in terms of compensation • To protect and preserve existing natural water bodies etc. <p>Under the leadership of our Gaon Bura (Traditional Village Head), once again we affirm our decision to support the project.</p> |
| 2. | Karagaon Date of consultation 25/01/2024 | 47 | 28 | 19 | <p>Resolution: We the villagers/affected House Holds/land losers of KARAGAON hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> • Compensation for the land as per the law of the land including non-cadastral land. • Compensation for the loss of non-land assets as per the law of the land. • Employment opportunities for the locals during execution of the project. • To create special opportunities for women. • To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. • To provide better electricity supply system in our area. • To have mechanism to resolve issues/conflicts during execution of the project. |

| ## | Location/Date | Total Participants | Male Participants | Female Participants | Resolutions |
|----|--|--------------------|-------------------|---------------------|--|
| | | | | | <ul style="list-style-type: none"> To ensure justice for the affected HH in terms of compensation <p>Under the leadership of our Gaon Bura, Karagaon (Traditional Village Head) and village elders once again we affirm our decision to support the project</p> |
| 3. | Khat Khati Date of consultation 25/01/2024 | 94 | 79 | 15 | <p>Resolution: We the villagers/affected House Holds/land losers of KATKHATI hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> Compensation for the land as per the law of the land including non-cadastral land. Compensation for the loss of non-land assets as per the law of the land. Employment opportunities for the locals during execution of the project. To create special opportunities for women. To undertake local area development from the project component in terms of developing school building, hospital building, safe drinking water facilities etc. To provide better electricity supply system in our area. To have mechanism to resolve issues/conflicts during execution of the project. To ensure justice for the affected HH in terms of compensation <p>Under the leadership of our Gaon Bura, Khatkhati (Traditional Village Head) and village elders once again we affirm our decision to support the project.</p> |
| 4. | Lalmati Date of consultation 27/01/2024 | 52 | 25 | 27 | <p>Resolution: We the villagers/affected House Holds/land losers of LALMATI hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> Compensation for the land prior to acquisition of the land as per the law of the land including non-cadastral land. Compensation for the loss of non-land assets as per the law of the land. Employment opportunities for the locals during execution of the project. To create special opportunities for women. To undertake local area development from the project component in terms of developing school building, hospital building, safe drinking water facilities etc. To provide better electricity supply system in our area. |

| ## | Location/Date | Total Participants | Male Participants | Female Participants | Resolutions |
|----|--|--------------------|-------------------|---------------------|--|
| | | | | | <ul style="list-style-type: none"> • To have mechanism to resolve issues/conflicts during execution of the project. • To ensure justice for the affected HH in terms of compensation <p>Under the leadership of our Gaon Bura, Lalmati (Traditional Village Head) and village elders once again we affirm our decision to support the project.</p> |
| 5. | Nahorjan Date of consultation 27/01/2024 | 39 | 24 | 15 | <p>Resolution: We the villagers/affected House Holds/land losers of NAHORJAN hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> • Compensation for the land prior to acquisition of the land as per the law of the land including non-cadastral land. • Compensation for the loss of non-land assets as per the law of the land. • Employment opportunities for the locals during execution of the project. • To create special opportunities for women. • To undertake local area development from the project component in terms of developing school building, hospital building, safe drinking water facilities etc. • To provide better electricity supply system in our area. • To have mechanism to resolve issues/conflicts during execution of the project. • To ensure justice for the affected HH in terms of compensation <p>Under the leadership of our Gaon Bura, NAHORJAN (Traditional Village Head) and village elders once again we affirm our decision to support the project.</p> |
| 6. | Borlengrijan Date of consultation 29/01/2024 | 24 | 8 | 16 | <p>Resolution: We the villagers/affected House Holds/land losers of BORLENGRIJAN hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> • Employment opportunities for the locals during execution of the project. • To create special opportunities for women. • To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. • To provide better electricity supply system in our area. |

| ## | Location/Date | Total Participants | Male Participants | Female Participants | Resolutions |
|----|--|--------------------|-------------------|---------------------|--|
| | | | | | <ul style="list-style-type: none"> To have mechanism to resolve issues/conflicts during execution of the project. <p>Under the leadership of our Gaon Bura, BORLENGRIJAN (Traditional Village Head) and village elders once again we affirm our decision to support the project.</p> |
| 7. | Lahorijan Date of consultation 30/01/2024 | 30 | 9 | 21 | <p>Resolution: We the villagers/affected House Holds/land losers of LAHORIAJAN hereby declare that we will support the proposed 1000mw Solar power project in our area and cooperate with APDCL for the execution of the project subject to the following demands.</p> <ul style="list-style-type: none"> Employment opportunities for the locals during execution of the project. To create special opportunities for women. To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. To provide better electricity supply system in our area. To have mechanism to resolve issues/conflicts during execution of the project. <p>Under the leadership of our Gaon Bura, LAHORIAJAN (Council appointed Village Head) and village elders once again we affirm our decision to support the project.</p> |

237. The conditions and demands of the people are similar in all villages and by the IPs. Villagers and affected IP households support the project and provides their broad community support to the project subject to the following demands/conditions and pass their resolution as below:

- Compensation for the land as per the law of the land.
- Compensation for the loss of non-land assets as per the law of the land.
- Employment opportunities for the locals during execution of the project.
- To create special job opportunities for women.
- To undertake local area development from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc.
- To provide better electricity supply system in our area.
- To have mechanism to resolve issues/conflicts during execution of the project.
- To ensure justice for the affected HH in terms of compensation
- To protect and preserve existing natural water bodies etc.
- Livelihood restoration measures

6.9.4 Findings of ADB's Participation and Consultations during BCS

238. ADB has fielded a mission to conduct independent consultation to ascertain the BCS process and its fairness in terms of APDCL's commitment to people's demands and conditions. ADB's safeguards mission met with the chief executive member (CEM) of the KAAC and their representatives on 23 February 2024 having a total of 34 participants. ADB apprised the KAAC the requirements of ADB and sought cooperation for a smooth implementation of land acquisition, involuntary resettlement and indigenous peoples. Additionally, ADB's safeguard team conducted consultation in the affected villages in Khatkati (total 42 participants having 28 male and 14 female participants) and Longkathar (total of 51 participants having 43 male and 8 female participants) on 25 February 2024 where affected IPS were present. The objective of the consultation was to verify the BCS process and further obtain the BCS from the affected IPs and also to know about the IP's demands and conditions to the BCS. Key general issues noted by the ADB's safeguards team is as below:

- Compensation (Land and Non-Land Asset) to meet replacement cost requirement of SPS 2009.
- Clear mechanism that the entitlements reach to the affected person/households.
- Compensation payment by bank accounts (preferably joint accounts of husband and wife).
- Compensation payment to be monitored by APDCL and external monitor.
- The ownership of land losers and their legal/customary rights (having valid land document issued by KAAC) shall be verified by the council and APDCL along with the land losers and with assistance from the implementing NGO/Agency prior to disbursement of compensation
- Livelihood restoration measures to be developed and implemented to ensure that the households affected by economic displacement are able to rebuild their livelihoods and do not become impoverished.
- Both young people and women have high expectation that the project will be able to provide them with employment opportunities during the project implementation and operation stages.
- Skill development demands are also raised to help the affected people to be able to find gainful employment.

239. During the two consultation sessions that was attended by a good number of the affected households. Key issues noted by ADB's mission related to BCS are as below:

- There was a good support for the project.
- However, there are also expectations from the project which have been documented in the BCS seeking documents.
- APDCL and Autonomous Council will need to coordinated and reach on agreement on fulfilling these demands of the affected communities. The BCS at the moment remains conditional with following key expectations
 - Compensation for the land as per the law of the land.
 - Compensation for the loss of non-land assets as per the law of the land.
 - Employment opportunities for the locals during execution of the project
 - To create special opportunities for women
 - To undertake local area development program from the project component in terms of developing school building, hospital building, Roads, safe drinking water facilities etc. in the project area
 - To provide better electricity supply system in our area.
 - To have mechanism to resolve issues/conflicts during execution of the project.
 - To ensure justice for the affected HH in terms of compensation
 - To protect and preserve existing natural resources.

240. Based on the site visit and consultations, ADB apprised APDCL regarding the fulfilment of IP demands and apprised APDCL that the conditions put by the IPs during BCS shall be met during project implementation. Attendance sheets of the consultations are provided in **Appendix-15**

6.9.5 BCS Implementation Arrangements

6.9.5.1 Overview:

241. The project falls under Karbi Anglong district which is the notified area under the sixth schedule of Indian constitution. The project will have large scale intervention in the rural areas. Large amount of land will be required to develop the solar project. The project will cause both physical and economic displacement and partial alienation of tribal land from their ancestral domain. While the project has physical and economic displacement, however, the project does have many positive impacts in terms of job opportunities and associated business opportunities. The ADB SPS requires Broad Community Support (BCS) to be obtained from the indigenous peoples. To obtain the broad community support and as part of BCS process, several consultations were held with the IP communities, IP village head (Gaon Bura), IP council and affected persons who are also IPs. ADB has also fielded a mission to conduct independent consultation to ascertain the BCS process and its fairness in terms of APDCL's commitment to people's demands and conditions.

6.9.5.2 Key Demands and Resolution

242. Following are the key demands and expectations of the local people for the BCS.

- Compensation shall be paid as per the law. Clear mechanism shall be developed that the entitlements reach to the affected person/households and the rightful owners
- Compensation for land and non-land asset should be fairly paid (ensure the replacement cost requirement of ADB SPS).
- Compensation payment shall be made to the owner's bank accounts through cheque or electronic transfer to the account holder preferably to joint account of spouses as feasible
- Compensation payment to be monitored by APDCL and external monitor
- The ownership of land losers and their legal/customary rights (having valid land document issued by KAAC) shall be verified
- Both young people and women have high expectation that the project will be able to provide them with employment opportunities during the project implementation and operation stages. Therefore, there is a demand for creation of employment opportunities for both men and women
- Special demands by the women for project related employment during construction and operation
- Livelihood restoration measures to be developed and implemented to ensure that the households affected by economic displacement are able to rebuild their livelihoods and do not become impoverished. Skill development demands are also raised to help the affected people to be able to find gainful employment.
- People demand local areas development in the affected villages through strengthening and augmentation of existing social infrastructure such as school building, hospital building, Anganwadi, village roads and safe drinking water facilities etc. in the project area
- People also expect improved electricity supply system in their area
- There should be mechanism to resolve issues/conflicts during execution of the project.
- There is a demand to protect and preserve existing natural resources.

6.9.5.3 Mitigation Measures and Implementations Plan

243. The BCS consultation process was undertaken with the presence of APDCL representatives where the demands were raised by the people and APDCL has agreed to meet the demands of the

people. While most of the demands are already addressed in the entitlement matrix of the RIPP, however, additional actions are to be taken by the APDCL to implement various activities to fulfill the demands of the people for the BCS. Demands related to fair compensation of land and non-land asset are addressed in the entitlement matrix of the RIPP endorsed by APDCL and approved by ADB. Regarding the employment opportunities, APDCL has agreed that local labor force will be engaged by the contractor during the construction which will be temporary in nature and the type of jobs will be unskilled and semi-skilled. As part of the RIPP implementation, APDCL with support of the RIPP implementation agency will ensure development of the livelihood restoration plan (LRP), which will include training on skills matching the project construction labor demand for eligible and interested APs. As far as opportunities for women are concerned it is addressed by the gender analysis and action plan (GAAP) where opportunities are provided in the GAAP. As far as the demands related to better electricity is concerned, it is difficult to provide any direct subsidy or connections to the affected households. However, indirect benefits are assured to the local people through the distribution augmentation in the project areas. Regarding the conflict resolution, the RIPP has a mechanism for effective grievance redress mechanism which will address these demands. Demands pertaining to preserving natural resources and providing alternate access, the developers will ensure that alternate access are provided to the local people and natural resources will be preserved. There is a demand for local area development in terms of developing school building, anganwadi, hospital building, roads, safe drinking water facilities etc. APDCL ensured that some funds are allocated to such activities.

244. Additionally, APDCL will collaborate with KAAC for allocating land by KAAC for the local area development. APDCL will also explore that the developers especially the private sector developers under the output 2 shall contribute some funds for local areas development as part of their CSR. People have also demanded for livelihood opportunities for which the implementing NGO/Agency will undertake needs assessment and will prepare the livelihood restoration plan. Budgetary provisions have been made in the RIPP. In general, the demands of the people for obtaining the BCS shall be fulfilled by APDCL.

6.9.5.4 Timeline Actions and Milestones

245. The RIPP implementing NGO/Agency will be responsible for working on the ground to further assist APDCL in developing specific activities for fulfillment of these demands by APDCL and will prepare the plan of action. For fulfillment of the BCS demands, APDCL will ensure, with support of the RIPP implementing NGO, developing timeline actions and milestone for fulfillment of the BCS conditions, and submit for ADB review and clearance in three months upon the project effectiveness.

6.9.5.5 Budget and Financing

246. The budget related to BCS is part of the RIPP and will come from the APDCL's counterpart funds. Some of the costs are already included in the RIPP budget under different headings. However, a dedicated budget is proposed under the BCS related activities that will include the core demands related to livelihood restoration/ training and infrastructure development such as schools, anganwadis, health centers and drinking water facilities as stated in the demands. The estimated budget for these two demands is INR 50 million (INR 5 crores) equivalent to 0.5 million USD. This cost is included as a line item in the overall RIPP budget.

6.9.5.6 Monitoring and Reporting

All the actions and implementation of BCS activities will be monitored internally by APDCL and also externally by the external monitor and the progress will be reflected in the quarterly social monitoring reports (as a separate section) to be submitted for ADB clearance as specified in the RIPP and project administration manual. As needed based on monitoring findings, corrective actions will be prepared and implemented by APDCL. All demands and conditions for the obtained BCS shall be

fulfilled by the APDCL. Key demands, actions, implanting agencies and budget related to BCS related actions are summarized in the **Table 123**.

Table 123: BCS Demands, Actions Plan and Budget

| # | Key Demands and Conditions | Actions to be taken | Responsible Agencies for Implementation | Monitoring Responsibility of each Actions | Remarks | Budget (Million INR) |
|---|---|---|--|--|--|----------------------|
| 1 | <u>Livelihood and Skill Development</u> <ul style="list-style-type: none"> Livelihood restoration measures to ensure that the households affected by economic displacement are able to rebuild their livelihoods and do not become impoverished. Skill development demands are also raised to help the affected people to be able to find gainful employment. | APDCL with ensure with support of the RIPP implementing NGO to: <ul style="list-style-type: none"> undertake needs assessment and prepare a Livelihood Restoration Plan and will highlight the training needs through needs assessment the LRP shall include trainings on skills matching the project labor demand for construction and operation period as elaborated further below the LRP shall be developed (including timeline actions and milestone) and endorsed by APDCL in one year upon effectiveness of the project and cleared by ADB APDCL will ensure implementation of the LRP immediately upon ADB's clearance and report on progress in quarterly social monitoring reports to ADB | <ul style="list-style-type: none"> The RIPP Implementing NGO/Agency APDCL | <ul style="list-style-type: none"> APDCL PMU PMC External Monitor | Additional budget is required and provided in the RIPP as BCS related expenses. The budget is to be from the APDCL's counterpart funding | 10 million INR |
| 2 | Local Area Development Activities (Strengthening and Refurbishment of social/community infrastructure <ul style="list-style-type: none"> school building local hospital building, Anganwadi village roads drinking water facilities | APDCL and the RIPP implementing NGO/Agency will further consult with concerned departments and local people including the Gaon Bura of each affected villages and will identify the level of intervention in each social infrastructure of the affected villages <p>The above social/community structures to be selected based on the project villages needs and through community participatory approach including women, vulnerable and other marginalized groups as applicable.</p> | APDCL and RIPP implementing NGO/Agency with collaboration with concerned departments and council | <ul style="list-style-type: none"> APDCL PMU PMC External Monitor | Additional budget is required and will be part of the RIPP as BCS related expenses. The budget is to be from the APDCL's counterpart funding | 40 million INR |
| 3 | <u>Compensation Related:</u> <ul style="list-style-type: none"> Fair Compensation for land and non-land asset Mode of Payment | Already covered in the RIPP, however further verification will be done | <ul style="list-style-type: none"> APDCL KAAC for land user rights RIPP implementing NGO/Agency | <ul style="list-style-type: none"> APDCL PMU Project Management Consultant External Monitor | The budget is already calculated and included in the RIPP under the compensation and allowances items | NA |

| # | Key Demands and Conditions | Actions to be taken | Responsible Agencies for Implementation | Monitoring Responsibility of each Actions | Remarks | Budget (Million INR) |
|---|--|---|---|--|--|----------------------|
| | <ul style="list-style-type: none"> Monitoring of compensation disbursement Verification of impacts and legal ownership and customary rights | | | | | |
| 4 | <p>Demand for creation of employment opportunities for both men and women during project implementation and operation</p> <p>Contractor employ affected persons/local people as much as possible to avoid/minimize social and environmental issues that can be caused by bringing workers from outside</p> | <p>The detailed project report (DPR) has already estimated a tentative manpower requirement during the construction and operation</p> <p>This will be linked with the Livelihoods restoration plan development and implementation. The RIPP implementing agency and APDCL will ensure the followings:</p> <ul style="list-style-type: none"> Develop skills trainings matching project labor demand for construction and operation period: get list of skilled and non-skilled labor (specialists, occupations, types of workers) required for the project labor demand from contractor/APDCL and develop skills trainings for AHs (eligible family members) matching the project labor needs Deliver the skills trainings matching project labor demand for construction and operation period: collaborate with APDCL, contractor and outsource trainers to deliver the trainings Ensure employment of interested affected persons in project works for construction and operation period. APDCL ensure contractual provisions of the Contractor in this regard includes: (i) skills trainings (at least one person from 40% of total affected households) and (ii) employment of affected persons (at least one person from 30% of total affected households) | <ul style="list-style-type: none"> Developer and EPC Contractor APDCL to ensure that local people are engaged RIPP implementing NGO/Agency | <ul style="list-style-type: none"> APDCL PMU Project Management Consultant External Monitor | <p>This is an implementation related activities where the employer/contractor/developer will bear the cost to the employee. These will be temporary during construction which will be mostly unskilled and semi-skilled.</p> | NA |

| # | Key Demands and Conditions | Actions to be taken | Responsible Agencies for Implementation | Monitoring Responsibility of each Actions | Remarks | Budget (Million INR) |
|---|--|--|--|---|---|----------------------|
| 5 | Special demands by the women for project related employment | The Gender Analysis and Acton Plans (GAAP) has already developed various interventions for women | <ul style="list-style-type: none"> • APDCL will take the lead in recruitment of all women maintenance team • implementing NGO/Agency will identify the women | <ul style="list-style-type: none"> • APDCL PMU • Project Management Consultant • External Monitor • Gender Consultant | <ul style="list-style-type: none"> • Separate budget has already been allocated under the GAAP for various interventions and is part of the RIPP • Payment related to women employment in operation and maintenance will be paid by the developers. | NA |
| 6 | Demand for better electricity supply system in their area | There will be no additional connections or consumers to be added under the project. There will be no royalty or power sharing mechanism with the people in the project. The power will be put in to the grid. However, there will be Output-4 under which distributions strengthening and augmentation work will be undertaken which will contribute towards the better and reliable electricity supply in the project areas as well as in the neighboring district of Dima Hasao. | APDCL through EPC contractor | <ul style="list-style-type: none"> • APDCL PMU • Project Management Consultant • External Monitor | The budget has been covered as part of the cost related to output-4 and is not part of the RIPP. This is the cost related to EPC. | NA |
| 7 | Mechanism to resolve issues/conflicts during execution of the project. | There is already a GRM proposed in the RIPP which will resolve any conflicts or grievance due to the Project | <ul style="list-style-type: none"> • APDCL • KAAC • Implementing NGO • Project Management Consultant | <ul style="list-style-type: none"> • APDCL PMU • External Monitor | The budget related to GRM has already been included in the RIPP under the RIPP implementation support item. | NA |
| 8 | Demand to protect and preserve existing natural resources. | This is part of the design and measures have been taken to protect these natural resources. Further assessment will be done when the developers/EPC contractor comes in to construction and adequate measures will be followed | <ul style="list-style-type: none"> • APDCL • Developer/EPC Contractor • RIPP implementing NGO/Agency | <ul style="list-style-type: none"> • APDCL PMU • External Monitor | This is part of the developer/EPC cost and is not part of the RIPP. | NA |

| # | Key Demands and Conditions | Actions to be taken | Responsible Agencies for Implementation | Monitoring Responsibility of each Actions | Remarks | Budget (Million INR) |
|---|----------------------------|---------------------|---|---|---------|----------------------|
| | | | <ul style="list-style-type: none"> Project Management Consultant | | | |

6.10 FUTURE CONSULTATION STRATEGY

247. Consultation with various stakeholders of the project will be continued throughout the project cycle especially during project implementation to obtain the views and concerns of stakeholders especially the affected IPs, poor and women members. Future consultations will be carried out by the APDCL and the concerned contractor with the assistance from RIPP implementing NGO/Agency and project management consultant (PMC). For future consultations during the implementation, following processes are envisaged:

- Identification of key stakeholders will be done which will be finalized in due consultation with officials of APDCL and Karbi Anglong Autonomous Council (KAAC).
- The concerned contractors with guidance from RIPP implementing NGO/Agency and PMC will identify appropriate methods of consultation and dissemination platforms for effective outreach with the identified stakeholders.
- The contractors with support from RIPP implementing NGO/Agency and PMC will develop appropriate communication materials in local language considering the fact that most of the affected people includes scheduled tribe or indigenous peoples.
- For disclosure, the communication materials will include the positive and adverse impacts of the project, mitigation measures, entitlement matrix, grievance redress mechanism, construction schedule and summary of the safeguard document (RIPP).
- APDCL with support from RIPP implementing NGO/Agency, PMC and KAAC will give advance notice about the consultations or other engagement and will disseminate properly in public or other appropriate places for wider participation among the beneficiaries or affected people especially scheduled tribe or indigenous peoples.
- The consultation and engagement process will be utilized to address the complaints, concerns and implementation issues raised by the affected people during the consultation.
- The consultations will be properly documented by the APDCL with support from RIPP implementing NGO/Agency and also by the contractor which include the issues discussed, suggestions given to address the concerns etc.
- There will be budgetary provision to implement the future consultation and dissemination strategy.
- Applicable coronavirus disease (COVID-19) guidelines of Government of India and state government of Assam will be followed during the consultation if so applicable.

248. In addition to affected scheduled tribe people, engagement of other key stakeholders plays an important role in the successful implementation of the consultation strategy. The discussion with officials of APDCL and KAAC officials, Gaon Bura and council representatives at the village level during the planning process and review of relevant documents revealed key stakeholders for the implementation of the consultation plan in the scheduled area which is mentioned below.

249. The Sixth Schedule to the Constitution of India provides ample powers to the autonomous district council for governance of the tribal population of the state. The Karbi Anglong Autonomous District has a District Council which consist of 26 elected members and 4 nominated members. The District Council, unless sooner dissolved, continue for five years. The District Council make or amend laws, regulation and rules in respect of matters falling within the purview of the Autonomous Council as specified in the Sixth Schedule of the Constitution. This includes subjects such as land, revenue, transport, public works, primary education, customary laws, fisheries, forests, planning and development, marketing and other subjects that are assigned under the Schedule VI of the Constitution of India. No State or Union law or regulation applies to an autonomous district area unless the Governor of the State of Assam specifically adopts them as applicable to the ADC.

250. The Executive functions of the KAAC is vested in the Executive Committee. The Executive Committee of the KAAC is headed by the Chief Executive Member and comprised of other Executive Members and or Deputy Executive Members to exercise the functions specified in rules 28,29, 30 and 31. In the KAAC area, each tribe has number of subtribes or communities. Each tribal community runs its own affairs and at village level each community has a Community Body. The Community Body at village level is headed by a Headman, who is called Gaon Bura. The Gaon Bura maintains peace and harmony, settles intra and inter community disputes and local problems.

251. For the implementation of consultation plan in the project area, RIPP implementing NGO/Agency and PMC will coordinate with the concerned Executive Member of KAAC and Zonal Development Office for permission to conduct the public consultation in the tribal area falling under the zone. The concerned contractor will coordinate with the village councilor and Gaon Bura for implementing the consultation strategy such as distribution of consultation material, dissemination of advance notice in public or other appropriate places for wider participation, venue and timing of the consultation etc.

6.11 Consultation and Participation Plan

252. Building on the initial consultations held with various stakeholder groups during project preparation further consultations will be conducted throughout the project implementation. The target audience, mechanisms for participation, entities responsible for implementation and indicative schedules are set out in **Table 124**.

Table 124: Consultation and Participation Plan

| Issue | Target Audience | Means of Communication | Responsible | Timing |
|---|---|---|---|--|
| Information dissemination and consultation on project design, risk mitigation measures and entitlements | Beneficiaries, affected people, scheduled tribe people, KAAC Executive Member & revenue officials, Gaon Bura, village council members of KAAC | Public consultation meetings, small group meetings* | APDCL through concerned contractor and RIPP implementing NGO/Agency and PMC | During finalization of project design and route alignment |
| Project impacts (positive, negative), project benefits, implementation arrangements | Beneficiaries, affected people, scheduled tribe people, KAAC Executive Member, Gaon Bura, village council members of KAAC | Public consultation meetings, small group meetings* | Contractor, RIPP implementing NGO/Agency and PMC, field officials of APDCL | Before start of construction |
| Disclosure of RIPP (Leaflet, Brochure to be prepared by the THE RIPP IMPLEMENTING NGO/AGENCY , APDCL) | Beneficiaries, affected people, scheduled tribe people, Gaon Bura, village council members of KAAC | Public consultation meetings, small group meetings* | Contractor, RIPP implementing NGO/Agency and PMC, field officials of APDCL | Following formal approval and concurrence from executing agency and ADB |
| Implementation schedule of construction of civil works | Beneficiaries, affected people, scheduled tribe people, Gaon Bura, village council members of KAAC | Public consultation meetings, small group meetings* | Contractor, RIPP implementing NGO/Agency and PMC, field officials of APDCL | Prior to construction and upon significant change in implementation schedule |
| Functioning of project grievance redressal mechanism, redressal of | Beneficiaries, affected people, scheduled tribe people, Gaon Bura, village council members, KAAC | Public consultation meetings, small group meetings*, individual meeting | Contractor, RIPP implementing NGO/Agency and PMC, field officials of APDCL | At completion of project design |

| Issue | Target Audience | Means of Communication | Responsible | Timing |
|---|--|------------------------|-------------|--------|
| complaints on social, environmental, health and safety issues | Executive Member & revenue officials, and Zonal Development Office | | | |

ADB = Asian Development Bank, APDCL= Assam Power Distribution Company Limited, KAAC= Karbi Anglong Autonomous Council, NGO= Non-Government Organization, PMC = project management consultant, and RIPP = Resettlement and Indigenous Peoples Plan,

6.12 DISCLOSURE

253. Initial project information containing project scope, potential impacts, mitigation measures and broad compensation provision was shared and disclosed at various project locations through consultations carried out during preparation of this RIPP. Initial disclosure was done through dissemination of brochure in local language (Karbi) with information on; (i) overall project objective, scope and benefits. (ii) broad project components, (iii) potential social impacts such as impact on crops and trees and mitigation and compensation measures, (iv) other associated social mitigation measures, (v) future actions and (vi) seeking support of the people for project implementation. Copy of the brochure (english and Karbi IP language) is provided in **Appendix-16**.

254. Following the finalization of the RIPP by ADB and APDCL, further disclosure will be done. A leaflet containing the core RIPP contents such as, project impacts, benefits, mitigation measures, eligibility, entitlement, entitlement matrix containing compensation and assistance provision, benefit sharing mechanism, mitigation measures, grievance redress mechanism, future consultation strategy, implementation schedule and monitoring requirements will be prepared and will be translated in to Karbi Language and will be disclosed³⁹ through a consultative process. A copy of the RIPP leaflet is provided in **Appendix 17**.

255. APDCL with support from RIPP implementing NGO/Agency, PMC and contractor, will continue the disclosure process during project implementation by providing relevant information in a timely manner, in an accessible place, and in a form and language understandable to affected persons and other stakeholders. The RIPP will be made available in corporate and site offices of APDCL, head office and local office of KAAC, at the project site office of concerned contractor, site office of PMC, site office of implementing NGO/Agency and at each affected villages/ Gaon Bura office. The summary RIPP will also be made available to the project affected people and beneficiaries including the indigenous peoples residing in the Solar Project Areas of Karbi Anglong District. The draft RIPP will be disclosed on the websites of ADB and APDCL prior to ADB's management review/prior to negotiation and the Final RIPP (or addendum to it) will also be disclosed in ADB's website and APDCL when ready and prior to commencement of any construction works in resettlement impacted areas. The monitoring reports on RIPP implementation to be prepared by APDCL and submitted or ADB clearance, will also be posted on the ADB's website. The external monitoring reports will also be disclosed on ADB's and APDCL's website.

