Draft Resettlement Plan

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March 2021

Papua New Guinea: Power Sector Development Project
Distribution Lines Subproject


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<th>EXPLANATION</th>
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<td>ADB - Asian Development Bank</td>
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<tr>
<td>AP - Affected Person/s</td>
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<td>AH - Affected household</td>
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<tr>
<td>ASI - Assessment of social impact</td>
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<tr>
<td>C&amp;PP - Consultation and Participation Program</td>
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<tr>
<td>CEPA - Conservation and Environment Protection Authority</td>
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<td>CLO - Customary Land Officer</td>
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<td>DLO - District Land Officer</td>
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<td>DLPP - Department of Lands and Physical Planning</td>
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<td>DMS - Detailed Measurement Survey</td>
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<td>DOW - Department of Works</td>
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<td>DPE - Department of Petroleum and Energy</td>
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<td>DSC - Design and Supervision Consultant</td>
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<td>EA - Executing Agency</td>
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<td>EIA - Environmental Impact Assessment</td>
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<td>ENB - East New Britain Province</td>
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<td>GAP - gender Action Plan</td>
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<td>GoPNG - Government of Papua New Guinea</td>
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<td>GRC - grievance redress committee</td>
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<td>GRM - grievance Redress Mechanism</td>
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<td>ha - hectare</td>
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<td>IA - Implementing Agency</td>
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<td>ILG - Incorporated Land Group</td>
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<td>IOL - Inventory of Loss</td>
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<td>IP - Indigenous People</td>
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<td>IR - Involuntary Resettlement</td>
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<td>LAR - Land Acquisition and Resettlement</td>
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<td>LLG - Local Level Government</td>
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<td>LIR - Land investigation report</td>
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<td>MOA - memorandum of agreement</td>
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<td>NCD - National capital district</td>
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<td>NCDC - National Capital District Commission</td>
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<td>NDGEP - PNG National Distribution Grid Expansion Plan 2016</td>
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<td>NOL - no objection letter</td>
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<td>OPA - Office of the Provincial Administrator</td>
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<td>PLO - provincial Lands Officer</td>
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<td>PMU - project management unit (within PPL)</td>
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<td>PNG - Papua New Guinea</td>
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<td>POM - Port Moresby</td>
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<td>PPL - PNG Power Ltd</td>
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<td>PSDP - Power Sector Development Project</td>
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<td>RF - Resettlement Framework</td>
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<td>RP - Resettlement Plan</td>
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<td>SES - Socioeconomic Survey</td>
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<td>SMEC - SMEC International Pty Ltd</td>
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<td>SPS - Safeguard Policy Statement (June 2009)</td>
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<td>TA - technical assistance</td>
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<td>VGO - Valuer General’s Office</td>
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CURRENCY EQUIVALENTS
(as of 10 March 2021)

K1.00 = US $0.28
US $1.00 = K3.51

ELECTRICAL TERMINOLOGY

DC TML - Double Circuit Transmission Line
Distribution System - 33 kV, 22 kV, 11 kV and 400 V lines
GWh (Gigawatt-hour) - 1,000 MWh
kV (kilovolt) - 1,000 volts
kW (kilowatt) - 1,000 watts
kVA (kilovolt-ampere) - 1,000 VA
kWh (kilowatt-hour) - 1,000 Wh
MVA (Megavolt-ampere) - 1,000 kVA
MWh (Megawatt-hour) - 1,000 kWh
MW (Megawatt) - 1,000 kW
SC TML - Single Circuit Transmission Line
SS - Substation
SWYD - Switching Yard
TML - Transmission line
Transmission System - 132 kV and 66 kV lines
TWh (Terawatt-hour) - 1,000 GWh
V (Volt) - Unit of voltage
VA (Volt-ampere) - Unit of apparent power
VAr (volt-ampere reactive) - Unit of reactive power
W (Watt) - Unit of active power
Wh (watt-hour) - Unit of Energy
### Glossary

**Affected Person**
Any person, households, firms, or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with or without displacement.

**Associated structures**
Associated structures are structures that are not the main residential or business structure, such as unattached toilet blocks, unattached bathrooms, fences, gates, water tanks, storage sheds, etc. They are also not productive assets (i.e., needed for the affected households’ source of income). If the project impacts an associated structure, there is no permanent relocation or permanent disruption to income, otherwise it is considered to be a main structure.

**Community facilities**
Community facilities are churches, community halls, graves, etc.

**Compensation**
Payment made in cash to the project-affected households for the assets to be acquired or affected for the project at replacement cost at current market value.

**Country Safeguard Systems**
This is the legal and institutional framework of Papua New Guinea, and it consists of its national, subnational, or sectoral implementing institutions and relevant laws, regulations, rules and procedures that pertain to the policy areas of social safeguards.

**Cut-off Date**
The date after which people will NOT be considered eligible for compensation, i.e., they are not included in the list of affected households/DPs as defined by the census. Normally, the cut-off date is the date of the detailed measurement survey. However, this Date can be established from the date of conducting consultation and information sharing.

**Displaced persons**
In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihood) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

**Economic displacement**
Loss of land, assets, access to assets, income sources, or means of livelihood as a result of (i) involuntary acquisition of
land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

**Encroachers**
The term encroacher is also used to denote illegal extension into public property by a person who is a legal titleholder of his property. The person is an encroacher on the portion of the property occupied to which the person does not hold legal title.

**Entitlement**
The range of measures, comprising cash or kind compensation, relocation cost, income rehabilitation assistance, transfer assistance, income substitution, and relocation due to business restoration that are due to affected households, depending on the type and degree of their losses, to restore their social and economic base.

**Expropriation**
Process whereby a public authority, usually in return for compensation, requires a person, household, or community to relinquish rights to land that it occupies or otherwise use.

**Household**
A household includes all persons living and eating together (sharing the same kitchen and cooking food together as a single-family unit).

**Income Restoration**
Re-establishing productive livelihood of the affected households to enable income generation equal to, or, if possible, better than that earned by the displaced persons before the resettlement.

**Indigenous Peoples**
Unless they are already recognized, the indigenous peoples are identified in particular geographic areas based on these four characteristics: (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 for 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) an indigenous language, often different from the official language of the country or region.

**Informal dwellers or squatters**
Informal dwellers or squatters are those that are landless or without title to land and occupy public land for shelter and/or for carrying out their livelihoods.

**Inventory of Losses**
The pre-appraisal inventory of assets as a preliminary record of affected or lost assets. Also referred to as the detailed measurement survey.

**Involuntary Resettlement**
Involuntary resettlement is any situation where the Government takes land, or restricts access to land, that people live or work on, or use for their livelihoods, and where the people who will be displaced do not have the right to refuse.
<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>Involuntary Land Acquisition</td>
<td>The process whereby a person is compelled by a public agency to alienate all or part of the land s/he owns or possesses to the ownership and possession of that agency, for public purposes, in return for fair compensation.</td>
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<tr>
<td>Meaningful Consultation</td>
<td>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 households; (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 households and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.</td>
</tr>
<tr>
<td>Non-titled</td>
<td>Those who have no recognizable rights or claims to the land that they are occupying and includes people using private or state land without permission, permit or grant i.e., those people without legal lease/title to land and/or structures occupied or used by them. ADB’s policy explicitly states that such people cannot be denied resettlement assistance/compensation.</td>
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<td>Partial impacts</td>
<td>Partial impacts are when households or businesses will only partially lose an asset (such as the front room of a structure not the entire house). If, however, the partial impact will result in the asset/structure no longer being economically viable or safe to live/work in, then the impacts are not partial, and the affected household should be entitled to full compensation and resettlement. Partial impacts that do not result in physical displacement are not considered severe.</td>
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<tr>
<td>Permanent physical relocation</td>
<td>Permanent physical relocation is when the residential house structure or business structure will be fully impacted or when partial impacts deem the structure unusable or economically viable. If the structure can be moved to a location nearby, this is still counted as permanent physical relocation.</td>
</tr>
<tr>
<td>Physical Displacement</td>
<td>Relocation, loss of residential land, or loss of shelter as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. This project is not expected to create any physical displacement.</td>
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<tr>
<td>Poor</td>
<td>Using the international poverty line of $1.90 (2011 PPP USD per person per day), the headcount poverty rate for PNG is 38.0%. according to the $3.20 Lower Middle-Income Class Poverty Line, which reflects living standards across all lower middle-income countries, the incidence of poverty is at 65.6%.</td>
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<td>Term</td>
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<td>Productive assets</td>
<td>Productive assets refer to land-based assets such as crops, fish farms that earn income.</td>
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<td>Productive land</td>
<td>Productive land refers to land that is or can be used to grow crops.</td>
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<td>Relocation assistance</td>
<td>Support provided to persons who are physically displaced by a 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 displaced persons for the inconvenience associated with resettlement and defray the expenses of a transition to a new locale, such as moving expenses and lost workdays.</td>
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<td>Replacement Cost</td>
<td>The method of valuing assets to replace the loss at current market value, or its nearest equivalent, and is the amount of cash or kind needed to replace an asset in its existing condition, without deduction of transaction costs or for any material salvaged.</td>
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<tr>
<td>Safeguard policies</td>
<td>Safeguard policies are rules that the ADB and the government must respect when they agree to work on a project together. These rules are aimed at preventing negative impacts on people and the environment from ADB projects. They are also aimed at making sure that people who will be affected by an ADB project will have access to information and be meaningfully consulted.</td>
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<td>Safety zone</td>
<td>Safety zone refers to the area below, and around, transmission lines in which activities and land use that are incompatible with the safe and efficient operation of the electricity transmission network are avoided. The safety zone corridors do not restrict normal farming activity such as cropping, harvesting, grazing, plowing. Only incompatible activities, residential dwellings, sheds, roadside stores, toilets, and some major earthworks.</td>
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<tr>
<td>Severely affected</td>
<td>Severely affected refers to affected households/persons who will (i) lose 10% or more of their total productive land and/or assets, (ii) have to relocate; and/or (iii) lose 10% or more of their total income sources due to the Project.</td>
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<tr>
<td>Significant impact</td>
<td>For the purpose of this document, defined as; impact on 10% or more of household productive assets, which include agriculture land, buildings/structures, businesses, crops, etc. land; and/or physically displacing a household. This includes: (i) Acquisition of more than 10% of household land; acquisition of any other household assets, such as buildings or businesses; and/or (ii) Loss of productive assets including agricultural lands and gardens and/or physically displacing a household and associated structures.</td>
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Temporary impacts

Temporary impacts are temporary in nature and are due to construction related impacts, such as construction camps, non-permanent access roads, lack of access to due construction activities and temporary impacts on crops due to the installation of the wire (i.e., in line with the safety zone definition for the project if it allows farming to recommence under the wires after construction).

Temporary physical displacement

Temporary physical displacement is when a household needs to move to temporary accommodation during construction for a short period of time and then can return to their house at the same location. (For example, if the project impacted on the family’s toilet block, and the project needed the toilet block to be moved closer to the house, the family may need to temporarily relocate for a week as the toilet is demolished and reconstructed in a different area. But if the entire house needed to be rebuilt away from the road, this would permanent physical displacement).

Vulnerable

Any people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and includes (i) female-headed households with dependents, (ii) disabled household heads, (iii) poor households (within the meaning given previously), (iv) landless, (v) elderly households with no means of support, (vi) households without security of tenure, (vii) ethnic minorities, and (viii) marginal farmers (with landholdings of 2.0 ha or less).
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EXECUTIVE SUMMARY

The Government of Papua New Guinea (GoPNG) has requested ADB to help finance the Power Sector Development Project (PSDP). The project will support the government's target of 70% of household's electrification by 2030. Less than 10% of the PNG population has access to electricity and grid connected power supply is largely restricted to the main urban centers. The PNG Power Ltd. (PPL) is the sole energy supply entity in PNG and is mandated to improve energy connectivity in PNG. The aim of the project is to improve access to electricity in provincial and urban centers in PNG through:

(i) the expansion of transmission and distribution network; and
(ii) improving system efficiencies.

The project is aimed at benefitting two million people in Port Moresby in the National Capital District and in four provinces in PNG, namely East New Britain (ENB), West New Britain (WNB), Morobe, and Madang. The project will provide for the rehabilitation, reinforcement, and extension of approximately 235 km of transmission lines, as well as the construction and upgrade of 11 substations and switchyards, 1,185 km of MV distribution lines, 1,089 of LV lines and 56,000 household connections. The secondary objective is to further develop the capacity of PNG Power Ltd (PPL) as the implementing agency and the capacity of the private sector to deliver the project. The overall scope of work includes:

(i) construction of 66 kV and upgrade of some 66KV transmission lines to 132kV;
(ii) construction or upgrade of substations and switchyards; and
(iii) construction of distribution lines (22kV, 11 kV, LV) and household connections.

The purpose of this Draft Resettlement Plan is to identify, assess, and analyze the Involuntary Resettlement (IR) impacts of the distribution line subprojects (medium and low voltage lines) and to ensure that compensation and allowances are sufficient to mitigate the impacts. Separate Draft Resettlement Plans have been prepared for the transmission line subprojects. This Draft Resettlement Plan has been prepared based on preliminary conceptual designs and consultations with key stakeholders and affected households. Additional consultations and surveys were planned to be conducted in 2020 but were not possible due to the coronavirus (Covid-19) pandemic and travel restrictions. These activities will be conducted when the risks are reduced and/or early during project implementation.

In this context, this Draft Resettlement Plan sets out information about the distribution line components: an overview of the area of land to be used, the estimated impacts on assets, information disclosure and consultation activities, and entitlements and assistance. The initial assessments at the preliminary conceptual design stage provide an indication that the project is not expected to significantly impact affected households, but due to the scale of distribution line activities, there will be a large number of minor impacts on land use and on assets such as small trade stores, trees and crops located within the easement. This document is prepared in compliance with national laws and requirements and ADB’s Safeguards Policy Statement 2009 on Involuntary Resettlement.

Subproject Description. The distribution line subproject activities will construct 1,185 km of medium-voltage distribution lines, 1,089 km of low-voltage lines and 56,000 household connections. The distribution lines will be implemented in three grid systems across PNG including the Gazelle system (East New Britain and including mini-grids in West New Britain-Kimbe), Ramu system (Lae-Madang) and Port Moresby system. The distribution lines are predominately located in rural areas.
**Scope of Land Acquisition.** The distribution lines and utility poles will be installed within existing or new easements. As a result, no land will be permanently acquired or alienated for the subproject. PPL commits to locating the distribution lines within easements located alongside existing roads where possible. Where road right-of-way is not available for medium-voltage lines, PPL will negotiate formal easement agreements with landowners to install the medium voltage lines and have access to the poles and lines for maintenance and repairs. Approximately 45-70 km out of the total of 1,185 km of the medium-voltage lines will require new easement agreements. The easement agreements will include restrictions on future land use within the easement area (no structures or tall trees) and, as a result, compensation will be provided to landowners.

For low-voltage distribution lines, the locations of the utility poles will be discussed and agreed with local government representatives and village leaders – in consultation with the wider community, at the same time that household connections will be discussed and planned.