³⁹ Due to a model code of conduct enforced for the national elections, the disclosure process was halted during the project planning. However, the same will be undertaken prior to the loan negotiation and post approval of this draft final RIPP by APDCL and ADB.

VII. GRIEVANCE REDRESS MECHANISM

7.1 OVERVIEW

256. ADB SPS requires the establishment of a responsive, readily accessible, and culturally appropriate grievances redress mechanism (GRM) capable of receiving and facilitating the resolution of affected persons' concerns and grievances about the physical, social and economic impacts of the projects. The GRM aims to: (i) reduce conflict, risk of undue delay and complication in project implementation; (ii) improve quality of project activities and outputs; (iii) ensure that the rights of affected parties are respected; (iv) identify and respond to unintended impacts of projects on individuals; and (v) maximize participation, support, and benefit to local communities. The fundamental objectives of the Grievance Redress Mechanism are:

- To reach mutually agreed solutions satisfactory to both, the project and the affected persons, and to resolve any project-related grievance locally, in consultation with the aggrieved party;
- To facilitate the smooth implementation of the Environmental Management Plan and prevent delay in project implementation;
- To democratize the development process at the local level, while maintaining transparency as well as to establish accountability to the affected people;
- To facilitate an effective dialogue and open communication between the project stakeholders; and
- To have clear definition of roles and responsibilities of the various parties involved in consideration and resolution of grievances.

257. There is an existing grievance redress mechanism in the APDCL which is a customer care number⁴⁰. There is also a consumer grievance redress portal⁴¹. However, this is more related to the consumers grievance related to supply and maintenance and operation. Although, any aggrieved person can avail the existing system, however, a project related GRM will be established. The GRM at the project level will be set up to solve the affected persons' queries and complaints.

258. GRM is an accessible and trusted platform for all the APs to seek solutions and relief for their project-related problems and grievances, without resorting to lengthy and costly judicial process. The GRM will not deal with matters pending in a court of law. Its success and legitimacy will depend on the APs' capacity for consultations and desire to resolve grievances through discussion and negotiation. APDCL will ensure that the APs and the line agencies that participate in project activities understand the role and functions of GRM of the project in resolving problems and grievances pertaining to land acquisition, compensation, relocation, and income and livelihood restoration and improvement. Before project activities commence, a program of publicity to the GRM will be given by APDCL.

259. APDCL will institute a transparent and time-bound grievance redress mechanism (GRM) to receive and resolve the APs' grievances and complaints, if any, on the delivery of their entitlements, in particular, and project impacts on them, in general. The GRM will be established before the physical takeover of the land from the affected households. The project being categorized as "A" for, both involuntary resettlement and indigenous peoples, therefore, a dedicated GRM system will be established by the APDCL for the solar PV component (component-1 and component-2).

260. Component 3 and component 4 does not involve land acquisition and involuntary resettlement because the battery storage will be within the existing boundary of a substation and the distribution lines will be constructed within the right of way as most of the works are related to conversion of existing low voltage line in to covered conductor and augmentation of three existing substation. This will be executed in Karbi Anglong District near to the solar PV and in the neighboring district of Dima Hasao. However, affected persons are allowed to use this grievance platform to put

⁴⁰ <https://m.indiacustomer care.com/category/company-names/apdclorg#gsc.tab=0>

⁴¹ <https://www.apdcl.org/cgrf/ noauth/aboutUs>

any grievance that may arise. Any grievance that may arise from these components will be forwarded by the project team to be addressed by the GRM as proposed in the initial environment examination for component 3 and 4. A GRM structure as proposed in the IEE for the output 3 and 4 is provided in **Appendix- 18**. However, aggrieved party under the distribution components can approach this GRM proposed for the solar PV components (component 1 and 2) too. APDCL with assistance from PMC safeguard specialist and the RIPP implementation NGO/Agency will provide awareness about the proposed GRM.

7.2 GRIEVANCE REDRESS PROCESS

261. A three-tier GRM will be established. The first tier is the grass-roots level mechanism. Grievances of the APs are first dealt with by *gaon buras* in consultation with field officials, and the contractors of the project. Complaints that cannot be addressed at the level of *gaon buras* will be forwarded to the project-level grievance redress committee (GRC) which is the second tier and will be established at the site office at Bokajan. The third tier is the appellate GRC at the state level in the Project Management Unit (PMU) of APDCL at the head quarter in Guwahati. APDCL will deal with the complaints and grievances as the appellate GRC. The presence of GRM or seeking relief from GRM is not a bar to take grievances and complaints to national courts for arbitration.

7.2.1 First Tier GRM

262. Grievances and complaints that need immediate attention can be directed to the *gaon bura* and project officer who is in the area. These on-site personnel are the accessible first level contacts for a grieved party to obtain a prompt resolution to a grievance or a complaint. Contact phone numbers, addresses, and names of the *gaon buras* and field level project officials, and project contractors will be displayed at all construction site offices and public places in the project area. Registers for recording complaints and grievance will be available with *gaon buras* and field officials. They will be trained by the project management consultant (PMC) and the RIPP implementing NGO/Agency on how to record grievances and complaints, and how to arbitrate and solve them (Refer to **Appendix-19** for a sample template). They are required to resolve an issue within 7 days from the receipt of a complaint or grievance and the complainant is informed about the outcome of the redress process. Records of grievances received at field level will be sent once a month to the project site office and PMU enabling the tracking of the progress in grievance redress mechanism. Records will be properly maintained and stored and should be easily retrievable.

7.2.2 Second Tier GRM

263. A Grievance Redress Committee (GRC) will be formed at the second tier of GRM. GRC at the project site level will address the APs' complaints and grievances promptly, using a transparent process which is gender responsive, culturally appropriate, and readily accessible to all segments of the APs, at no costs and without retribution. It will be chaired by the sub divisional officer (SDO) or his/her representative at the project site level. The safeguard consultants (IR and IP) of the PMC, concerned engineers, contractors, representative from IPs, representative from the affected household, at least one woman representative from the affected household, Gaon Bura and joint secretary revenue (land acquisition officer from KAAC) will also take part in GRC meetings. The chairperson (SDO) will receive complaints and grievances. A record of each complaint or grievance will be kept at the project office. At this level, each grievance or complaint will be resolved within 15 days from the date of its registration. The decisions of the GRC will be conveyed in writing to the APs who sought relief through *gaon Buras*. Following will be the members of GRC at project site level (second tier).

- Sub Divisional Officer. APDCL (Chair Person)
- Joint Secretary, Revenue/Land Acquisition Officer (Secretary)- KAAC
- Gaon Bura of project affected villages
- Woman representative of affected household from each village
- Representative of affected IP households from each village

- Safeguard specialist of PMC
- Safeguard specialist from the RIPP implementing NGO/Agency
- Representative from the contractor
- Representative from the forest department

7.2.3 Third Tier GRM

264. GRC will be formed at the third tier of GRM in the PMU of APDCL headquarter. If the GRC at the project-level (second tier) considers the grievance or the complaint is beyond its jurisdiction, or it cannot resolve the complaint, it will be referred to the third tier GRC located in Guwahati (third tier) for resolution or relief. APDCL will attempt to resolve grievances within 30 days from date of receipt of a complaint or grievance. The Appellate GRC at APDCL will be chaired by the Project Director of the PMU. The other members of GRC are the representatives of the revenue department of Government of Assam, revenue department of KAAC, Gaon Buras, Forest Department, IP representative from KAAC, representative of affected households, woman representative from IPs. GRC hear the complaint or the grievance and provides its decision to the aggrieved party in 30 days from the registration of the complaint. The decision of the GRC is communicated in writing through *gaon buras* with assistance from RIPP implementing NGO/Agency and PMC to the complainants. APDCL will ensure that the GRC will be free from intimidation and the implementing NGO/Agency will assist APDCL in the GRM. There is already cost allocated in the budget exclusively for GRM. The implementing NGO/Agency will facilitate and APDCL will bear all costs related to transportation and other expenses to be incurred by the APs for attending the meetings in the third tier GRM at the PMU. Following will be the members of GRC at PMU level (third tier).

- Project Director, PMU (Chair Person)- APDCL
- Deputy Project Director, PMU (Secretary)- APDCL
- Executive Member, Revenue- KAAC
- Revenue secretary, KAAC
- Gaon Bura of each project affected villages
- Woman representative of affected household from each village
- Representative of affected IP households from each village
- Divisional Forest Officer

7.3 OTHER PLATFORMS FOR ADDRESSING GRIEVANCE

265. There are three other supplementary avenues that are opened for the APs to resolve their problems, complaints, and grievances with regard to the project and its implementation.

7.3.1 ADB India Resident Mission and Energy Sector Office in HQ

266. An aggrieved party can directly contact ADB's resident mission in New Delhi regarding a grievance or problem that GRM has failed to resolve. The party in writing informs the resident mission and initiates a good faith negotiation to solve the problem by working with the concerned resident mission's specialists and, if necessary, with ADB's Energy Sector Group, South Asia. The aggrieved party can use English or any local language to send the complaint to the resident mission or to the sector group, energy, and the arbitration can be done in the preferred language of the aggrieved party.

7.3.2 ADB Accountability Mechanism

267. The affected party can use the ADB's Accountability Mechanism by writing to the Complaint Receiving Officer at the ADB Headquarters in Manila. The Accountability Mechanism has two arms: the first is the Office of the Special Project Facilitator. The facilitator deals with the complaints with the help of the project personnel and the aggrieved party through a consultative process; the second arm of the Accountability Mechanism deals with the complaints against ADB regarding its failure to abide by its own safeguard policy requirements. Information on the ADB Accountability Mechanism will be included in the project information kit to be distributed among the affected communities as a part of the project GRM.

7.3.3 India's Judicial System

268. If the GRM of the project cannot resolve a grievance or the aggrieved party feels that it has not received a fair hearing or award, the party can access the country's court system for relief at any stage of the deliberations in GRCs. In such an event, the GRC immediately terminates its hearing.

7.4 GRC RECORD KEEPING

269. Submission of grievance will be through local language and English translation of the local language as well. Illiterate people can submit their grievance orally that will be translated into written local language by the GRC member. Additionally, APs can avail the APDCL's general customer care number to call or email about their complaints. Records of all grievances received, including contact details of the complainants, dates the complaints received, nature of grievances, agreed corrective actions and when they were implemented, and the final outcome are recorded and kept in the project office. The number of grievances recorded and resolved and the outcomes will be displayed/disclosed at the project office, APDCL Office in Guwahati, and on APDCL website. A summary of this information will be included in the quarterly progress report of RIPP implementing NGO/Agency and semi-annual internal safeguard monitoring reports submitted by APDCL to ADB. All GRC meeting deliberations and decisions will be recorded and will be available for public reference. If ADB is involved in grievance resolution, it will maintain records of its proceedings and disclose them to all parties engaged in the hearings.

7.5 GRM COST

270. All costs incurred in GRC meetings, consultations, communication and reporting/information dissemination will be borne by PMU. Cost estimates for grievance redress are included in resettlement cost estimates. ADB will bear the cost of its own involvement in grievance resolution. The complainants are not charged any fee for the service. It is a good practice to provide the APs with transport facilities to the project offices or cash payment for such expenses by the project, if feasible.

VIII. POLICY AND LEGAL FRAMEWORK ON INVOLUNTARY RESETTLEMENT AND INDIGENOUS PEOPLES

8.1 OVERVIEW

271. This chapter describes the applicable policy and regulation related to land acquisition, involuntary resettlement and indigenous peoples. The legal framework and entitlements for the project is guided by the existing legislation and policies of the Government of India which is the constitution of India and its sixth schedule. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR)⁴² has been taken on to consideration for providing resettlement and rehabilitation (R&R) schemes and benefits in addition to the land compensation which will be decided by the council. Rules and regulation of Government of Assam and the Karbi Anglong Autonomous Council Acts, have been considered. ADB's Safeguard Policy Statement (SPS), 2009 and its policy principles on involuntary resettlement and indigenous peoples is the key policy adopted for the project to comply with ADB's requirements. This chapter provides the details of various national, state level legislations and Autonomous Council Acts, rules and regulations and their applicability for the project.

8.2 THE CONSTITUTION OF INDIA AND SIXTH SCHEDULE

272. The Scheduled District Act of 1874, the Government of India Act of 1919, and the Government of India Act of 1935, classified remote hill areas, especially hill areas in the northeast India as 'excluded' and 'partially excluded' areas, where the provincial administration did not wield much authority or jurisdiction. Provincial British rulers obtained the help of local chiefs to govern the areas, maintain law and order, and collect land and crop taxes. As a result, such lands had never been brought under the direct rule of the British or within the jurisdiction of ordinary courts. This adversely affected their opportunities for development and social mobility. Moreover, colonial administrators branded some such tribes as 'unruly and wild' criminal tribes.

273. The Government of India Act of 1935 stated that no act of the Central or the Provincial legislatures would apply to such areas unless the provincial governor decided to do so. The Act also recognized customary laws among tribal communities as valid laws that are applicable to them. In May 1946, the Constituent Assembly of India appointed an advisory committee on fundamental rights of minorities in tribal areas. One of its sub-committees was the Northeast (Assam) Tribal and Excluded Areas Sub-committee, chaired by the Assam Premier, Gopinath Bordoloi. The advisory committee concluded that the tribal peoples are sensitive towards their land, forest, life style, and traditional systems of justice and, therefore, special safeguards were needed to protect and preserve them. The Sub-committee pointed out that in tribal communities there were self-governing democratic institutions which are embedded in traditional tribal culture. These two key conclusions formed the basis for the Schedule V and Schedule VI established under the Article 244 of the Indian Constitution. They provide a degree of self-governance to the designated (or 'scheduled') tribal communities.

274. The Dima Hasao (North Cachar Hills⁴³) and the Karbi Anglong autonomous districts come under the purview of the Schedule VI of the Indian Constitution. The applicable Schedule of the Indian Constitution to these two districts is the amended version of the Schedule VI found in the Constitution (Amendment) Act, 1995. The section 3 of the Schedule VI of the Constitution of India provides a detailed account of an autonomous district council's (ADC) powers to make laws relating to industries, preservation, protection and improvement of animal stock and prevention of animal diseases, communication, inland waterways, primary and secondary education, agriculture,

⁴² The land will not be acquired under the RFCTLARR, however the provision of Resettlement and Rehabilitation (R&R) schemes/benefits/assistance of the RFCTLARR will be provided to the eligible affected households in addition to the land acquisition compensation cost

⁴³ North Cachar Hills district, or N C Hills district or Cachar Hills district is still interchangeably used in official documents to label the Dima Hasao autonomous district.

agricultural education and research, fisheries, water supplies, irrigation and canals, drainage and embankments, water storage and hydro power, social security and social insurance, employment and unemployment, flood control schemes for protection of villages, paddy fields, markets, towns, public health and sanitation, minor irrigation, trade and commerce, libraries and museums, alienation of land (other than reserved forest) for agricultural or grazing or residential or for any other purpose which is likely to promote the interests of the inhabitants of any village or town, the regulation of jhum or other forms of shifting cultivation, the inheritance of property, marriage, divorce, and social customs.

275. With regard to the allotment, occupation, and use of land, the state government can supersede the laws and regulations of the ADC's laws and regulations, if the State Government wants to compulsorily acquire any land, whether occupied or unoccupied, for a public purpose in accordance with the state laws and regulations pertaining to land acquisition (Section 3 (a) of Schedule VI).

8.3 COMPOSITION AND FUNCTIONS OF KARBI ANGLONG AUTONOMOUS COUNCIL

276. In exercise of the powers conferred by sub-paragraph (6) of paragraph 2 of the Sixth Schedule to the constitution of India, the Assam Autonomous District (Constitution of District Council) Rules contain rules for the first constitution of the District Councils for the autonomous districts comprising the tribal areas specified in part A of the table appended to paragraph 20 of the said Schedule. The Karbi Anglong District Council has been renamed as Karbi Anglong Autonomous Council (KAAC) as made by the Sixth Schedule to the Constitution (Amendment) Act, 1995 (42 of 1995) dated 12th September, 1995.

277. Karbi Anglong Autonomous District has a District Council which consist of 26 elected members and 4 nominated members. The District Council, unless sooner dissolved, continue for five years. The District Council has a Chairman and a Deputy Chairman, who is elected by the Autonomous Council in the manner provided in rules 32 and 33. The District Council make or amend laws, regulation and rules in respect of matters falling within the purview of the Autonomous Council as specified in the Sixth Schedule of the Constitution. This includes subjects such as land, revenue, transport, public works, primary education, customary laws, fisheries, forests, planning and development, marketing and other subjects that are assigned under the Schedule VI of the Constitution of India. No State or Union law or regulation applies to an autonomous district area unless the Governor of the State of Assam specifically adopts them as applicable to the ADC.

278. The Executive Committee of the KAAC is headed by the Chief Executive Member and comprised of other Executive Members and or Deputy Executive Members to exercise the functions specified in rules 28,29, 30 and 31. The Chief Executive Member is elected by the Autonomous Council. The Executive Members of the Autonomous Council is appointed by the Governor on the advice of the Chief Executive Member from amongst the members of the KAAC. The Executive functions of the KAAC is vested in the Executive Committee. Each member of the Executive Committee is entrusted with specific subjects. The Executive Committee is collectively responsible for all executive orders issued in the name of Autonomous Council.

8.4 The Karbi Anglong Autonomous Council Acts, rules, and regulations relevant to land and revenue

279. **The Mikir Hills⁴⁴ Land and Revenue Act, 1953** provides recognition of rights over land, settlement and assessment of land etc. by the District Council. Under clause (a) of sub-paragraph (1) of paragraph 3 of the Sixth Schedule to the Constitution of India, the District Council of an autonomous district is empowered to make laws with respect to the allotment, occupation or use, or the setting apart, of land, other than any land which is a reserved forest, for the purposes of agriculture or grazing or for residential or other non-agricultural purposes. Under subparagraph (1) of paragraph 8 of the Sixth Schedule to the Constitution of India, it is further empowered to assess

⁴⁴ The Karbi Anglong District Council was earlier called as the Mikir Hills District Council

and collect revenue in respect of all lands within the district in accordance with the principles for the time being followed by the Government of Assam in assessing lands for the purpose of land revenue in the state of Assam generally.

280. The Mikir Hills Land and Revenue Act, 1953 provides recognition of rights over land, settlement and assessment of land etc. by the KAAC (District Council). KAAC has the ownership of land and individual households are allocated land for use for a specific period. The KAAC issues patta to individual households. However, the ultimate ownership of land belongs to KAAC.

281. **The Mikir Hills District (Transfer of Land) Act, 1959** deals with control over transfer of land in the Mikir Hills District. Section 3 of the Act mentions that no land under the District Council shall be sold, mortgaged, leased, bartered, gifted or otherwise transferred by a tribal to a non-tribal, or by a non-tribal to another non-tribal except with the previous permission of the Executive Committee. Section 5 of the Act says that if any person other than a tribal is found to be in possession of any land otherwise than in accordance with the provisions of this Act, the Revenue Officer of the District Council may evict the person concerned after serving a three month notice.

282. **The Karbi Anglong District (Land Reforms) Act, 1979** provide for regulation and control of use of agricultural land owned by the settlement holder in the district of Karbi Anglong. Under this Act "Paikas" means a system prevalent under which an amount of money is taken in advance from a cultivator by a settlement holder for cultivation of the land by the cultivator and includes a person who cultivates any land under this system for a specific period. As per Section 3 (a) of the Act, all kinds of encumbrances of land existing by way of paikas, or mortgage shall be void upon coming into force of this Act.

283. The Section 3 (a) of the Act further says if any settlement holder, after release of his land from paikas or mortgage again encumbers his land through paikas or mortgages, the patta shall be liable to cancellation and the mortgage shall be evicted forthwith. The provisions of the Assam Land Revenue Regulation 1886, shall be applicable in evicting the unauthorised cultivators, who refuse to vacate the land and released by competent authority.

284. A notification by Karbi Anglong District Council (dated 14th December, 1982), says that there shall be Land Reforms Circle Committee in each and every circle under the District Council. The Assistant Revenue Officer (ARO) will be the Ex-officio Secretary of the Land Reform Circle Committee. The Revenue Officer of the District Council shall be the Ex-officio Secretary of the District Land Reform Committee.

8.5 The Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA)

285. The preamble to the Act states that it is "An Act to recognise and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other forest dwellers who have been residing in such forests for generations but whose rights could not be recorded; [and] to provide for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land." The Act elaborates the justification for the above as follows:

- Whereas the recognised rights of the forest dwelling Scheduled Tribes and other traditional forest dwellers include the responsibilities and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance and thereby strengthening the conservation regime of the forests while ensuring livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers;

- And whereas the forest rights on ancestral lands and their habitat were not adequately recognized in the consolidation of state forests during the colonial period and in independent India resulting in historical injustice to the forest dwelling Scheduled Tribes and other traditional forest dwellers which are integral to the very survival and sustainability of the forest ecosystem;
- And whereas it has become necessary to address the long-standing insecurity of tenure and access rights of forest dwelling Scheduled Tribes and other traditional forest dwellers including those who were forced to relocate their dwelling due to State development interventions.

8.6 RIGHT TO FAIR COMPENSATION AND TRANSPARENCY IN LAND ACQUISITION, REHABILITATION AND RESETTLEMENT ACT, (RFCTLARR, 2013)

286. The RFCTLARR, 2013 replaced the Land Acquisition Act, 1984 and is applicable to all states in India. RFCTLARR, 2013 is the first national/central law that addresses land acquisition and rehabilitation and resettlement. Government of Assam has already notified the Assam RFCTLARR Rules, 2015 confirming implementation of the RFCTLARR Act, 2013. This Act provides an enhanced framework for providing compensation and resettlement and rehabilitation assistance through a participative and transparent process for land acquisition in the public interest. The Act lays down procedures for estimating fair compensation of the displaced persons (and not just the titleholders) due to land acquisition, rehabilitation, and resettlement. Some of the key features are as follows:

- Preliminary investigations/preparation of Social Impact Assessment (SIA) and preparation of Social Impact Management Plan (SIMP) or Resettlement Action Plan (RP)
- Preliminary Notification stating project/ public purpose; reasons necessitating land acquisition; summary of SIA; and particulars of the Administrator appointed for the purpose of rehabilitation and resettlement; receipt of Objections and Hearing after the approval of SIA and within 12 months from the date of SIA approval.
- Preparation of Rehabilitation and Resettlement Scheme and its declaration by the District Collector after the same is approved by the Commissioner-Rehabilitation and Resettlement.
- Public notice and award of compensation and R&R assistance by District Collector within a period of twelve months from the date of the Award publication.

287. Section 27 of the Act defines the method by which market value of the land shall be computed under the proposed law. Schedule I outlines the proposed minimum compensation based on a multiple factor of market value. Schedule II outline the elements of resettlement and rehabilitation (R&R) entitlements for the affected families, which shall be in addition to the minimum compensation per Schedule I. These R&R entitlements under Schedule II are presented below.

- If a house is lost in rural areas, a constructed house shall be provided as per the Indira Awas Yojana specifications. If a house is lost in urban areas, a constructed house shall be provided, which will be not less than 50 sq mts in plinth area. Provided that any such family in urban areas which opts not to take the house offered, shall get a one-time financial assistance for house construction, which shall not be less than one lakh fifty thousand rupees. If any affected family in rural areas so prefers, the equivalent cost of the house may be offered in lieu of the constructed house.
- Each affected family will be eligible for choosing one-time assistance option from (a) where jobs are created through the project, after providing suitable training and skill development in the required field, make provision for employment at a rate not lower than the minimum wages provided for in any other law for the time being in force, to at least one member per affected family in the project or arrange for a job in such other project as may be required; or (b) one-time payment of five lakhs rupees per affected family.

- Subsistence grant for displaced families for a period of one year: Each affected family which is displaced from the land acquired shall be given a monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year from the date of award. In addition to this amount, the Scheduled Castes and the Scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to fifty thousand rupees. In case of displacement from the Scheduled Areas, as far as possible, the affected families shall be relocated in a similar ecological zone, so as to preserve the economic opportunities, language, culture and community life of the tribal communities.
- Each affected family which is displaced shall get a onetime financial assistance of fifty thousand rupees as transportation cost for shifting of the family, building materials, belongings and cattle.
- Each affected family having cattle or having a petty shop shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees for construction of cattle shed or petty shop as the case may be.
- Each affected family of an artisan, small trader or self-employed person or an affected family which owned non-agricultural land or commercial, industrial or institutional structure in the affected area, and which has been involuntarily displaced from the affected area due to land acquisition, shall get one-time financial assistance of such amount as the appropriate Government may, by notification, specify subject to a minimum of twenty-five thousand rupees.
- Each affected family shall be given a one-time Resettlement Allowance of fifty thousand rupees only.
- The stamp duty and other fees payable for registration of the land or house allotted to the affected families shall be borne by the Requiring Body. The land for house allotted to the affected families shall be free from all encumbrances.

8.7 ADB Safeguard Policy Statement on Involuntary Resettlement

288. The objectives of ADB's SPS (2009) regarding involuntary resettlement are: (i) to avoid involuntary resettlement wherever possible; (ii) to minimize involuntary resettlement by exploring project and design alternatives; (iii) to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and (iv) to improve the standards of living of the displaced poor and other vulnerable groups. Under ADB SPS, 2009, the involuntary resettlement safeguard policy principles are:

- Screen the project early on to identify past, present and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and or census of displaced persons, including gender analysis, especially related to resettlement impacts and risks.
- Carry out meaningful consultations with APs, host communities, and concerned NGOs. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and indigenous peoples, and those without title to land and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
- Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based, where possible, or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value,

- (iii) prompt compensation at full replacement cost for assets that cannot be restored; and
- (iv) additional revenue and services through benefit sharing schemes where possible.
- Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance such as land development, credit facilities, training, or employment opportunities, and (iii) civic infrastructure and community services, as required.
- Improve the standards of living of the displaced poor and other vulnerable groups, including women to at least national minimum standards. In rural areas, provide them with appropriate income sources and legal and affordable access to adequate housing.
- Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status. Legally, the two ADCs can discontinue or refuse to renew current leaseholds of the APs, as they have leasehold interests over the land that they cultivate or use as homesteads.
- Ensure that displaced persons without land titles or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangement, monitoring and reporting framework, budget, and time-bound implementation schedule.
- Disclose the draft resettlement plan including the documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and languages understandable to affected persons and other stakeholders.
- Conceive and execute involuntary resettlement as part of a development project or program. Include the full cost of resettlement in the presentation of project's costs and benefits.
- Pay compensation and provide other settlement entitlements before physical or economic displacement.
- Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

8.8 ADB Safeguard Policy Statement on Indigenous Peoples

289. The key objectives of Indigenous Peoples Policy⁴⁵ of ADB policy are to (a) ensure that the project, during its planning phase, pays attention to the project-affected tribal people's culture, identity, human rights, livelihood systems, and dignity; (b) encourage them to participate actively in the process of project planning and implementation; and (c) avoid any adverse project impacts on them. The policy states that the safeguard policy requirements will be triggered, if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of tribal peoples, or affects the territories or natural or cultural resources that they own, use, occupy, or claim as their ancestral domain. As SIA demonstrates, the project will affect the indigenous (tribal) peoples' identity, lands, and livelihood systems triggering the safeguards listed in the policy. The key policy principles are:

- Screen early on to determine (i) whether indigenous peoples are present in, or have collective attachment to, the project area; and (ii) whether project impacts on them are likely.
- Undertake a culturally appropriate and gender-sensitive social impact assessment or use similar methods to assess potential project impacts, both positive and adverse, on indigenous peoples. Give full consideration to options the affected indigenous peoples prefer

⁴⁵ 'Indigenous Peoples' are referred to in different countries by such terms as indigenous ethnic minorities, indigenous cultural communities, aboriginals, hill tribes, minority nationalities, scheduled tribes, or tribal groups.' (ADB 2009: 55). In India, the terms 'scheduled tribes' and 'tribal groups' are used to refer to its indigenous peoples.

in relation to the provision of project benefits and the design of mitigation measures. Identify social and economic benefits for affected indigenous peoples that are culturally appropriate and gender and inter-generationally inclusive, and develop measures to avoid, minimize, and/or mitigate adverse impacts on indigenous peoples.

- Undertake meaningful consultations with affected indigenous peoples communities and concerned indigenous peoples organizations to solicit their participation (i) in designing, implementing, and monitoring measures to avoid adverse impacts or, when avoidance is not possible, to minimize, mitigate, or compensate for such effects; and (ii) in tailoring project benefits for affected indigenous peoples communities in a culturally appropriate manner. To enhance indigenous peoples' active participation, projects affecting them will provide for culturally appropriate and gender inclusive capacity development. Establish a culturally appropriate and gender inclusive grievance mechanism to receive and facilitate resolution of the indigenous peoples' concerns.
- Ascertain the consent of affected indigenous peoples communities to the following project activities: (i) commercial development of the cultural resources and knowledge of indigenous peoples; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within the customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of indigenous peoples.
- Avoid to the maximum extent possible any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected indigenous peoples communities participate in the design, implementation, and monitoring and evaluation of management arrangements for such areas and natural resources and that their benefits are equitably shared.
- Prepare an indigenous peoples plan (IPP) that is based on the social impact assessment with the assistance of qualified and experienced experts and that draw on indigenous knowledge and participation by the affected indigenous peoples communities. The plan includes a framework for continued consultation with the affected indigenous peoples communities during project implementation; specifies measures to ensure that indigenous peoples receive culturally appropriate benefits; identifies measures to avoid, minimize, mitigate, or compensate for any adverse project impacts; and includes culturally appropriate grievance procedures, monitoring and evaluation arrangements; and a budget and time-bound actions for implementing the planned measures.
- Disclose a draft IPP, including documentation of the consultation process and the results of the social impact assessment in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected indigenous peoples communities and other stakeholders. The final IPP and its updates will also be disclosed to the affected indigenous peoples communities and other stakeholders.
- Prepare an action plan for legal recognition of customary rights to lands and territories or ancestral domains when the project involves (i) activities that are contingent on establishing legally recognized rights to lands and territories that indigenous peoples have traditionally owned or customarily used or occupied, or (ii) involuntary acquisition of such lands.
- Monitor implementation of the IPP using qualified and experienced experts; adopt a participatory monitoring approach, wherever possible; and assess whether the IPP's objective and desired outcome have been achieved, taking into account the baseline conditions and the results of IPP monitoring. Disclose monitoring reports.

8.9 Policy Comparison, Gap Analysis and Measures

290. This section summarily compares and contrasts the local policy and legal framework and ADB's involuntary resettlement and indigenous peoples safeguard policy requirements and highlights gaps, if any, and to suggest remedies to address them. The RFCTLARR, 2013 and the land acquisition procedures of the Karbi Anglong Autonomous council match most of the safeguard policy requirements requirement of ADB. In case of the two issues where full congruence is not met, the entitlement matrix will provide actions to meet them fully. The two issues are: improvement of

income and livelihoods of all APs, and the disclosure of the combined RIPP on the web and in local languages. Details are provided in **Table 125**.

Table 125: Policy Comparison and Gap Analysis

| Safeguard Principles | Congruence between Safeguard Principles and Indian Regulatory Framework | Measures to Bridge the GAP |
|---|--|---|
| Screen early the project affected population (IR-1) (IP-1) | No such specific format to screen the project. | Provisions outlined in ADB SPS will be followed for the project. Screening of all subprojects in line with the IR and IP checklist of ADB, towards enabling identification of the potential resettlement impacts and associated risks. |
| Prepare a SIA (IR-2) (IP-2) | 4 (l) it is obligatory for the appropriate government intends to acquire land for a public purpose to carry out a social impact assessment study in consultation with concern Panchayat, Municipality or Municipal Corporation, as the case may be, at village level or ward level in the affected area. The social impact assessment study report shall be made available to the public in the manner prescribed under section 6. | No gap between SPS and RFCTLARR, 2013 |
| Meaningful consultation (IR-2) (IP-3) | Whenever a social impact assessment is required to be prepared under section 4, the appropriate government shall ensure that a public hearing is held at the affected area, after giving adequate publicity about the date, time and venue for the public hearing, to ascertain the views of the affected families to be recorded and included in the social impact assessment report. The Land Acquisition Rehabilitation and Resettlement Authority shall be established in each state by the concerned state government to hear disputes arising out of projects where land acquisition has been initiated by the state government or its agencies. | Partial gap between SPS and RFCTLARR, 2013 There is a difference between public hearing and meaningful consultation. Public hearing is usually a one off process. Meaningful consultation requires paying specific attention to vulnerable sections of the affected peoples. |
| Ascertain broad community Support (IP - 4) | 41 (3) In case of acquisition or alienation of any land in the scheduled areas, the prior consent of the concerned Gram Sabha or the Panchayats or the autonomous district councils, at the appropriate level in scheduled areas under the Fifth Schedule to the Constitution, as the case may be, shall be obtained, in all cases of land acquisition in such areas, including acquisition in case of urgency, before issue of a notification under this Act, or any other Central Act or a State Act for the time being in force: Provided that the consent of the Panchayats or the autonomous districts Councils shall be obtained in cases where the Gram Sabha does not exist or has not been constituted. | No gap between SPS and RFCTLARR, 2013. |
| Avoid restricted access to natural resources & protected areas (IP-5) | 41. Special provisions for Scheduled Castes and Scheduled Tribes. – (1) As far as possible, no acquisition of land shall be made in the scheduled areas. | No gap between SPS and RFCTLARR, 2013. |
| Prepare RP (IR-8), IPP (IP-6) | Preparation of rehabilitation and resettlement scheme including time line for implementation. <i>Section: 16. (1) and (2).</i> | No gap between SPS and RFCTLARR, 2013. |

| Safeguard Principles | Congruence between Safeguard Principles and Indian Regulatory Framework | Measures to Bridge the GAP |
|---|---|--|
| | Separate development plans to be prepared. <i>Section 41</i> | Combined RIPP is being prepared. |
| Disclose plans (IP-7) (IR-9) | Under clause 18, the commissioner shall cause the approved rehabilitation and resettlement scheme to be made available in the local language to the <i>Panchayat</i> , Municipality or Municipal Corporation. As the case may be, and the offices of the District Collector, the Sub-Divisional Magistrate and the <i>Tehsil</i> , and shall be published in the affected areas, in such manner as may be prescribed and uploaded on the website of the appropriate government. | No gap between SPS and RFCTLARR, 2013. |
| Prepare an action plan for legal recognition of customary rights (IP-8) | Non-titleholders on acquired land area is only included but not clear about non-titleholders in existing govt. land | Provisions outlined in ADB SPS will be followed for the project. This is a part of the process in acquiring land by KAAC for a public purpose. The project recognized non-land assets of the APs (agricultural tenants) enabling them to get cash compensation, relocation assistance, and support in livelihood recovery and improvement. |
| Monitor RP and IPP (RIPP) implementation (IP-9) (IR 12) | 48 (l)The Central Government may, whenever necessary for national or inter-State projects, constitute a National Monitoring Committee for reviewing and monitoring the implementation of rehabilitation and resettlement schemes or plans under this Act. The Act of 2013 provides an elaborate monitoring procedure. The appointment of a commissioner for R&R and R&R committee at the project level meet the ADB requirements other than participatory monitoring. | For project, monitoring mechanism and frequency will follow ADB SPS based on categorization. |
| Improve or at least restore livelihoods and income (RP-3, 5) (IP-5) | The compensation packages under the local regulatory framework are substantial. The Act 2013 provides for income restoration and improvement. The act provides special provisions scheduled tribe. The collector having determined the market value of the land to be acquired shall calculate the total amount of compensation to be paid to the land owner (whose land has been acquired) by including all assets attached to the land. Livelihood losers are eligible for various rehabilitation grants. | Although no such major gaps gap between SPS and RFCTLARR, 2013, however, there is still a need to demonstrate that the rates meet the 'replacement cost' requirement. |
| Relocate the displaced (RP - 4) (IP-5) | Schedule I, provides market value of the land and value of the assets attached to land. Schedule II provides R&R package for land owners and for livelihood losers including landless and special provisions for scheduled tribes. | No gap between SPS and RFCTLARR, 2013. The Act of 2013 provides a satisfactory plan which meets ADB's safeguard requirements. |
| Improve living standards of the poor/ vulnerable (RP 5) (IP-6) | The LA Act only provide special provisions scheduled tribe | Provisions outlined in ADB SPS will be followed for the project. The non-land assets of the APs (agricultural tenants) will get cash compensation, relocation assistance, and support in livelihood recovery and improvement. |

| Safeguard Principles | Congruence between Safeguard Principles and Indian Regulatory Framework | Measures to Bridge the GAP |
|---|---|---|
| Encourage negotiated settlement in land acquisition (RP 6) (IP-5) | The LA Act only applies in case of land acquired/purchased for PPP projects and for Private Companies. Section: 2. (2), and 46. | Provisions outlined in ADB SPS will be followed for the project. There is no negotiated settlement in the Project, the land is being acquired under the regulations of the KAAC |
| Ensure untitled compensated and assistance (RP 7) | Non-titleholders on acquired land area is only included but not clear about non-titleholders in existing govt. land | Provisions outlined in ADB SPS will be followed for the project. The non-land assets of the APs (agricultural tenants) will get cash compensation, relocation assistance, and support in livelihood recovery and improvement. |
| Execute IR and IPP as a part of development project (IR 10) | The Act of 2013 provides the procedure to make the APs better off after land acquisition. | No gap between SPS and RFCTLARR, 2013. |
| Pay compensation before displacement (IR-11) | 38 (l) The collector shall take possession of land after ensuring that full payment of compensation as well as rehabilitation and resettlement entitlements are paid or tendered to the entitled persons within a period of three months for the compensation and a period of six months for the monetary part of rehabilitation and resettlement entitlements listed in the second schedule commencing from the date of the award made under section 30. | No gap between SPS and RFCTLARR, 2013 |

IP = Indigenous Peoples Policy of ADB, IR = Involuntary Resettlement Policy of ADB, R&R = resettlement and rehabilitation, RIPP= Resettlement and Indigenous Peoples Plan

Sources: Safeguard Policy Statement (2009); The Act of 2013; FRA, 2006; Procedures of land acquisition of KAAC

8.10 POLICY PRINCIPLES

291. The basic principles adopted for the project are:

- Avoid negative impacts of land acquisition, involuntary resettlement and indigenous peoples by the project to the extent possible;
- Land will be allotted by the KAAC to APDCL after the payment of compensation as per the regulation of KAAC and the compensation will be at replacement cost to comply with ADB's SPS 2009. No land possession by the project and displacement of AHs allowed, and neither construction works can commence, until compensations are paid to AHs in impacted sites
- The cash compensation is the preferred mode of compensation for loss of land. However, based on the significance of impact and if affected households prefers land for land, APDCL will work along with KAAC to provide such household land for land compensation of equal or better quality in the vicinity to ensure that the land based livelihood of such households are restored.
- Physically displaced households will be provided with alternate relocation site where feasible and if agrees or else the structure shall be compensated at replacement cost
- Although land will not be acquired by the RFCTLARR, 2013, however, the resettlement and rehabilitation (R&R) Schemes of the RFCTLARR and the entitlements will be provided to the eligible affected households in addition to the land compensation as good practice. No price index or price escalation will be considered for the R&R schemes.
- The definition of family/household for the eligibility of compensation and assistance as per the RFCTLARR is defined as one unit on whose name the customary land right has been issued and whose name the patta or legal document is issued. These will be considered as customary owners.
- Informal settlers and tenants will be eligible for non-land compensation and assistance as per the ADB's SPS, 2009.
- Tenants will be compensated for the affected structures at replacement cost, without depreciation and right to salvage the material without cost. They will also need to be compensated for any development made on the land required for the project. APDCL should liaise with the Autonomous Council for establishing a 'cut-off' date for determining compensation eligibility of the affected households. The cut-off date shall be considered as the end of the census survey
- Compensation (Land and Non-Land Asset) shall meet replacement cost requirement of SPS 2009.
- Clear mechanism will be developed so that the entitlements reach to the affected person/households.
- Compensation payment will be done through bank accounts (preferably joint accounts of husband and wife).
- Compensation payment will be monitored by APDCL and RIPP implementing NGO/Agency and external monitor.
- The ownership of land losers and their legal/customary rights (having valid land document issued by KAAC) shall be verified by the council and APDCL along with the land losers and with assistance from the RIPP implementing NGO/Agency prior to disbursement of compensation
- Livelihood restoration measures and Livelihood Restoration Plan shall be developed by the RIPP implementing NGO/Agency through further need assessment and shall be implemented to ensure that the households affected by economic displacement are able to rebuild their livelihoods and do not become impoverished
- Efforts shall be made by the contractor and APDCL to engage young people and women and provide them with employment opportunities where feasible during the project implementation and operation stages.
- APDCL and Autonomous Council will need to coordinated and reach on agreement on fulfilling the demands of the affected communities as raised during the BCS meetings. APDCL ensures the following demands

- Compensation for the land as per the law of the land.
- Compensation for the loss of non-land assets as per the law of the land.
- Employment opportunities for the locals during execution of the project
- To create special opportunities for women
- To undertake local area development program
- To have mechanism to resolve issues/conflicts during execution of the project.
- To ensure justice for the affected HH in terms of compensation
- To protect and preserve existing natural resources.
- Carry out meaningful consultations with affected persons and communities throughout the project cycle, and inform all affected persons of their entitlements; ensure their participation in planning, implementation and monitoring of the project
- Special consultations shall be carried out with the indigenous peoples/scheduled tribe through out the project cycle with the objective to share the project benefit and mitigation measures
- Ensure if there are affected persons without titles to land or any recognizable legal rights to land, they are eligible for resettlement assistance and compensation for loss of non-land assets;
- Provide compensation and assistance prior to start of construction works and prior to physical displacement
- Establish grievance redress mechanisms to ensure speedy resolution of disputes
- Any land or non-land asset that may have been missed out during the Inventory of losses and Census Surveys/impact assessment and during preparation of this RIPP shall be updated and considered for compensation if such cases arise during finalization of RIPP and prior to implementation
- The RIPP needs to be updated where applicable during the final design/final layout and during the final Zirat Survey (crops and trees and asset) and also when the actual owner verification is done by the council and APDCL
- RIPP will be disclosed on the website of ADB and APDCL prior to ADB's management review meeting or negotiation. The final/updated RIPP or its addendum shall also be uploaded in the website of ADB and APDCL following the approval from ADB
- Summary of the RIPP including its core components such as impacts, mitigations, eligibility, entitlement matrix, IP beneficial measures, IM mitigation measure, consultation plan, institutional arrangements, grievance redress mechanism, institutional roles and monitoring requirements etc shall be disclosed to the affected persons through consultative process
- Summary RIPP will be translated to Karbi language and shall be distributed to the IPs.
- All the cost related to RIPP is part of APDCL's counterpart fund
- No construction will start unless full compensation is paid to affected households, assistance has been paid to the affected households, relocation has been done and the livelihood restoration measures are in place.
- APDCL will ensure full compliance with ADB's SPS, 2009.

IX. ENTITLEMENT, ASSISTANCE AND BENEFITS

9.1 ELIGIBILITY

292. Affected households will be eligible and entitled for compensation for loss of land and non-land asset and any loss of income and livelihood. 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.

293. As per paragraph 7 of SPS (SR-2), displaced persons (affected persons) in a project area could be of three types: (i) persons with formal legal rights to land lost in its entirety or in part; (ii) persons who lost the land they occupy in its entirety or in part who have no formal legal rights to such land, but who have claims to such lands that are recognized or recognizable under national laws; and (iii) persons who lost the land they occupy in its entirety or in part who have neither formal legal rights nor recognized or recognizable claims to such land.

294. Further, the paragraph 8 of the SPS (SR-2) provides that the involuntary resettlement requirements apply to all three types of displaced persons. The borrower/client will provide adequate and appropriate replacement land and structures or cash compensation at full replacement cost for lost land and structures, adequate compensation for partially damaged structures, and relocation assistance, if applicable, to those persons described in para. 7(i) and 7(ii) prior to their relocation. For those persons described in para. 7(iii), the borrower/client will compensate them for the loss of assets other than land, such as dwellings, and also for other improvements to the land, at full replacement cost. The entitlements of those under para. 7(iii) is given only if they occupied the land or structures in the project area prior to the cutoff date for eligibility for resettlement assistance.

295. Compensation towards permanent and temporary losses to all eligible affected persons including non-titleholders is paid as per the entitlement matrix. The adequate and appropriate replacement cost for lost land and structures will be provided. The compensation will be paid prior to any physical and economic displacement. Livelihood restoration and rehabilitation activities will be continued. Construction contractors are encouraged to hire local labour where feasible that has the necessary skills.

296. APs entitled for compensation or at least rehabilitation provisions under the Project are:

- All APs losing land either covered by legal title/traditional/customary land rights, Legalizable, or without legal status;
- Tenants and sharecroppers whether registered or not;
- Owners of buildings, crops, plants, or other objects attached to the land; and
- APs losing business, income, and salaries.
- All compensations and assistance will be provided to the affected peoples prior to their physical and/or economic displacement

9.2 CUT-OFF- DATE FOR ELIGIBILITY

297. Compensation eligibility is limited by a cut-off- date which is usually the start of final AP Census surveys during. However, the final verification survey is due and the Zirat survey is to be completed. APDCL will coordinate with the KAAC to declare a cut-off-date as per local regulations and procedures. The cut-off date will be final verification of land owners and land acquisition notice by council as per national/state regulations which will be declared during the disclosure of RIPP brochure/leaflet and prior to the implementation of RIPP and post the verification. The cut-off date will be considered as the end of census surveys and final verification surveys. The cut-off-date will be officially communicated to the APs during the disclosure of RIPP brochure through consultation

process. APs who settle in the affected areas after the cut-off date will not be eligible for compensation. They, however will be given sufficient advance notice, requested to vacate premises and dismantle affected structures prior to project implementation. Their dismantled structures materials will not be confiscated and they will not pay any fine or suffer any sanction.

9.3 ENTITLEMENT

298. In accordance with the policy principle adopted for this Project, all affected/displaced households and persons will be entitled to a combination of compensation packages and resettlement assistance depending on the nature of ownership rights on lost assets and scope of the impacts including socio-economic vulnerability of the displaced persons and measures to support livelihood restoration if livelihood impacts are envisaged. The displaced/affected households will be entitled to the following compensation and assistance:

- Compensation for the loss of land, crops/trees at their replacement cost
- Compensation for structures (residential) and other immovable assets at their replacement cost
- Alternate housing or cash in lieu of house to physically displaced households (who are having legal ownership) not having any house at site
- Compensation for non-land asset and assistance to tenants using the land of land owners for agriculture purpose including assistance for livelihood restoration
- Assistance for shifting and
- Provision for the relocation site (if required)
- Assistance for vulnerable households
- Rebuilding and/or restoration of community property resources/facilities including religious structures
- Livelihood restoration measures

9.4 COMPENSATION DETERMINATION METHODOLOGY

299. For determining the compensation for lost items, due consideration has been given to estimate the cost at current market value/replacement cost of each lost assets. Compensation of the land has been calculated by keeping the base rate as exist in the KAAC which is INR 175,000 per bigha and multiplied in to two times plus adding a hundred percent solatium, which is the replacement value and the unit rate became INR 700,000 per bigha. For houses and structures, it is based on the assessment of the area of the structure and quality of structure, existing market rates for the material used, transportation cost, labor cost and any such other costs without depreciation. Similarly for other structures such as tube well, well, it is based on the amount that was spent to build such structure and its current market value. Compensation for the trees, crops and plantation has been provided by the council and the revenue department with the standard calculation keeping in consideration the type of trees, age of the trees, productivity etc. However, for the structures, it is to be further verified by the KAAC and APDCL along with the RIPP implementing NGO/Agency prior to disbursement of compensation.

9.5 ENTITLEMENT MATRIX

300. The entitlement matrix provided in **Table 126**.

Table 126: Entitlement Matrix

| # | Type of loss | Eligibility | Entitlement |
|---|--|--|--|
| 1 | Loss of Customary (Land allotted by KAAC to the owner) | Titleholders having customary right to land | <p>a) Compensation at replacement cost (if the residual land will not be economically viable to use, the whole land plot shall be acquired and compensated.)</p> <p>“OR”</p> <p>land-for-land where feasible. If compensation is as a land-for-land, the land shall be of equal productivity value</p> <p>Additionally</p> <p>b) One-time Resettlement allowance of Rs. 50,000 per affected family</p> <p>c) Choice of Annuity or Employment: Each affected family will be eligible for choosing one-time assistance option from: (i) Where jobs are created through the project, employment for at least one member of the affected family with suitable training and skill development in the required field; or (ii) One-time payment of Rs. 500,000 per affected family⁴⁶.</p> <p>d) A monthly subsistence allowance equivalent to Rs. 3,000/- per month for a period of 12 months (Total Rs. 36,000/-)</p> |
| 2 | | Agricultural tenants (whether having written tenancy or not) | Compensation for rental deposit (such amount will be deducted from the land compensation paid to the customary owner) |
| 3 | Loss of all types of structure | Titleholders having customary right to land | <p>a) Replacement cost of the structure and other fixed assets without depreciation value. If the remained parts of the structure will not be viable/safe to use, the whole structure shall be compensated. All APs can keep salvage materials without deduction from their compensation amounts</p> <p>b) For loss of residential structures leading to physical displacement, Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost for shifting of the family</p> <p>c) In addition to this amount, the Scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to Rs. 50,000/-.</p> <p>d) For loss of shelter (residential structures), a land parcel of minimum 50 sq. m. plinth area per family at the resettlement site</p> <p>“OR”</p> <p>a one-time financial assistance of Rs150,000 for house construction</p> |

⁴⁶ No price escalation /price index will be applicable. This is fixed.

| # | Type of loss | Eligibility | Entitlement |
|---|--|---|--|
| 4 | Loss of residential structure & other assets | Agricultural tenants (whether having written tenancy or not) | <p>a) Replacement cost of the structure and other fixed assets without depreciation value. If the remained parts of the structure will not be viable/safe to use, the whole structure shall be compensated. All APs can keep salvage materials without deduction from their compensation amounts.</p> <p>b) Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost for shifting of the family</p> <p>c) One-time Resettlement allowance of Rs. 50,000 per affected family</p> |
| 5 | Loss of livelihood | <ul style="list-style-type: none"> • Titleholders having customary right to land • Agricultural tenants (whether having written tenancy or not) | <p>a) Skill up-gradation training of affected family for income restoration (one member of the affected family)</p> <p>b) Linkage with ongoing schemes of state/central government (For customary landowners losing livelihood)</p> <p>c) Linkages to access credit facilities (For tenants losing livelihood)</p> <p>d) Skills development training by the project matching the project labor demand to interested APs and employment opportunities during the project construction works (for all APs including tenants)</p> |
| 6 | Loss of trees and crops | <ul style="list-style-type: none"> • Titleholders having customary right to land • Agricultural tenants • All APs | <p>a) Compensation for standing crops in case of such loss, based on an annual crop cycle at market value</p> <p>b) Compensation for trees based on timber value at market price, and compensation for perennial crops and fruit trees at annual net product market value multiplied by remaining productive years</p> |
| 7 | Vulnerable affected households ⁴⁷ | <ul style="list-style-type: none"> • Titleholders having customary right to land • Agricultural tenants • All APs | <p>a) One-time lump sum assistance of Rs. 25,000 to vulnerable households. This will be paid above and over the other assistance⁴⁸</p> |
| 8 | Temporary impact on arable or non-arable land outside of the project area (Land required temporarily during civil works) | All owners of rented land/lease holders (with and without title) | <p>a) Lease agreements to be signed between the AHs and the contractor for the period of occupation of land.</p> <p>b) Rental fee payment for period of occupation of land, as mutually agreed by the parties.</p> <p>c) Restoration of land to original state; and</p> <p>d) Guarantee of access to land and structures located on remaining land.</p> |

⁴⁷ Vulnerable Households are defined as below:

- Woman headed Households
- Households headed by disabled persons
- Households living Below Poverty Line (BPL)
- Households headed by elderly person
- landless household
- non-titled household
- ST household
- Agricultural tenant household

⁴⁸ This will be in addition to allowances provided as per the R&R allowances under the RFCTLARR-2013 as mentioned in the RIPP.

| # | Type of loss | Eligibility | Entitlement |
|--|---|----------------------|---|
| 9 | Community assets (Temple, church, Mosques, footbridges, roads, schools, health center etc) | Affected communities | <ul style="list-style-type: none"> Rehabilitation/ Relocation/Rebuilding of community asset⁴⁹ |
| 10 | Loss of crops and tress and other asset due to the augmentation of distribution lines (component-4) | All APs | <ul style="list-style-type: none"> Compensation at replacement cost |
| 11 | Unidentified (unanticipated) impact | All AHs | <ul style="list-style-type: none"> The principles of this EM and RIPP prepared in accordance with SPS 2009 will apply to any unanticipated LAR impacts. Unanticipated involuntary impacts will be documented during the implementation phase and mitigated based on ADB SPS, 2009 principles. |
| <p>Note:</p> <ul style="list-style-type: none"> No taxes and other fees and charges should be withdrawn from compensation amounts and entitlements to all APs regardless of their land holding status. The stamp duty and other fees payable for registration of the land allotted to the affected families shall be borne by the Requiring Body. For the R&R schemes and benefits under the RFCTLARR, Family/Household is defined as one unit on whose name the customary land right has been issued and for any eligibility discrepancy, it is to be certified by the Gaon Bura and KAAC. Multiple Vulnerability will be counted as one No Price escalation/price index will be considered for the R&R allowances under the RFCTLARR-2023 The project APs having customary rights and losing land and structures are all scheduled tribes, hence they all are considered as vulnerable. | | | |

9.6 Disbursement of Compensation and Assistance

301. In order to ensure that: (i) the affected persons need not make frequent visits to his/her bank for depositing the physical paper instruments; (ii) s/he needs not apprehend loss of instrument and fraudulent encashment; and (iii) the delay in realization of proceeds after receipt of paper instrument is obviated, all disbursement of compensation for land and structure and R&R assistances shall be done only through Electronic Clearing Service (ECS) mechanism and charges for ECS, if any, will be borne by APDCL as part of the administrative cost. If the affected persons destination branch does not have the facility to receive ECS (Credit), then the disbursement through account payee cheques will be made wherever required and no cash payment will be made. This will be supported by the RIPP implementation NGO and will be regularly monitored and reported in monitoring reports.

302. The RIPP implementing NGO/agency, while collecting bank particulars from the APs, will also check with the respective bank branches if the branch has ECS (Credit) mechanism, and if not, details of lead bank offering the facility will be collected to facilitate ECS transfer. Wherever new accounts are opened, preference will be given to banks having ECS facility. If the account is Jan Dhan type, The RIPP implementing NGO/agency will assist the APs to have it converted to a regular savings account to enable payment of compensation and R&R assistances to the account. The bank account particulars of the APs as part of the disbursement micro plan will be submitted to the revenue secretary of the KAAC and PMU of APDCL.

⁴⁹ APDCL will take in account any ritual, ceremony that will be required for relocation etc will need to be paid by the project

303. In the case of cheque modality, it shall be distributed at each village in the presence of Gaon Bura. KAAC representative will inform the affected persons on the date and venue for cheque distribution and the cheque should be distributed through a ceremony where a group of affected persons can come and collect their cheque. APDC will ensure that the cheque prepared by the KAAC is appropriate and the amount is correct pertaining to compensation and assistance. The RIPP implementing NGO and the PMC will authorize each check distribution and the cheque will be distributed in the presence of APs, Gaon Bura, land acquisition officer of KAAC, revenue secretary of KAAC, authorized representative of RIPP implementing NGO/Agency, PMC safeguard specialist, PMU safeguard specialist, authorized representative of APDCL. Record of receipt of the cheque will be kept where all the above should sign. The list will be kept at KAAC and APDCL PMU for further verification. Affected peoples will be informed that in case of any discrepancy in the compensation amount paid to them should raise these concerns immediately to the project GRM, external monitor and to the APDCL.

X. RELOCATION OF HOUSING AND SETTLEMENTS

10.1 Overview

304. The Project adopts cash compensation at full replacement for lost structures and relocation assistance, according to the Entitlement Matrix. However, APDCL will coordinate with KAAC to find out alternate land for relocation and the APs can be resettled in the new site. Consultation with KAAC found that there are alternate lands available nearby and they will explore options to assist and have more consultations with the displaced persons (DPs) to select new land and relocation site(s). Since, all the DPs are IPs, therefore their socio-cultural and religious integrity will be protected while assigning the alternate land for relocation. Agricultural tenants are living in temporary houses built by them for the period of lease where they cultivate the land. They will be compensated for their structure with additional allowances so that they can rebuild their houses in the newly leased land which they will be taking for their jhum cultivation.

10.2 Need for Relocation

305. Despite the efforts made to minimize the resettlement impacts, the proposed project will affect 32 main residential structures and 6 auxiliary structures at one village at Rengma Basti (Long Kathar) as a result of which physical displacement will arise and need of relocation in the project. Measures are proposed through various provisions in this RIPP to mitigate negative social impacts caused up on displaced persons by supporting relocation of affected households and by restoration of income to national minimum standard. To understand the preferred relocation options, affected persons were consulted during the census survey and their views are as provided in **Table 127**.