The distribution line subprojects are not expected to result in any physical displacement impacts. The design of the medium and low voltage lines will avoid residential structures. There are expected to be some small trade stores that have been constructed within the road right-of-way. The stores are typically 2mx 2m in size, however, in some instances they are larger. An estimated total of 120 small stalls or business stores may be impacted, but this number is indicative and will be further assessed at the detailed engineering design stage. Temporary roadside vendors may be briefly impacted during construction. There will be impacts on trees that are located within the easement that will need to be cleared or trimmed for safety requirements. There will also be impacts on crops and food gardens located within the road right-of-way or easement areas that will be cleared or damaged during the construction activities.

**Indigenous Peoples.** While the subproject will be in areas populated by tribes and clans, these different socio-cultural groups are not considered as distinct and vulnerable as defined in the SPS. The project will not be targeting or negatively impacting specific vulnerable tribal groups nor will the project result in the commercial development of natural or cultural resources. During the detailed engineering design stage, the subproject will be re-screened for impacts on Indigenous Peoples. Project policies on Indigenous Peoples will be developed if impacts are identified, based on ADB’s SPS.

**Information Disclosure and Consultations.** Primary stakeholders of this subproject include the affected households and affected people, power consumers, project communities including women, community-based organizations/NGOs and land users. Public and stakeholder consultations and meetings were held at the national, provincial and community levels between November 2018 and July 2019, and this draft Resettlement Plan will be disclosed on the PPL and ADB websites and copies available at regional offices.

**Social Safeguard Policy Principles.** The project policy framework outlined in this document follows ADB Safeguard Policy Statement (SPS) of 2009 and relevant PNG laws and procedures. The project will uphold the involuntary resettlement policies as follows:

**Project policies**

(i) Land acquisition and resettlement will be avoided or minimized through careful engineering design.

(ii) If impacts are unavoidable, the affected households losing assets, livelihood, or other resources (including productive agricultural land, trees, and gardens) will be fully compensated at replacement value and assisted so that they improve or at least restore their pre-project economic and social conditions.
(iii) Where displacement is unavoidable, all eligible affected households losing assets, income, livelihoods, or resources will be fully assisted so that they can improve, or at least restore, their pre-project standards of living.

(iv) Absence of formal title will not be a bar to compensation or assistance.

(v) Additional assistance will be provided to poor and other vulnerable affected households, including women, to help them improve their socio-economic status.

(vi) If the impacts to a structure or asset is partial, affected households will not be left with residual portions that would not be viable for continued use for the original purpose. If the remaining portion of a partially affected structure is not technically viable for continued use, the entire structure will be compensated.

(vii) People temporarily affected shall be considered as affected persons.

(viii) Contractors shall enter into lease agreements for facilities such as construction and stockpiling areas and should there be a need for compensation for affected assets and improvements due to the impacts of these facilities, the Contractor shall comply with the provisions in this Resettlement Plan, the project’s Environmental Management Plans and PNG Laws.

(ix) Compensation will be provided at full replacement cost, free of depreciation, transfer costs or eventual salvaged materials.

(x) Compensation for affected households that are dependent on agricultural activities will be land-based, wherever possible. Land-based strategies may include provision of replacement land, ensuring greater security of tenure, upgrading livelihoods of people without legal titles or those not belonging to a customary land group. If access to replacement land is not available, other strategies may be built around opportunities for re-training, skills development, wage employment and self-employment, including access to credit.

(xi) Transitional assistance will be provided, in additional to compensation, to assist affected households to restore their livelihood and standards of living. This support may take the form of short-term project related employment, subsistence support and a transitional allowance.

(xii) Information on the preparation/implementation of Resettlement Plan will be disclosed to all affected households and people’s participation will be ensured in all planning and implementation stages.

(xiii) Before commencing construction and prior to displacement/impacts on assets, compensation will be paid in full, in accordance with the provision described in the Resettlement Plan and a compensation completion report will be submitted and cleared by ADB.

(xiv) If there are subprojects without impacts and with sufficient length to economically justify commencement of construction, civil works for these sections may be initiated immediately after the beginning of the construction phase of the contract. In these cases, the absence of impacts will have to be demonstrated by submitting a due diligence report for the said sections and securing clearance from ADB prior to commencement of works.

(xv) A GRM will be established to resolve any conflicts or concerns which may arise during the compensation process, as well as throughout the implementation of the project.

(xvi) Consultations with affected households will continue during the preparation and implementation of the Resettlement Plans. To the extent possible, displaced persons should be involved in the decisions concerning their resettlement.

(xvii) Resettlement impacts, including any unforeseen losses that may occur during construction will be monitored and remedial steps taken as required. Adequate
monitoring and evaluation will be conducted, and reports submitted for clearance to ADB.

(xviii) Adequate budgetary support will be fully committed and made available to cover the costs of implementing the Resettlement Plans and providing entitlements and assistance, including the livelihood restoration measures, within the agreed implementation period. The funds for all resettlement activities will come from PPL. Additional budget should be allocated for unanticipated impacts and a contingency amount included.

(xix) Arrangements for the implementation of the Resettlement Plan will be in place prior to the commencement of the implementation of this Resettlement Plan. This includes adequate human resources for implementing, supervising, and monitoring of the resettlement activities, and for conducting consultations.

Compensation and Entitlements. Easement agreements will be negotiated with landowners in a fair and transparent manner, and compensation paid for the restrictions on land use in line with the ADB’s SPS. Compensation at replacement cost will be provided to all households losing assets due to the project. Where appropriate, compensation will be accompanied with assistances, as outlined in the entitlement matrix. Businesses that will need to relocate away from the easement will be supported in their relocation. A Livelihood Restoration and Improvement Program will be implemented to restore and rehabilitate significantly affected incomes and livelihoods (if needed). The program will be gender sensitive and culturally appropriate.

Grievance Redress Mechanism. PPL will establish a Grievance Redress Mechanism (GRM) through the PMU to receive and address project-related issues prior to the implementation of the resettlement plan and well before construction commences. The GRM will be used for recording, addressing, and monitoring involuntary resettlement related complaints that arise before, during and after construction. All compensation and resettlement tasks will be monitored internally, together with any grievance and their resolution, and progress reported to the government and ADB on a semi-annual basis.

Institutional Arrangements. The Department of Petroleum and Energy (DPE) is the Executing Agency for the project and will monitor all land acquisition and resettlement plan implementation. PNG Power Limited (PPL) is the Implementing Agency for the project and will have the responsibility to implement all land acquisition and resettlement related activities. PPL will establish a large Project Management Unit and in addition, will utilize the existing staff within the Lands Division. The project will be supported by several government agencies including Office of the Provincial Government, Local Level Government and the Department of Land and Physical Planning, as well as the Design and Supervision Consultant. The project includes implementation of institutional support and capacity building activities to strengthen and support the implementation of the Resettlement Plan.

Budget and Financing. All funds required for land acquisition, compensation and allowances, operation and administration, surveys, monitoring and reporting will be financed by PPL using their own funds. A budget for the implementation of easement agreements, compensation and assistances has been estimated at 9,280,500 Kina (US$2,644,017.09), of which 6,470,000 Kina is direct cost for payment of land and compensation.

Monitoring and Reporting. Monitoring will be carried out by the PMU social safeguards monitoring officer, with the assistance of the safeguard specialists within the Design and Supervision Consultant team. Process indicators will relate to implementation outputs and deliverables. All data collected will be disaggregated by gender. These will be collected directly
from the field and will be reported monthly to the PMU to assess the Resettlement Plan implementation progress and adjust the work plan if necessary. These reports will be consolidated in the monitoring reports for ADB and submitted semi-annually. The monitoring will also cover the social impacts of the subproject and whether affected households are able to restore, and preferably improve, their pre-project living standards, incomes, and productive capacity. PPL will prepare and submit:

(i) A final and/or an updated Resettlement Plan based on additional social impact assessments and/or detailed engineering designs;

(ii) Semi-annual safeguards monitoring reports during the implementation of the Resettlement Plan and throughout the construction period;

(iii) Compensation Completion Report, prior to the commencement of land clearance or civil works activities; and

(iv) Final Evaluation Report.
I. INTRODUCTION

A. Background

1. The Government of Papua New Guinea (GoPNG) has requested ADB to help finance the Power Sector Development project (PSDP). The project will support the Government’s target of 70% of household’s electrification by 2030. Less than 10% of the PNG population has access to electricity and grid connected power supply is largely restricted to the main urban centers. The PNG Power Ltd. (PPL) is the sole energy supply entity in PNG and is mandated to improve energy connectivity in PNG. The aim of the project is to improve access to electricity in provincial and urban centers in PNG through:
   (i) the expansion of transmission and distribution network; and
   (ii) improving system efficiencies.

2. The project is aimed at benefitting two million people in Port Moresby the National Capital District and four provinces in PNG, namely East New Britain (ENB), West New Britain (WNB), Morobe and Madang.

B. Purpose and Objectives of this Draft Resettlement Plan

3. Purpose. The purpose of this Draft Resettlement Plan is to identify, assess and analyze the Involuntary Resettlement (IR) impacts of the distribution line subprojects and to avoid involuntary resettlement impacts, and if unavoidable, minimize the project impacts and mitigate them through measures. The measures will ensure that compensation, assistances and allowances are sufficient to restore the income and living standards of affected households, with as little disruptions as possible to their economic and social environment. This Draft Resettlement Plan has been prepared on the basis of preliminary conceptual designs of the distribution lines subprojects and consultations with various stakeholders. In this context, this Draft Resettlement Plan sets out information about the project: the land areas to be used, the estimated impacts on structures, information disclosure and consultation activities, and entitlements and assistance.

4. Objectives. Consistent with ADB’s Safeguards Policy Statement (SPS) 2009 on Involuntary Resettlement, the key objectives of this Resettlement Plan 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 the pre-project levels; and
   (iv) to improve the standards of living of the displaced poor and other vulnerable groups (SPS, p. 17).

5. Scope. This Draft Resettlement Plan describes the principles, entitlements, procedures, and implementation arrangements with regard to resettlement and land acquisition activities to be undertaken for the distribution line subprojects. Accordingly, the Draft Resettlement Plan at preliminary conceptual stage is limited and describes the following key aspects:
   (i) a brief background to the project and subprojects;
   (ii) an outline of the subproject locations, components, and activities;
   (iii) anticipated areas where easement agreements may be needed; and
   (iv) the identification of land requirements impacts on structures and other potential issues.
6. **Endorsement and Future Updates.** This Draft Resettlement Plan for the distribution line subprojects has been endorsed by PNG Power Ltd. The document will be updated when additional information becomes available during the concept design stage and detailed engineering design stage. At the concept design stage, the document will be updated to include details of land (locations, size, ownership status) where easement agreements will need to be negotiated, data from the inventory of losses to structures, and estimates on affected trees per subproject and further details on the socio-economic characteristics of affected households. When there are final and complete detailed designs of the distribution line subprojects, Updated Resettlement Plans per geographic area will be prepared, with a complete census of affected households, inventory of losses and detailed measurement surveys. The Updated Resettlement Plan will be submitted to ADB for review and clearance prior to land acquisition or land agreements, compensation and land clearance activities are implemented, and prior to the commencement of physical works. This Draft Resettlement Plan will be disclosed by PPL on their website and copies made available at regional offices. Updated Resettlement Plans will also be disclosed to affected households and uploaded to the ADB website.

II. **DESCRIPTION OF THE PROJECT**

A. **Project Overview**

7. The project will be implemented over a period of 4 years and will support the improvement of socioeconomic conditions in PNG consistent with the government’s Vision 2050, by improving access to electricity in provincial and urban centers through the expansion of transmission and distribution networks and improving system efficiencies. The aim of the project is to provide for the rehabilitation, reinforcement, and extension of approximately 235 km of transmission lines, as well as the construction and upgrade of 11 substations and switchyards, 1,185 km of MV distribution lines, 1,089 km of LV lines and 56,000 household connections. The secondary objective is to further develop the capacity of PNG Power Ltd (PPL) as the implementing agency and the capacity of the private sector to deliver the project.

8. **Implementation arrangements.** The executing agency for the project is the Department of Petroleum and Energy (DPE). The implementing agency will be PPL through its Project Management Unit (PMU) established to implement development partner financed projects. Additional resources, as required, will be seconded to the PMU, as it will manage and lead implementation of all subprojects under the project. PPL will engage a design and supervision consultant (DSC) to support the preparation of detailed engineering designs and manage the construction of the project. The PMU will be assisted by the DSC and the facilities will be operated by PPL. The PMU will engage the contractors for construction and will monitor the implementation of environmental and social safeguards by the contractors on all the subprojects under the project, assisted by the environmental and social safeguards specialists in the DSC.

9. **Impacts and outcomes.** The project responds to the government’s national development and sector strategies by:
   
   (i) promoting sustainable development in peri urban and rural areas and by increasing the grid penetration from 12% (7.0% connected to PPL system) to approximately 19% by 2028 and increase connectivity in line with the government’s targets;
   
   (i) improving access to electricity in provincial and urban centres of PNG through expansion of transmission and distribution networks, and improving system efficiencies; and
(ii) enhancing operational efficiency of PPL and building institutional capacity in PPL particularly in relation to grid modelling, and project planning, procurement, and implementation.

10. **Key outputs.** The key outputs from the project will include:

   (i) **Output 1: Transmission network upgraded and expanded.** Output 1 includes (a) the construction of 100 c-km of new 66 kilovolts (kV) transmission line and 11 new/upgraded substations in Gazelle (including one SCADA system), Ramu and Port Moresby (POM), and (b) the upgrade of the existing 135 c-km of transmission line from 66 kV to 132 kV in Ramu. This output will (a) strengthen existing power grids to underpin economic development and improve security and quality of supply, and (b) allow connection of new customers to help meet the national 70% access target.

   (ii) **Output 2: Distribution network expanded.** Output 2 will construct 2,274 km of medium and low voltage new power distribution lines in Gazelle, Ramu, and POM, and mini grids in West New Britain. This output will enable PPL to serve 56,000 new customers and focus on expanding existing power grids to peri-urban and rural communities to support the national 70% access target.

   (iii) **Output 3: Capacity Building.** This output involves (i) improving capacity in power grids modelling and planning procurement, and implementation; (ii) performing a comprehensive diagnostic assessment of the utility’s performance against standard industry indicators, encompassing all aspects of operations; and (iii) assessing the utility’s financial management and accounting systems’ and procedures’ adequacy in terms of identification and recording of all the utility’s costs and its sources of revenue, disaggregated across all of the utility’s activities.

11. **Scope of works.** As shown in Figure 1, the project includes an overall scope of work comprising the following three groups of engineering constructions:

   (i) Construction of 66 kV and upgrade of some 66KV transmission lines to 132kV;
   (ii) Construction or upgrade of substations and switchyards; and
   (iii) Construction of distribution lines (22kV, 11 kV, LV) and household connections.

**Figure 1: Location of Subproject Groups**
12. The project covers three geographically separated grid systems across PNG, these being:
   (iv) Gazelle system (East New Britain and West New Britain-Kimbe);
   (v) Ramu system (Lae-Madang); and
   (vi) Port Moresby system (Gomore and Motukea).

1. East New Britain

13. **Regional context.** East New Britain (ENB) is a Province of PNG, consisting of the north-eastern part of the island of New Britain and the Duke of York Islands. ENB covers a total land area of 15,816 sq.km. The capital of the province is Kokopo, not far from the old capital of Rabaul, which was largely destroyed in a volcanic eruption in 1994.