Table 127: Relocation Strategy

| # | Resettlement/ Relocation Option | No of HH | %Age |
|---|---------------------------------|----------|------|
| 1 | Self-Relocation | 0 | 0 |
| 2 | Project Assisted Relocation | 32 | 100 |
| 3 | NA | 0 | 0 |
| | Total | 32 | 100 |

10.3 Relocation Provision as per Entitlement Matrix

306. A relocated household is entitled to the following assistance, based on the RFCTLARR of 2013:

- Replacement cost of the structure and other fixed assets without depreciation value. If the remained parts of the structure will not be viable/safe to use, the whole structure shall be compensated. All APs can keep salvage materials without deduction from their compensation amounts
- A monthly subsistence allowance equivalent to three thousand rupees per month for a period of one year. In addition to this amount, the Scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to Rs. 50,000.⁵⁰
- For loss of residential structures leading to physical displacement, Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost for shifting of the family
- For loss of shelter (residential structures), a land parcel of minimum 50 sq. m. plinth area per family at the resettlement site OR a one-time financial assistance of Rs150,000 for house construction

⁵⁰ As per second schedule item no. 5 of RFCTLARR

- Right to salvage materials from structure and other assets with no deductions from replacement value

10.4 Proposed Relocation Strategy for the Residential Owners

307. For physically displaced households, resettlement sites will be developed after ascertaining their choice and availability of suitable land in the project area through consultation. At the first instance they will be paid cash compensation and assistance. However, additional measures will be taken to find them alternate land also for relocation. Since, KAAC has ample land in their possession, that is why they volunteered to do so. This will be on and above to the compensation. The RIPP implementing NGO/Agency and the PMC will assist APDCL will explore the relocation site in close consultation with KAAC. This will be a factor in deciding whether or not to develop suitable resettlement sites for small groups of physically displaced households or in one cluster keeping all the IP displaced households at one place. As part of the implementation activity, the RIPP implementation support agency (NGO/Agency and PMC) will consult all physically displaced households and will confirm their choice based on the options available to them. Further, during the implementation their preference to move into the nearest resettlement site would also be ascertained.

308. To help the DPs losing structures in getting all above entitlements and relocating themselves, following relocation strategy will be adopted in the project:

- At least 60 days advance notice before demolition of structure.
- Their dismantled structures materials will not be confiscated (APs keep having salvage materials), and they will not pay any fine or suffer any sanction.
- The RIPP implementing NGO/Agency and PMC will assist DPs during verification of assets impact and will provide necessary counseling on payment of compensation and assistance.
- The RIPP implementing NGO/Agency and PMC will assist APDCL to obtain the DPs choice for resettlement sites selection in consultation with DPs and KAAC
- The RIPP implementing NGO/Agency and PMC will assist APDCL in ensuring a smooth transition (during the part or full relocation of the DPs), helping the DPs to take salvaged materials and shift.
- In close consultation with the DPs, the RIPP implementing NGO/Agency and PMC will fix the shifting dates agreed with the DPs in writing and the arrangements desired by the DPs with respect to their entitlements.
- In case of self-relocation also, the RIPP implementing NGO/Agency and PMC will assist the DPs in finding alternative land within the village if so desired by the DPs in consultation with the Gaon Bura and KAAC.

10.5 Development of Relocation Site

309. The resettlement site provides new residences to the displaced households. APDCL together with the RIPP implementing NGO/Agency, PMC and contractor will demarcate the site with due consultation with KAAC and the DPs. The layout planning and development of infrastructure facilities will be done in consultation with Gaon Bura and KAAC. It will ensure that the layout keeps in account cultural and spiritual practices of the affected households and is developed in consultation with them. The resettlement site will be located in a safety zone and within the vicinity of the Rengma Basti (Long Kathar). KAAC will allot the land as there is availability of land in the project area. The alternate land shall be KAAC land and shall be free from encumbrances and shall not trigger further land acquisition or involuntary resettlement.

310. In case of resettlement sites that are situated close to existing villages or appropriate measures, such as ensuring identification of land for resettlement site near pre-project habitation and providing common facilities will be provided to integrate the host population and enhance the

various common facilities for smooth integration of host population with resettlers. The project area being entirely in the tribal area and the physically displaced households being the scheduled tribe, it is envisaged that there will be no conflict in terms of socio-cultural integrity. However, APDCL and KAAC will take utmost care to protect the rights of indigenous peoples while resettling the displaced persons.

10.6 Relocation of Religious Structures

311. There are two churches will be affected in Rengma Basti (Long Kathar). This will be rebuilt by the APDCL with consultation with the village community and Gaon Bura. KAAC will allot the land for the shifting of churches. APDCL will take the assistance of the contractor to rebuild the churches. The locations will be decided mutually among the villagers, Gaon Bura and KAAC prior to project implementation with assistance from implementing NG)/Agency

XI. INCOME RESTORATION, REHABILITATION AND LIVELIHOOD RESTORATION

11.1 OVERVIEW

312. The policy principles of IR of ADB SPS 2009 focuses to improve, or at least restore, the livelihoods of all physically or economically displaced households and persons of the project in real terms relative to pre-project levels, and to improve the standard of living of the displaced poor and other vulnerable households. The acquisition of private land under the project will result in loss of livelihoods of HHs who are mainly engaged in cultivation and agricultural labour work. The details on the loss of livelihood and livelihood/income restoration measures are discussed in subsequent sections.

11.2 LOSS OF LIVELIHOODS OF TITLED HOLDERS (CUSTOMARY LAND OWNERS)

313. The project census survey findings reveal that majority of the affected titled holders (customary landowners) will experience loss of their livelihood due to land impact. As per the census survey, of the 1237 total affected HHs, 818 (66.1%) are cultivators. The impact on the loss of livelihood on the remaining affected HHs will be minimal as the main source of income is from other sources such as government and private job, non-agricultural labour and small business etc. The details of impact on livelihoods in the project are summarized in the below **Table 128**.

Table 128: Loss of Livelihood

| # | Type of loss | No of HHs | % |
|---|--|-----------|------|
| 1 | Cultivators (Owners of agricultural land) | 818 | 66.1 |
| 2 | Loss of Commercial Structure | 0 | 0 |
| 3 | Loss of Residential cum Commercial Structure | 0 | 0 |
| 4 | Commercial Tenants | 0 | 0 |

314. These 818 affected HHs depend on the cultivation as the main source of income and livelihood. However, the project impact on loss of livelihood will be limited as their entire agriculture land is not affected. The census survey gathered the livelihood/income restoration options from the affected HHs. The details of the income restoration options are presented in **Table 129**.

Table 129: Livelihood/Income Restoration Options

| # | Income restoration option | No of HHs | % |
|---|--|-----------|-------|
| 1 | Employment Opportunities in Construction work | 1219 | 98.5 |
| 2 | Skill development Training | 1205 | 98.2 |
| 3 | Assistance/ Loan from other ongoing development scheme | 17 | 1.4 |
| | Total | 1237 | 100.0 |

315. Almost all the affected HHs mentioned that they need employment during the construction work of the project. For those AHHs that is not feasible, as a second option they need skill development training to strengthen their livelihood. Almost all of them felt that they need skill development training on bamboo-based work as bamboo is abundant in the nearby area and the quality of bamboo is good.

11.2.1 Provisions for Loss of Livelihood under schedule II of RFCTLARRA-2013

316. Under schedule II of the Right of Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 (RFCTLARRA-2013) there are provisions for assistance and R&R to project affected HHs. The schedule II provisions will be applied to all the affected households of the project. Some of these provisions will help to restore and improve the livelihood/income of the affected HHs. These are:

- One-time assistance option from (a) where jobs are created through the project, after providing suitable training and skill development in the required field, provision for employment to at least one member per affected family in the project or arrange for a job in such other project as may be required; or (b) one-time payment of INR 500,000 (5 lakhs rupees) per affected family.
- One-time Resettlement allowance of Rs. 50,000 per affected family
- Skill up-gradation training of affected family for income restoration (one member of the affected family)
- Compensation for standing crops in case of such loss, based on an annual crop cycle at market value
- Compensation for trees based on timber value at market price, and compensation for perennial crops and fruit trees at annual net product market value multiplied by remaining productive years
- One-time lump sum assistance of Rs. 25,000 to vulnerable households. This will be paid above and over the other assistance

11.2.2 Income Restoration Measures

317. One of the strategies to enhance the livelihood opportunities of the APs is to help them improve their production level or to gain new skills or to upgrade their skills through training. A significant number of APs are farmers and they (including women) are interested in diversifying their income sources. Among specific income restoration measures, imparting of skill-based training for the economically displaced persons has lot of potential to enhance their income. Besides training in specific skills, general entrepreneurship development will also form part of the training programs to improve management capabilities of the APs which will be further devised as part of the Livelihoods Restoration Plan to be developed and implemented by the APDCL with support of the RIPP implementing NGO and PMC.

318. The findings of consultations with landowners revealed that most of the HHs felt the need of skill development training on bamboo-based work for strengthening the livelihood. For women members of affected HHs, training on bamboo-based handicraft will be useful.

319. The RIPP implementing NGO/Agency to be engaged for implementation of RIPP, will undertake a training needs assessment of all the affected HHs to identify the eligible and most suitable candidate from the family. Based on the training need assessment the Livelihood Restoration plan (LRP) will be prepared. The RIPP implementing NGO/Agency will implement the skill up-gradation training and other support as per the LRP.

11.2.3 Strengthening linkage with ongoing schemes of state/central government

320. The consultation with affected persons reveals that families are getting the benefits from Free Ration sponsored by the Central Government/ Government of Assam. Under this scheme a family is getting 5 kg of rice per head per month. Vulnerable people are getting pensions sponsored by the Central Government/ Government of Assam which includes old age pension for person above 60 years, monthly pension for widow and disabled.

321. There are other state government schemes for the upliftment of standard of living of people of Assam. Under the Assam State Rural Livelihoods Mission, there is Kanaklata Mahila Sabalakaran Yojana which aims to generate sustainable livelihood among women by forming SHGs for the collective development of women. There is Atal Atma Sansthan Yojana (self-employment generating scheme) for providing Self Employment grants to Educated Youths. The Mukhya Mantri Mahila Samridhi Yojana aims at empowering rural women through capacity building of the women weavers and other beneficiaries. In the area of Agriculture, the Chief Minister Samagra Gramya

Unnayan Yojana (CMSGUY) is being implemented in a mega mission mode for the development of the villages in the state.

322. The PM Kisan Samman Nidhi is a Central Sector scheme which become operational from the year 2018. Under the scheme an income support of 6,000/- per year in three equal instalments will be provided to all land holding farmer families. The State Government will identify the farmer families which are eligible for support as per scheme guidelines. The fund will be directly transferred to the bank accounts of the beneficiaries.

323. The public consultation with various stakeholders including affected people revealed that there is no awareness about these state government schemes and PM Kisan Samman Nidhi among the people of Karbi Anglong district. The pattern of administration of the district is different from that of the plains district of Assam as it is one of the autonomous districts of Assam constituted under the provision of Sixth Schedule to the Constitution of India. Almost all the development departments are under the administrative control of the Autonomous Council (KAAC).

324. The RIPP implementing NGO/Agency will play a proactive role to ensure that the affected farmers get the benefits from relevant government schemes including the PM Kisan Samman Nidhi. The RIPP Implementing NGO/Agency will facilitate with the KAAC for identification of eligible farmers, registration in the scheme and ensure their accessibility to the benefits of the scheme. The access to benefits of Kisan Samman Nidhi will help strengthen the livelihood of affected farmers of the project area.

11.3 LOSS OF LIVELIHOODS OF AGRICULTURAL TENANTS

325. The agricultural tenants are using the customary land for cropping and farming purposes by giving annual rents to the land owners. The census survey shows that a total of 102 agricultural tenants are engaged in cultivation in the land of customary owners affected by the project. The acquisition of private land under the project will result in loss of livelihoods of all the 102 tenant HHs as cultivation is the main source of their income and livelihood. All the adult members of the tenant families are engaged in the cultivation of vegetables throughout the year.

326. Public consultations with agricultural tenants gathered information on the alternative options to earn their livelihood. Most of them pointed out that they will search similar agricultural lands outside the project area for undertaking cultivation. However, as per Section 3 (a) of the Karbi Anglong District (Land Reforms) Act, 1979 Act, all kinds of encumbrances of land existing by way of paikas, or mortgage shall be void upon coming into force of this Act. The agricultural tenants are considered part of the "Paikas". This is a system prevalent under which an amount of money is taken in advance from a cultivator by a settlement holder for cultivation of the land by the cultivator and includes a person who cultivates any land under this system for a specific period. In the non-availability of such land, they will start some petty business in their native place of residence if they get training. Majority of the tenants also mentioned the need of skill development training for starting income generation activities. The male persons felt the need of skill development training in Mason work while female members wanted the training on tailoring. Therefore, the affected tenants will be entitled to be part of the LRP and can avail various training and capacity building training. The RIPP implementing NGO/Agency will undertake a training needs assessment of all the affected agriculture tenants to identify the existing skill sets and provide skill-based training to enhance their livelihood. Awareness among the tenants will be created by the NGO/Agency to judiciously use the compensation and other assistance in livelihood strengthening

11.3.1 Provisions for Loss of Livelihood for tenants under the RIPP Entitlement

327. Under schedule II of the Right of Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 (RFCTLARRA-2013) there are provisions for assistance and R&R to project affected HHs. The following schedule II provisions will be applied to all the tenants to restore and improve the livelihood/income of the affected HHs and to resettle them. These are:

- One-time Resettlement allowance of Rs. 50,000 per affected family
- Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost for shifting of the family
- Skill up-gradation training of affected family for income restoration (one member of the affected family)
- Compensation for trees and standing crops and other non-land asset built by the tenant in case of such loss, based on an annual crop cycle at market value
- One-time lump sum assistance of Rs. 25,000 to vulnerable households. This will be paid above and over the other assistance.

11.4 LIVELIHOOD RESTORATION PLAN AND SKILLED BASED TRAINING FOR INCOME RESTORATION

328. During the public consultation, a substantial number of agricultural tenants mentioned that they need skill development training to start income generation activities. The male persons wanted skill development training in Mason, plumber work while female members wanted the training on tailoring.

329. The RIPP implementing NGO/Agency to be engaged, will undertake a training needs assessment of all the affected tenant HHs to identify the eligible and most suitable candidate from the family. Based on the training need assessment a Livelihood Restoration Plan (LRP) will be prepared affected persons. APDCL to ensure the contractor to engage the local labor as much as possible. The livelihood restoration plan will be developed with provisions of skills training to match with the project construction labor demands as possible, as well as employment in solar plant operations. APDCL to ensure the contractor to engage the local labor as much as possible. The RIPP implementing NGO/Agency will implement the skill up-gradation training and other support as per the family level LRP including for tenants.

11.5 ESTABLISHED LINKAGES TO CREDIT FACILITIES

330. The public consultations with tenants highlighted the need of credit facilities to help the tenants to start petty business. These tenants have lack awareness on the various credit facilities available. The project will implement focused activities to create linkage with commercial banks or other financial institutions working in their native place.

331. The RIPP implementing NGO/Agency in consultation with banks or other financial institutions will help organize 'credit camp' for those tenants interested to start petty business. Extending financial credit support is an important component of non-land-based income restoration schemes. The purpose of these camps is to encourage local financial institutions to inform the tenants of credit options available, and how to avoid procedural delays in obtaining credit to start petty business. All formalities related to processing of applications for credit assistance will be completed at the camps. The RIPP implementing NGO/Agency will coordinate closely with Lead Bank managers and other financial institutions in the area. The access to credit facility will help the APs to start new business activities. This option may be applicable to APs who are interested in loans, entrepreneurship and have experience and capacity of loan management to avoid their debt and impoverishment. Prior to making application for loan and loan release, there should be

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conducted training on loan terms and conditions, loan risks, and overall loan management and financial literacy to each APs interested in availing loan to ensure they have well awareness on loan terms and conditions and risks, to avoid their indebtedness. This should be well reflected in LRP.

XII. BENEFICIAL AND MITIGATIVE MEASURES FOR INDIGENOUS PEOPLES

12.1 OVERVIEW

332. In an endeavor to address the growing energy demands in Assam and harness its solar potential, the Government of Assam has introduced the "Mukhya Mantri Sauro Shakti Prokolpo" initiative. This ambitious program is designed to boost the state's power generation capacity and encourage the adoption of solar energy. The "Mukhya Mantri Sauro Shakti Prokolpo" initiative not only seeks to increase Assam's power generation capacity but also aims to unlock the value of underutilized government lands. By repurposing these available lands for solar power plants, the government intends to capitalize on the assets and simultaneously promote the generation of clean energy. The proposed solar project offers numerous benefits, including the production of clean, pollution-free energy and the creation of employment opportunities for the local population. Consequently, the generation of related employment and income-generating activities is expected to enhance the quality of life in the community.

333. The RIPP provides guidance to guarantee culturally appropriate project implementation for indigenous people in the project areas, and to develop measures to minimize and mitigate any unavoidable adverse impacts. In general, the villagers and indigenous peoples support the project. Those who were well-informed about the project provided their support to the project implementation because the project is designed to enhance electricity supply in the state and make the system stable and reliable. Initial project information showing the project benefits were shared with the project communities including indigenous peoples. Project impacts to Indigenous Peoples are both direct and indirect and beneficial in nature. The overall general benefits of the project on the IPs and people in general is envisaged as below:

- Enhanced Electricity in Assam
- Upgradation of distribution network through installation of new power transformer, Installation of new distribution transformer and conversion of distribution lines
- Temporary employment of local people during Construction
- Employment of skilled people including women during operation
- Possible small business opportunities to cater services to construction workers through opening of small shops, eatery etc.
- Local area Development work by Council and Project in terms of strengthening social infrastructure such as village roads, schools, hospitals, anganwadis and drinking water facilities etc.
- Increasing community awareness on productive electricity use, conservation and safety
- Skill Development in Renewable Energy for rural youth
- Enhancing women's livelihoods through support to SHGs
- Improved community infrastructure and services through renewable energy
- Overall development of local area as well as Assam as a state

12.2 PROJECT OUTPUT AND BENEFITS ON IP

334. Benefits related to project output is provided in **Table 130**.

Table 130: Project Output and Benefits on IP

| Output | Positive Impact |
|--|--|
| Output1: Sovereign solar photovoltaic electricity capacity increased. Output2: Private sector investment in solar photovoltaic capacity enabled | There will be overall benefits to the state of Assam including the project area of Karbi Anglong where IPs are the dominant population. There will be employment opportunities during construction and operation and avenues for more economic opportunities to the IPs including women IPs. This will be undertaken by the implementing NGO/Agency and record of local employment during construction will be prepared and will be put in the monitoring report. Relevant monitoring indicator will be kept to see that the affected people get construction related employment based on their skills and capabilities. |
| Output 4: Electricity distribution in project areas enhanced | Increased capacity of substations and power lines, improved power supply, reliability, and climate and disaster resilience electricity, and reduced AT&C losses. This will have positive impacts on the consumers including indigenous peoples in the project area especially in Karbi Anglong and Dima Hasao districts. |

12.3 SPECIFIC ACTION PLAN FOR BENEFIT SHARING

335. Aiming at maximization of project benefits sharing with the indigenous people's communities, the specific action plan is developed as given in the **Table 131**.

Table 131: Benefit Sharing Actions

| Action Plan | Implementation Strategy | Responsible Agency |
|---|---|--|
| Creation of temporary jobs during construction for local people including IPs and hiring local and IPs labors and creation of jobs during operation | <ul style="list-style-type: none"> Awareness campaign through consultation about project construction activities Engaging local community Facilitators and Gaon Bura to support awareness and assist contractor to find out skilled and unskilled labors including indigenous peoples | <ul style="list-style-type: none"> APDCL Contractor RIPP Implementing NGO/Agency PMC Gaon Bura |
| Local area development by improving the basic infrastructure such as school, PHC, Anganwadi and schools in the project affected areas. This is as part of meeting the BCS conditions and implementing BCS action plan | <ul style="list-style-type: none"> KAAC will initiate local area development activities as part of ongoing development schemes. Private sector developer will do development activities as part of their CSR to improve the basic physical infrastructure. APDCL will ensure and coordinate with KAAC and Gainbura and other private sector developer for allocation of funds and implementation of such development activities | <ul style="list-style-type: none"> AODCL KAAC Private Sector Developer |
| Increasing community awareness on productive electricity use, conservation and safety | Since the proposed project seeks to improve electricity distribution in Karbi Anglong district and in the rural parts of the neighbouring district of Dima Hasao, awareness programs specifically targeting women on safe use of electricity, and benefits of electricity towards securing improved quality of life and new economic opportunities and energy conservation are required. Access to electricity would be ensured for vulnerable households (women headed households and persons with disability) through linkages to PM Surya Ghar Yojana. | <ul style="list-style-type: none"> APDCL PMC RIPP Implementing NGO/Agency |

| Action Plan | Implementation Strategy | Responsible Agency |
|--|---|---|
| Skill Development in Renewable Energy for rural youth | Rural youth from the project villages will be provided opportunity to gain skills related to renewable energy. The skills will be provided by academic or training institute. The skills will empower youth to take up new entrepreneurial roles in renewable service sector in the district. The Solar Park maintenance team will comprise all women team. These activities will be as part of the project Gender Action Plan and livelihood Restoration Plan as envisaged in this RIPP. | <ul style="list-style-type: none"> • APDCL • PMC • RIPP Implementing NGO/Agency |
| Enhancing women's livelihoods through support to SHGs | Women entrepreneurs - operating individually and through self-help groups, will be supported through customized renewable energy technology-based solutions/equipment and through capacity building on business development, marketing and leadership. The project will support at least 270 women (representing SHGs, producer groups and individual entrepreneurs). These include SHGs and village organization supported by ASRLM for livelihood activities such as piggery, poultry, goat and sheep rearing, weaving, tailoring, knitting and bamboo crafts, etc. These activities will be as part of the project Gender Action Plan. | <ul style="list-style-type: none"> • APDCL • PMC • RIPP Implementing NGO/Agency |
| Improved community infrastructure and services through renewable energy: | Four health facilities (1 primary health centres and 3 sub-centres) in the project area will be provided electricity through solar energy, ensuring timely and quality care for maternal and Child Health services. | <ul style="list-style-type: none"> • APDCL • PMC • KAAC • RIPP Implementing NGO/Agency |
| Continuous Information sharing on the positive impacts related to economic benefits. Sharing of information on construction related mitigation measures. | <ul style="list-style-type: none"> • Community consultation to generate awareness about the project and assess the interest and demand of tribal communities for the project interventions. Development of culturally appropriate information, education and communication (IEC) materials for dissemination in the project areas among Scheduled Tribes population • Consultation with community leaders, tribal leaders, local self-government, Gaon Bura and other beneficiaries • Preparation of Brochure, leaflet and other suitable materials and distribution among beneficiaries and its representatives as envisaged in RIPP. | <ul style="list-style-type: none"> • APDCL • PMC • KAAC • RIPP Implementing NGO /Agency |

APDCL= Assam power distribution company limited, ASRLM= Assam state rural livelihood mission, IEC = information, education and communication, KAAC= Karbi Anglong autonomous council, PHSC= Primary Health Sub Centre, PMC = project management consultant, RIPP = resettlement and indigenous peoples plan and SHG=Self-help groups

12.4 Mitigative Measures

336. The project will cause significant adverse impacts in terms of land acquisition and involuntary resettlement. The IR impacts on the IPs are significant as the land belongs to IPs which is the scheduled tribes of Karbi Anglong district. Adverse impacts on the IPs are mitigatable and there also positive impacts. A matrix containing various mitigation measures is provided in **Table 132**.

Table 132: Mitigation Measures for IP

| # | Impact Domain | Impacts for Assessment | Status | Positive or Adverse | Mitigation Measures |
|---|-------------------------------------|---|----------|---------------------|--|
| 1 | Resettlement (Physical or Economic) | <ul style="list-style-type: none"> • Loss of land, dwellings, and other physical resources • Loss of crops and trees | Relevant | Adverse | <ul style="list-style-type: none"> • APDCL through KAAC will ensure fair assessment, replacement cost compensation/valuation, ownership verification • APDCL will ensure that all the losses are compensated at replacement cost as per the entitlement matrix of the RIPP and ADB SPS (2009) • Additional assistances are provided to eligible AHs as per ADB SPS • Loss of crops, trees and plantations will be compensated. APs can approach KAAC for alternate land allotment if available for growing of productive trees especially rubber and chitranala. • RIPP implementing NGO/Agency and PMC to assist ADCL in RIPP implementation • External monitor will verify the compliance RIPP implementation and suggest corrective actions as needed • Project's GRM will allow APs to put their grievance in case of any complaints regarding the assessment and compensation, or other project impact • RIPP implementing NGO/Agency and Gaon Bura will engage with IP affected households through consultations and disseminate brochure containing the eligibility and entitlement for compensation, GRM and other RIPP and project information. • Displaced IPs will be relocated in same cluster with due consultation with host population |
| 2 | Resettlement (Physical or Economic) | <ul style="list-style-type: none"> • Loss of natural resources and grazing land • Access to natural resources for traditional medicines • Disruption of the relationship land/natural resources • Loss of land rights and entitlements and livelihood | Relevant | Adverse | <ul style="list-style-type: none"> • APDCL will ensure that final layout plan for each lot, provides access to the IPs to avail the preexisting resources • Alternate internal road access has been provided in the design • Consultation with local people will be continued by the RIPP implementing NGO • PMC will closely monitor construction activities of the contractor so that the access is not blocked; verification by the external monitor will be done • APDCL ensures the project GRM is established and well-advertised to capture any such impacts if occurs. • APDCL through KAAC will find alternate grazing areas for the livestock, although there is plenty of space available • Alternate access road and water source to the villagers of Kanya Hanse is envisaged in the RIPP |
| 3 | Resettlement (Physical or Economic) | <ul style="list-style-type: none"> • Disruption of social networks and relationships • Disruption of the relationship land/natural resources | Relevant | Adverse | <ul style="list-style-type: none"> • Displaced IP households will be relocated at one cluster to continue social network • RIPP implementing NGO/Agency will conduct continued consultations with the local people • APDCL will ensures through their contractors to change of alignment if |

| # | Impact Domain | Impacts for Assessment | Status | Positive or Adverse | Mitigation Measures |
|---|--|--|--------------------|---------------------|---|
| | | <ul style="list-style-type: none"> • Disruption of shrines are located within the solar PV project area and right of way along the line and need to be relocated • Impacts on graves, sacred sites and important cultural heritage sites and resources • Disturbance and/or Loss of Cultural Heritage Sites and Resources | | | <p>such impacts found during implementation to avoid such impacts or careful construction technique in order to not disturb these structures or relocation or restoration of such structures.</p> <ul style="list-style-type: none"> • Consultation with relevant stakeholders and local people prior to finalization of alignment where such impacts are recorded • Set-up GRM and closely monitor construction. • Ensure the GRM is well advertised and accessible to people. • Affected Church will be relocated and rebuilt with a mutually agreed locations where the IPs will prefer through consultations with IPs communities during the project implementation • RIPP implementing NGO/Agency will consult with Gaon Bura and IPs for their feedback on RIPP implementation |
| 4 | Resettlement (Physical or Economic) | Temporary restrictions to existing structures/buildings/shops in market area due to project | Partially Relevant | Adverse | <p>Impacts are not significant and shall be avoided to the best extent possible by the contractor or will be mitigated by the contractor during construction. Following measures are proposed:</p> <ul style="list-style-type: none"> • Advance information to the people regarding construction schedule • Sprinkling water in case of village road is used for vehicular movement for solar PV work • Using scaffoldings in case of line passing through any nearby structures • Avoiding construction activities in the daytime in case of market area, per community request • Proper restoration of land post construction • Compensation for any losses if unavoidable • Monitoring report to record the process |
| 5 | Food Insecurity | <ul style="list-style-type: none"> • Disruption to the ability of affected people to grow/produce food (equivalence for agricultural sustenance depends on labor, productivity and cash) • Disruption to the ability of affected people to buy/purchase food (depends on availability of food prices and income) | Partially relevant | Adverse | APDCL through its PMC will ensure that contractor(s) ensure constructions labor provided for their own food demands through outside supply without causing threat to the local demands of the IPs. |
| 6 | In-Migration and Population Growth/Concentration | Temporary influx of outside workers in the communities, risking tensions between outside (partly possibly | Relevant | Adverse | <ul style="list-style-type: none"> • APDCL to ensure the contractor to engage the local labor as much as possible. The livelihood restoration plan will be developed with provisions of skills training to match with the project construction labor demands as possible, |

| # | Impact Domain | Impacts for Assessment | Status | Positive or Adverse | Mitigation Measures |
|---|--------------------|--|--------------|---------------------|--|
| | | expatriate) labor and local population, due to differences in wealth and culture | | | <ul style="list-style-type: none"> Impact will be mitigated through the core labor standards and environment management plan APDCL ensures that contractor submits the detailed list of labor and work force to the Gaon Bura Contractors to develop a code of behaviors for workers. All workers to receive training on community relations and code of behavior. Periodic refreshing as needed based on community liaison and grievance mechanism feedback PMC to work closely with contractor and APDCL for developing the code of behavior Ensure that the GRM is adequately scoped and mandated to receive complaints on workforce interactions with local community. Ensuring ongoing consultations within project-affected communities seek feedback on project and contractor performance. |
| 7 | Health and Welfare | <ul style="list-style-type: none"> Increased crime Impact on community health and safety due to exposure to electric currents, hazardous materials, electromagnetic fields etc Impact on labor health and safety due to exposure to electric currents, hazardous materials, electromagnetic fields etc. Management of community concerns linked to impacts associated with construction phase issues (like air and dust emissions, traffic, influx and community safety and security, noise and vibration, etc.) and adverse impact/inconveniences resulting from it. Access to sufficient potable water Increased risk of HIV/AIDS and other diseases | Not Relevant | Adverse | <ul style="list-style-type: none"> Adequate security arrangements at construction site to check any criminal activities Keeping appropriate display danger signs at appropriate locations Display boards with precautions to be adopted by consumers, owners, occupiers, electrical contractors, electric workers and suppliers Display of instructions for resuscitation of persons suffering from electric shock Contractor should follow defined protocols for health and safety and shall be covered as part of the environment management plan and the PMC and external monitor needs to check Awareness campaign on HIV/AIDS by the contractor and the implementing Agencies especially the RIPP implementing NGO/Agency monthly at each labor camp. Availability of preventives and condoms at construction camp site Ensuring strict compliance of "Code of Conduct" to avoid any incidence of GBV, SEA and Sexual Harassment etc. Contractor to conduct monthly awareness camps on HIV/AIDS at the camp through registered NGOs working on AIDS/state AIDS control society Condom boxes to be provided at all private places (bathrooms) and to be properly stocked Implement a traffic safety plan including design of access point, signalization, speed limits, training of drivers, use of traffic guards, procedures for transport of oversized loads (e.g., engines), maintain log of traffic related incidents, |

| # | Impact Domain | Impacts for Assessment | Status | Positive or Adverse | Mitigation Measures |
|----|--------------------|---|--------------------|---------------------|---|
| | | <ul style="list-style-type: none"> • Increased risks of traffic safety incidents on public roads • Health risks from employment, pollution and sanitation problems | | | <p>sensitization of road users and people living close to the construction site.</p> <ul style="list-style-type: none"> • Implementation of EMP • Consultation and coordination with line agencies and nighttime transportation of heavy equipment • Restoration post construction • Effectiveness of GRM • Most of the mitigation measures will be complied through effective implementation of environment management plan which will be supervised by the PMC. |
| 8 | Social Conflicts | <ul style="list-style-type: none"> • Disruption of social networks and relationships • Disruption due to competition between groups for employment and other economic benefits | Not relevant | Adverse | <ul style="list-style-type: none"> • Consultation: Inform communities about details of construction activities (e.g., employment opportunities, schedule, timing of noise activities, traffic including movements of oversized loads) by billboards, posters and community meeting. • Avoid negative impacts through careful design • Ensure the GRM is well advertised. • Share independent monitoring reports of all monitoring actions during construction as mentioned in the EMP • RIPP implementing NGO/Agency and PMC will ensure above activities are undertaken • External monitor to verify |
| 9 | Social Conflicts | <ul style="list-style-type: none"> • Disruption due to tensions between resettles household and residents in host areas and neighboring areas • Disruption due to competition and differences between locals and in-migrants • Disruption due to Increased pressure on land and natural resources and tensions around land administration and land use management • Disruption due to community /stakeholder concern for cumulative impacts linked to the project | Partially relevant | Adverse | <ul style="list-style-type: none"> • RIPP implementing NGO along with the Gaon Bura and the KAAC officials will hold consultations with host community when the relocation of 32 households will be undertaken. Efforts will be made to resettle all the families in one cluster. • Cumulative impacts are to be further assessed by the RIPP implementing NGO/Agency and shall be addressed through the provision of RIPP and environment management plan |
| 10 | Governance Impacts | Maintenance of roads and other basic infrastructure and services | Relevant | Adverse | <ul style="list-style-type: none"> • There will be temporary adverse impacts, however, the infrastructure maintenance will be done after construction. • Contractor will demonstrate that road safety and construction protocols are |

| # | Impact Domain | Impacts for Assessment | Status | Positive or Adverse | Mitigation Measures |
|----|--|--|--------------|---------------------|--|
| | | | | | defined and followed through regular monitoring. <ul style="list-style-type: none"> Restoration of roads and other basic infrastructure following provisions of the EMP. |
| 11 | Dignity, human rights and culture of Indigenous People | Disruption of existing socio-cultural setup of indigenous peoples due to project intervention and construction | Not relevant | Adverse | The project will ensure full protect the dignity and rights of the IPs through involving them during planning, make them beneficiaries of the project, seeking their consent for project activities. The consultation and participation plan will be followed. The RIPP implementing NGO/Agency and the PMC will ensure continues engagement and consultation with affected IPs. All the grievance will be addressed in a culturally appropriate manner. |
| 12 | Territories or natural or cultural resources that Indigenous Peoples own, use, occupy, or claim as an ancestral domain or asset. | Project's impact on land acquisition or disrupting the ancestral domain | Relevant | Adverse | APDCL ensures payment of compensation to the land to be acquired. However, it is to be noted that land acquisition will not make them landless and the IPs can still use the same territory and ancestral domain. |

APDCL= assam power distribution company limited, EMP = environmental management plan, GBV = Gender-Based Violence, GRM = grievance redress mechanism, NGO = nongovernmental organization, PHC = public health centre, PMC = project implementation consultant, PPE = personal protective equipment, ROW = right of way, SEA = sexual exploitation and abuse.

XIII. BUDGET AND FINANCING PLAN FOR IR AND IP

13.1 OVERVIEW

337. The RIPP implementation cost estimate for the Project includes eligible compensation, resettlement assistance, IP beneficial and mitigation measures cost and support cost for RIPP implementation as per the entitlement matrix. The unit cost and the evaluation for compensations are done based on the inventory of assets, consultation with the affected persons, collection of base land rate and crop plantation rate from the KAAC, Consultation with concerned departments of KAAC, and consultation with Gaon Bura. The base land rate has been collected from the KAAC (refer to **Appendix- 20** for the notification containing the base rate for the land). Due consideration has been taken to derive at current market value/replacement cost of each lost assets. This is an indicative cost and will be updated by APDCL periodically by engaging line agencies. A contingency provision of 20% has been considered. The LAR cost estimate includes the following:

- Compensation for land⁵¹
- Compensation for structures and buildings for customary land owners as well as agricultural tenants
- Compensation for trees, crops and plantation
- Various R&R benefits under the RFCTLARR-2013
- Assistance for Relocation and shifting of the structures
- Assistance for vulnerable groups
- Cost for IP benefit sharing and mitigation measures
- Cost for BCS implementation plan to meet the conditions and demands of IPs
- Cost for hiring RIPP implementing NGO
- Cost for hiring external monitor for external monitoring
- Administrative cost to be paid to KAAC
- Administrative cost of APDCL for implementation of RIPP
- Cost for consultation, GRM etc

13.2 RIPP BUDGET AND COST

338. All costs included in the RIPP is considered as part of Project cost and will be contributed as a counterpart fund by APDCL through the Government of Assam. The total estimated cost for the RIPP implementation including contingency 20% is INR 2477.35 million (USD 30.58 million) which is equivalent to INR 247.74 crore. APDCL will provide additional funds as needed if impacts increase in a timely manner. APDCL will be responsible for the timely allocation of the funds needed to implement the RIPP. This is an indicative cost and will be updated based on the actual verification of impacts where needed and APDCL will accommodate additional cost if needed and additional impacts arise during the finalization process. Detailed indicative RIPP cost is provided in **Table 133**.

Table 133: RIPP Indicative Cost

| Item | Unit | Unit Cost (INR) | Quantity | Amount (INR) | Amount in million (INR) |
|---|-------|-----------------|----------|----------------|-------------------------|
| A. Compensation | | | | | |
| A-1: Compensation for customary land | Bigha | 7,00,000 | 1489 | 1,04,24,75,000 | 1042.48 |
| A-2: Compensation for rubber plantation | Bigha | 1,95,000 | 270 | 5,26,50,000 | 52.65 |
| A-3: Compensation for bamboo plantation | | 24,000 | 480 | 1,15,20,000 | 11.52 |
| A-4: Compensation for bamboo plantation | | 62,500 | 50 | 31,25,000 | 3.13 |

⁵¹ Compensation of the land has been calculated by keeping the base rate as exist in the KAAC which is INR 175,000 per bigha and multiplied in to two times plus adding a hundred percent solatium which becomes INR, 700,000 (7 lakh) per bigha and is considered as replacement value

| Item | Unit | Unit Cost (INR) | Quantity | Amount (INR) | Amount in million (INR) |
|---|----------|-----------------|----------|-----------------------|-------------------------|
| A-5: Compensation for Standing Crops | Bigha | 30,000 | 76.5 | 22,95,000 | 2.30 |
| A-6: Compensation for Structures (Customary Owners) | Number | 2,00,000 | 38 | 76,00,000 | 7.60 |
| A-7: Compensation for Structures built by Tenant | Number | 50,000 | 102 | 51,00,000 | 5.10 |
| A-8: Compensation for Tubewell and ring well built by tenant | Number | 1,00,000 | 10 | 10,00,000 | 1.00 |
| A-9: Compensation for shifting the church | Number | 1,00,000 | 2 | 2,00,000 | 0.20 |
| A-10: Compensation for distribution augmentation | Lump sum | | | 10,00,000 | 1.00 |
| A-11: Cost for relocation site | Lump sum | | | 1,00,00,000 | 10.00 |
| Subtotal A | | | | 1,13,69,65,000 | 1,136.97 |
| B: R&R Schemes and Benefits (Allowances) | | | | | |
| B-1: One-time Resettlement allowance (owner) | Number | 50,000 | 1277 | 6,38,50,000 | 63.85 |
| B-2: Choice of Annuity or Employment (One-time payment of Rs. 500,000 per affected family)- (Owner) | Number | 5,00,000 | 1277 | 63,85,00,000 | 638.50 |
| B-3: monthly subsistence allowance equivalent to Rs. 3,000/- per month for a period of 12 months (owner) | Number | 36,000 | 1277 | 4,59,72,000 | 45.97 |
| B-4: Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost (owner) | Number | 50,000 | 32 | 16,00,000 | 1.60 |
| B-5: Scheduled Tribes displaced from Scheduled Areas shall receive an amount equivalent to Rs. 50,000 | Number | 50,000 | 32 | 16,00,000 | 1.60 |
| B-6: one-time financial assistance of Rs150,000 for house construction at relocation site | Number | 1,50,000 | 32 | 48,00,000 | 4.80 |
| B-7: Onetime financial assistance of Rs. 50,000 per displaced family as transportation cost for shifting of the family (Tenant) | Number | 50,000 | 102 | 51,00,000 | 5.10 |
| B-8: One-time Resettlement allowance of Rs. 50,000 per affected family (Tenant) | Number | 50,000 | 102 | 51,00,000 | 5.10 |
| B-9: Vulnerable allowances (Owner+Tenant) | Number | 25,000 | 1379 | 3,44,75,000 | 34.48 |
| B-10: Livelihood restoration measures for significantly affected households | Lumpsum | | | 1,00,00,000 | 10.00 |
| Subtotal B | | | | 80,09,97,000 | 811.00 |
| C. IP Benefit Sharing and Mitigation Measures | | | | | |
| C-1: IP benefit sharing | Lump sum | | | 1,00,00,000 | 10.00 |
| C-2: IP mitigation measures | Lump sum | | | 1,00,00,000 | 10.00 |
| Sub Total C | | | | 2,00,00,000 | 20.00 |
| D. Implementing BCS Action Plan for meeting IP Demands | | | | | |
| D-1: Rehabilitation/Strengthening of social infrastructure | Lump sum | | | 4,00,00,000 | 40.00 |
| D-2: Livelihood restoration measures/Training for Community | Lump sum | | | 1,00,00,000 | 10.00 |
| Subtotal D | | | | 5,00,00,000 | 50.00 |
| E. RIPP Implementation Support | | | | | |
| E-1: Hiring of RIPP Implementing NGO | Lump sum | | | 15000000 | 15.00 |
| E-2: Hiring of External Monitor | Lump sum | | | 7500000 | 7.50 |
| E-3: Administrative Fees to KAAC for land acquisition as calculated by KAAC | Lump sum | | | 30000000 | 30.00 |
| E-4: Consultation and Disclosure | Lump sum | | | 10,00,000 | 1.00 |
| E-5: GRM | Lump sum | | | 10,00,000 | 1.00 |

| Item | Unit | Unit Cost (INR) | Quantity | Amount (INR) | Amount in million (INR) |
|--|----------|-----------------|----------|-----------------------|-------------------------|
| E-6: Miscellaneous Administration Cost | Lump sum | | | 20,00,000 | 2.00 |
| Subtotal E | | | | 5,65,00,000 | 196.50 |
| Total (A+B+C+D+E) | | | | 2,06,44,62,000 | 2,194.46 |
| Contingency (20%) | | | | 41,28,92,400 | 412.89 |
| Grand Total (Million INR) | | | | 2,47,73,54,400 | 2,477.35 |
| Grand Total (Million USD) = 1 USD @81 INR | | | | | 30.58 |

XIV. INSTITUTIONAL ARRANGEMENTS

14.1 OVERVIEW

339. The Department of Energy of GOA will coordinate all project activities at the state level and will be responsible for overall guidance and decision making. Assam Power Distribution Company Limited (APDCL) is the executive agency (EA) and the implementing agency (IA) responsible for project implementation including safeguards. APDCL has already established a Project Management Unit (PMU) with designated core technical team managing safeguards also. APDCL will hire social safeguards specialist in its PMU. APDCL will engage a project management consultant (PMC) who will have social safeguards specialist in its team. APDCL will engage an implementing NGO/Agency which will be responsible for RIPP implementation. Additionally, there will be an external monitoring agency/expert which will be hired for external monitoring of RIPP implementation. The overall roles and responsibilities of various institutions is provided in **Table 134**. Following section describes various roles and responsibilities pertaining to planning, updating, implementing, monitoring and evaluation of RIPP.

Table 134: Overall Institutional Responsibilities

| Project Implementation Organizations | Management Roles and Responsibilities |
|--|---|
| Executing agency: Department of Energy, GoA. | <ul style="list-style-type: none"> • Overall responsibility for execution of the project and ensuring project implementation on behalf of Government of Assam (GOA). • Oversee satisfactory safeguards compliance and implementation of the RIPP for the project. • Coordinate communication with Government of India and GoA with respect to the project. |
| Finance Department, GoA | <ul style="list-style-type: none"> • Oversee and monitor project implementation as well as the adequacy of overall project funding. • Provide ADB loan disbursements in a timely manner to the project executing and implementing agencies. • Provide equity injections to APDCL to meet its counterpart fund requirement. |
| Implementing agency: APDCL | <ul style="list-style-type: none"> • Conduct day-to-day project management. • Procurement of goods and works. Timely approval of bid documents, bid evaluation reports, and contract awards. • Overall responsibility for satisfactory safeguards implementation, supervision and monitoring, including preparing, endorsing updating and implementation of the RIPP, set up and ensure effective functioning of the GRM. • Periodic monitoring of the project implementation activities and timely submission of project progress reports and semi-annual safeguard monitoring reports to ADB. • Prepare withdrawal applications, maintain project accounts, and complete loan financial records. • Prepare financial statements and ensure timely conduct of audit. • Ensure coordination between the technical department responsible for project implementation and the finance department to ensure timely availability of counterpart funds. |
| Project management unit of APDCL | <ul style="list-style-type: none"> • Periodic review of the project activities to ensure timely implementation of the project and safeguard requirements. • Ensure compliance with loan covenants including social and environmental safeguards, financial, economic, and others. • Ensure timely submission of bid documents, bid evaluation reports, and contract awards ensuring that the environmental management plan is included in the contract documentation. • Responsible for finalizing surveys and detailed designs, update of safeguard documents to reflect detailed designs as needed, safeguards |

| Project Implementation Organizations | Management Roles and Responsibilities |
|---|---|
| | monitoring and implementation, preparation of safeguard monitoring reports, and timely submission to ADB. <ul style="list-style-type: none"> • Responsible for requesting budgetary allocations from counterpart fund. • Responsible for preparation of annual contract awards and disbursement projections. • Shall provide information to ADB missions as necessary. • Ensure compliance to ADB's SPS 2009. |
| Karbi Anglong Autonomous Council (KAAC) | <ul style="list-style-type: none"> • Overall nodal agency for land acquisition and land allotment to APDCL including payment of compensation |
| Project Management Consultant | <ul style="list-style-type: none"> • Overall support to APDCL in planning, updating, implementing and monitoring of RIPP |
| Implementing NGO/Agency | <ul style="list-style-type: none"> • Overall support to APDCL in planning, updating, implementing and monitoring of RIPP • Developing the livelihood restoration measures and plan |
| External Monitoring Agency | <ul style="list-style-type: none"> • Oversee the external monitoring of RIPP implementation, preparation of corrective measures as needed to ensure compliance to ADB's SPS 2009. |

14.2 APDCL AND PROJECT MANAGEMENT UNIT

340. The overall responsibilities for the RIPP updating, implementation and monitoring lies with APDCL through its PMU. This includes preparation of RIPP update, and/or addendum to RIPP, GRM and grievance management, preparation and submission of semi-annual social safeguard monitoring report to ADB for feedback and approval. Allocation of necessary budgetary provision to implement the RIPP and mitigation measures and benefit sharing. Liaise with line agencies such as KAAC, revenue department, forest department, horticulture department etc. and also the representatives of indigenous peoples and Gaon Bura.

341. The PMU will be supported by a team of experts including a social safeguard specialist (SSP). The duties of the PMU SSP will include at a minimum: (i) oversight of field offices and construction contractors for monitoring and implementing safeguards compliance, compensation and mitigation measures; (ii) liaising with the field offices and contractors and seeking their help to solve the social-related issues of project implementation; and (iii) preparation of RIPP updates and/or amendments as necessary, and preparing internal social safeguard semi-annual monitoring reports to ADB for approval. The PMU SSP will be entrusted with responsibilities to effectively implement the RIPP complying with the safeguard provisions of the Project. The roles and responsibilities of the PMU safeguard officer include but not limit to the following in terms of guiding and assisting the overall social safeguards management:

- Ensure updating the RPIP (or addendum to it as applicable) and implement it after ADB approval, before start of construction works in the impacted sites
- Coordinate implementation of RIPP activities with the assistance of other technical staff of PMU and field office
- Facilitate and coordinate joint verification survey of APs and finalize list of APs and inform them about tentative schedule of construction activities
- Coordinate valuation of assets
- finalize compensation packages
- Ensure that verification of ownership is done prior to disbursement of compensation
- Ensure bank accounts of eligible APs are operational
- Ensure KAAC disburses the actual compensation to the right owners
- Ensures tenants receives compensation and assistance

- Ensure relocation strategy is prepared
- Ensure IPs have been provided with project benefits and mitigation measures are well implemented for the IPs
- Ensure continuous consultations and disclosure with project affected people, beneficiaries and indigenous peoples.
- Inform APs about entitlement matrix and compensation packages against different categories of losses, the project works and GRM.
- Liaise with the district administration for construction activities
- Make budgetary provisions for RIPP activities.
- Coordinate, supervise and monitor disbursement of compensation.
- Coordinate monitoring activities to be taken up for assessing progress in implementing the RIPP.
- Participate in the GRC and resolve grievance with record keeping.
- Coordinate with KAAC for overall land acquisition, compensation and livelihood restoration
- Ensure IP issues have been dealt properly as set out in the RIPP

342. The position, overall responsibility and key qualification of the social safeguard specialist in the PMU is summarized in **Table 135**.

Table 135: Responsibilities of PMU Safeguard Specialist

| Position | Overall Responsibility | Key Qualifications |
|---|---|---|
| Social Safeguard Specialist (Land Acquisition, Involuntary Resettlement and Indigenous Peoples) | Overall management of land acquisition, involuntary resettlement and indigenous Peoples safeguards. Update as applicable and implement social safeguards planning documents such as this RIPP (and Addendum as will be applicable), social due diligence (audit) reports if required. Monitor the implementation of safeguards planning documents and submit periodic monitoring report to ADB. Work closely with the implementing NGO and external monitor and supervise the overall implementation and monitoring of social safeguards issues and report to the PMU's project director. Ensure timely preparation and submission of internal and external social monitoring reports to ADB. | The Expert shall have a Master's degree in social science/ Sociology /Social Work/ Social Management or similar field with 7 years of total experience and minimum 5 years" experience overseeing projects with significant Land Acquisition, Involuntary Resettlement and Indigenous Peoples Impacts. The expert shall have good knowledge of ADB Safeguard Policy Statement (2009) on IR and IP safeguard requirements. Regional Experience in resettlement/livelihood restoration and stakeholder engagement will be an added advantage. He/she must have experience of at least two multilateral funded projects. |

14.3 KARBI ANGLONG AUTONOMOUS COUNCIL-KAAC

343. The Karbi Anglong Autonomous Council will be the nodal agency for land acquisition and payment of compensation to the affected households. The project area is in the sixth schedule of Indian constitution where KAAC is the owners of land and the land is allotted to people as customary land. KAAC has various department including the land and revenue. The executive member responsible for revenue, the revenue secretary, land acquisition officer and the Gaon Bura play key role in land measurement survey, valuation of asset and disbursement of compensation. APDCL will closely liaise with the KAAC for payment of compensation. Key roles of the KAAC will be the following:

- Verification of customary land owners
- Ensure disbursement of compensation
- Ensure allotment of relocation site
- Local area development
- Addressing grievance
- Overall nodal agency for land acquisition and involuntary resettlement and indigenous peoples planning and implementation

14.4 PROJECT MANAGEMENT CONSULTANT

344. The Social Safeguard Expert of PMC shall have a Master's degree in social science / Social Welfare / Social Management or similar field with 10 years of total experience and minimum 5 years" experience overseeing projects with significant Land Acquisition, Involuntary Resettlement and Indigenous Peoples Impacts. The expert shall have good knowledge of ADB Safeguard Policy Statement (2009) on IR and IP safeguard requirements. Regional Experience in resettlement/livelihood restoration and stakeholder engagement will be an added advantage. He/she must have experience of at least two multilateral funded projects.

345. The overall responsibilities will be assisting the APDCL as part of the PMC tasks in this project, to update, implement and monitor the RIPP, and other safeguard documents as social due diligence reports and corrective actions as applicable. Specific tasks of the social safeguards expert will be, but not limited to the following:

- Work closely with APDCL and technical design team including conducting site visits (as possible jointly with the technical design team), to guide the technical design team on social and involuntary resettlement impact risks and requirements of ADB SPS (2009) and national laws and assess and identify design measures to avoid and/or minimize the IR and IPs impacts as possible; assist in planning compensation and mitigation measures for unavoidable impacts.
- Identify permanent or temporary impacts arising from IR and/or involuntary restrictions on land use or on access to legally designated parks and protected areas as applicable, and propose measures to minimize and mitigate the impacts.
- The primary responsibilities of the Social Safeguard Specialist are to advise and assist APDCL in mitigating Social and issues, update as applicable and implement the RIPP in compliance with the requirements of ADB Safeguard Policy Statement (SPS 2009) and national laws. Providing support, in implementation of social safeguards documents and their monitoring.
- Update the census and socio-economic surveys of all affected households/APs, especially those absentee APs during preparation of the RIPP before the project appraisal. IR and IPs impact assessments and compensation rates for losses, with close collaboration with APDCL and Karbi Anglong Autonomous Council (KAAC);
- Meaningful consultation (as per ADB SPS 2009) with affected persons, indigenous peoples communities and any individually affected HHs from indigenous people, and other stakeholders and disclosure of RIPP leaflet at project sites;

- Getting the approval of updated RIPP (Addendum, corrective actions plan, if required) from APDCL and ADB and further disclosure;
- Guide and assist the APDCL in setting up the project level Grievance Redress Mechanism (GRM) for receiving, recording and resolution of complaints that may be received from the project affected persons and communities;
- Conduct meaningful consultation with IPs communities as per the ADB SPS (2009) on IPs requirements;
- Design social management system with regard to the implementation of RIPP and other safeguard planning instruments;
- Assist the APDCL to include provisions in tender and contract documents on environmental and social safeguard requirements, including the EMP and RIPP, as well as requirements on gender-based violence and sexual exploitation risks, core labor standards, and workers and community health and safety. Support the APDCL to evaluate the bids as applicable.
- Conduct Capacity Building Training on social safeguards to APDCL and other relevant agencies covering national, state guidelines and ADB Safeguard Policy Statement (SPS), 2009
- Undertake field studies to fill in identified gaps in socioeconomic databases; and confirm and update monitoring indicators on land acquisition, compensation payment, income restoration and rehabilitation, and resettlement activities;
- Implement the RIPP and ensure timely payment of compensation, assistance, relocation and resettlement prior to commencement of civil work construction
- Establish a framework with monitoring indicators for safeguard performance monitoring;
- Addressing the grievance and record keeping, facilitate the resolution of grievances and provide updates on grievances status in the periodic environmental and social monitoring reports (SMRs) to be submitted to ADB for review, approval and disclosure.
- Prepare monthly progress reports on progress of RIPP implementation and ensure compliance in consultation with the Social Safeguard Specialist at APDCL on social, resettlement, and indigenous peoples aspects of the project including the progress in redressing APs' grievances and complaints.
- PMC safeguards specialists will monitor the safeguards compliance and RIPP implementation, and assist the APDCL to prepare the semi-annual monitoring report and will submit to PMU and PMU will submit it to ADB.
- Any other issues that may arise during the updating, implementing and monitoring of the RP/IPP or RIPP including due diligence report where necessary

14.5 COMMUNITY DEVELOPMENT SPECIALIST

346. Additionally, the PMC will have a community development specialist for livelihood restoration. The Community Development and Livelihoods Expert will work with APDL, KAAC and other relevant departments and provide support to identify and roll out appropriate livelihood activities and opportunities identified through a need based and participatory approach. The Expert will also focus on developing strategies to empower women and particularly well-functioning and operating village level self-help groups (SHG) or functional groups (FGs) in these areas and provide a potential model for future. The Expert will help APDCL staff in designing and implementing skills training, financing, and entrepreneurial opportunities at the affected household level. The Expert will explore and help set up partnerships with other stakeholders to support design and implementation for livelihood activities. The Expert will preferably have background in business development, marketing and/or skills training with demonstrated experience of at least 10 years in small and micro scale ventures and will be responsible for linking the communities with market opportunities. Experience of working with international agencies would be desirable.

14.6 IMPLEMENTING NGO/AGENCY

347. APDCL will engage an implementing NGO/Agency to assist the RIPP implementation. The NGO will provide day-to-day implementation support to APDCL in addressing safeguard issues at

the field level. The role of the NGO focuses on three activities (i) collection of additional baseline information from social surveys, if required after the detailed design and final layout of the project is completed; (ii) assist PMU to implement RIPP as per its entitlement matrix, distribution of identification cards to the APs, disbursement of entitlements including compensation, and allowances to eligible APs as per RIPP, implementation of benefit sharing measures for IP communities, development of Livelihood Restoration Plan for all affected persons; and (iii) raising awareness among the APs, and dissemination of project information relating to land acquisition, compensation and resettlement planning and APs' entitlements. The NGO will also assist PMU in conducting meaningful consultations with Aps and communities, and facilitate the APs to submit the grievance applications (if any) to be resolved within the framework of Project's GRM. The NGO will work as a link between the APs, PMU, and the affected community. It will educate the APs on income restoration and improvement measures, and ensures that the APs use cash compensation packages in productive investments. Key roles of the NGO are:

- Identification, verification and updating of AP Census based on the final list and final design for updating the RIPP.
- Develop micro plans in consultation with the APs and PMU staff.
- Educate the APs on their entitlements, and obligations.
- Prepare and distribute Project Identity Cards. All eligible project affected households will be given Identity Cards.
- Information dissemination to the affected households about their individual entitlements
- ensuring that the full compensation and assistance are paid to the affected households prior to their physical or economic displacement and monitoring transparency of this process
- assessing and developing livelihood restoration programs and implementing these and such other
- Carrying our continued consultation and information disclosure
- Ensure that the APs receive their entitlements. The NGO will provide advice to APs on benefits of various income restoration options and assist them in getting benefits from various government development programs;
- Assist the affected households to derive maximum benefits from the project without losing their livelihoods and with least impacts on sociocultural aspects of their lives.
- Assist the APs to use the GRM.
- Assist PMU in relocating the 32 displaced households
- Assist APDCL in implementing activities for Sharing project benefits with IPs
- Ensuring the mitigation measures for the RIPP is implemented
- Developing and implementing the livelihood restoration plan
- Ensuring the BCS implementation plan is implemented and the demands/conditions of of the IPs during obtaining of BCS are met.