14. **Subproject activities.** The subproject activities in ENB will be conducted within the Gazelle grid. These are new constructions and are not part of rehabilitation of the existing system and comprises of the following components:

   a. **Transmission Subprojects**
   (i) 17.7 km of 66KV transmission line in two sections along the road right-of-way (ROW);
   (ii) two switchyards (on state owned land) located at Vunakanau and Baliora;
   (iii) one substation located at Vimi (state owned land);
   (iv) Navunaram - additional three outdoor Circuit Breakers (G1E) at Navunaram (no civil works requirements); and
   (v) Scada system installed to all substations and power houses (G1F) (no civil works requirements).

15. The land acquisition and resettlement impact for the transmission line subprojects have been assessed and a separate Resettlement Plan covers these components.

*Figure 2: Location of ENB Transmission Line Subproject Activities*
b. **Distribution Projects**

(i) Backbone 22 kV Grape or 150mm2 ABC reinforcements from Vimi S/S (50 km); and

(ii) ENB districts: MV spur lines, TX’s, LV and 400 household connections (148 km)

<table>
<thead>
<tr>
<th>SP</th>
<th>Description</th>
<th>Quantum (USD)</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2A</td>
<td>Backbone 22 kV Grape or 150mm2 ABC reinforcements from Vimi S/S.</td>
<td>50 km @ $68/km + reclosers and ABSSs</td>
<td>Mentioned in draft pre-feasibility and supported by due diligence.</td>
</tr>
<tr>
<td>G3A</td>
<td>ENB districts: MV spur lines, TX’s, LV and HH connections (ADMD 440 W/HH):</td>
<td>148 km MV @ $35/km, 458 25 kVA Txs @ $4k, 268 km LV @ $20.5/km, 17,191 HH @ $700 = $24.5 m, Street Light (cost $702/k)</td>
<td>NDGEFP16 supports.  FIRR acceptable:  EIRR strong. Business case established</td>
</tr>
</tbody>
</table>

16. The land acquisition and distribution line components are covered in this Resettlement Plan. Annex 1 provides an indicative list of the medium-voltage and low-voltage distribution lines and corresponding number of buildings that is estimated to be connected per line.

**Figure 3: Location of ENB Distribution Line Subproject Activities - Overview**
Figure 4: Location of ENB Distribution Line Subproject Activities – North

Figure 5: Location of ENB Distribution Line Subproject Activities - East
Figure 6: Location of ENB Distribution Line Subproject Activities - South

Figure 7: Location of ENB Distribution Line Subproject Activities - West
2. **Port Moresby**

17. **Regional context.** The National Capital District of Papua New Guinea is the incorporated area around Port Moresby, which is the capital of Papua New Guinea. Although it is surrounded by Central Province, where Port Moresby is also the capital, it is technically not a part of that province. It covers an area of 240 km². Central Province covers an area of approximately 30,000 km².

18. **Subproject activities.** The proposed activities to be undertaken in the POM Grid include the following components.

   a. **Transmission Subprojects**
      (i) 66 kV transmission line to proposed Gomore Substation to supply Kwikila township (total length 76km with 6.6 km of the corridor to go through ILG customary owned land).
      (ii) 66/22 kV Gomore Substation and Switching Yard (1.12 ha customary owned land), and
      (iii) 66/11 kV Motukea Substation Upgrade (1 ha ILG customary owned land).

19. The land acquisition and resettlement impact for the transmission line subprojects have been assessed and a separate Resettlement Plan covers these components.

**Figure 8: Location of POM Transmission Line Subproject Activities**

- Denotes existing transmission lines
- Denotes new transmission lines
b. Distribution Projects
   (i) P2A Motukea heavy 11 kV feeders (47 km)
   (ii) P3A Kwikila district: MV spur lines, TX’s, LV and 2155 household connections. Depending on Kwikila or Gomore S/S may require extra 15 km Gomore-Kwikila feeder (64 km MV, 68 km SWER, 46 km LV).

<table>
<thead>
<tr>
<th>SP</th>
<th>Description</th>
<th>Quantum (USD)</th>
<th>Justifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2A</td>
<td>Motukea heavy 11 kV feeders</td>
<td>47 km @68/km plus reclosers and ABSs = $3.6m</td>
<td>In updated 15YPDP supported by Due Diligence</td>
</tr>
<tr>
<td>P3A</td>
<td>Kwikila district: MV spur lines, TX’s, LV and 2155 HH connections. Depending on Kwikila or Gomore S/S may require extra 15 km Gomore-Kwikila feeder.</td>
<td>64km MV @57/km, 68km SWER @15 k/km, 75x 25 kVA Tfrs @54k, 46 km LV @20.5 k/km, 2951HH @$0.75 k, Street Light ($147K) USD16.5m</td>
<td>NDGEP 2016 supports. FIRR &amp; EIRR viable. Business case established. Final quantum HH’s to be verified in tender design</td>
</tr>
</tbody>
</table>

Distribution Subtotal: USD 16.5 million  
Total H/H connections: 2,951

20. The land acquisition and distribution line components are covered in this Resettlement Plan. Annex 1 provides an indicative list of the medium-voltage and low-voltage distribution lines and corresponding number of buildings that is estimated to be connected per line.

**Figure 9: Location of POM Distribution Line Subproject Activities**  
(Overview Motukea Area)
Figure 10: Location of POM Distribution Line Subproject Activities - Northwest

Figure 11: Location of POM Distribution Line Subproject Activities - South
Figure 12: Location of POM Distribution Line Subproject Activities - Central

Figure 13: Location of POM Distribution Line Subproject Activities – Kwikila North
3. **Ramu-Lae**

21. The proposed Ramu-Lae subproject activities include the following components, as outlined below and shown in Figure 15.

a. **Ramu Lae Transmission Subproject**

   (i) Lae City: New 15.3 km 66 kV 90MVA TML from Taraka to New Malahang Substation (to be constructed on 11.4 kilometers of government-owned land and 3.6 kilometers of customary-owned land); and

   (ii) 66/11 kV, Malahang Substation. (R1F) (SS to be constructed on 1ha customary-owned land to be acquired from the Incorporated Land Group (ILG).

   (iii) There will also be minor works conducted at the existing Taraka substation to accommodate the connection from the Malahang substation. This minor work will be conducted within the existing Taraka substation fenced areas and no additional land is required.¹

22. The land acquisition and resettlement impact for the transmission line subprojects have been assessed and a separate Resettlement Plan covers these components.

¹ Further social impact assessments will be conducted at the detailed engineering design stage.
b. Ramu-Lae Distribution Projects:

(i) R2B Lae City 11 kV Backbone Grape/Saturn reinforcements, grid mesh reclosers, ABS's, cap banks and rehabilitation. This work is in addition to the 50 km of strengthening and equipment proposed under World Bank funding of urgent works (total length 60 km); and

(ii) R3B Lae peri-urban: MV spur lines (Banana/Apple), TX's, LV and HH connections (ADMD 600W/HH) (length 52.5 km).
23. The land acquisition and distribution line components are covered in this Resettlement Plan. Annex 1 provides an indicative list of the medium-voltage and low-voltage distribution lines and corresponding number of buildings that is estimated to be connected per line.

**Figure 16: Components of Ramu Lae Distribution Line Subprojects – Overview**

**Figure 17: Components of Ramu Lae Distribution Line Subprojects – North**
4. Ramu-Madang

24. The proposed project activities to be undertaken in the Ramu-Madang Grid include the following components, as highlighted in Figure 20, and comprise of the following components:

a. Transmission Line Subprojects
   (i) Construction of a 132 kV Transmission line (1km) from a Tee Off from the existing line to the proposed new Walium Substation (1.5 ha land within the existing ROW required along the line from the existing tower to the substation);
   (ii) Construction of a new Walium Substation (to be constructed on 1ha on state land) and pictured below in Figure 20.
   (iii) There will also be minor works at the existing Gusap and Meiro substations. At Meiro, a 132/11kV transformer will be installed, and the equipment is already at the site sitting idle, and at Gusap substation the work involves the bypass of an existing terminal by establishing a direct connection to the existing 132 kV bus. This minor work will be conducted within the existing substation fenced areas and no additional land is required.\(^1\)
   (iv) The subproject also includes the upgrade of 132 km of transmission lines in Ramu, but this work does not involve any civil works. The existing Gusap to Meiro transmission line is already built to 132 kV standard but currently energised at 66 kV. The subproject will increase the voltage to 132 kV from the current operating voltage of 66 kV.
b. Ramu-Lae Distribution Projects
   (i) Madang 22 kV backbone distribution reinforcement and rehabilitation, switchgear (reclosers, ABS's, capacitor banks) to strengthen capacity and reliability of supply from Meiro into Madang City;
   (ii) Madang/Walium/Gusap districts: MV/LV and HH Connections 4,846 Households

<table>
<thead>
<tr>
<th>SP</th>
<th>Description</th>
<th>Quantum (USD)</th>
<th>Justifications</th>
</tr>
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<tbody>
<tr>
<td>R2A</td>
<td>Madang City: 22 kV backbone reinforcements and rehabilitation</td>
<td>35 km @ $57k/km=2m, reclosers &amp; other equip=2.4m</td>
<td>NDGE P 2016 p61-63</td>
</tr>
<tr>
<td>R3A</td>
<td>Madang/Walium/Gusap districts: MV spur lines, TX's, LV and HH connections (ADMD 600W/HH)</td>
<td>62 km MV @$35 k/km, 129x 25 kVA Txs @$4,98 km LV @$20.5 k/km, 4846 HH @0.7k, street Light (cost $243K) = $9.8 m</td>
<td>NDGE P 2016 PGK 7.14m. Business case established. Increased NDGE quantum 50% to cover Walium and Gusap districts</td>
</tr>
</tbody>
</table>

| Distribution Subtotal | USD 12.2 million | Total HH connections: 4,846 |

25. The land acquisition and distribution line components are covered in this Resettlement Plan. Annex 1 provides an indicative list of the medium-voltage and low-voltage distribution lines and corresponding number of buildings that is estimated to be connected per line.
5. **West New Britain**

26. The West New Britain components only cover distribution lines within a mini grid.
a. **Distribution Line Subprojects:**
   (i) Kimbe-Bialla districts: MV spur lines, LV and connections to 9,773 Households

<table>
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<tr>
<th>SP</th>
<th>Description</th>
<th>Quantum (USD)</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>W3A</td>
<td>Kimbe-Bialla district: MV spur lines, TXs, LV and 9,773 HH connections.</td>
<td>35 km MV heavy feeder @65 k/km, 590 km MV @$35 k/km, 307.25 kVA Tfrs @$6 k, 472 LV @20 k/km, 9,773 HH @$0.75 k USD 49.89 m</td>
<td>NDGEP 2016 supports. FIRR &amp; EIRR viable. Business case established. Final quantum HHs to be verified</td>
</tr>
</tbody>
</table>

**Distribution Subtotal:** USD 49.89 million

Total H/H Connections: 9,773

27. The land acquisition and distribution line components are covered in this Resettlement Plan. Annex 1 provides an indicative list of the medium-voltage and low-voltage distribution lines and corresponding number of buildings that is estimated to be connected per line.

**Figure 23: Location of West New Britain Distribution Line Subproject Activities - Overview**
Figure 24: Location of West New Britain Distribution Line Subproject Activities – Kimbe Central

Figure 25: Location of West New Britain Distribution Line Subproject Activities – Bialla North East
Figure 26: Location of West New Britain Distribution Line Subproject Activities – Bialla South West

Figure 27: Location of West New Britain Distribution Line Subproject Activities – Kimbe East
Figure 28: Location of West New Britain Distribution Line Subproject Activities
– Kimbe North West

Figure 29: Location of West New Britain Distribution Line Subproject Activities
– Kimbe South East
B. Designs of Utility Poles

28. The 22KV, 11KV and low voltage transmission lines will be mounted on single steel poles approximately 11-12 m high along road reserve or within negotiated easements with typical ruling spans between 80-130m (Figure 30, Table 1). The span length is based on Cherry conductor 6/4.75-7/1.60 ACSR for MV.

Table 1: Specifications of Utility Poles

<table>
<thead>
<tr>
<th>Type</th>
<th>Design</th>
<th>Ruling span</th>
</tr>
</thead>
<tbody>
<tr>
<td>22KV distribution lines</td>
<td>Steel poles UC200/12m, Dimension 200x200mm</td>
<td>90-120m</td>
</tr>
<tr>
<td>11KV distribution lines</td>
<td>Single poles UC200/12m or UC200/11m Dimension 200x200mm</td>
<td>80-120m</td>
</tr>
<tr>
<td>Low voltage distribution lines</td>
<td>Steel poles UC150/11m Dimension 150x150mm</td>
<td>80-130m</td>
</tr>
</tbody>
</table>

Figure 30: Typical Images of PPL Constructed Distribution Lines in PNG

The photograph shows an example of a 22Kv line route with the general vegetation allowed (location: Warangoi T- junction).

C. Design of the Transformers and Air-Break Switches

29. The construction of the distribution lines will also include the installation of transformers and air brake switches. The transformers lower the voltage before the lines are connected to the
households. The air brake switches support maintenance activities on the lines. Both are installed onto the poles, and do not require any additional land (Figure 31).

Figure 31: Photos of Examples of Transformers and Air Switches in PNG
III. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

30. The distribution lines and utility poles will be installed within existing or new easements and as a result no land will be permanently acquired or alienated for the subproject. PPL commits to locating the distribution lines within easements located alongside existing roads where possible and will explore all available options. Where road right-of-way is not available for medium-voltage lines, PPL will negotiate formal easement agreements with landowners to install the medium voltage lines and have access to the poles and lines for maintenance and repairs. For low-voltage distribution lines, the locations of the utility poles will be discussed and agreed with local government representatives and village leaders – in consultation with the wider community, at the same time that household connections will be discussed and planned.

31. Easement agreements for the medium-voltage distribution lines will be for slim corridors of land, no wider than 6 m. The negotiation of easement agreements will not result in a change of owner of the land, nor will it result in the alienation of customary land. It will, however, result in some changes in the way that the landowners will be able to use the land, and it is for this reason, that PPL will provide compensation to affected landowners.

32. Project Safety Guidelines. The social impacts of the distribution lines factor in measures to meet safety requirements. For medium-voltage distribution lines (22kV and 11kV), a safety clearance area around the top of the pole and wiring is required (2 meters, as demonstrated in Figure 32). Structures are not allowed to be located under the pole or wires, and trees need to be trimmed or removed. Following construction, affected trees and crops with a mature growth height not exceeding three meters can be re-established after construction.

33. The requirements are reduced for low-voltage distribution lines which require that there be no contact with the utility pole or wires (Table 2). A safety awareness campaign will be implemented within the communities.