348. The NGO staff will be stationed at the project site. The NGO will regularly update the baseline information through group meetings and village-level meetings. Such meetings will be the arena to consult the APs and to inform about the project's progress and the delivery of their entitlements. The frequency of such meetings will depend on the requirements of the APs; however, at least once a month, the resettled households will be met by the NGO and relevant support agencies. In case of other APs, NGO will arrange quarterly meetings in different locations to disseminate project information and to learn about their grievances and complaints. An indicative TOR of the NGO is in **Appendix- 21**.

349. Key activities and overall roles and responsibilities of various institutions in RIPP implementation is provided in **Table 136**.

Table 136: Summary Roles and Institutional Responsibilities

| Activities | Responsible Agencies |
|---|------------------------------------|
| Project Initiation Stage | |
| Establish PMU | APDCL |
| Hire Social safeguards specialist in PMU | APDCL |
| Hire an NGO to implement CRTDP | APDCL |
| Hire Project Management Consultants | APDCL |
| Appoint a Grievance Redress Committee | APDCL/KAAC |
| Finalize the RIPP with final budget and timeline | APDCL/PMU/PMC/NGO |
| Disclosure RIPP after further consultations with the APs and KAAC | APDCL/PMU/PMC/NGO |
| RIPP Pre Implementation Stage | |
| Validate Census and survey findings | APDCL/PMU/PMC/NGO/KAAC |
| Conduct final/additional surveys for all the affected households/persons based on the final list and final design in order to update the RIPP | APDCL/PMU/PMC/NGO/KAAC |
| Conduct FGDs/consultations and group meetings | APDCL/PMU/PMC/NGO/KAAC |
| Consultation with Indigenous People | APDCL/PMU/PMC/NGO/KAAC |
| Finalize entitlement matrix with a budget and timeline | APDCL/PMU/PMC/NGO/KAAC |
| Disclosure of final entitlements to all APs | APDCL/PMU/PMC/NGO/KAAC |
| RIPP Implementation Stage | |
| Payment of compensation | APDCL/PMU/PMC/NGO/KAAC |
| IP beneficial measures and mitigation measures | APDCL/PMU/PMC/NGO/KAAC |
| Give publicity to compensation payment | APDCL/PMU/PMC/NGO/KAAC |
| Consultations with the APs during rehabilitation activities | APDCL/PMU/PMC/NGO/KAAC |
| Implementation of income restoration programs | APDCL/PMU/PMC/NGO/KAAC |
| Relocation and rehabilitation programs | APDCL/PMU/PMC/NGO/KAAC |
| Implementation of grievances redress mechanism | APDCL/PMU/PMC/NGO/KAAC |
| Internal monitoring of social safeguard application | PMU/PMC/NGO |
| External monitoring of social safeguards and Evaluation | External Monitoring Agency/Experts |

XV. CAPACITY BUILDING

350. APDCL will be implementing the Project. APDCL is experienced in implementing ADB funded project, although the renewable energy department of the APDCL does not have any such experiences. There have been consultations and informal orientation carried out during RIPP preparation regarding the Safeguard Policy Statement (2009) requirements of ADB and the need for future activities for implementing the RIPP. ADB's safeguards team has also imparted initial orientation training on environment, involuntary resettlement and indigenous peoples to the designated social and environment staff of the PMU. As per the assessment, it is found that APDCL does not have any specific safeguards division or any safeguards specialists in the current setup. However, APDCL has designated engineers and a staff⁵² to look after the safeguards issues and they were also involved during project and RIPP implementation and other safeguards documents as will be applicable.

351. The proposed PMU will have dedicated staff responsible for RIPP (and other safeguard planning document as applicable) update, implementation and monitoring. Further capacity enhancement is required for implementation of RIPP which the project implementation consultant will conduct the training to APDCL. After the PMC is mobilized, the priority of the PMC social safeguard specialist is to impart training to the PMU and field staff on ADB's SPS requirements and subsequent implementation of RIPP. PMC expert, during the training, will give special attention, but not limited to important issues such as defining the ADB SPS requirements, how to update RIPP if required (or by Addendum) through update of the inventory of losses, setting up of required institutional mechanism including close collaboration with the indigenous peoples, payment of compensation, procedure for continued consultation, disclosure mechanism, formation and effectiveness of grievance redress mechanism and monitoring and reporting requirements. The social safeguard specialist of PMU will be undergoing various periodic training program which will be organized by PMC and ADB.

⁵² The safeguard staff is temporarily given the responsibility for preparatory work and the staff is also looking after other PMU and other donor funded projects of ADB and hence, is not a full time staff.

XVI. IMPLEMENTATION SCHEDULE

16.1 OVERVIEW

352. The time for implementation of RIPP will be scheduled as per the overall project implementation. All activities related to the land acquisition and resettlement must be planned to ensure that compensation is paid prior to displacement and commencement of civil works. Public consultation, monitoring and grievance redress will be undertaken throughout the project duration.

16.2 FINAL VERIFICATION SURVEY – PRE-IMPLEMENTATION STAGE

353. Setting up relevant institutions for the RIPP activities is already in progress. Although the current RIPP is based on the detailed design, however verification survey is still ongoing to final check the ownership details, any additional impacts that may have missed out and also the Zirat surveys regarding the final assessment of crops, trees and other asset, and locating the absentee APs. Therefore, verification of the conducted survey will be carried. However, for any unanticipated impact that may arise in the future, or any loss impact missed in preparation of this RIPP, the RIPP will be updated as and when required. The pre implementation RIPP activities are as below:

- Final verification of APs list through Gaon Bura
- Updating of RIPP Budget
- Confirmation of updated impact data and of compensation amounts
- Approval of final RIPP by ADB and APDCL and subsequent disclosure

16.3 RIPP IMPLEMENTATION STAGE

354. Upon the approval of RIPP, all the arrangements for fixing the compensation and the disbursement needs to be done which includes issuance of Identity cards (IDs), payment of all eligible compensation and assistance; initiation of rehabilitation measures; site preparation for delivering the site to contractors for construction and finally commencement of the civil work. Following task will be undertaken during the RIPP implementation stage:

- Signing of contracts with APs
- Meaningful consultations with APs and communities and Grievance resolution
- Deposit the compensation amount to KAAC
- Requisition to KAAC for payment of compensation
- Transfer of compensation and allowance to APs' bank account
- Compliance review, monitoring and reporting in social monitoring reports
- Notice to proceed for Civil works construction
- Consultations with IPs and implementing the IP benefits sharing measures
- Developing and implementing Livelihood Restoration Plan

16.4 RIPP MONITORING STAGE

355. Monitoring of the RIPP implementation will be done simultaneously and will be reported in the form of a semiannual social monitoring reports to ADB by APDCL. Monitoring will be both internal and external. External monitoring will be conducted by and independent third party external monitoring to be engaged by APDCL. APDCL will ensure submission of social external monitoring reports on quarterly based to ADB for clearance. Both internal and external monitoring reports will be disclosed in ADB website after clearance.

16.5 RIPP IMPLEMENTATION SCHEDULE

356. This is a tentative schedule for RIPP implementation for the project. However, lot wise implementation mechanism may be followed in order to start the civil work in the completed section and to simultaneously proceed with the implementation of RIPP for other lots. Lots having no IR and IP impacts can be taken up for construction on priority. The schedule can be adjusted during final design. The tentative implementation Schedule is provided in **Table 137**.

Table 137: Tentative Implementation Schedule

| RIPP Activities | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | |
|---|------|---|---|---|---|---|---|---|---|----|----|----|------|---|---|---|---|---|---|---|---|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| A. RIPP Pre-Implementation Stage | | | | | | | | | | | | | | | | | | | | | | | | |
| Inventory of Losses, AP census and socio-economic survey | ★ | ★ | ★ | | | | | | | | | | | | | | | | | | | | | |
| Initial disclosure of project information | | ★ | ★ | | | | | | | | | | | | | | | | | | | | | |
| Public consultation including IPs | ★ | ★ | ★ | ★ | | | | | | | | | | | | | | | | | | | | |
| Preparation of RIPP | | | | | ★ | | | | | | | | | | | | | | | | | | | |
| Submission of Draft RP to ADB | | | | | ★ | | | | | | | | | | | | | | | | | | | |
| Approval of draft RIPP | | | | | ★ | | | | | | | | | | | | | | | | | | | |
| Disclosure of draft RIPP on ADB website | | | | | | ★ | | | | | | | | | | | | | | | | | | |
| Declaration of Cut-off date | | | | | | ★ | | | | | | | | | | | | | | | | | | |
| Disclosure of RIPP leaflet | | | | | | ★ | | | | | | | | | | | | | | | | | | |
| Appointment of PMC | | | | | | | ★ | | | | | | | | | | | | | | | | | |
| Appointment of NGO/Agency | | | | | | | ★ | | | | | | | | | | | | | | | | | |
| Final verification of | | | | | | | ★ | | | | | | | | | | | | | | | | | |
| Approval of RIPP Budget | | | | | | ★ | | | | | | | | | | | | | | | | | | |
| Submission of updated RIPP to ADB for approval (as and when required) | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| B. RIPP Implementation Stage | | | | | | | | | | | | | | | | | | | | | | | | |
| Issuance of IDs to APs | | | | | | | ★ | | | | | | | | | | | | | | | | | |
| Payment of compensation to APs | | | | | | | | ★ | ★ | ★ | ★ | ★ | | | | | | | | | | | | |
| Payment of all eligible assistance | | | | | | | | ★ | ★ | ★ | ★ | ★ | | | | | | | | | | | | |
| Livelihood restoration measures | | | | | | | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| Takeover possession of acquired property | | | | | | | | | | | | ★ | | | | | | | | | | | | |
| Handover land to contractors | | | | | | | | | | | | ★ | | | | | | | | | | | | |
| Schedule for Civil Work | | | | | | | | | | | | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ |
| C. Monitoring | | | | | | | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |
| Internal and external monitoring | | | | | | | | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★ | |

XVII. MONITORING, REPORTING AND EVALUATION

17.1 NEED FOR MONITORING

357. Monitoring and reporting are critical activities in the effective implementation of RIPP. Monitoring of RIPP activities is an effective tool for assessing the progress in compensation payment, livelihood and income restoration, rehabilitation and resettlement, beneficial measures and mitigation measures of RP etc. It also helps in identifying potential difficulties and problems and help the PMU for necessary course correction. Keeping in view the significance of resettlement impacts and indigenous peoples' impacts of the project and the project being categorized as 'A', the monitoring mechanism for this project will have both internal monitoring by PMU and external monitoring by an external monitoring agency/expert

17.2 INTERNAL MONITORING

358. The implementation of the RIPP will be monitored internally to: (i) ensure that mitigation measures designed to address negative/adverse social impacts and measures to enhance positive impacts are adequate and effective, (ii) determine if the indigenous communities have any issues or concerns regarding project implementation, and (iii) propose corrective actions when required. The monitoring components for internal monitoring will broadly include monitoring of compensation payment to affected HHs, impact matrix including the mitigation measures, specific action plan for benefit sharing, consultation plan, capacity building and functioning of project GRM.

359. The Project Management Unit (PMU) of APDCL will be responsible for monitoring of the overall implementation of the project, including the implementation of RIPP. Internal monitoring will be carried out routinely. The results will be communicated to ADB semi-annually. The report of internal monitoring will contain: (i) accomplishment to-date, (ii) objectives attained and not attained during the period, (iii) problems encountered, and (iv) suggest options for corrective measures. The RIPP implementing NGO/Agency and the PMC will help the PMU in the collection of monitoring data and information on relevant areas and preparation of internal monitoring report.

17.2.1 Monitoring Components

360. The project has several impacts for the local tribal community which are both positive and negative in nature. Adverse impacts are also anticipated in terms of acquisition of tribal land and physical displacement of IPs. Mitigations measures are identified to address the adverse impact. Various impact areas have been identified and compiled in the impact matrix, which will be monitored to see the extent to which the positive impacts for the people including indigenous peoples have been achieved and to which extent the negative impacts are mitigated. The monitoring will also allow to track the implementation of mitigation measures in case of any adverse impact. **Table 138** below presents the description of impacts (positive or adverse), mitigation measures to address the adverse impact, monitoring/evaluation indicators and entity responsible for monitoring.

Table 138: Monitoring Components

| No. | Impact Area | Monitoring Indicators | Responsibility for Monitoring |
|-----|--|---|--|
| 1 | Resettlement (Physical or Economic): Loss of land, dwellings, and other physical resources | <ul style="list-style-type: none"> • Compliance to mitigation measures in case of loss of land, dwellings, and other physical resources • Monitoring of project specific impacts on IR and IPs such as number of affected households etc • Status on compensation payment to the APs • Status on allowances payment to the APs • Status on relocation • Status on livelihood restoration • Status on compensation and assistance to IPs | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 2 | Resettlement (Physical or Economic): Loss of crops and trees | <ul style="list-style-type: none"> • Impact on standing crops • Number of consultations held with the affected people prior and during construction • Number of cases with unanticipated damages eligible for compensation • Number of affected people compensated for crops and trees • Number of affected indigenous peoples compensated for loss of crops and trees | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 3 | Resettlement (Physical or Economic): Loss of crops and trees | <ul style="list-style-type: none"> • Impact on tenants • Number of consultations held with tenants • Number of affected people compensated • Status on compensation and allowances • Status on livelihood restoration measures | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 4 | Resettlement (Cultural Property) | <ul style="list-style-type: none"> • Status on relocation of Church • Consultation with community and IPs regarding the shifting | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 5 | Skill up-gradation training to strengthen livelihood of AHs | <ul style="list-style-type: none"> • Total number of skills up-gradation trainings held among affected indigenous people • Number of people participated in the training (Gender disaggregated data) • Total number of skills up-gradation trainings held among affected agricultural tenants • Number of people participated in the training (Gender disaggregated data) • Assessment of specific impacts of the training on the income of affected family. | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 6 | Linkage with ongoing schemes of state/central government | <ul style="list-style-type: none"> • Number of schemes of state/central government on which linkage with AHs done • Number of AHs benefitted from the linkage by scheme • Number of women from affected families benefitted from the linkage by scheme <p>Impact of the linkage on the income of AHs</p> | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 7 | Linkage with banks/financial institutions to access credit facilities for affected tenants | <ul style="list-style-type: none"> • Number of camps organized for linkage with banks/financial institutions • Number of tenants linked with banks/financial institutions • Number of tenants received the credit facilities • Impact of credit facilities on the tenants to start petty business | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 8 | In-Migration and Population Growth or Concentration | <ul style="list-style-type: none"> • Adequacy of code of conduct • Number of trainings provided to workers of contractors on community code of behavior • Number of consultations with local people | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |

| No. | Impact Area | Monitoring Indicators | Responsibility for Monitoring |
|-----|---|---|--|
| | | <ul style="list-style-type: none"> • Training/sensitization to the outside workers of contractors about scheduled tribe's/IPs' culture, belief systems and practices. | |
| 9 | Health and Welfare: Risk of HIV/AIDS and other diseases | <ul style="list-style-type: none"> • Number of Awareness campaign on HIV/AIDS by the contractors • Details on the gender segregated data on number of workers participated in the awareness program | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 10 | Health and Welfare: Increased risks of traffic safety incidents on public roads during construction | <ul style="list-style-type: none"> • Compliance to mitigation measures in case of increased risks of traffic safety during construction | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 11 | Health and Welfare: Crimes, labor health, etc. | <ul style="list-style-type: none"> • Provision of lights at place of construction • Compliance with mitigation measures • Number of consultations with people related to any health and welfare issues | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 12 | IP consultations and participation; benefit sharing and disclosure | <ul style="list-style-type: none"> • Number of consultations held with IP /Scheduled Tribes (Gender disaggregated data) • Records of consultations and list of participants and key issues discussed • Status on the implementation of benefit sharing action plan and activities (progress and remaining targets along with timeline) • Record on number of disclosures related to project and RIPP related issues | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |
| 13 | Grievance Redress | <ul style="list-style-type: none"> • Compliance on maintaining GRM register by contractor • Disclosure and dissemination about GRM among the affected community • Number of GRC meetings held • Record on number of grievances received through GRM • Record on type of grievances • Record on grievance redressed • Record on pending grievance. | APDCL (PMU) through RIPP implementing NGO/Agency and PMC |

17.2.2 Monitoring of Consultation Plan for the IPs

361. RIPP contains a detailed plan for consultation with various stakeholder groups and affected people throughout the project implementation cycle. The consultations are planned at different stages of the project especially, during finalization of project design, before start of construction, and during construction. APDCL through PMU and the RIPP implementing NGO/Agency and PMC will monitor the implementation of consultation plan. The key indicators to monitor the consultation plan includes number of consultations and type of consultation held, number and percent of women participants in the consultation, number, and percent of IP (Scheduled Tribes) attended the consultation etc.

17.2.3 Monitoring of the Functionality of GRM

362. APDCL through PMU will be responsible for monitoring the functioning of project based GRM. The objective of GRM is to receive and redress the grievances of affected people on social, environmental, health and safety issues. Apart from monitoring the functioning of GRM, compliance to maintaining GRM register by contractor, disclosure and dissemination about GRM among the affected community, and number of GRC meetings held will be assessed.

17.3 EXTERNAL MONITORING

363. The external monitoring of RIPP will be undertaken by an independent External Monitoring Agency/Expert not involved in the day-to-day supervision of the project. The main objective of external monitoring is to independently assess and monitor the RIPP implementation. The external monitor will be responsible for preparation of a RIPP compliance implementation external report which will be the basis for ADB to provide no-objection to the start of civil works. The focus will be to assess whether resettlement goals have been achieved, more importantly whether livelihoods and living standards have been restored/ enhanced and suggest suitable recommendations for improvement. Based on the monitoring findings, the external monitor will submit regular bi-annual reports to ADB through PMU. The external monitor will advise on safeguard compliance issues, and if any significant involuntary resettlement and indigenous people's issues are identified, a corrective action plan will be prepared to address such issues. The responsible external monitoring agency will be required to certify that the LAR implementation is in accordance with the ADB concurred RIPP and any variation will be addressed as per the RIPP requirements and in consultation with ADB.

364. The external monitor will closely monitor the implementation of the RIPP and engage in the following tasks:

- Review and verify internal monitoring reports prepared by PMU/APDCL
- review of RIPP and Information pamphlet disclosure
- Assessment of the way the compensation has been carried out in relation of the stipulations of the RIPP
- Verification that all APs have been compensated in the amounts stipulated in the RIPP; review and verify 100% records of compensations and entitlements records
- Assessment of the accuracy of survey and asset valuation
- Review of complaint and grievance cases and of their solution
- Assessment of the rehabilitation and livelihood restoration program
- Assessment of the satisfaction of the APs through face-to-face interview of sample size of APs including the IPs
- Assessment on the progress and implementation of the beneficial and mitigation measures of the Ips
- Assessment of the progress and implementation of the conditions obtained for the Broad Community Support and measures as specified in the RIPP and livelihoods restoration plan
- Lesson learned to be applied to the next projects, and
- Assessment on the performance of PMC and RIPP implementing NGO/Agency on RIPP implementation
- General assessment of RIPP implementation and recommendations to ADB regarding the provision of no-objection Letter to start the civil works.

365. The external monitor will be mobilized within three months of loan approval and the monitoring will be carried out intermittently during the RIPP implementation. The external monitor will undertake consultations with affected HHs and assess the impacts (positive or adverse), and suggest mitigation measures to address the adverse impact. The external monitor will undertake a

post-resettlement evaluation of the effectiveness of RIPP and livelihood restoration plan implementation and BCS conditions fulfillment with comparison to baseline information. An indicative monitoring indicator is provided in **Table 139**. Sample Terms of Reference (ToR) of the external monitoring Agency/Experts is provided in **Appendix 22**.

Table 139: Monitoring Indicators

| Monitoring Indicator | Basis for Indicators |
|---|---|
| Basic Information on AP Households | <ul style="list-style-type: none"> • Location • Composition and structure: ages, educational and skill levels • Gender of household head • Ethnic group • Access to health, education, utilities, and other social services • Housing type • Land and other resource ownership and utilization patterns • Occupations and employment patterns • Income sources and levels • Agricultural production data (for rural households) • Participation in neighbourhood or community groups • Access to cultural sites and events • Value of all asset forming entitlements and resettlement entitlements |
| Benefit Monitoring | <ul style="list-style-type: none"> • What changes have occurred in terms of patterns of occupation, production, and resource use compared to the pre-project situation? • What changes have occurred in income and expenditure patterns compared to the pre-project situation? • What have been the changes in cost of living compared to the pre-project situation? • Have APs' incomes kept pace with these changes? • What changes have taken place in key social and cultural parameters relating to living standards? |
| Restoration of Living Standards | <ul style="list-style-type: none"> • Were house compensations made free of depreciation, fees or transfer costs to the APs? • Have perceptions of community been changed? • Have the AP achieved replacement of key social and cultural elements? |
| Restoration of Livelihood | <ul style="list-style-type: none"> • Were compensation payments free of deduction for depreciation, fees or transfer costs to the AP? • Were compensation payments sufficient to replace lost assets? • Was sufficient replacement land available of suitable standard? • Did transfer and relocation payments cover these costs? • Did income substitution allow for re-establishment of enterprises and production? • Have enterprises affected received sufficient assistance to re-establish themselves? • Do jobs provided restore pre-project income levels and living standards? |
| Levels of AP Satisfaction | <ul style="list-style-type: none"> • How much does the AP know about resettlement, procedures and entitlements? • Do they know if these have been met? • How do the AP assess the extent to which their own living standards and livelihoods • Have been restored? • How much does the AP know about grievance and conflict resolution procedures? • How did resettlement implementers deal with unforeseen problems? |
| Effectiveness of RIPP Planning | <ul style="list-style-type: none"> • Were the AP and their assets correctly enumerated? • Were land speculators assisted? • Was the time frame and budget sufficient to meet objectives? • Were entitlements too appropriate (wide or narrow)? • Were vulnerable groups identified and assisted? |
| Other Impacts | <ul style="list-style-type: none"> • Were there unintended environmental impacts? • Were there unintended impacts on employment or incomes? |

17.4 EVALUATION

366. The evaluation component will focus on assessment of the project impact on the living conditions and quality of life of the indigenous peoples' communities in the project area of influence. In addition, assessment of certain indicators of Impact Matrix will also be undertaken through Evaluation.

367. The main objective of the evaluation is to assess the impacts of the project on the living conditions of the affected persons and beneficiary measures on indigenous peoples' communities. The evaluation will assess whether there have been improvements in the living conditions and quality of life of the affected persons and indigenous peoples' communities due to the project and various income restoration measures. The evaluation will be conducted after the project intervention for the beneficiary has been completed. In addition, the evaluation will also assess the relevant evaluation indicators mentioned in the impact matrix, as data on these indicators cannot be captured through monitoring. APDCL shall recruit an appropriate agency to undertake the external evaluation post the project implementation.

368. The usual evaluation methodology adopted to assess the improvements in the living conditions and quality of life of the indigenous peoples is through comparison with baseline data on selected parameters. Alternatively, in the absence of baseline data an "before-after analysis approach" can be adopted to assess the improvements in the living conditions of beneficiary community. In such an approach the views and opinions of beneficiary is asked for both the situations, i.e., living conditions before the project and living conditions after the project intervention. Based on the information obtained, the pre-project and post-project conditions are comparatively analyzed.

17.5 REPORTING

369. APDCL through the PMU will be responsible to design various monitoring forms and formats for carrying out the monitoring of RIPP implementation. The monitoring forms and formats will be finalized in consultation with the PMU, PMC and the RIPP implementing NGO/Agency. Social safeguard monitoring report will be prepared by PMU on quarterly basis. The quarterly monitoring reports on the RIPP implementation will include progress and results of implementation monitoring and compliance of the contractor to various mitigation measures but also recommend corrective action plan in case of non-compliance. APDCL will submit the quarterly social monitoring reports to ADB for review. Upon ADB approval, the monitoring reports will be disclosed in ADB website as well as on the website of APDCL. Submission of social monitoring reports will continue until finalization of ADB's project completion report.

370. The external monitoring agency/expert will be responsible for monitoring of the RIPP implementation and overall performance on IR and IP implementation. The external monitoring agency/expert will submit a review report to PMU on semi-annual basis which will subsequently be submitted to ADB. All the resettlement monitoring reports will be disclosed to affected persons as per procedure followed for disclosure of resettlement documents by the implementing agency. The external monitoring report will be disclosed at ADB's website as well as the website of APDCL. A copy of sample monitoring report format is provided in **Appendix- 23**.