Table 2: Clearance Requirements for Utility Poles

<table>
<thead>
<tr>
<th>Type</th>
<th>Voltage</th>
<th>Clearance requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium-voltage distribution line</td>
<td>22 kV</td>
<td>2 m (Figure 8)</td>
</tr>
<tr>
<td>Medium-voltage distribution line</td>
<td>11 kV</td>
<td>2 m (Figure 8)</td>
</tr>
<tr>
<td>Low-voltage distribution lines</td>
<td>415 V</td>
<td>No contact with the utility pole or wires. There are no other restrictions as these are service lines.</td>
</tr>
<tr>
<td>Low-voltage distribution lines</td>
<td>240 V</td>
<td>No contact with the utility pole or wires. There are no other restrictions as these are service lines.</td>
</tr>
</tbody>
</table>
A. Minimizing Social Impacts

34. There are many factors that will be considered in the concept and detailed engineering design process to reduce impacts on landowners, households, and businesses:

35. **Road right-of-way to be used wherever possible.** By designing the distribution line corridors along existing roads, PPL will avoid the need to negotiate easement agreements. There will also be less social impacts by using road right-of-way. Figure 33 is a diagram of common road widths and the allocation of easement rights by the Government of PNG. In the subproject areas, it is rare for residential properties to be built on or near the road. Houses are commonly built more than 10 m away from the road in low-density urban areas and further in rural areas (the subproject is not located in high-density urban areas as services are already provided). Nonetheless, in some semi-urban and rural locations small trade stores are built close to the road, and sometimes these are partially within the right-of-way area. This is less common for larger businesses who locate structures within property boundaries. Overall, by using road right-of-way there are less impacts on landowners, households, and livelihoods.

Figure 33: Diagram of the Typical Configuration of Easements for PNG roads
36. **Location of new easement agreements.** In the instances where the distribution lines are not able to be located within the road right-of-way, PPL will carefully consider the use of alternative land and negotiate easement agreements. PPL will select land corridors where it can avoid all existing structures and minimize social impacts. For example, by using existing fence lines between properties and using existing pathways between farming activities social impacts can be reduced.

37. **Location of utility poles within the easement.** PPL will carefully select specific locations along the distribution line corridor for the individual utility poles to avoid and reduce social impacts. This includes: (i) selecting the side of the road with less impacts, (ii) adapting the span length and positioning poles to avoid structures and assets, (iii) tweaking the position of the utility pole within the easement to adjust the angle of the line wires to avoid hanging above structures and tall trees.

38. **Impact Assessment Methodology.** During the preliminary conceptual design process the impact assessment for the distribution lines included desk-based data collection and review of existing documents and available information, including analysis using satellite imagery, site visits to sample areas, and meetings and consultations with government, private sector, and community representatives. During the consultations, there were four main objectives:

   (i) presentation of proposed infrastructure developments,
   (ii) confirmation of support for the project,
   (iii) identification of potential project issues or existing concerns; and
   (iv) collection of recommendations from individual meetings and community consultations on how to address existing or potential issues related to the proposed subprojects.

39. Initial disclosure and consultation activities were undertaken at the provincial level and in some of the communities in November 2018 and July 2019. The impacts were assessed on the basis of preliminary conceptual designs. When concept designs and detailed engineering designs are completed, PPL will re-assess impacts and update this Resettlement Plan.

40. **Limitation of Assessment.** As only preliminary conceptual designs have been prepared for the subproject, indicating only approximate locations of distribution line corridors (not pole placement), the impact assessment is limited in scope, but nonetheless provides an indication of the level of severity of impacts that may be caused by the distribution line subprojects. An assessment of the number of affected structures, trees, crops and vegetation has not yet been conducted. The extent the project may impact on livelihoods/income will need to be further assessed. More detailed assessments will be undertaken at the concept design and detailed engineering design stages. Additional consultations were planned to be conducted in 2020 but were not possible due to the coronavirus (Covid-19) pandemic and travel restrictions. These activities will be conducted when the risks are reduced and/or early during project implementation.
41. Nonetheless, the initial assessments at the preliminary conceptual design stage provide an indication that the project is not expected to significantly impact affected households, but due to the scale of distribution line activities, there will be a large number of minor impacts on land use and on assets such as small trade stores, trees and crops located within the easement (Annex 2).

D. Land Acquisition and Resettlement Impacts

42. **Land acquisition.** No land will be compulsorily acquired (purchased or alienated) for the distribution line subprojects, however there will be a need in some areas to negotiate easement agreements. Initial assessments have been undertaken for the medium-voltage lines (22kV and 11kV) based on the preliminary conceptual designs. The assessments have focused on the medium-voltage sections, as the impacts are generally greater due to the safety requirements. The assessment found that approximately 6.4% of the length of the lines (40.4 km out of the 630 km assessed) will need negotiated easement agreements. Using the assessment as a basis for the entire distribution line subproject, it is estimated that between 40 km – 75 km (up to 45 ha) will be needed under easement agreements for the medium-voltage distribution lines (based on approximately needing up to 6 m wide corridor). The low-voltage lines (also called service lines) will not require formal easement agreements, and communities will be consulted on the placement of utility poles.

43. The easement agreements will include restrictions on future land use within the easement area (no structures or tall trees) and, as a result, compensation will be provided to landowners. Most of the land will be customary land and negotiations will involve representatives of customary landowner groups. Meaningful consultations will be held with members of the clans and tribes to facilitate understanding and informed consent.

44. **Physical displacement.** The distribution line subprojects are not expected to result in any physical displacement impacts. The design of the medium and low voltage lines will avoid residential structures. The medium voltage lines are predominately located in rural areas (87%) (Table 3) and the connecting low-voltage lines similarly follow existing roads or paths within villages and rural settlements.

<table>
<thead>
<tr>
<th>Location of medium-voltage lines</th>
<th>Percentage (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural areas</td>
<td>76%</td>
</tr>
<tr>
<td>Rural areas with scattered settlements</td>
<td>11%</td>
</tr>
<tr>
<td>Urban areas and village areas</td>
<td>6%</td>
</tr>
<tr>
<td>Barren areas</td>
<td>4%</td>
</tr>
<tr>
<td>Forest areas</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: Project team

45. **Economic displacement.** There are expected to be some small trade stores that have been constructed within the road right-of-way. The stores are typically 2mx 2m in size, however, in some instances they are larger. An estimated total of 120 small stalls or business stores may be impacted, but this number is indicative and can only be properly assessed at the detailed
engineering design stage. It is anticipated that many of the identified small stores will be avoided during detailed engineering design process. Following consultations with communities, and based on PPL’s experience and assessments, it is expected that in most situations these structures can be relocated or rebuilt further back from the road, or on the other side of the road. In most circumstances, there will be minimal long-term impacts on the livelihoods of these stall/store owners or their staff. PPL will provide compensation and assistance to the owners of all impacted structures.

46. Temporary roadside vendors may be briefly impacted by the construction of the distribution lines, but as these vendors typically use only tables and umbrellas the impacts experienced on their incomes will be little to none as they will be able to move to another nearby location or across the road.

47. **Impacts on assets.** There will be impacts on trees that are located within the easement that will need to be cleared or trimmed for safety requirements. There will also be impacts on crops and food gardens located within the road right-of-way or easement areas that will be cleared or damaged during the construction of the distribution lines. The initial assessment considered the extent of vegetation located along the medium-voltage line corridors that have been mapped as part of the preliminary conceptual design stage. The assessment found that the impacts of the project on vegetation will need to be assessed for most of the distribution lines, as only one third of the medium-voltage distribution lines appeared to have a road right-of-way relatively clear of vegetation. This is because some of the medium-voltage distribution lines follow back roads or agricultural roads, or roads used to access small villages. The precise impacts on trees, crops and food gardens will be assessed at the detailed engineering design stage, when the locations for the poles have been determined. Compensation will be provided for affected productive trees and crops. After installation of the distribution lines, food gardens and small shrubs/trees will be allowed to be replanted. Taller trees will be permanently impacted.

<table>
<thead>
<tr>
<th>Presence of vegetation in the medium voltage distribution line corridors</th>
<th>Percentage (approximate) of total km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor to no vegetation present</td>
<td>33%</td>
</tr>
<tr>
<td>Low amount of vegetation present</td>
<td>22%</td>
</tr>
<tr>
<td>Medium amount of vegetation</td>
<td>29%</td>
</tr>
<tr>
<td>High amount of vegetation</td>
<td>10%</td>
</tr>
<tr>
<td>Very high amount of vegetation</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Project team

48. **Impacts on Communal Resources and Legacy Issues.** Potential impacts on communal resources and legacy issues will be further assessed at the concept design stage and re-assessed during the detailed engineering design stage. There have been no issues raised on these matters during the community consultations held for the project to date.

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2 Approximately 64 structures were evident within or close to the road right-of-way in the assessment of the 630km of medium-voltage distribution lines that were mapped during the preliminary concept design stage. This is because most of the corridors are located in remote rural areas. On average, there were approximately 10 structures per 100 km evident within the road right-of-way. Refer to Annex 2 for findings of the assessment.

3 The assessment was based on a desk-top review of satellite images of the identified sections of the medium-voltage lines and whether vegetation was growing very close to the road or within the identified easement area. An inventory of impacts on trees, crops and food gardens will be conducted for all distribution line sections at the detailed engineering design stage.
49. **Impact on poor and vulnerable households.** Poor and vulnerable households will be identified during the detailed engineering design phase, following the completion of census and socio-economic surveys. Adequate budget allowance has been made to ensure funds are allocated to provide additional assistance, including livelihood restoration assistance.

50. **Impact on indigenous people.** The Project does not trigger the ADB’s safeguard requirement for Indigenous People, as screening of the people in the area indicated that tribal groups do not meet the ADB criteria (distinctiveness and vulnerability) of indigenous peoples. They are all considered part of the mainstream Melanesian society living in the subproject areas and are not marginalized based on their ethnicity or tribe or clan membership, and that they generally experience the same social problems and opportunities as other tribes and linguistic groups in PNG. They will receive the same benefits from the Project as the rest of people in the province. The communities at subproject sites do not require any special protection or attention. Project information will be translated into Pidgin as a standard practice and will be made available for affected communities and other stakeholders.

51. **Unanticipated impacts.** There may be unanticipated impacts that arise during the concept and detailed engineering design stage, or during implementation of the project. PPL will advise ADB on any unanticipated impacts and seek guidance from ADB on how to address such issues. PPL may need to assign additional resources to address the unanticipated impacts within the Updated Resettlement Plan and/or prepare and implement a corrective action plan. All unanticipated impacts will be monitored by PPL and reported in semi-annual safeguard monitoring reports.

### IV. SOCIOECONOMIC INFORMATION FOR PROJECT COMMUNITIES

A. Socioeconomic and Cultural Conditions

1. National Context

52. PNG includes the eastern half of New Guinea, the islands of New Britain, Manus, New Ireland and Bougainville, and hundreds of small islands. The land area is approximately 463,000 km², and comprised of over 600 islands, 27% of which are inhabited. PNG is a young nation and one of the world’s most diverse with respect to biodiversity, ethnicity, and linguistics (over 850 languages are spoken).

53. The country is also rich in natural resources (forestry, agriculture, fisheries, and minerals) and is characterized by rugged terrain, including dense rainforest, swamps, and unstable volcanoes, which continue to pose challenges for the extension of infrastructure and provision of social services. Since forest covers over 70% of PNG’s land, approximately 70% of the total land area has between low and very low potential for most food or cash crops, while 7% has high to very high potential. PNG is the supplier of 3% of the world’s gold, 2% of its copper, 3% of its coffee and 1% of its palm oil.

B. Socioeconomic Development

54. The essential economic performance of a country is reflected by the gross domestic product. Worldwide gross domestic product in 2018 was at about 11,038 US Dollar per capita. The GDP in Papua New Guinea reached 2,723 US Dollar per capita in 2018, and the gross national product has been at 2,530 US Dollar per capita (WorldData.info 2019).
55. The economic performance of PNG has steadily improved over the past decade due to a significant resources boom, mainly in the extractive minerals and hydro-carbon sector. Gross domestic product (GDP) increased from 5.5% in 2009 to 7% in 2010. The construction of a major liquefied natural gas pipeline (PNG-LNG) from the Southern Highlands will be the single largest investment in the country’s history (140% of GDP). LNG exports, which will start late in 2014, will increase GDP by 150% and could triple the country’s export revenue by 2020.

56. With this boost in GDP, public finances will be under pressure to ensure increased revenues translate into sustained equitable gains for all Papua New Guineans. Unfortunately, PNG did not achieve any of the Millennium Development Goals by 2015, due in part to structural inequalities; lack of investments in sustainable initiatives; limited capacity of government systems to deliver basic social services; and elevated levels of violence, among other factors.

57. Despite increasing national wealth, human development outcomes continue to lag behind: PNG currently ranks 156 out of 187 countries on the Human Development Index (HDI). Key HDI indicators for PNG include:

(i) Life expectancy is 63 years, 25% of children are unable to attend school, and adult literacy is around 50%.
(ii) Only 7% of the population has access to the electric grid and a reticulated water system, and two-fifths of health/sub-health centers and rural health posts have no electricity or essential medical equipment.
(iii) While food security is normally not a serious problem, poverty and social inequality are persistent, with an estimated 40% of the population living on less than US$1.25/day.
(iv) The health system has struggled for decades to provide universal access to quality services. Health indicators have declined in recent years due to the closure of many peripheral health facilities. By 2006, infant mortality had reached 57 per 1000 live births (64 in the year 2000) and maternal mortality was 733 per 100,000 live births (370 in 1996). The challenges of distance, isolation, lack of transport and an extreme shortage of skilled birth attendants, highlight the hazards of childbirth in PNG.
(v) The rate of malnutrition is unacceptably high and remains a significant underlying factor for morbidity and mortality particularly for children under 5 years. Almost half of the children aged 6 – 59 months are stunted and about a third of women of child-bearing age are anemic.
(vi) Gender equality is a significant challenge and systemic violations of women’s rights exist throughout the country. PNG ranks in the bottom ten countries of the Gender Inequality Index. Women and girls have substantially less access to health care and education services than men and boys.
(vii) Violence against children and women and gender-based violence is unacceptably high, experienced by an estimated two-thirds of women. Women are vastly under-represented at all levels of government (less than 3% in the National Parliament), limiting their power to influence public policy at all levels.

58. The government is addressing service delivery through public sector reforms and capacity building of the civil service. The National Education Plan (2005-2014) envisages the incremental introduction of free primary education to increase enrolments in basic education from 957,000 (2005) to 1.3 million by 2014. Similarly, the National Health Plan (2010-2020) aims to tackle the very high infant and maternal mortality rate.
1. Population

59. Papua New Guinea is one of the least densely populated countries in the world. Using the 2017 population of 8.25 million, the population density of Papua New Guinea is 17.8 people per square kilometer, which ranks 167th in the world.

60. The population of PNG is relatively young. Around 50% of the 8.6 million people inhabiting the country in 2018 were younger than 19 years of age as illustrated in the population pyramid in Figure 34. The annual growth for the Papua New Guinea has increased steadily from 2.2% in 1980 and currently stands at 3.1%. The United Nations Population Fund estimates a population growth of around 160,000 people a year: estimated new births are around 240,000 per year, and estimated deaths around 80,000 annually. This rate of population growth has significant impacts in the provision of public services and basic infrastructure, such as housing, availability of water and sanitation, and access to health and education.

61. Around 85% of the population of PNG lives in rural areas. Rural areas also host 80% of the country’s poor, which partially explains the substantial migration from rural to urban areas. Of the 22 provinces in PNG, Morobe province alone contains almost 9.3% of the country's total population, reporting a total population count of 674,810 persons in 2011 Census (WorldData.info 2018). East New Britain has a population of 328,369 people with an average 21.5 persons per square kilometer, which is higher that both Morobe and Central.

62. Increasing population growth in cities is creating new challenges, such as higher levels of unemployment, informal settlements with poor infrastructure and housing, increasing strain on service provision and high rates of crime. Port Moresby has a population of 283,733 people, Lae 76,255, Madang 27,419 and Kokopo 26,273 according to the 2011 Census (WorldData.info 2018).

![Figure 34: PNG's Population Demographics and Structure 2018](source: WorldData.info)

<table>
<thead>
<tr>
<th>Population</th>
<th>Population Pyramid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population:</td>
<td>8,606,000</td>
</tr>
<tr>
<td>Population per km²:</td>
<td>18.59</td>
</tr>
<tr>
<td>Life expectancy males:</td>
<td>63.3 years</td>
</tr>
<tr>
<td>Life expectancy females:</td>
<td>68.3 years</td>
</tr>
<tr>
<td>Birthrate:</td>
<td>27.3%</td>
</tr>
<tr>
<td>Death rate:</td>
<td>7.1%</td>
</tr>
<tr>
<td>Males/Females:</td>
<td>50.9%: 49.1%</td>
</tr>
</tbody>
</table>

Source: WorldData.info.

2. Language and Culture

63. Papua New Guinea is one of the most diverse countries in the world with 848 different languages spoken (12% of the world's languages), of which 12 have no living speakers remaining. Most languages have fewer than 1,000 speakers. There are hundreds of ethnic groups indigenous
to Papua New Guinea, although the largest is the Papuans, whose ancestors arrived in the area tens of thousands of years ago.

64. Before the arrival of Christianity in the final quarter of the 1800s, the tribes observed the existence of protective and malevolent spirits who were believed to control aspects such as weather, garden harvest, fish catch, fertility and diseases. Certain rituals had to be done to enhance the favour of compassionate spirits and avert the wrath of evil spirits. These beings were believed to dwell in certain geographical features such as swamps, rock outcrops, caves, and thick forest within tribal territories. In almost all cases entry to these sites was strictly prohibited while in some locations only certain tribal members with magical powers had access. Although most citizens are now Christians, national legislation protects such places in order to preserve the country’s cultural heritage.

3. Gazelle System Subproject Area

65. Human population and settlement. The subprojects will increase electricity connectivity within the Gazelle, Rabaul and Kokopo Districts of East New Britain. Aside from connections to users within the respective district centers, namely Kerevat, Rabaul and Kokopo; residents of villages, settlements and institutions within the distribution system may be able to access the available electricity supply. Table 5 provides a summary of the human development indicators for East New Britain from the World Data Atlas for Papua New Guinea in 2018. The main ethnic groups include Tolai and other PNG ethnicities and languages spoken in the area include Tok Pisin, Hiri Motu and English.

Table 5: East New Britain Human Development Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>No./Rate</th>
<th>Data year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>271,250</td>
<td>2011</td>
</tr>
<tr>
<td>Population Density (persons/km²)</td>
<td>17.76</td>
<td>2011</td>
</tr>
<tr>
<td>Total Literacy rate (%)</td>
<td>81.6</td>
<td>2000</td>
</tr>
<tr>
<td>Primary School (number)</td>
<td>133</td>
<td>2007</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>7</td>
<td>2007</td>
</tr>
<tr>
<td>Life Expectancy (years)</td>
<td>57.1</td>
<td>2000</td>
</tr>
<tr>
<td>Infant Mortality (deaths/1000 births)</td>
<td>54</td>
<td>2000</td>
</tr>
</tbody>
</table>

Source: WorldData.info.

66. The district populations recorded in the 2011 National Population census were Gazelle 89,776 Kokopo 58,345 and Rabaul 27,064. The corresponding areas in km² for these districts are Gazelle 3,700, Kokopo 408 and Rabaul 95.

67. Social infrastructure and services. This part of the Gazelle Peninsula has a well laid-out road network. A large proportion of the main roads were initially built during the German Colonial era from 1884 to 1914. The roads were then used to haul cocoa and copra from the plantations in the region to the Rabaul wharf. Severe flooding from heavy rainfall during the recent 2018-2019 wet season damaged roads, bridges, and other infrastructure. The region has relatively better coverage of education and health services compared to other parts of PNG. The townships of Rabaul and Kokopo have reticulated water supplies and sewage disposal systems. Most of the small government stations and institutions as well as villages obtain water from nearby streams, groundwater wells and roof catchment tanks. Human waste disposal in these communities is via septic toilets or pit latrines.
68. **Land use and economic activity.** The key land uses within the region are human habitation in villages, institutions and urban centers, a range of commercial activities as well as subsistence farming and cash crop agriculture mainly cocoa and coconut. Oil palm agriculture started in the region almost a decade ago. Most of the local villagers are involved in cocoa and copra production as well as market gardening of food crops. A large proportion of the unused areas are covered with grass, secondary regrowth, and mature forest. The subproject infrastructure will be located on disturbed land and along existing road easements.

69. The Warangoi catchment in the upper reaches is densely forested with old growth vegetation with the mid-reaches now having some increased land development with logging incursion and oil palm agriculture. Land use in the lower catchment is predominantly farming and older plantations of coconut and cocoa, the latter in some cases being overtaken by oil palm. Whilst the upper reaches are well contained within gorges and terraces, the mid to lower sections have large wide flood prone channels contained within high terraces with substantial sand, gravels, and large boulders. Catchment erosion, bed load and sediment transport are ongoing due to the steeper slopes, slope instability and regular rainfalls at the higher altitudes. The river tends to migrate within its flood plain following broad and braided channels.

70. **Cultural resources.** There are no graves, archaeological or culturally significant sites within the subproject areas. The infrastructure is also unlikely to disrupt current cultural practices.

4. **Ramu Grid Subproject Area**

71. **Human population and settlement.** Spread over 22km² and with a population of 119,178 recorded in 2011, Lae is the second largest urban center PNG (NSO, 2012). The city consists of planned suburbs and ad-hoc settlements mostly occupied by migrants from the highlands and other parts of northern PNG. The main center between the Singsing substation and Gusap Substation is Gusap Town which is run by the New Britain Palm Oil Limited (NBPOL). The next main center along the Ramu Highway towards Madang is Walium, the district headquarters for Usino Bundi District of Madang Province. The next major settlement heading north-eastward along the Ramu Highway is the township of Madang, capital of Madang Province.

72. There are 173 regional languages spoken in Madang some of them being extremely different from the others. There is a large number of very small language groups, many with fewer than 1,000 people. The languages include Lukep, Gedaged, Manam, and Bibil. Inland, non-Austronesian Papuan languages like Katiati, Hinihon, and Saki predominate. The Ramu river languages include Gamei, Giri, Tangu, Romkun, and Igana, and the Rai Coast languages include Somau Garia and Usino. The population of Morobe speak over 100 languages, representing 27 language families. Kâte is spoken in the mountainous hinterlands, where Papuan languages are spoken, and Yabem in coastal and lowland areas, particularly along the coast and in the Markham Valley, where speakers of the Austronesian family of languages predominate. Today, English, and especially Pidgin English, are the common urban languages in Lae.

73. Located between these major centers are hamlets and villages either alongside the highway or some distance off it. Table 6 provides a summary of the human development indicators for Madang and Morobe.
Table 6: Madang and Morobe Human Development Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>No./Rate</th>
<th>Data year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>487,460</td>
<td>646,876</td>
</tr>
<tr>
<td>Population Density (persons/km²)</td>
<td>16.88</td>
<td>19.19</td>
</tr>
<tr>
<td>Total Literacy rate (%)</td>
<td>55.2</td>
<td>63.6</td>
</tr>
<tr>
<td>Primary School (number)</td>
<td>178</td>
<td>222</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Life Expectancy (years)</td>
<td>57.1</td>
<td>57.7</td>
</tr>
<tr>
<td>Infant Mortality (deaths/1000 births)</td>
<td>78</td>
<td>80</td>
</tr>
</tbody>
</table>

Source: WorldData.info.

74. Social infrastructure and services. The residents in the main centers and their immediate environs enjoy better quality social infrastructure and services such as education and healthcare. The status of social infrastructure and accessibility to social services declines with distance from the main centers and Ramu Highway.

75. Land use and economic activity. Land use within Lae includes residential, commercial, road transportation, institutional and social infrastructure, and public spaces. Lae is the manufacturing hub of PNG and hosts the country’s biggest and busiest seaport. Gusap is the main center for NBPOL’s sugar, oil palm and beef cattle operation in the Markham and Ramu valleys. Madang is almost one-third the size of Lae and has similar land uses but on a relatively lower scale.

5. Port Moresby to Kwikila

76. Human population and settlements. Up to seven communities are located alongside the Magi Highway between the Rouna tee-off to the new substation site at Gomore. Another three communities are located off the highway. The combined population along the highway and around Gomore Village is estimated to be around 12,000. Table 7 provides a summary of the human development indicators for the Port Moresby Kwikila subproject area from the World Data Atlas for Papua New Guinea in 2018. There are a number of population centers within the subproject area including: Port Moresby (Motukea Substation); Gereka, Bautama, Gwarumemase, Sebore, Tubusereia, Barakau, Gaire, Manugoro, Deugolo, Gomore, Saroa, Kwalimurubu and Kwikila (Bautama to Kwikila transmission line); and Gomore (Gomore Substation). The main languages: spoken include Tok Pisin, English. Hiri Motu, Koiai and Hula.

Table 7: Port Moresby Kwikila Human Development Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>No./Rate</th>
<th>Data year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>318,128</td>
<td>2011</td>
</tr>
<tr>
<td>Population Density (persons/km²)</td>
<td>1,325</td>
<td>2011</td>
</tr>
<tr>
<td>Total Literacy rate (%)</td>
<td>90.7</td>
<td>2000</td>
</tr>
<tr>
<td>Primary School (number)</td>
<td>420</td>
<td>2007</td>
</tr>
<tr>
<td>Secondary Schools</td>
<td>11</td>
<td>2007</td>
</tr>
<tr>
<td>Life Expectancy (years)</td>
<td>59.2</td>
<td>2000</td>
</tr>
<tr>
<td>Infant Mortality (deaths/1000 births)</td>
<td>22</td>
<td>2000</td>
</tr>
</tbody>
</table>

Source: WorldData.info.
77. **Social infrastructure and services.** Most of the communities have schools and health clinics to cater for their population. The residents at Gomore and nearby villages have the option of accessing schools and a health center at Kwikila Station which is the administration headquarters for the Rigo District of Central Province. Persons requiring further medical attention are transported to clinics and hospitals within Port Moresby. At Gomore and the villages within the subproject area, the residents get their water for drinking, cooking, and washing from nearby streams, groundwater wells and roof catchment tanks. Human waste is mainly discharged into pit latrines.

78. **Land use and economic activity.** Along the Magi Highway the main land use is human habitation, subsistence, and market gardening. The main sources of revenue for the villagers are sale of fresh food crops, marine fish, freshwater prawns, and wallaby meat. These items are sold in markets along the highway, in the villages and Port Moresby city markets. The villagers have recently been encouraged to grow corn and sell it as feed for cows at the Ilimo Dairy Farm which is located at Laloki an agricultural area just outside Port Moresby.

V. **INFORMATION DISCLOSURE, CONSULTATIONS, AND PARTICIPATION**

A. **Project Stakeholders**

79. Primary stakeholders of this subproject include affected people and households, the power consumers, project communities including women, community-based organizations/NGOs, land users of state-owned land (ROW easement and leased land) who will be affected either permanently or temporarily by the transmission lines and substation construction. Other stakeholders include local, district, provincial and national governments, PPL which is the implementing agency, and other civil society groups.

B. **Objectives of Consultations**

80. PPL will conduct meaningful consultations with key stakeholders and affected households, in line with the principles outlined in ADB’s SPS. During the project implementation, the objectives of the consultations with affected households and stakeholders are to:

(i) improve project design by avoiding social and resettlement impacts, as per ADB’s SPS 2009 guidance;
(ii) gather affected households' and other stakeholders’ views on the project and address their concerns by implementing suitable mitigation measures;
(iii) facilitate effective participation of affected households and enable their cooperation in activities required for resettlement planning and implementation;
(iv) obtain information about the need and priorities of affected households;
(v) facilitate the development of appropriate entitlement options for all affected households;
(vi) inform affected households about the easement agreement and compensation process;
(vii) discuss opportunities for affected households to participate in the project (i.e., employment);
(viii) enable transparency in activities related to land acquisition and resettlement issues.
A draft Consultation and Participation Plan (C&PP) has been developed (Annex 3). The purpose of C&PP is to provide a mechanism whereby PPL’s staff, project consultants, primary beneficiaries, communities and others as appropriate, can exchange their views, ideas and suggestions with regard to the distribution line designs, and during project implementation.

C. Consultation During Project Preparation

During the preliminary conceptual design stage, public and stakeholder consultations and meetings were held at the national, provincial and community levels between November 2018 and July 2019. Meetings were conducted in villages where the substations are situated, and transmission and distribution lines components are planned. Formal and informal discussions were held, and participants were informed about details of the project. A range of stakeholders have been initially consulted about the distribution line subprojects.

The stakeholder consultation team included the consultant’s International Social Specialist (ISS) and national social, environmental and resettlement specialists. The objective of the stakeholder consultation process was to disseminate information on the subprojects and the expected impacts, long-term as well as short-term, level of community support for the subproject among primary and secondary stakeholders and to gather information on relevant issues so that the feedback received could feed into subproject design and be used to address or identify means to resolve potential issues at the early stages of project design. Another important consultation objective was to determine the extent of the concerns amongst the project communities, recommendations to address them during detailed design and project implementation.

Key stakeholders consulted included community and landholder groups and affected households from the subproject locations, together with government representatives and officials from local, provincial national administrations. Provincial and local consultations in respect of both environmental and social issues were undertaken for all subproject sites: East New Britain: 12-16 November 2018; Madang/Lae: 19-24 November 2018; and Port Moresby Kwikila on the 27 November 2018. This included consultations with provincial and district government officials Kokopo, Madang, Walium, Lae and initial consultations with some of the potentially affected communities.

Additional consultations were planned to be conducted in 2020 but were not possible due to the coronavirus (Covid-19) pandemic and travel restrictions. These activities will be conducted when the risks are reduced and/or early during project implementation.

Table 8 provides a summary of the consultations with potentially affected communities undertaken by the TA consultants in the subproject locations and Annex 4 provides a sample record of consultations undertaken, and further information is within the other Resettlement Plans.

Table 8: Summary of Consultations with Potentially Affected Communities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>PSDP members</th>
<th>Stakeholder consulted</th>
<th>Issues raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Moresby – all subprojects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultation with national agencies</td>
<td>On-going</td>
<td>• Allan Sewell - IES</td>
<td>• CEPA</td>
<td>• Scope of subprojects as well as environment assessment and permitting requirement as per Environment Act 2000.</td>
</tr>
<tr>
<td>Activity</td>
<td>Date</td>
<td>PSDP members</td>
<td>Stakeholder consulted</td>
<td>Issues raised</td>
</tr>
<tr>
<td>----------</td>
<td>---------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>East New Britain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Initial consultation and assessment | 12 to 16 Nov 2018 | • Francis Uratun – PPL HQ  
• Peni Diave – PPL HQ  
• Richard Murray-SMEC-transmission line  
• Alan Sewell – IES  
• Francis Iwainde – NES  
• Velepat Tuaru – NSGS  
• Kingsley Philip-Engineer  
• Joseph Auo – NTD Engineer | • PPL East New Britain Staff  
• Nakikus Konga – Governor ENB  
• Donald Kunai – EO to Governor  
• Wilson Matava – Provincial Administrator  
• Provincial Community Development Officer  
• Provincial Environment Officer | • ENB needs adequate and reliable electricity to improve living standards and foster socio-economic development.  
• Possible safety risks and adverse environmental impacts of power infrastructure installation and electricity reticulation must be minimised. |
| Socio-economic survey | 04 to 07 Jul 2019 | • Velepat Tuaru - NSGS  
• Iru Raga – Project Assistant | • Affected households | • Potential impacts on the health and safety of local residents.  
• Impact on water quality of surface and groundwater resources.  
• Compensation for removal of gardens, residences, and other property.  
• Cost of electricity connection and usage. |
| Ramu to Madang                                                                                               |                                                         |                                                                                                          |                                                                                                                                              |
Alan Sewell - IES  
Velepat Tuaru - NSGS  
Francis Uratun - PPL HQ | Leo Savingu (Acting Provincial Asset Manager Ramu at Madang)  
Harry Morea (Manager Substations - Ramu)  
John Bivi (Provincial Administrator)  
Steven Biko (District Administrator Walum)  
PPL Madang personnel | Provincial administration is keen on assisting PPL to expand provision of reliable power supply within Madang and its immediate environs.  
Encroachment by villagers and settlers on road easements appears to be rising and will most likely result in increased compensation claims for damages.  
Need to carry out awareness on the project at the village level. |
| Socio-economic survey | 20 – 22 July 2019 | Velepat Tuaru – NSGS  
Iru Raga – Project Assistant | Affected households | Survey in progress. |
| Lae                                                                                                          |                                                         |                                                                                                          |                                                                                                                                              |
| Initial consultation and assessment | 22 – 24 Nov 2018 | Richard Murray – SMEC –transmission line  
Alan Sewell - IES  
Velepat Tuaru - NSGS | Albert Nanako - Regional Manager Ramu Grid  
PPL Engineering Team Lae | Provincial government will support PPL expand and improve availability of reliable electricity to Lae and its surrounding area. |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>PSDP members</th>
<th>Stakeholder consulted</th>
<th>Issues raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socio-economic survey</td>
<td>17-19 July 2019</td>
<td>Velepat Tua – NSGS</td>
<td>Potential negative impacts of power infrastructure installation and electricity reticulation must be minimized.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iru Raga – Project Assistant</td>
<td>Affected households</td>
<td>Survey just completed.</td>
</tr>
</tbody>
</table>

**POM to Kwikila**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>PSDP members</th>
<th>Stakeholder consulted</th>
<th>Issues raised</th>
</tr>
</thead>
</table>

CEPA = Conservation & Environment Protection Authority; ENB = East New Britain; EO = Executive Officer; IES = International Environment Specialist; ITD = International T&L Engineer; NES = National Environment Specialist; NSGS = National Social and Gender Specialist; NTD = National Transmission and Distribution Engineer; PPL HQ = PNG Power Ltd Headquarters; TL = Team Leader.

87. These stakeholders were considered to be generally representative of the community and potentially affected households associated with the subproject locations. The stakeholders consulted included village clan chiefs, locally affected residents and business owners and other groups with an interest in where the subproject will be implemented. These individuals were informed about the project (and the respective sub-components) and were invited to comment on their environmental concerns for their respective areas.

88. Stakeholder consultation at the local level focused on the location of substations and the alignment of transmission and distribution lines proposed for each subproject location. Information was provided on the potential environmental and social impacts and benefits arising from the project, and a preliminary assessment of the significance of such impacts and likely mitigation measures required to ensure impacts are minimized and acceptable. This information, together with comments and issues raised by key stakeholders and affected has been integrated into the IEE where appropriate.

89. The key findings from the stakeholder consultations can be summarized as follows:
   (i) No significant operational phase impacts were identified and the community near the subprojects generally indicated they would fully support the Project and saw the Project as beneficial overall.
(ii) Whilst the majority of respondents identified potential benefits in terms of better power supply, better life standard, and quality of environment, there were also concerns relating to the impact on garden plants, trees, and subsistence crops near the proposed transmission lines, increased noise and dust during construction and water supply and sanitation associated with work camps, and an increase in traffic congestion.

(iii) Concern was also expressed about the risk of electrification associated with the transmission and distribution lines and PPL was requested to conduct a public information campaign to discourage adults from allowing children from playing near the power poles.

90. Based these findings, it appears that the project will have minimal environmental and social impacts. The main issues raised are addressed in the environmental management plan, as far as is reasonably practicable at this stage. Concerns with respect to safety, water and sewerage have been passed to the PPL Team.

91. Concerns with respect to temporary increased pollution, increases in traffic congestion, environmental awareness of the implementing agency and planning environmental controls have been addressed in the EMP.

D. Disclosure of the Resettlement Plan

92. The project will comply with ADB’s Access to Information Policy (2018). The policy promotes clear, timely, and appropriate disclosure and information sharing with stakeholders. Initial disclosure of the project to local communities and key government stakeholders was undertaken during the initial stakeholder consultation and participation process in June-July 2018. This included a description of the project using maps and diagrams, and its potential social and environmental impacts and proposed mitigation measures.

93. Following the finalization of this Draft Resettlement Plan, the document will be uploaded to the ADB and PPL websites and copies made available at regional offices of PPL. If there is a need to amend the Draft Resettlement Plan following the disclosure activities, due to feedback from affected households and stakeholders, a final Resettlement Plan will be prepared and disclosed on the ADB and PPL websites. In either case, the Resettlement Plan will be updated during project implementation based on the concept designs and detailed engineering designs. The Resettlement Plans will be submitted to ADB for clearance and also uploaded to the ADB website and disclosed locally when it is updated and before it is implemented.

94. All land acquisition and resettlement activities will be completed before the impacts are experienced, i.e., physical works will not commence in the area until land is acquired, and compensation paid, and assistances are in place. Livelihood restoration activities will commence before civil works but may continue during the construction period.

VI. GRIEVANCE REDRESS MECHANISM

A. Legal and Traditional Grievance Redress Mechanism in PNG

95. Land and land-related disputes are common to all regions of PNG and cause social and economic disruptions. PNG’s Land Disputes Settlement Act 1975 created a three-tiered structure for settling disputes (mediation, arbitration, and appeal) based on a combination of Melanesian customs, principles and practice, and formal law of British origin. PNG’s system for settling
customary land disputes provides clear benefits from using existing customary norms and institutions as well as emphasizing local expertise and decentralized decision making.

96. The Land Disputes Settlement Act sets out three stages for the attempted settlement of disputes over customary land. Stage one is compulsory mediation by a land mediator, an appointed local person, in practice always a male, who the local community agrees possesses the knowledge required. If mediation does not settle the dispute, stage two allows for the dispute to be taken to a Local Land Court for arbitration. A Local Land Court comprises a Local Land Magistrate as chairperson and either two or four land mediators. The court has wide powers under the Act to reach a settlement between the parties, but if no agreement can be reached, it can impose settlement.

97. The Act is largely administered by the Provincial Land Disputes Committee for the province concerned, and lawyers are in general excluded from appearing in Land Court hearings and the Land Courts are not bound by any laws other than the Act itself or any other Act expressly applied to them. In special circumstances under Section 4 of the Act, the national government may declare that a land dispute should be settled by some means other than those provided by the Act. Such special circumstances include that the dispute is longstanding and previous attempts at mediation have failed, or the dispute has already resulted in serious breaches of the peace. This section of the Act was included as a ‘safety valve’ to help resolve intractable cases.

B. Project Grievance Redress Mechanism

98. In order to receive and facilitate the resolution of affected households’ concerns, complaints, and grievances about the project’s social and environmental performance a GRM will be established for the project. PPL has an existing GRM for ongoing operations and is experienced in establishing project specific GRM to meet ADB safeguard requirements. The project-level GRM will address social and environmental concerns (including land acquisition/resettlement issues) during pre-construction, construction and post construction activities.

99. The GRM will receive, assess, respond to, and resolve submitted verbal or written complaints during project implementation. This mechanism will also be used to improve the project’s social performance through recording and analysis of experience with community and other stakeholders. The mechanism’s specific objectives are to:
   (i) Establish a process to respond to grievances in a transparent and culturally appropriate means;
   (ii) Establish a system of assessment, response and timely resolution;
   (iii) Provide an easy access, no cost and efficient grievance procedure for potentially affected households;
   (iv) Allow confidential and/or anonymous reporting;
   (v) Manage unrealistic project-related expectations and/or negative perceptions; and
   (vi) Participation in the GRM process does not prevent an individual’s right to pursue other remedies provided under PNG law.

100. Type of grievances covered. The GRM will cover resettlement-related complaints or concerns made by affected communities and will include:
   (i) Negative impacts on a person or a community asset (e.g., financial loss/loss of subsistence resources, impacts on people’s and business assets, damage to property outside designated site boundary); and
(ii) Failure of contractor/project/agency responsible for project to comply with involuntary resettlement mitigation measures as stated in the Resettlement Plan, civil works standards or legal obligations.

101. The GRM will be used for recording, addressing, and monitoring involuntary resettlement related complaints that arise before, during and after construction. The GRM will include a proactive component whereby awareness meetings will be convened by PPL’s PMU and the implementation team (DSC, EPC contractor) with AH and project communities to formally inform them of project implementation details (schedule, designs, activity schedule, access constraints etc.), so that all necessary project information is communicated effectively to the community and their immediate concerns can be addressed. This will include explaining to the community how the GRM works including who, when and whom to address their complaints during construction. If required, the GRM may be amended and updated by the PMU, with the amendments communicated to the communities in a timely manner.

102. **Grievance redress committee.** A grievance redress committee (GRC) shall be established by PPL/PMU before commencement of site works. The GRC will be chaired by the PMU Project Manager and may include members from relevant ward committees and district or municipal authority committees, relevant government departments, at least one male and one female representative of affected households and a representative from a local women’s or civil society organization. The contractor(s) will have observer status on the committee. The functions of the GRC are as follows:

   (i) Resolve problems and provide support to affected households arising from social issues such as resettlement impacts (temporary or permanent); asset acquisition; and eligibility for entitlements, compensation, and assistance;

   (ii) Reconfirm grievances, categorize, and prioritize them and aim to provide solutions within a month; and

   (iii) Report to the aggrieved parties about progress regarding achieving resolution on their grievances and decisions of the GRC.

103. **GRM process.** The project grievance redress mechanism will be established by PPL through its PMO to receive and address project-related issues prior to the implementation of the resettlement plan. Affected households will be informed and consulted by PPL prior to construction via community meetings, leaflets distribution, posting of the GRM details in front of the project site (using a bulletin board visible to the community) and at community halls, public markets, and other areas where the project community gathers. Affected households can submit their grievance, verbally or in writing, to any responsible party such as the project contractor, GRC, Ward Councilor, PMU, PPL at any time. Affected households are also not required to submit grievance to any specific party first such as Ward Councilor. Grievance can be submitted by affected households to any parties stated in the GRM.

104. The majority of grievances related to compensation calculation and disbursement and other assistance are expected to be resolved at the PMU level. Also, the community-based and culturally appropriate disputes resolution methods that are in place will also be utilized by PPL, its PMU and contractor to resolve concerns of affected households. For this purpose, executives of the LLGs and ward will be thoroughly briefed by PMU staff about project activities and timing including commencement of works, conduct of asset inventory, expected project impacts, and key project contacts and other relevant project information. Affected households are encouraged to resolve their disputes and grievances at the local level where contractor, clan leaders, ward councilors and village magistrates will have an important role. This is the first level available for Affected households to resolve disputes, especially land disputes other than ownership matters.
The community leaders will be requested by PMU to keep a record of all complaints/disputes submitted to them by affected households for reporting, resolution and monitoring while the PMU and contractor will keep a grievance register and include them in the regular progress reports to the PMU/PPL.

105. Table provides a summary of the process to be used where a grievance cannot be resolved at the sub-project level.

**Table 9: Grievance Redress Process**

<table>
<thead>
<tr>
<th>Steps</th>
<th>Process</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Affected Household /Clan Leader/Ward Councilor will submit the grievance to any of these parties: The Contractor/GRC/PMU/PPL focal point responsible for the project. Records provided to PMU for reporting, resolution and monitoring.</td>
<td>Any Time</td>
</tr>
<tr>
<td>1</td>
<td>PPL/PMU reviews and finds solution to the problem in consultation with clan leader/ward councilor/LLG representative, with the involvement of the GRC.</td>
<td>10 days</td>
</tr>
<tr>
<td></td>
<td>Contractor/GRC/ PMU/ PPL reports back an outcome to clan leader/ward councilor/LLG representative.</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td><strong>If unresolved or the affected household is not satisfied with the outcome/decision</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Affected household/clan leader/ward councilor/LLG representative, with the involvement of the GRC members, can take grievance to the respective Provincial Administrator and find resolution.</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td><strong>If unresolved or the affected household not satisfied with the outcome/decision</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Aggrieved affected household can take the grievance to the head of PMU-PPL in Port Moresby.</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>PMU will report back the solution/decision to affected household / clan leader/ward councilor/LLG representative.</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td><strong>If unresolved or at any stage if affected household is not satisfied</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affected household / clan leader/ward councilor/LLG representative can take the matter to appropriate court in Papua New Guinea.</td>
<td>As per judicial system</td>
</tr>
</tbody>
</table>

106. **Steps of grievance redress process.** Once a grievance from an affected household has been lodged in writing to the contractor’s site office/ clan leader/LLG/PMU-PPL, the following steps will be followed for redressing the grievance essentially:

(i) **Step 1:** Upon receipt of complaint(s), the Contractor or PMUs responsible staff, e.g., community liaison officer (CLO), will log the details in a grievance register, recording the date, name of affected household, contact address and/or phone number, if available.

(ii) If grievance is unresolved at the Contractor’s level, the Contractor will bring it to the GRC level. If still unresolved, the GRC chairperson (who is PPL representative), with the involvement of GRC members, will organize a hearing session at the local level within 10 days for resolution of the grievance(s). The GRC chairperson will preserve all related records, proceedings, decision and recommendations. The verdicts will be conveyed by the GRC chairperson to the concerned affected household/Clan Leader/Ward Councillor/LLG representative within 7 days’ time.
Step 2: If grievances are not resolved at the local level GRC, then the affected household/clan leader/ward councillor can take grievance to the concerned Provincial Administrator, where resolution will be attempted within 14 days.

Step 3: If grievances are not resolved at the Provincial Administrator level, then the affected household can take the grievance to the PMU- PPL. The PMU, in coordination with relevant agencies, and with the involvement of the GRC members, will attempt to resolve the grievance within 14 days, and reports back to the affected household/Clan Leader/Ward Councillor/LLG representative about outcome within 7 days.

If the grievance is still not settled within 14 days, the APs can then submit their case to the appropriate court of law in Papua New Guinea for resolution under the judicial system.

Implementation arrangements. The safeguards unit within the PMU will provide the support and guidance in grievance redress matters. Investigation of grievances will involve site visits and consultations with relevant parties (e.g., affected households, contractors, local police, etc.).