APPENDIX 1: INVENTORY OF LOSS AND CENSUS SURVEY

Schedule No: |__|__|__|

Serial No as per the land records: |__|__|__|__|

1. GENERAL IDENTIFICATION

| Sl. No | Questions | Options | Response |
|--------|---|---|----------|
| 1.1 | Name of the Project Component | | |
| 1.2 | Is it a notified Tribal Area or Agency Area | Notified area under the 6 th schedule of the Indian constitution | |
| 1.3 | Address of the household | a. Village: b. Mandal/Tehasil: c. District: | |
| 1.4 | Settlement Type: | 1 Rural 2 Semi-Urban 3 Urban | |
| 1.5 | Are you aware about the Project? (Enumerator please explain about the name and nature of the project) | 1. Yes 2. No | |

2. LAND DETAILS

| Sl. No | Questions | Options | Response |
|--------|---|--|----------|
| 2.1 | Ownership of the Land | 1. Tribal council land having users rights 2. Private 3. Government 4. Religious 5. Community 6. Eksonia 7. Others | |
| 2.2 | Patta / Dag No | | |
| 2.3 | Type of Land | 1. Irrigated 2. Non-Irrigate 3. Barren 4. Forest 5. Residential 6. Commercial 7. Pond 8. Others (Specify) _____ | |
| 2.4 | Use of land | 1. Cultivation 2. Orchard 3. Residential 4. Commercial 5. Forestation 6. No Use/ Barren 7. Other | |
| 2.5 | Affected area of the Land/Plot (<u>As per the actual details provided by Council to APDCL</u>) | Bigha..... Katttha..... | |

| Sl. No | Questions | Options | Response |
|--------|--|---|----------|
| | | Lassa..... | |
| 2.6 | Total Area of the affected Land/Plot (to be asked from the affected person based on response) | Bigha..... Katttha..... Lassa..... | |
| 2.7 | Total Landholding (affected and non-affected) of the Affected Household (to be asked from the affected person based on response) | Bigha..... Katttha..... Lassa..... | |
| 2.8 | Status of Ownership | 1. Titleholder 2. Customary Right 3. Eksonia 4. Encroacher 5. Squatter 6. Other (specify): | |
| 2.9 | Type of Private Ownership | 1. Individual/Single 2. Joint/Shareholders 3. Other (specify): | |
| 2.10 | Name of the Owner (s): | | |
| 2.11 | Father's Name: | | |
| 2.12 | Rate of the Land (Per Bigha) | 1. Market Rate: 2. Revenue Rate: | |
| 2.13 | Any of the following people associated with the Land | | |
| 2.14 | | | |
| 2.15 | Tenant/Lessee | 1. Yes 2. No | |
| 2.16 | | Name (i)..... Name (ii)..... | |
| 2.17 | Sharecropper | 1. Yes 2. No | |
| 2.18 | | Name (i)..... Name (ii)..... | |
| 2.19 | Agricultural Laborer | 1. Yes 2. No | |

| Sl. No | Questions | Options | Response |
|--|---------------------|---------|----------|
| 2.20 | Number of labourers | | |
| 2.21 | Names | | |
| <i>(Use supplementary sheet for any additional identified Affected Person under Question-2.13)</i> | | | |

3. DETAILS OF AFFECTED NON-LAND ASSETS (to be asked to the owner only)

| Sl. No | Questions | Options | Response |
|--------|---|---|----------|
| 3.1 | Any structure in the Affected Land | 1. Yes 2. No | |
| | If yes, then who has built | 1. Owner 2. Tennant / Share cropper 3. Both | |
| 3.2 | Distance of the main structure from the village | (mtr) | |
| 3.3 | Distance of boundary wall (if any) from the village | (mtr) | |
| 3.4 | Area of the affected structure (in Square Meter) | a) Length b) Width c) Height | |
| 3.5 | Area of the boundary wall only (in Meter): | a) Length b) Height | |
| 3.6 | Area of the total structure (in Square Meter) | a) Length b) Width c) Height | |
| 3.7 | Scale of Impact on structure | 1. Up to 25% 2. > 25% and < 50% 3. > 50% and > 75% 4 >75% 5. 100 % | |
| 3.8 | Type of Construction of the Structure | 1. Temporary (buildings with mud/brick/wood made walls, thatched/tin roof) 2. Semi-Permanent (buildings, with tiled roof and normal cement floor) 3. Permanent (with RCC, Single/ Double storey building) | |

| Sl. No | Questions | Options | Response |
|--------|--|---|----------|
| 3.9 | Type of Construction of the Boundary Wall | 1. Temporary (buildings with mud/brick/wood made walls, thatched/tin roof) 2. Semi-Permanent (buildings, with tiled roof and normal cement floor) 3. Permanent (with RCC, Single/ Double storey building) | |
| 3.10 | Age of the Structure | Years | |
| 3.11 | Market Value of the Structure | Rs. | |
| 3.12 | Use of the Structure (Chose the appropriate category) | | |
| A | Residential Category | 1. House 2. Hut 3. Others (Specify) | |
| B | Commercial Category | 4. Shops 5. Hotel 6. Small Eatery 7. Kiosk 8. Farm House 9. Other (specify) :..... | |
| C | Mixed Category | 10. Residential-cum-Commercial Structure | |
| D | Mixed Category | 11. Residential-cum-agricultural purpose | |
| D | Community Type | 12. Community Center 13. Club 14. Trust 15. Memorials 16. Other:..... | |
| E | Religious Structure | 17. Temple 18. Church 19. Mosque 20. Gurudwara 21. Shrines 22. Sacred Grove 23. Naam Ghar 24. Other:..... | |
| F | Government Structure | 25. Government Office 26. Hospital 27. School 28. College 29. Bus Stop 30. Other:..... | |
| G | Other Structure | 31. Boundary Wall 32. Foundation 33. Cattle Shed 34. Others :..... | |
| 3.13 | Type of Business/ Profession by Head of Household | | |
| 3.14 | Status of the Structure (More than one answer) | 1. Legal Titleholder 2. Customary Right 3. Eksonia 4. Encroacher 5. Squatter 6. Structure built by the sharecropper / Tenant/ on the agricultural land 7. Other:..... | |
| 3.15 | Any of the following people associated with the Structure? | | |
| A1 | Tenant in the structure | 1. Yes 2. No | |
| A2 | Name | 1..... 2. 3. 4. | |

| Sl. No | Questions | Options | Response |
|--|---|---|----------|
| B1 | Employee/ wage earner in commercial structure | 1. Yes 2. No | |
| B2 | Name | 1..... 2. 3. 4. | |
| C1 | Employee/ wage earner in residential structure | . 1. Yes 2. No | |
| C2 | Name | 1..... 2. 3. 4. | |
| <i>Use supplementary sheet for any of the DPs under Question-27)</i> | | | |
| 3.16 | Will the structure remain viable for further use? | 2 1. Yes 2. No 3. Not sure | |

3.17. Trees and Crops

A. Trees

| Sl No | Name of Plant/Trees | Quantity (Numbers) | Age in years (Approximate) | Type of Trees 1. Fruit Trees 2. Non-Fruit/ Timber Trees | Market price (Unit cost) as per Affected Person's Estimate |
|-------|---------------------|--------------------|----------------------------|--|--|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

B. Crops

| SL No | Name of Crop | Cultivated Area (Bigha) | Average Yield (kg/From cultivated area) | Market price per kg |
|-------|--------------|-------------------------|---|---------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

3 4. Details of Affected Household

| Sl. No | Questions | Options | Response |
|--------|---|---|----------|
| 4.1 | Social Category of AP | 1. SC 2. ST 3. OBC 4. General 5. Others..... | |
| 4.2 | Religious Category | 1. Hindu 2. Muslim 3. Christian 4. Buddhist 5. Jain 6. Other | |
| 4.3 | Type of family? | 1. Nuclear 2. Joint 3. Extended | |
| 4.4 | Number of family members of the affected household | Male..... Female..... Total..... | |
| 4.5 | Number of family members with following criteria | | |
| A | 1. Unmarried Son/brother > 18 years | | |
| B | 2. Unmarried Daughter/Sister > 18 years | | |
| C | 3. Divorcee/Widow | | |
| D | 4. Minor Orphan | | |
| 4.6 | Vulnerability Status of the Household: | | |
| A | Is it a woman headed household? | 1. Yes 2. No | |
| B | Is it headed by disabled person? | 1. Yes 2. No | |
| C | Is it a household Below Poverty Line (BPL) | 1. Yes 2. No | |
| D | Is it headed by elderly person (Above 60 Years) | 1. Yes 2. No | |
| E | Is it a landless household | 1. Yes 2. No | |
| F | Is it a non-titled household | 1. Yes 2. No | |
| G | Is it a ST household | 1. Yes 2. No | |
| 4.7 | Annual income of the family | Rs..... | |
| 4.8 | If displaced, do you have additional land to shift? | 1. Yes 2. No | |
| 4.9 | Resettlement/Relocation Option | 1. Self Relocation 2. Project Assisted Relocation | |
| 4.10 | Compensation Option for Land loser | 1. Land for land loss 2. Cash for Land loss | |
| 4.11 | Compensation Options for Structure loser | 1. Structure for structure loss 2. Cash for Structure loss | |

| Sl. No | Questions | Options | Response |
|--------|--|---|----------|
| 4.12 | Income Restoration Assistance (fill codes in preferred order) | 1. Employment Opportunities in Construction work | |
| | | 2. Assistance/ Loan from other ongoing development scheme | |
| | | 3. Vocational Training | |
| | | 4. Others (specify) | |

4.13 Any Other Observation and photographs (GPS)

5. Details of Affected Persons

| Sl. N° | 1. Name (Start with self) | 2. Relation to Head of the Household | 3 Age (in complete Years) | 4. Sex (1=Male, 2=Female) | 5. Marital Status | 6. Education | 7. Primary Occupation |
|---------------------------------|---|--------------------------------------|---------------------------|---------------------------|-------------------|--------------|-----------------------|
| 5.1 | | | | | | | |
| 5.2 | | | | | | | |
| 5.3 | | | | | | | |
| 5.4 | | | | | | | |
| 5.5 | | | | | | | |
| 5.6 | | | | | | | |
| 5.7 | | | | | | | |
| 5.8 | | | | | | | |
| 5.9 | | | | | | | |
| 5.10 | | | | | | | |
| 5.11 | | | | | | | |
| 5.12 | | | | | | | |
| 5.13 | | | | | | | |
| 5.14 | | | | | | | |
| 5.15 | | | | | | | |
| Code for Relationship: | 1 Self, 2 Father, 3 Mother, 4 Husband, 5 Wife, 6 Son, 7 Daughter, 8 Brother, 9 Sister, 10 Uncle, 11 Aunty, 12 Cousins, 13 Grand Father, 14 Grand Mother, 15-Son in Law, 16 Daughter in Law, 17 Other (specify.....) | | | | | | |
| Code for Marital Status: | 1 Married 2 Unmarried, 3 Widow, 4 Widower, 5 Separated | | | | | | |
| Code for Education: | 1 Illiterate, 2 Literate, 3 In Aanganwadi / pre-school, 4 Up to primary, 5 Middle, 6 Secondary, 7 Higher Secondary, 8 Diploma/ITI, 9 Graduate, 10 Post Graduate, 13 Not Applicable (Less than 5 years) | | | | | | |
| Code for Occupation: | 1 NA (less than 5 years) 2 Student 3 Neither studying nor working 4 Unemployed 5 Cultivator 6 Agricultural labour 7 Non-agricultural labour 8 Both agri and non-agri labourer 9. Skilled workers 10 Petty trade 11 Business 12 Housewife 13 Pvt.. Service 14 Govt. Service 15 Retired/ Old 16 Others | | | | | | |

APPENDIX 2: KAAC OFFICE ORDER FOR LAND ALLOTMENT TO APDCL

**KARBI ANGLONG AUTONOMOUS COUNCIL
DEPARTMENT OF LAND REVENUE
KAAC::SECRETARIAT
DIPHU – 782460**

No KAAC/Rev/L-Allotment – 281/02-13/98

Dated 26-04-2023

ORDER

The authority of Karbi Anglong Autonomous Council, Diphu is pleased to allot a plot of land for establishment of the institution below –

| Sl No. | Name of Institution | Village & Mouza | Dag No. | Area | Land Allotment Fee to be Realized |
|--------|---------------------|--|---------|--------------|-----------------------------------|
| 1. | APDCL | Lahorijan, Chotolengrijan, Borlengrijan, Karagaon, Longkathar, Lalmati and Nahorjan, Borjan Mouza | NC | 18000B-0K-0L | @ Rs. 10,000/- Per Bigha |

The plot of land will automatically be reverted back to the council Authority if it is not utilized for the purpose within 1 (one) year from the date of taking possession of the land.


Secretary
Department of Revenue
Karbi Anglong Autonomous Council,
Diphu

Memo No. KAAC/Rev/L-Allotment – 281/02-13/98(A)

Dated 26-04-2023

Copy to :-

1. P.A. to the C.E.M for kind appraisal to the Hon'ble Chief Executive Member, KAAC, Diphu.
2. P.A. to the E.M for kind appraisal to the Chief Executive Member, KAAC, Diphu.
3. P.A. to the Principal Secretary for kind appraisal to the P.S., KAAC, Diphu.
4. The Assistant Revenue Office/Assistant Settlement Officer, Diphu Revenue Circle for information and necessary action.
5. Office File.


Secretary
Department of Revenue
Karbi Anglong Autonomous Council,
Diphu
Secretary
Karbi Anglong Autonomous Council,
DIPHU

OFFICE OF THE
ASSISTANT REVENUE OFFICER
DIPHU CIRCLE
KARBI ANGLONG AUTONOMOUS COUNCIL, DIPHU

NO KAAC/ARO/DPU/PC/21/2004-19/37

Dated, Diphu the 26th April 2023

POSSESSION CERTIFICATE

In pursuance of KAAC Order No. KAAC/Rev/L-Allotment – 281/02-13/98 Dated 26-04-2023, certified that the possession of land scheduled below is handed over to the APDCL for establishment of Mukhya Mantri Sauro Shakti Prokolpo, and the same is to be utilized within 1(One) year or otherwise the land shall be reverted back to the Karbi Anglong Autonomous Council, the land is free from any encumbrance.

Scheduled of Land

1. Survey Dag No. N C.
2. Area of Land : 18000B-0K-0L
3. Village : Lahorijan, Chotolengrijan, Borlengrijan, Karagaon, Longkathar, Lalmati and Nahorjan
4. Mouza : Borjan

Signature of LM

Signature of SK

Possession of Land taken by:
(with official seal)

**CGM, NRE
APDCL**

Assistant Revenue Officer
Diphu Circle
Karbi Anglong Autonomous Council,
Diphu

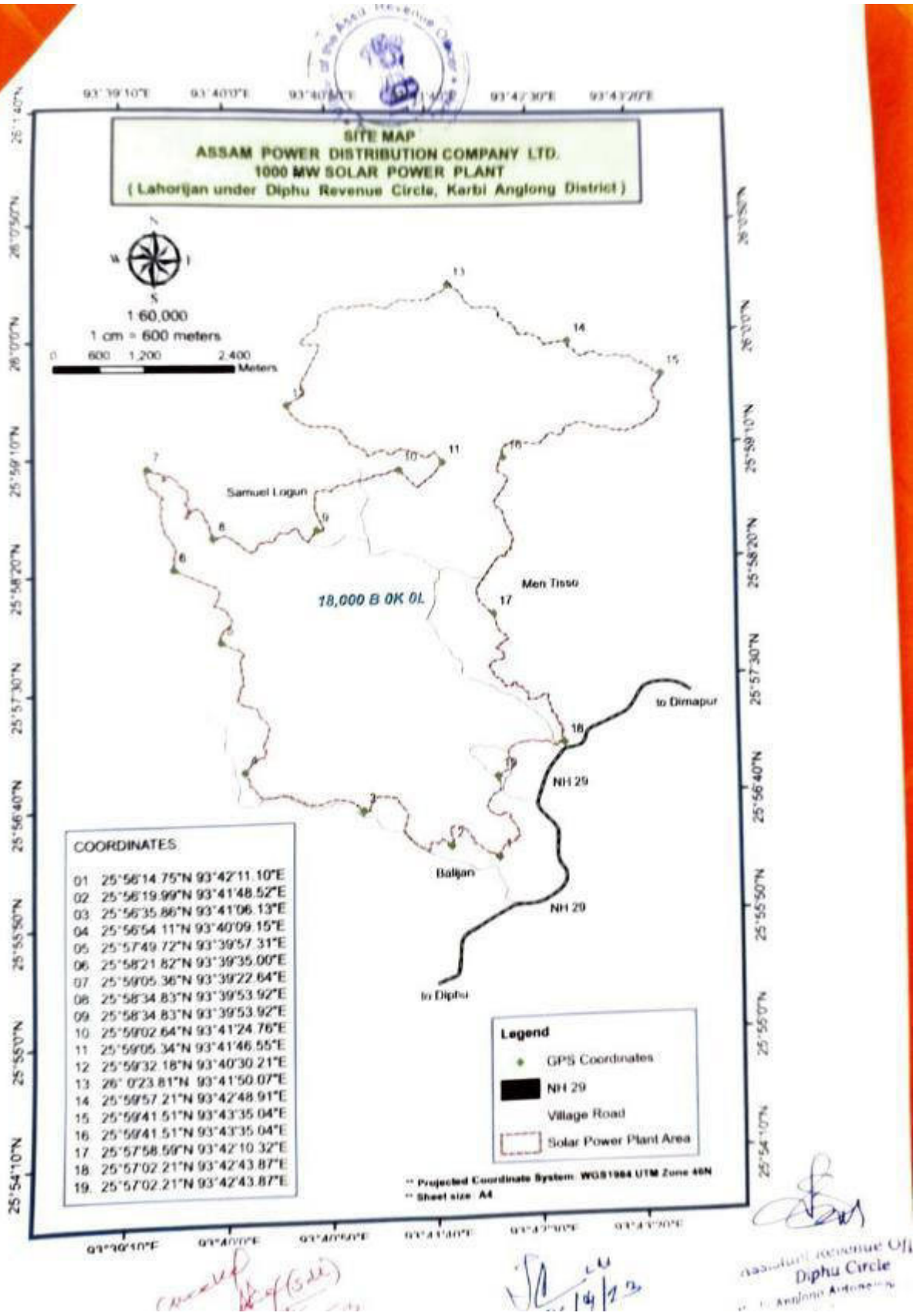
Dated, Diphu the 26th April 2023

Memo No. KAAC/ARO/DPU/PC/21/2004-19/37(A)

Copy for information and necessary action :

1. The Secretary, Department of Revenue, KAAC, Diphu.
2. Office file

Assistant Revenue Officer
Diphu Circle
Karbi Anglong Autonomous Council,
Diphu



APPENDIX 3: TENANT HOUSEHOLD SURVEY QUESTIONNAIRE

Schedule No: |__|__|__|

Census Schedule No: |__|__|__|

| Sl. No | Questions | Options | Response |
|--------|---|---|----------|
| 1. | Name of the Owner | | |
| 2. | Name of the Occupier/Tenant /Leaseholder | | |
| 3. | Father's Name of Occupier/ Tenant/Leaseholder | | |
| 4. | Area of land under lease (Bigha) | | |
| 5. | Type of Crops cultivated | | |
| 6. | How many crops per year | | |
| 7. | Is the land irrigated | | |
| 8. | Yielding of Crops per season (Quintals) | | |
| 9. | Status of Occupier | 1. Agricultural Tenant/Lessee 2. Agricultural Laborer 3. Sharecropper 4. Tenant in structure | |
| 10. | Social Category of AP | 1. SC 2. ST 3. OBC 4. General 5. Others (specify)..... | |
| 11. | Religious Category | 1. Hindu 2. Muslim 3. Christian 4. Buddhist 5. Jain 6. Other (specify)..... | |
| 12. | Number of family members | 1. Male..... 2. Female..... 3. Total..... | |
| 13. | Vulnerability Status of the Household | | |
| A. | Is it a woman headed household? | | |
| B. | Is it headed by disabled person? | | |
| C. | Is it a household Below Poverty Line (BPL) | | |
| D. | Is it headed by elderly person (Above 60 Years) | | |
| E. | Is it a landless household | | |
| F. | Is it a non-titled household | | |

| Sl. No | Questions | Options | Response |
|----------|--|--|----------|
| G. | Is it a ST household | | |
| 14. | Annual income of the family | Rs..... | |
| 15. | Livelihood Impacts by the Associated User on the Land | | |
| A | Agricultural Tenant | | |
| A 1 | Agricultural Tenant/Lease Holder | 1. Yes 2. No | |
| A 2 | If Yes (How many in Numbers) | Total Men Women | |
| A 3 | Any formal rent agreement between owner and agricultural tenant? | 1. Yes 2. No | |
| A 4 | How much is the Annual rental fees | Rupees..... | |
| B | Agricultural Laborer | | |
| B 1 | | 1. Yes 2. No | |
| B 2 | If Yes (How many in Numbers) | Total Men Women | |
| A 3 | Any formal agreement between owner and agricultural Labourer | 1. Yes 2. No | |
| A 4 | Wage Per day | Rs | |
| C | Structure on the Land | | |
| C-1 | Any structure in the Affected Land | 1. Yes 2. No | |
| C-2 | Legal Status of the Structure | 1. Titles 2. Non-Titles, 3. Customary | |
| C-3 | If yes, then who has built the structure | 1. Owner 2. Tennant / Share cropper 3. Both | |
| C-4 | Which year the structure was built | | |
| C-5 | Distance of the main structure from the village | (mtr) | |
| C-6 | Area of the affected structure (square metre) | a) Length b) Width c) Height | |
| C-7 | Nature of the Structure | 1. Permanent, 2. Semi-Permanent 3. Temporary | |

| Sl. No | Questions | Options | Response |
|--------|---|---|----------|
| C-8 | Do you have permanent residence other than this | 1. Yes 2. No | |
| C-9 | If Yes (mention the name of place and distance from the project area) | | |
| C-10 | Scale of Impact on structure | 1. Up to 25% 2. > 25% and < 50% 3. > 50% and > 75% 4 >75% 5. 100 % | |
| C-11 | Use of the Structure | 1. Residential, 2. Commercial Category, 3. Residential-cum-Commercial Structure, 4. Community Type, 5. Religious Structure, 6. Other (Mention)..... | |
| C-12 | Market Value of the Structure | Rs. | |
| C-13 | Any Other Asset associated with the land and structure | 1. Tube Well, 2. Ring Well, 3. Toilet, 4. Animal Shed, 5 Any Other (Specify) | |

16. Details on Crops

| SL No | Name of Crop | Cultivated Area (Bigha) | Average Yield (kg/From cultivated area) | Market price per kg |
|-------|--------------|-------------------------|---|---------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

17. Details on Trees

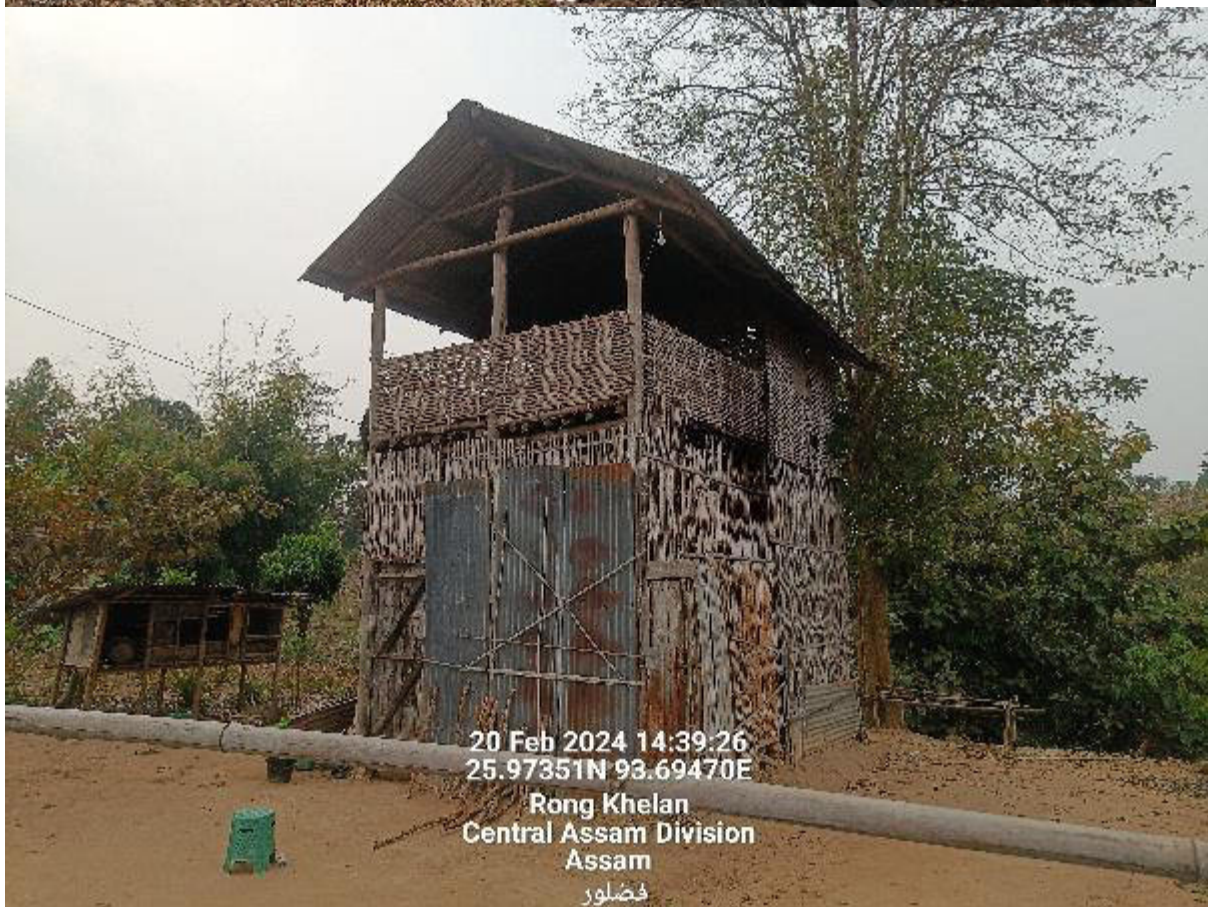
| Sl No | Name of Plant/Trees | Quantity (Numbers) | Age in years (Approximate) | Type of Trees 1. Fruit Trees 2. Non-Fruit/ Timber Trees | Market price (Unit cost) as per Affected Person's Estimate |
|-------|---------------------|--------------------|----------------------------|--|--|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

Details of Affected Persons

| Sl. N° | 1. Name (Start with self) | 2. Relation to Head of the Household | 3 Age (in complete Years) | 4. Sex (1=Male, 2=Female) | 5. Marital Status | 6. Education | 7. Primary Occupation |
|---------------------------------|------------------------------|---|---------------------------------|---------------------------------|----------------------|-----------------|--------------------------|
| S-1 | | | | | | | |
| S-2 | | | | | | | |
| S-3 | | | | | | | |
| S-4 | | | | | | | |
| S-5 | | | | | | | |
| S-6 | | | | | | | |
| S-7 | | | | | | | |
| S-8 | | | | | | | |
| S-9 | | | | | | | |
| S-10 | | | | | | | |
| S-11 | | | | | | | |
| S-12 | | | | | | | |
| S-13 | | | | | | | |
| S-14 | | | | | | | |
| S-15 | | | | | | | |
| Code for Relationship: | | 1 Self, 2 Father, 3 Mother, 4 Husband, 5 Wife, 6 Son, 7 Daughter, 8 Brother, 9 Sister, 10 Uncle, 11 Aunty, 12 Cousins, 13 Grand Father, 14 Grand Mother, 15-Son in Law, 16 Daughter in Law, 17 Other (specify.....) | | | | | |
| Code for Marital Status: | | 1 Married 2 Unmarried, 3 Widow, 4 Widower, 5 Separated | | | | | |
| Code for Education: | | 1 Illiterate, 2 Literate, 3 In Aanganwadi / pre-school 4 Up to primary, 5 Middle, 6 Secondary, 7 Higher Secondary, 8 Diploma/ITI, 9 Graduate, 10 Post Graduate, 13 Not Applicable (Less than 5 years) | | | | | |
| Code for Occupation: | | 1 NA (less than 5 years) 2 Student 3 Neither studying nor working 4 Unemployed 5 Cultivator 6 Agricultural labour 7 Non-agricultural labour 8 Both agri and non-agri labourer 9. Skilled workers 10 Petty trade 11 Business 12 Housewife 13 Pvt.. Service 14 Govt. Service 15 Retired/ Old 16 Others | | | | | |