The PPL/PMU shall instruct the PMU safeguards group to make the public aware of the GRM through public awareness campaigns and a project information brochure. The PMU will also raise the level of awareness of local leaders with regard to the GRM and different ways available for aggrieved parties to resolve their disputes. The contact details for the Contractor’s community relations officer, together with the PMU contact number, will serve as the first point of call for complaints and shall be publicized through the media and placed on notice boards outside the PMU offices and at the construction and project sites.

The project information brochure will include details on the GRM and shall be widely disseminated to the stakeholders in the subproject areas by the safeguards officers in the PMU.

Documentation. Grievances will be documented and personal details of the complainant (name, address, date of complaint, etc.) will be recorded. The Project will aim to protect a person’s confidentiality and will guarantee anonymity in annual reporting. Grievances may be submitted anonymously with an option for a third party to liaise with the Project if desired. Investigations will be undertaken in a manner that is respectful of the complainant and the principle of confidentiality. The complainant will need to recognize that there may be situations when disclosure of identity is required, and the Project will identify these situations to see whether the complainant wishes to continue with the investigation and resolution activities.

A tracking number shall be assigned for each grievance, and recording of the details will include the following elements:

(i) Initial grievance sheet (including the description of the grievance), with an acknowledgement of receipt handed back to the complainant when the complaint is registered;

(ii) Grievance monitoring sheet, mentioning actions taken (investigation, corrective measures);

(iii) Closure sheet, one copy of which will be handed to the complainant after he/she has agreed to the resolution and signed-off.

Processing. The PMU officers will be responsible for processing and placing all papers before the GRC, maintaining database of complaints, recording decisions, issuing minutes of the meetings, and monitoring to see that formal orders are issued, and the decisions carried out.
113. **Monitoring.** The monitoring reports of the EMP and Resettlement Plan implementation shall include the following aspects pertaining to progress on grievances:

(i) number of cases registered with the GRC, level of jurisdiction (first, second and third tiers), number of hearings held, decisions made, and the status of pending cases; and

(ii) lists of cases completed and in process and already decided upon may be prepared with details such as ID with unique serial number, date of notice, date of application, date of hearing, decisions, remarks, actions taken to resolve issues, and status of grievance (i.e., open, closed, pending).

114. **ADB’s Accountability Mechanism.** People who are, or may in the future be, adversely affected by the project may submit complaints to ADB’s Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB’s operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected households should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.

### VII. LEGAL FRAMEWORK FOR LAND ACQUISITION AND RESETTLEMENT

#### A. Resettlement Plan Policy Framework

115. The project’s policy framework and resettlement entitlements are based on the laws and regulations of the GoPNG and the ADB’s safeguard policies. The principal PNG laws include:

(i) National Constitution;

(ii) the Land Act (1996);

(iii) Land Disputes Settlement Act (2000);

(iv) Protection of Transport Infrastructure Act (2010);

(v) Fairness of Transaction Act (1993); Land Group Incorporation (Amendment) Act (2009); and


116. For the purpose of this project, where differences exist between PNG law and ADB policy, the more stringent will prevail.

117. Majority of land in PNG is customary land where ownership of specific territorial areas is vested in descent groups or clans. Clan members or “primary rights holders” are co-owners, with rights to use but not to alienate land. They own/possess these lands as stewards for future generations. Land ownership and use is an integral part of the identity, the sustenance, and the social relations of clans; property rights are inherited from ancestors through either the patrilineal or matrilineal descent and maintained in trust for future generations.

118. The State has no authority over customary land other than the provisions of the Land Act, which enables the government to acquire customary land for public purposes upon payment of just compensation. However, the government has recently introduced a policy that all state
infrastructure and assets should be built on state land, and has begun to alienate land for government facilities, where funds exist to pay for this. The use of customary land requires agreement of customary landowners.

119. The ancestry and identity of a tribe are inseparably linked to the land. The permanent loss of the entire customary land is seen as akin to the death of the tribe. Hence, customary landowners resist the outright transfer of ownership of even a portion of their land. They may, however, consent to sell a portion. Customary land can only be alienated to the state, not private individuals or groups, through voluntary or compulsory acquisition. Voluntary acquisition means through negotiation and agreement with the landholding tribe or customary group. Voluntary acquisition can be done either through purchase or lease. Compulsory acquisition is exercised through the use of the state’s power of eminent domain and can only be effected through purchase.

120. GoPNG does not have any specific policies at the national, provincial, or local level for relocating and resettling people. GoPNG has policies related to the acquisition of land and assets by the State for public purposes on an agreement basis or compulsory acquisition basis.

B. PNG Laws

121. The 1975 Constitution. The PNG Constitution adopts the customary law as part of the underlying law of the country and recognizes the property rights attached to customary land. The Constitution guarantees the right of the citizens to protection from unjust deprivation of property. No land or interest in land may be acquired compulsorily by the government except as it is required for public purposes or other justifiable reasons. In the event of expropriation of land, just compensation must be made by the expropriating authority.

122. The Land Act (1996). The Land Act (1996) sets out the procedures for the government to acquire land required for public purposes. The key provisions of the Act are (i) the government may acquire land, including improvements on land, through agreement or compulsory acquisition; (ii) in case of negotiated purchase, the government and customary owners mutually agree terms and conditions; (iii) in case of compulsory acquisition, several steps are followed including: initial investigation, notice of acquisition, negotiation of compensation with the landowner, payment of compensation, notice of acquisition, and registration of land for state ownership; and (iv) compensation for compulsory purchase includes value of land and any damage.

123. The Land Act covers customary land rights, which includes land owned, used, or occupied by a person or community in accordance with current customary usage. Access to land and resources is embedded in social relationships and expressed as customary land rights to utilize resources. Small clan-based groups live in the villages, managing their own resources, and exercising the right to utilize them. These groups (clans which are composed of sub-clans, lineage groups, and at the lowest level extended households) are typically made up of “primary right holders”, these persons are usually known as the leaders of the group who collectively have the authority to allocate use rights through their spokesperson. The other members of these groups or clans typically possesses “secondary rights” because their rights to the land may have been inherited from a primary rights holder through marriage, that is they are either married to a primary right holder or as a child or an adopted child of the primary rights holder.

124. The 2000 Land Disputes Settlement Act. The Land Disputes Settlement Act (2000) sets out the procedures for resolution of disputes involving customary land. The Act provides for a land disputes committee at provincial level and land courts at local, district and provincial levels. The
committee can appoint land mediators. The Act promotes resolution of disputes through mediation based on the principles of traditional dispute settlement. If mediation fails, it is followed by appeal to the courts.

125. **Protection of Transport Infrastructure Act, 2010.** The Protection of Transport Infrastructure Act was enacted by PNG Parliament to protect all types or roads and road reserves from unlawful entry, occupation or use when ordered to do so. It also penalizes anyone who stops people from using transport infrastructure by blocking them, and/or destroys or damages any transport infrastructure. It also prohibits the demand for compensation and other related payments and the use of threats to induce any compensation and other related payments regarding the use of transport infrastructure. This Act applies to all roads built on land acquired by the State or built on land yet to be acquired by the State. If the land has not been acquired by the State and roads have been built on them, the owners cannot block the roads or damage the transport infrastructure. The legal remedy is to file complaints or grievances with the proper courts and not undertake these prohibited acts enumerated in the law.

126. **Fairness of Transaction Act (1993).** The Fairness of Transaction Act of 1993 relates to the effect of certain transactions, to ensure that they operate fairly without causing undue harm to, or imposing too great a burden on, any person, and in such a way that no person suffers unduly because he is economically weaker than, or is otherwise disadvantaged in relation to, another person⁴.

127. **Land Group Incorporation (Amendment) Act (2009).** Land Group Incorporation (Amendment) Act (2009) and Voluntary Customary Land Registration Act (2009) were brought into effect in 2011, following recommendations from the National Land Development Taskforce. The Acts recognize the corporate nature of customary groups and allow them to hold, manage and deal with land in their customary names, and for related purposes. These also facilitates the voluntary registration of customary land, to be known as "registered clan land", and makes that land available for development through the use of Incorporated Land Groups (ILGs). These laws encourage (i) greater participation by local people in the national economy by the use of the land; (ii) better use of such land; (iii) greater certainty of title; (iv) better and more efectual settlement of certain disputes; (v) legal recognition of the corporate status of certain customary and similar groups; (vi) conferring on them, as corporations, of power to acquire, hold, dispose of and manage land, and of ancillary powers; and (vii) encouragement of the self-resolution of disputes within such groups.

C. **ADB Safeguard Policy Statement**

128. **Safeguard Policy Statement (June 2009).** The Safeguard Policy Statement (SPS) became effective and applicable in January 2010. The SPS was formulated to address the emerging challenges of development, respond to lessons learned, and adapt to its new lending modalities and financing instruments.

129. The ADB Safeguard Policy Statement 2009 (SPS) requires ADB-assisted projects to (i) avoid resettlement impacts wherever possible; (ii) minimize impacts by exploring project and design alternatives; (iii) enhance, or at least restore, the livelihoods of all affected households in real terms relative to pre-project levels; and (iv) improve the standards of living of the affected poor and other vulnerable groups. It covers both physical displacement and economic displacement.

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130. **SPS Safeguard Requirement for Involuntary Resettlement.** The SPS Safeguard Requirements 2: Involuntary Resettlement aims to avoid or minimize the impacts on people, households, businesses and others affected by the land acquisition required by a project. The scope of the policy includes physical and economic displacement as a result of:

(i) involuntary acquisition of land;
(ii) involuntary restriction on land use; and
(iii) involuntary restriction of access to legally protected areas.

131. **Principles.** The key principles of the ADB safeguard policy on resettlement are as follows:

(i) 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 a gender analysis, specifically related to resettlement impacts and risks.

(ii) Carry out meaningful consultations with affected households, host communities, and concerned nongovernment organizations. 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 legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected households’ concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impact and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.

(iii) 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 revenues and services through benefit sharing schemes where possible.

(iv) 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.

(v) 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 legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.

(vi) 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.
(vii) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets.

(viii) Prepare a resettlement plan elaborating on displaced persons’ entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.

(ix) Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected households and other stakeholders. Disclose the final resettlement plan and its updates to affected households and other stakeholders.

(x) Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project’s costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.

(xi) Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.

(xii) 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.

132. **SPS Safeguard Requirement for Indigenous peoples.** The Indigenous Peoples safeguards are triggered if a project directly or indirectly affects 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 taken into account. 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. In the project area, all affected households whether they are customary landowners or settlers are indigenous citizens of PNG even though the settlers have originated from other regions of PNG. Hence, they will be accorded equal compensation and also to be able to access electricity as a benefit of the project.

133. **Gender equity.** The other policy of relevance to this project is the ADB’s Policy on Gender and Development, which requires that all ADB financed projects ensure where possible and practicable special design features and strategies will be built into projects to facilitate and encourage women’s involvement and ensure tangible benefits for women. It adopts gender mainstreaming as a key strategy for promoting gender equity, and for ensuring participation of women and that their needs are explicitly addressed in the decision-making process for development activities. For projects that have the potential to have substantial gender impacts, a
gender plan is prepared to identify strategies to address gender concerns and the involvement of women in the design, implementation and monitoring of the project.

134. **Disclosure.** The ADB Access to Information Policy (2018) seeks to promote stakeholder trust in ADB and to increase the development impact of ADB activities. The policy reflects ADB’s commitment to transparency, accountability, and participation by stakeholders in ADB-supported development activities. It also recognizes the right of people to seek, receive, and impart information about ADB’s operations. The policy applies to documents and information that ADB produces, requires to be produced by its borrowers or clients, or are produced and provided to ADB by other parties in the course of ADB operations.

D. **GAPs between PNG Laws and ADB’s SPS**

135. The laws of PNG and ADB policies diverge on some key points on involuntary acquisition of land, resettlement, and livelihood restoration. Table provides the comparison of PNG laws and ADB SPS 2009 requirements for land acquisition and resettlement, and the assessment of equivalence or gaps between ADB SPS 2009 and PNG laws. The table also includes gap filling measures.
**Table 10: Gaps Between ADB Policies and PNG Laws and Gap Filling Measures**

<table>
<thead>
<tr>
<th>ADB requirement on involuntary Land Acquisition and Resettlement</th>
<th>PNG Law on Land Acquisition/ Resettlement</th>
<th>Gaps between ADB SPS and PNG Law</th>
<th>Gap-filling Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid involuntary land acquisition and resettlement wherever possible. Minimize involuntary resettlement by exploring project and design alternatives.</td>
<td>The National Constitution (National Goal 5 (4)) calls for ‘traditional villages and communities to remain as viable units of PNG society’. Section 53 protects citizens from ‘unjust deprivation of property’ by limiting the justification for acquisition by the state.</td>
<td>PNG Law has no explicit reference to need for avoidance or minimizing land acquisition and resettlement impacts.</td>
<td>The ADB policy will be used for the project. The RF includes measures on avoiding and minimizing land acquisition and resettlement impacts. This Resettlement Plan ensures that subprojects will be designed to avoid land acquisition and resettlement where possible.</td>
</tr>
<tr>
<td>Enhance, or at least restore, the livelihoods of displaced persons in real terms relative to pre-project levels. Improve the standard of living for affected poor and other vulnerable groups.</td>
<td>General principles of compensation for destruction of physical and economic assets are set out in NC x. 53. Land Act (LA) s.23.</td>
<td>PNG law does not prescribe measures of replacement cost or need to restore/improve standards of living and livelihoods.</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plans contain measures for compensation at replacement cost for assets and to restore or improve living standards and livelihoods of affected households.</td>
</tr>
<tr>
<td>Screen the project early to identify past and future resettlement impact and risks. Determine the resettlement needs through a survey/census of persons, including an analysis of specific impacts / risks.</td>
<td>Land Act sets out the process for the Land Investigation Report which includes identification of all members of affected clans/tribes and their assets.</td>
<td>PNG Law has no specific requirements for a census, cut-off date for entitlements, impact assessment or resettlement planning.</td>
<td>The ADB policy will be used for the project. The RF includes measures on surveys/census, the cutoff date for entitlements, assessment of needs and resettlement planning. Resettlement Plans include specific information on particular subprojects. Impacts and risks will continue to be screened during detailed engineering design stage.</td>
</tr>
<tr>
<td>ADB requirement on involuntary Land Acquisition and Resettlement</td>
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<tr>
<td>Carry out meaningful consultations with affected households, (including those without legal title), host communities, and concerned NGOs. Inform affected households of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of Resettlement Plan programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and those without legal title to land, and ensure their participation in consultations.</td>
<td>NC National Goal 2(9) calls for every citizen to be able to participate, either directly or through a representative, in the consideration of any matter affecting his/her interests or community.</td>
<td>PNG Law has no specific provisions for preparing and implementing Resettlement Plans based on meaningful consultations with affected households, including the poor, landless, elderly, women and other vulnerable groups.</td>
<td>The ADB policy will be used for the project. Resettlement Plans will require specific consultation and information disclosure measures.</td>
</tr>
<tr>
<td>Establish a grievance redress mechanism to receive and facilitate resolution of the affected households’ concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.</td>
<td>The Land Disputes Act provides for a process of resolution of land grievances, both through local mediation as well as through court processes.</td>
<td>PNG Law has no requirements for a project specific GRM. PNG Law has no specific requirement for a social preparation phase for highly complex and sensitive projects.</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plan contain detailed measures for a project redress mechanism. The project does not involve highly sensitive components, but this will be reviewed again at the detailed engineering design stage, and amendments made to the Resettlement Plan if required.</td>
</tr>
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<td>Improve, or at least restore the livelihoods of all affected households through (i) land-based resettlement strategies where possible, or cash compensation at replacement value for land; (ii) prompt replacement of assets with access to assets of equal or higher value; (iii) prompt compensation at full replacement cost for anything that cannot be restored; and (iv) additional goods and services through benefit sharing schemes where possible.</td>
<td>Principles of resettlement are set out in NC x.53, LA s.23.</td>
<td>PNG Law has no specific requirement for land-based resettlement, replacement of assets, compensation at replacement cost, or benefit sharing. Valuer General’s Schedule is from 2013.</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plans measures for on-site relocation/replacement of affected structures, compensation at replacement value for affected assets, and where possible, assistance to additional land and project employment for affected households.</td>
</tr>
<tr>
<td>If the residual portion of land is no longer viable for use according to the original purpose, the entire property may be acquired if this is the wish of the landowners.</td>
<td></td>
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</tr>
<tr>
<td>In the unlikely situation that the mode of acquisition preferred by the landowners is by donation and all other modes of acquisition have been explored, the project will provide all necessary precautions to ensure that the preference has not been made under duress, that the donation of land is an act of informed consent and that the landowner/s have not been forced or coerced. Any voluntary donation will follow international...</td>
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<td>In the unlikely situation that the mode of acquisition preferred by the landowners is by donation and all other modes of acquisition have been explored, the project will provide all necessary precautions to ensure that the preference has not been made under duress, that the donation of land is an act of informed consent and that the landowner/s have not been forced or coerced. Any voluntary donation will follow international...</td>
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<tr>
<td>Provide physically and economically displaced persons with needed assistance, including: (i) secure tenure to replacement land, better housing, access to employment and production opportunities, integration of resettled persons into their host communities, and project benefits for host communities; (ii) transitional support and development assistance, such as land, credit, training or employment, and (iii) civic infrastructure and community services required.</td>
<td>PNG law allows compensation for lost assets, and entitlements can be received in cash</td>
<td>PNG law has no specific provision for relocation, transitional support, or rebuilding of civic infrastructure and services</td>
<td>best practices and be confirmed through written records and verified by an independent third party. The ADB policy will be used for the project. The RF and Resettlement Plan contain measures to provide assistance to physically and economically displaced persons as outlined in the ADB policy. Income and livelihood restoration and improvement measures will be designed in consultation with affected households and will be adequately resourced. Additional measures will be provided for vulnerable affected households. The effectiveness of the livelihood restoration and improvement activities will be monitored and reviewed. Transitional support will be provided to displaced households aimed at stabilizing their living standards. Cash compensation to cover income losses will be provided to affected businesses and workers.</td>
</tr>
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<tr>
<td>Vulnerable People: improve the standard of living of displaced and other vulnerable groups, including women, to at least national minimum standards, and assist them with legal affordable land, adequate housing, and appropriate income sources</td>
<td>NC and LA include principles for restoring damages or losses</td>
<td>PNG law does not prescribe measures for vulnerable people improvement of living standards to national minimum standards, nor for restoration of livelihoods, or access to income generating sources</td>
<td>The ADB policy will be used for the project. The RF includes provisions for livelihood restoration of affected households. The Resettlement Plans will identify vulnerable persons, and the project will provide support to improve the standard of living of displaced or vulnerable groups.</td>
</tr>
<tr>
<td>Develop transparent, consistent, and equitable procedures for land acquisition through negotiated settlements by recognizing the asymmetry of information and bargaining power of the parties involved and by agreeing on (i) consultation processes applicable to such transactions, (ii) third party validation, (iii) mechanisms for calculating replacement costs of land and assets, and (iv) recordkeeping requirements.</td>
<td>The National Constitution calls for ‘every citizen to be able to participate...in the consideration of any matter affecting his interests or the interests of his community’. Land Act sets out procedures for outright land purchase or lease through agreement. The Land Group Incorporation Act and Voluntary Customary Land Registration Act enable incorporated land groups to register titles to customary land, allowing for negotiated leases or transfer of such land. The Fairness of Transaction Act sets out rules on fairness of transactions.</td>
<td>PNG Law has no explicit requirement on third-party validation, or calculation of compensation at replacement cost.</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plans includes measures on the consultation process, documentation, third party verification of negotiated agreements and the provision of compensation at replacement cost for purchase of land. It also describes the negotiations for additional land with landowner groups.</td>
</tr>
<tr>
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<tr>
<td>Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for nonland assets.</td>
<td>There are no provisions to compensate for informal settlers and non-land assets.</td>
<td>PNG law has no provisions to compensate displaced persons who are informal settlers for losses, including non-land assets, at full replacement cost.</td>
<td>The ADB policy will be used for the project. The sub project will follow the principle of replacement cost for compensation of affected assets non-land assets belonging to those without titles to land or any recognizable legal rights to land.</td>
</tr>
<tr>
<td>Prepare a Resettlement Plan elaborating on affected households’ entitlements, income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget and time-bound implementation plan.</td>
<td>The NC National Goal 2(3) calls for ‘every effort to be made to achieve an equitable distribution of incomes and other benefits of development among individuals and throughout the various parts of the country’.</td>
<td>PNG law has no provision for a formal Resettlement Plan.</td>
<td>The ADB policy will be used for the project. The RF includes guidelines on preparing Resettlement Plan particularly for distribution component involving land acquisition and/or resettlement impacts. The Executing Agency will oblige any government department or agency responsible for land acquisition or resettlement for the project to apply the same standards as outlined in the RF and Resettlement Plan.</td>
</tr>
<tr>
<td>The draft Resettlement Plan, including documentation of the consultation process, must be disclosed in a timely manner before project appraisal (in an accessible place, and a form and language understandable to affected households and other stakeholders.) The final</td>
<td>No specific provisions on disclosure, apart from the constitutional requirement for ‘participation’.</td>
<td>PNG Law has no specific requirements on disclosures.</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plan include disclosure requirements, including posting of the RF and Resettlement Plan on the ADB website, providing clan and community leaders, and affected households with a summary</td>
</tr>
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<tr>
<td>Resettlement Plan must also be disclosed.</td>
<td>No equivalent provision.</td>
<td>Within PNG Law, costs of the purchase of land are given in the LIR and Valuation, but there are no other wider costs included (such as survey and valuation, or income restoration costs).</td>
<td>Resettlement Plan or information brochures (spelling out entitlements and the GRM) in the local language.</td>
</tr>
<tr>
<td>Conceive and execute the land acquisition and resettlement as part of a development program and include full costs in the presentation for the program’s costs and benefits.</td>
<td>No equivalent provision.</td>
<td></td>
<td>The ADB policy will be used for the project. Land acquisition and resettlement costs will be financed by the government as part of their contribution to the project. All Resettlement Plans will include a detailed budget for land acquisition, resettlement and livelihood restoration costs.</td>
</tr>
<tr>
<td>All compensation and resettlement entitlements must be provided before any displacement or commencement of works.</td>
<td>No equivalent provision</td>
<td>No such provision in PNG law</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plans include measures on payment of compensation for all affected assets before any displacement and prior to the start of civil works on affected land. Resettlement Plans will include an implementation schedule detailing this requirement. Where compensation is unable to be paid due to land disputes, in some circumstances the compensation may be held in an escrow account to allow civil works to proceed, as verified by a third party.</td>
</tr>
<tr>
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<tr>
<td>Monitor and assess land acquisition and resettlement outcomes, their impacts on standards of living of affected households and whether objectives have been achieved, by taking account of baseline conditions and results of monitoring.</td>
<td>No equivalent provision for monitoring and reporting on impacts</td>
<td>No such provision in PNG law</td>
<td>The ADB policy will be used for the project. The RF and Resettlement Plans include monitoring measures, including requirements for semiannual safeguard monitoring reports by the PMO of the Executing Agency, and provision for third party monitoring as required for all negotiated agreements.</td>
</tr>
</tbody>
</table>
E. Resettlement Policy Principles for the Project

This Draft Resettlement Plan has been developed in accordance with ADB’s SPS and the pertinent laws of PNG. Where the laws of PNG are not clear or where there are gaps between the policies, a project-specific set of resettlement principles consistent with ADB policy has been adopted, and for all other matters, the more stringent policies will be followed. The resettlement principles adopted for this Draft Resettlement Plan are as follows:

(i) Land acquisition and resettlement will be avoided or minimized through careful engineering design.

(ii) If impacts are unavoidable, the affected households losing assets, livelihood, or other resources (including productive agricultural land, trees, and gardens) will be fully compensated at replacement value and assisted so that they improve or at least restore their pre-project economic and social conditions.

(iii) Where displacement of business enterprises is unavoidable, all eligible affected households losing assets, income, livelihoods, or resources will be fully assisted so that they can improve, or at least restore, their pre-project standards of living.

(iv) Absence of formal title will not be a bar to compensation or assistance.

(v) Additional assistance will be provided to poor and other vulnerable affected households, including women, to help them improve their socio-economic status.

(vi) If the impacts to a structure or asset is partial, affected households will not be left with residual portions that would not be viable for continued use for the original purpose. If the remaining portion of a partially affected structure is not technically viable for continued use, the entire structure will be compensated.

(vii) People temporarily affected shall be considered as affected persons.

(viii) Contractors shall enter into lease agreements for facilities such as construction and stockpiling areas and should there be a need for compensation for affected assets and improvements due to the impacts of these facilities, the Contractor shall comply with the provisions in this Resettlement Plan, the project's Environmental Management Plans, PNG Laws and ADB SPS.

(ix) Compensation will be provided at full replacement cost, free of depreciation, transfer costs or eventual salvaged materials.

(x) Compensation for affected households that are dependent on agricultural activities will be land-based, wherever possible. Land-based strategies may include provision of replacement land, ensuring greater security of tenure, upgrading livelihoods of people without legal titles or those not belonging to a customary land group. If access to replacement land is not available, other strategies may be built around opportunities for re-training, skills development, wage employment and self-employment, including access to credit.

(xi) Transitional assistance will be provided, in additional to compensation, to assist affected households to restore their livelihood and standards of living. This support may take the form of short-term project related employment, subsistence support and a transitional allowance.

(xii) Information on the preparation/implementation of the Resettlement Plan will be disclosed to all affected households and people’s participation will be ensured in all planning and implementation stages.

(xiii) Before commencing construction and prior to displacement/impacts on assets, compensation will be paid in full, in accordance with the provision described in the Resettlement Plan and a compensation completion report will be submitted and cleared by ADB.

(xiv) If there are subprojects without impacts and with sufficient length to economically justify commencement of construction, civil works for these sections may be initiated immediately after the beginning of the construction phase of the contract. In these cases, the absence of impacts will have to be
demonstrated by submitting a due diligence report for the said sections and securing clearance from ADB prior to commencement of works. 

(xv) A GRM will be established to resolve any conflicts or concerns which may arise during the compensation process, as well as throughout the implementation of the project. 

(xvi) Consultation with affected households will continue during the preparation and implementation of the Resettlement Plans. To the extent possible, displaced persons should be involved in the decisions concerning their resettlement. 

(xvii) Resettlement impacts, including any unforeseen losses that may occur during construction will be monitored and remedial steps taken as required. Adequate monitoring and evaluation will be conducted, and reports submitted for clearance to ADB. 

(xviii) Adequate budgetary support will be fully committed and made available to cover the costs of implementing the Resettlement Plans and providing entitlements and assistance, including the livelihood restoration measures, within the agreed implementation period. The funds for all resettlement activities will come from PPL. Additional budget should be allocated for unanticipated impacts and a contingency amount included. 

(xix) Arrangements for the implementation of the Resettlement Plan will be in place prior to the commencement of the implementation of this Resettlement Plan. This includes adequate human resources for implementing, supervising, and monitoring of the resettlement activities, and for conducting consultations. 

137. **Negotiated Agreements.** If there will be negotiated agreements to mitigate impacts on land/assets within this project, it will trigger the ADB safeguard policies on Involuntary Resettlement, as within the PNG Law, the government can exercise expropriation if there is a failure of negotiations. Nonetheless, the project is encouraged to compensate for asset losses or easement usage through a negotiated agreement with affected owners wherever possible, based on meaningful consultation, including those without legal title to land or assets. A negotiated settlement will offer adequate and fair price for assets, in line with ADB’s safeguard policies regarding replacement value. The project will ensure that any negotiations with affected households openly address the risks of asymmetry of information and bargaining power of the parties involved in such transactions. For this purpose, the project will engage an independent external party to document the negotiation and settlement processes. The project will agree with ADB on consultation processes, policies, and laws that are applicable to such transactions; third-party validation; mechanisms for calculating the replacement costs of land and other assets affected; and record-keeping requirements. All such details are required to be included in updated Resettlement Plans and cleared by ADB prior to any settlements or agreements with affected households, prior to compensation being paid and prior to the commencement of construction. 

138. **Voluntary land donations.** In the unlikely situation that the mode of acquisition preferred by the customary landowners is by donation and all other modes of acquisition have been explored, the project will provide all necessary precautions to ensure that the preference has not been made under duress, that the donation of land is an act of informed consent and that the landowner/s have not been forced or coerced. Any voluntary donation will follow international best practices and be confirmed through written records and verified by an independent third party. 

139. **Indigenous Peoples.** While the project will be in customary land areas populated by tribes and clans, these different socio-cultural groups are not considered as distinct and vulnerable as defined in the SPS. The project will not be targeting specific vulnerable tribal groups nor will the project result in the commercial development of natural or cultural resources. During the detailed engineering design stage, the project will be re-screened for
impacts on Indigenous Peoples. Project policies on Indigenous Peoples will be developed if impacts are identified, based on ADB’s SPS.

140. **Vulnerable Groups.** The project will provide additional assistance and support to vulnerable affected households. This includes households who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and includes (i) female-headed households with dependents, (ii) disabled household heads, (iii) poor households, (iv) landless, (v) elderly households with no means of support, (vi) households without security of tenure, (vii) ethnic minorities, and (viii) marginal farmers (with landholdings of 2.0 ha or less).

**F. Principles and Methodologies for Determining Valuations and Compensation**

141. PPL recognizes that affected land-users are entitled to compensation for assets that will be lost due to the project. The PPL lands team will undertake a Replacement Cost Survey (or otherwise called a detailed measurement survey) during the detailed engineering design stage, and compensation amounts will comply with ADB SPS, which requires compensation at replacement value. This will ensure that affected households are fully compensated for the damages that a subproject will cause and will ensure the smooth running of the subproject construction and operation.

142. To avoid potential compensation disputes, PPL is working closely with the affected households from each of the subproject areas so that they are fully compensated based on fair and just terms and requirements of both PPL and ADB. The calculation of full replacement cost will be based on the following elements: (i) fair market value; (ii) transaction costs; (iii) interest accrued; (iv) transitional and restoration costs; and (v) other applicable payments, if any.

143. The valuation for asset, and replacement cost of structures will be re-assessed by a certified government valuer in close consultation with PPL and the Provincial Administration Divisions of Lands and Physical Planning.

144. Economic plants and trees will be compensated through the use of rates expressed in the PNG