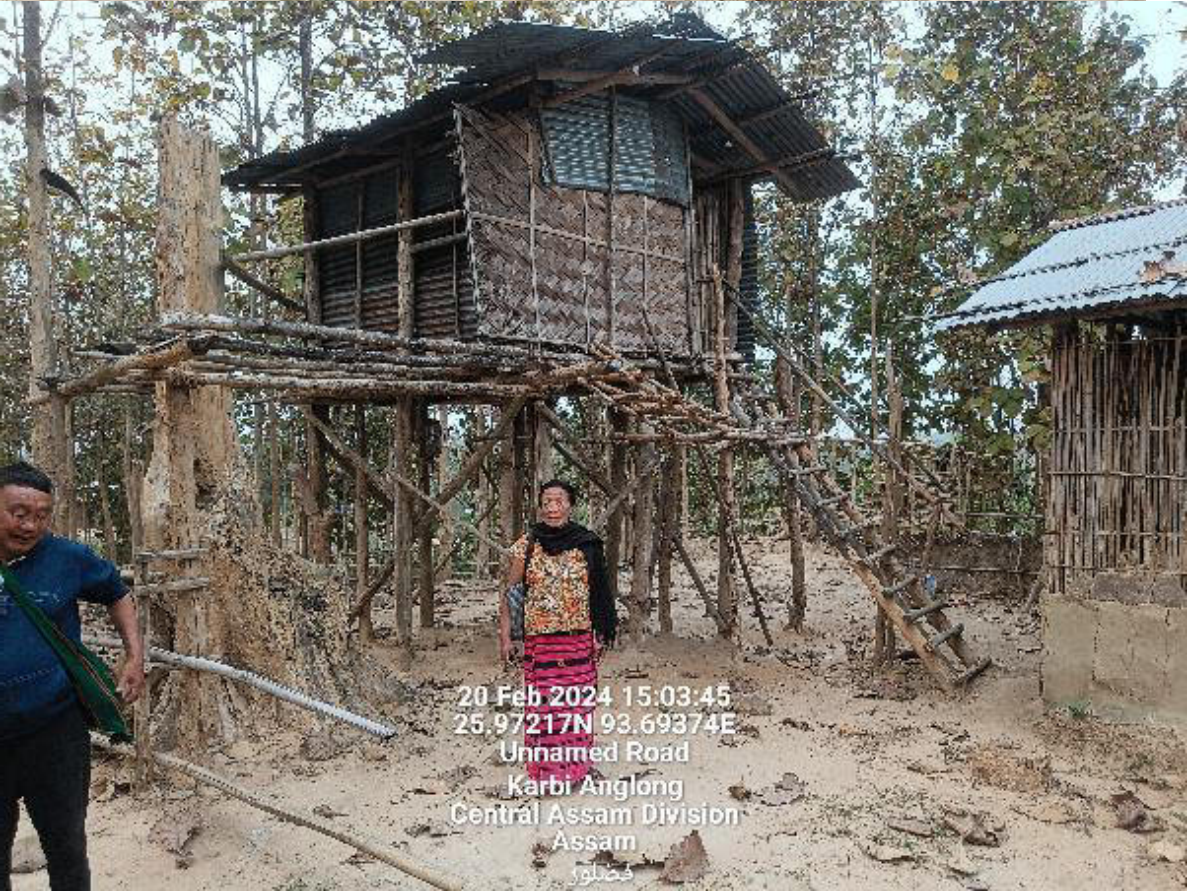
APPENDIX 4: PHOTOGRAPHS OF AFFECTED STRUCTURE BUILT BY OWNER

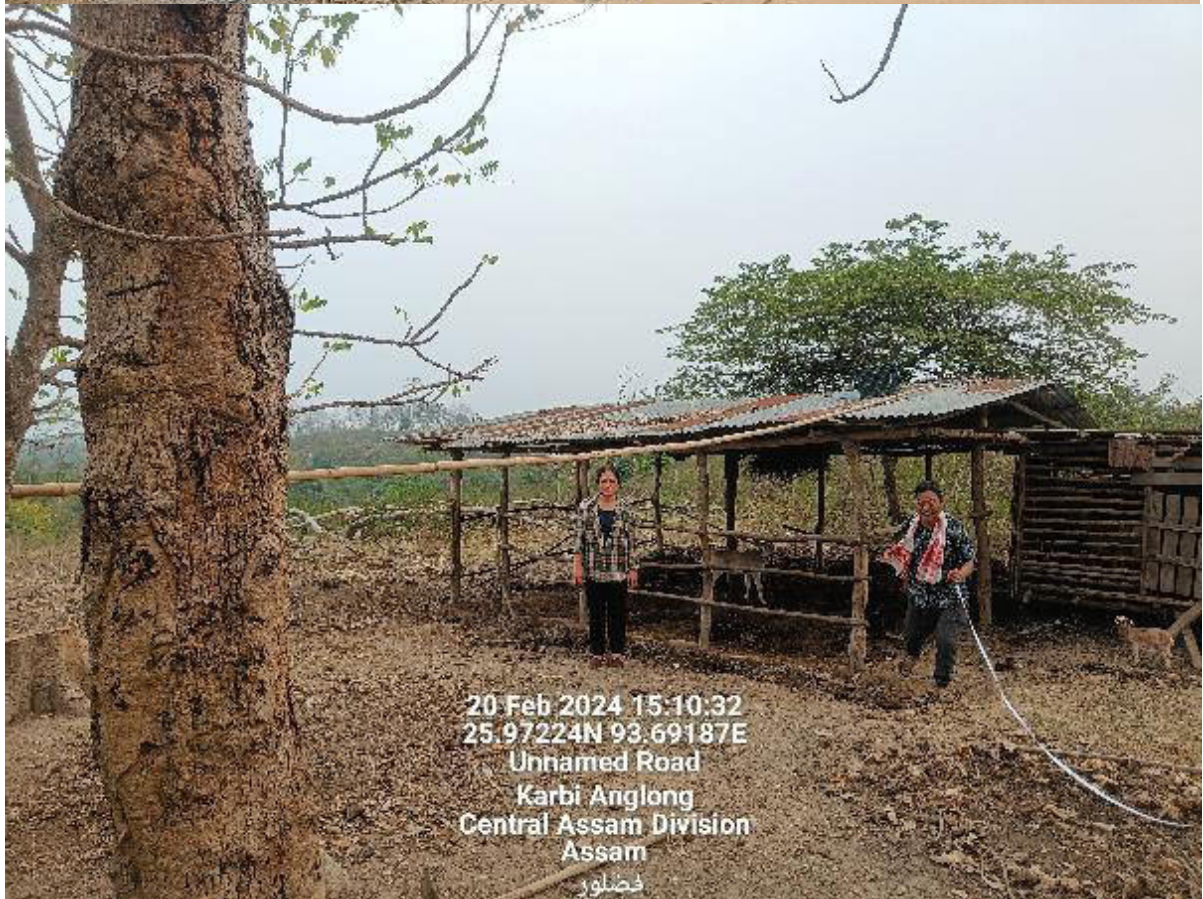
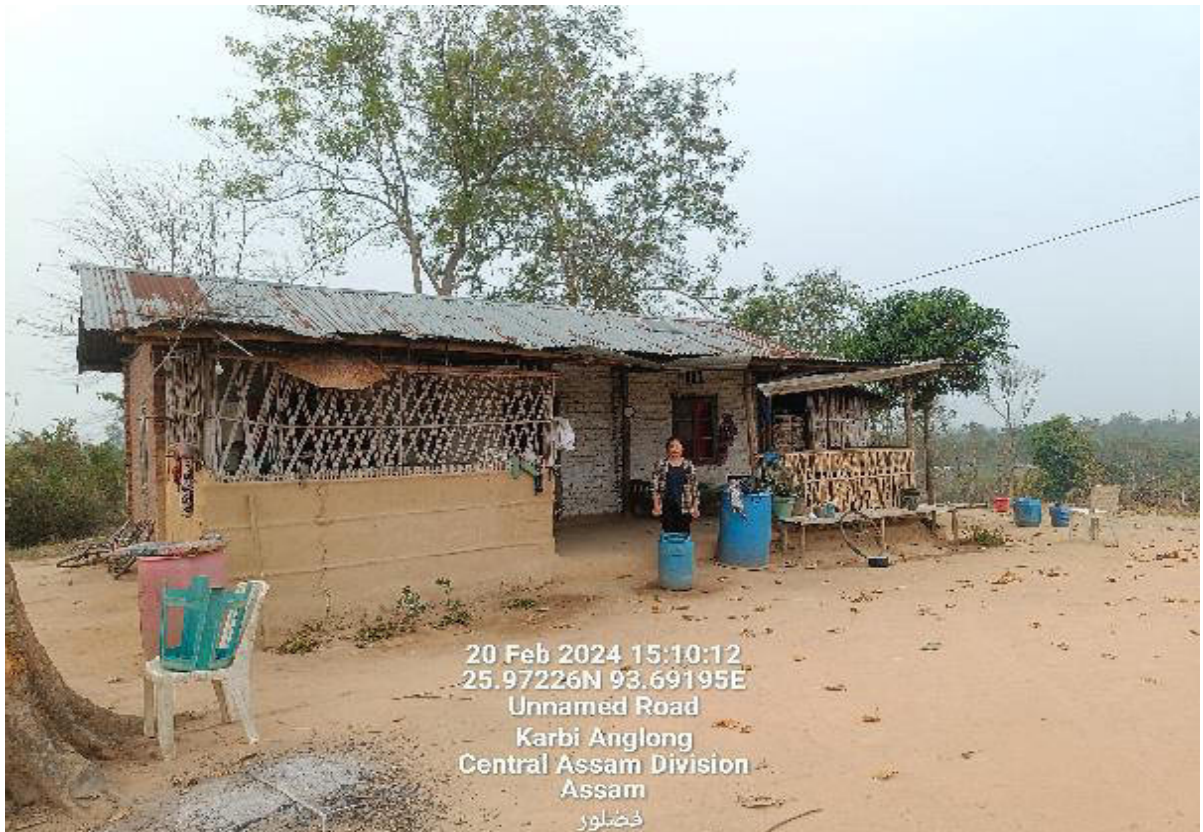


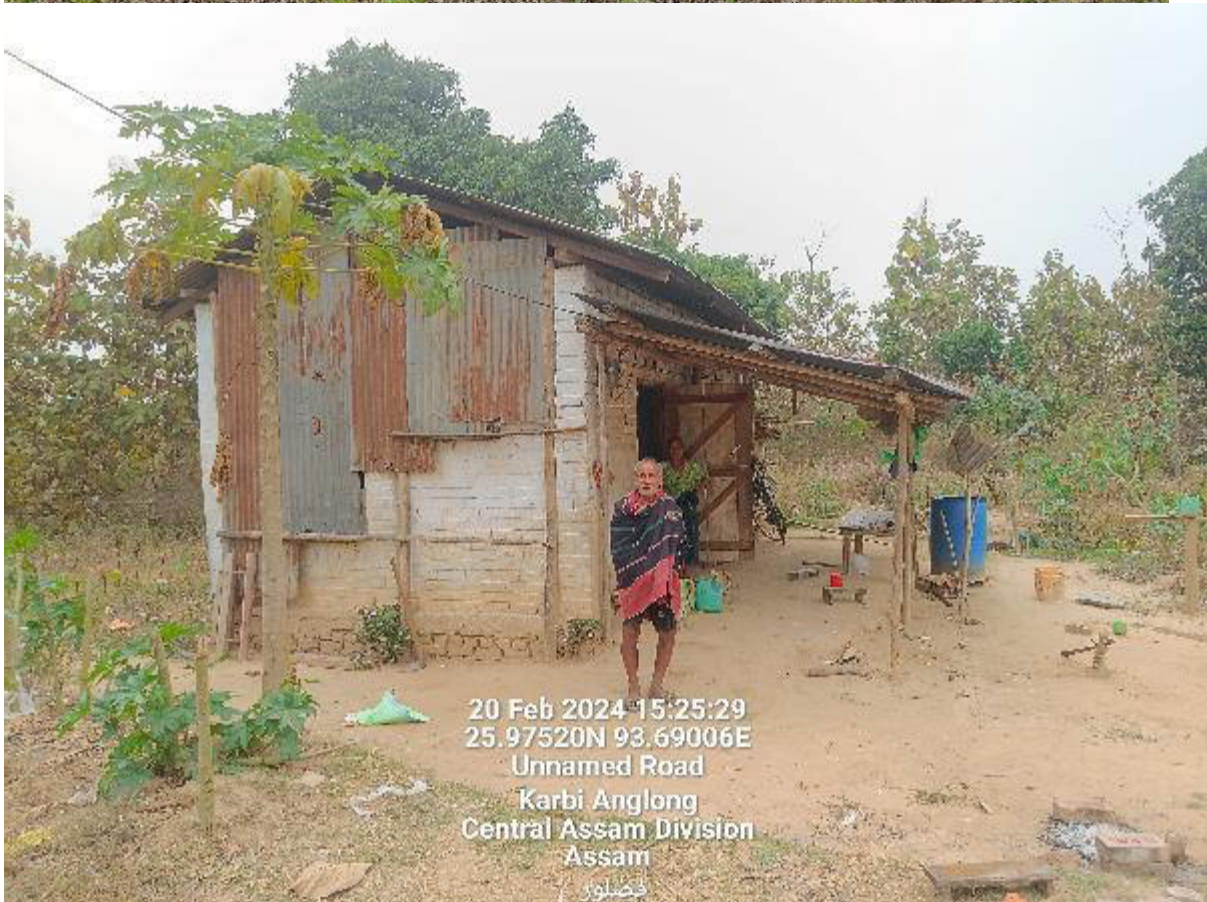


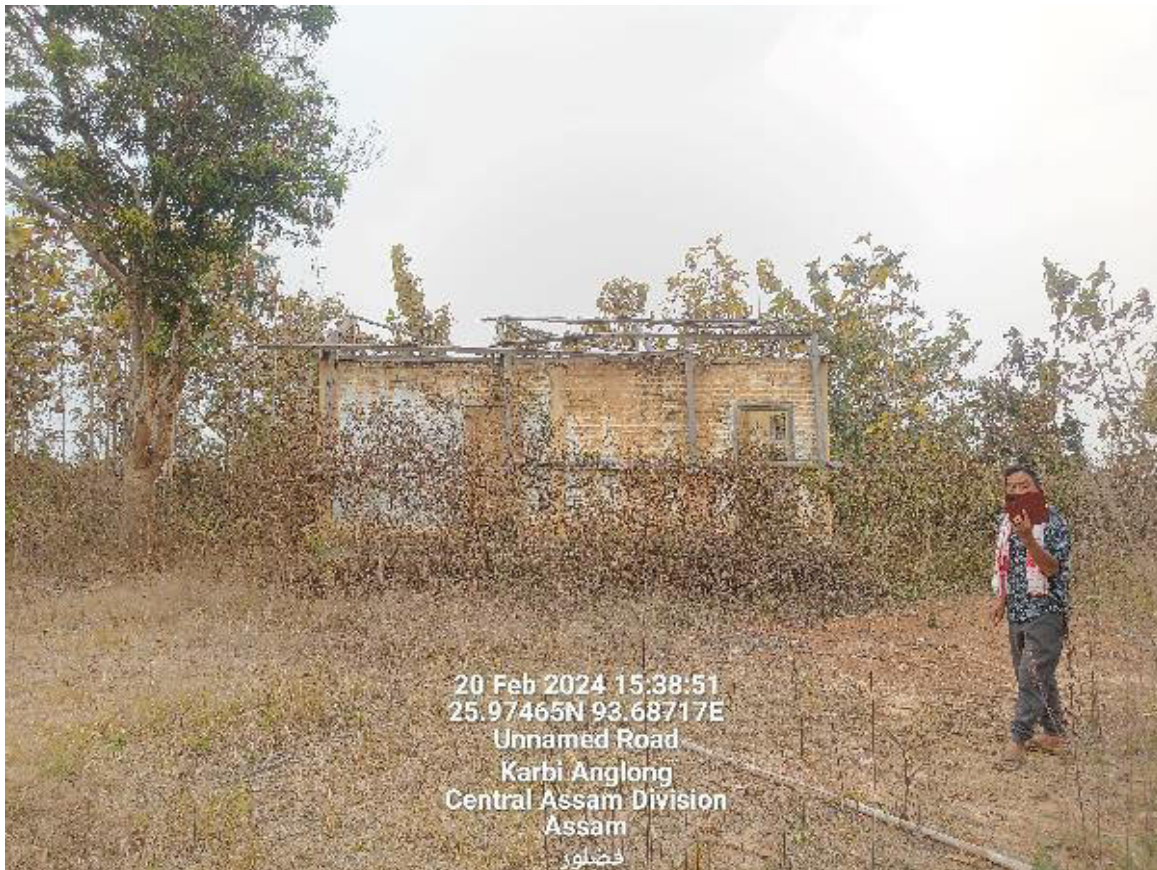










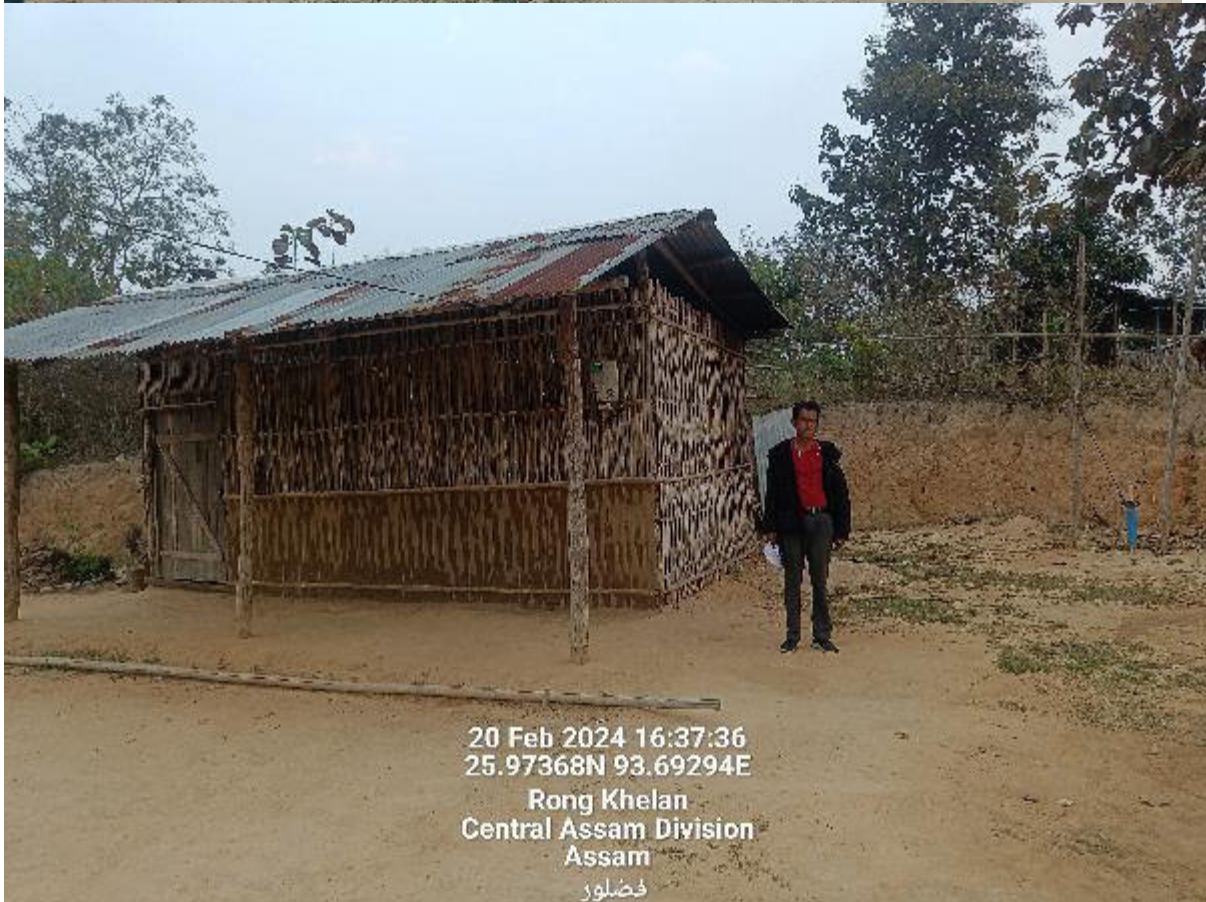






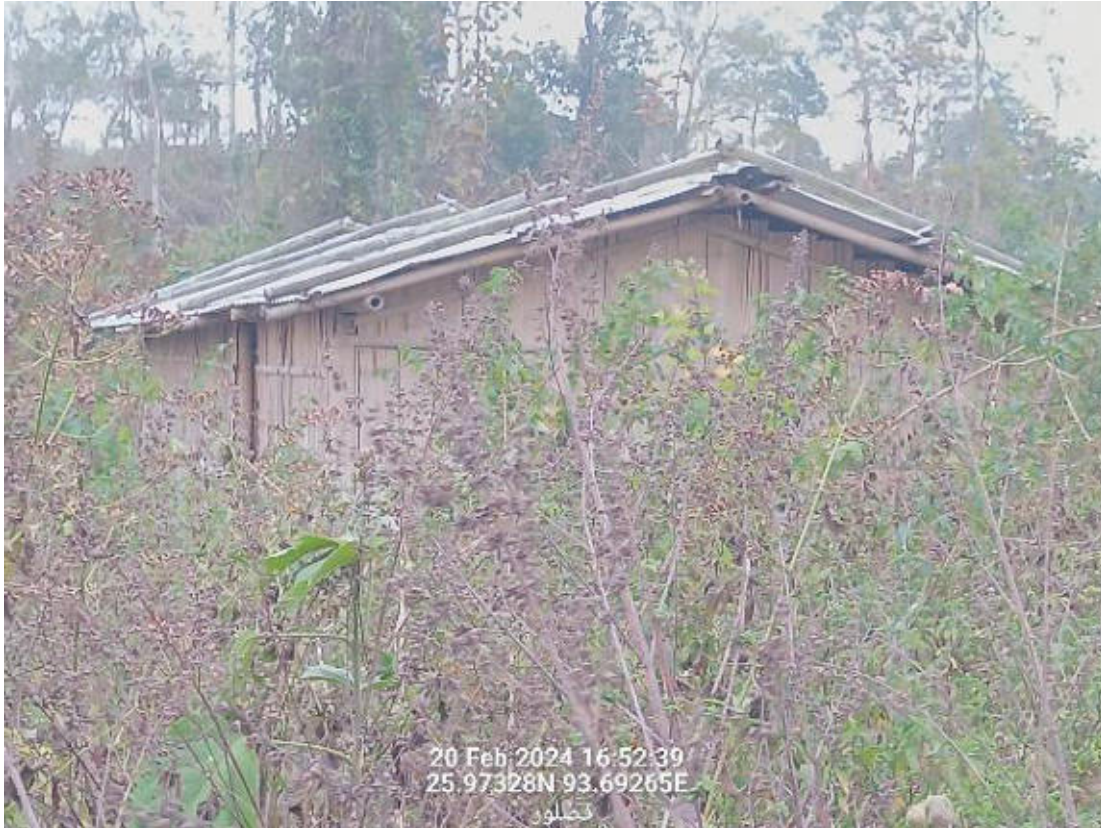


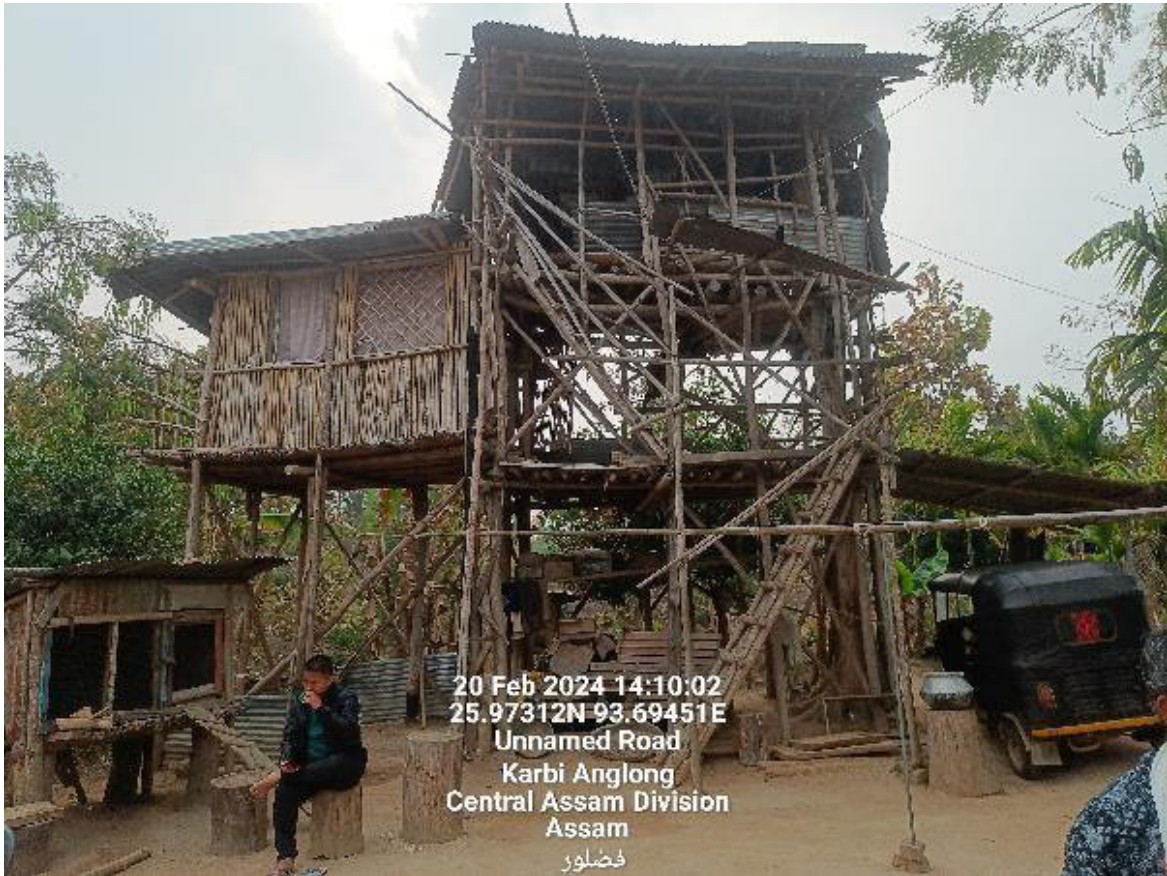


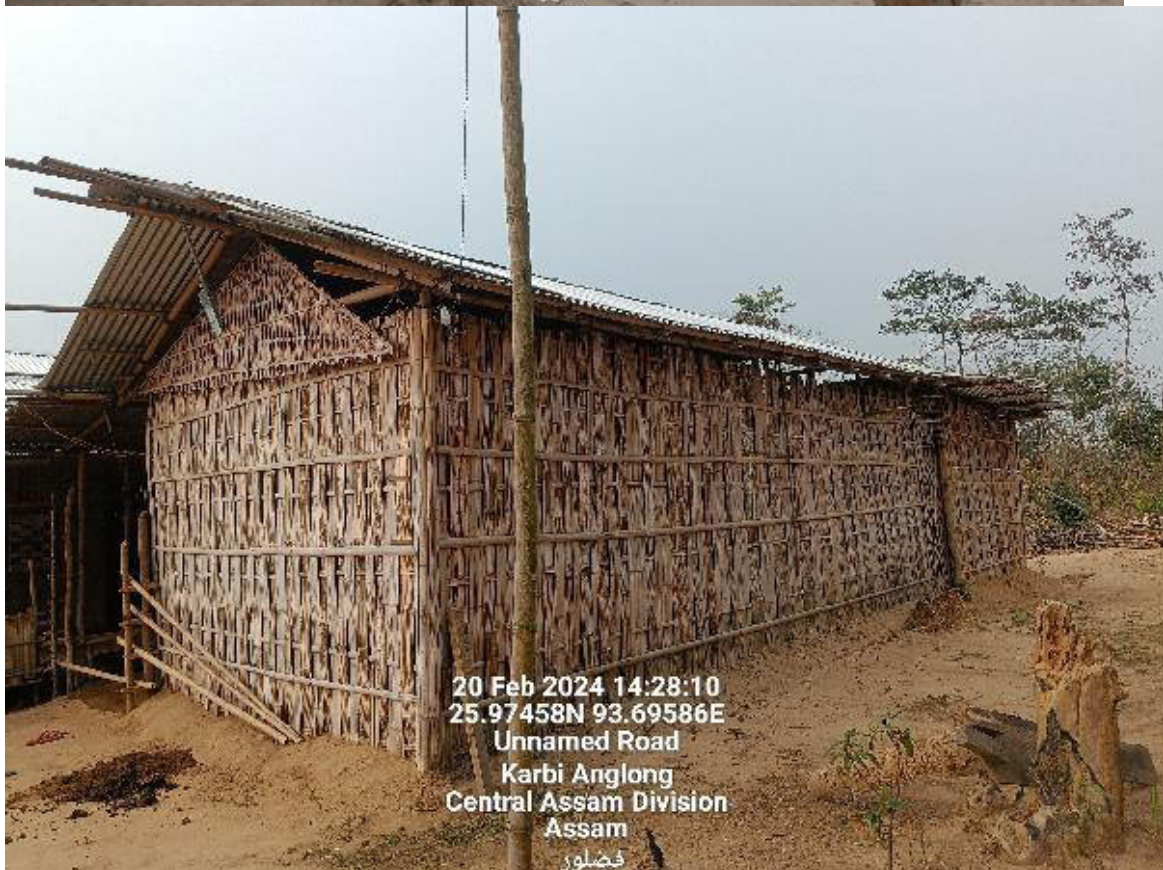
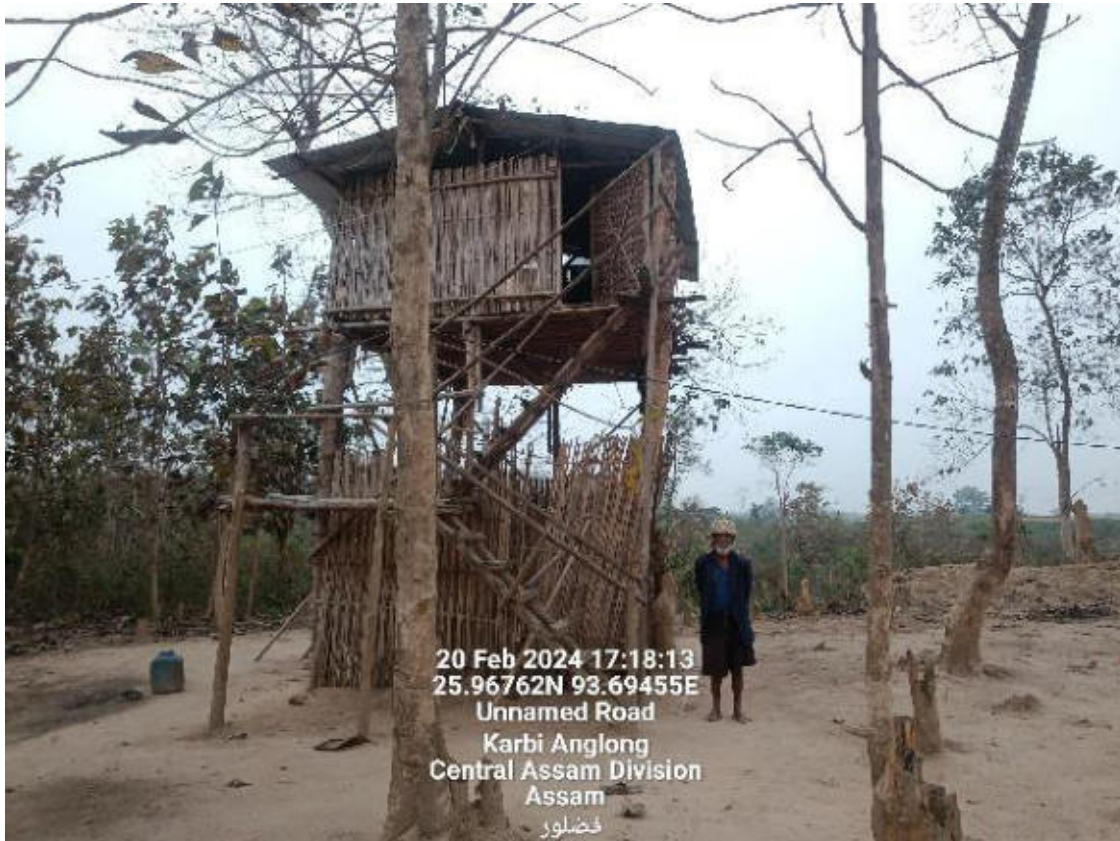














APPENDIX 5: SAMPLE PHOTOGRAPHS OF STRUCTURES BUILT BY TENANT

















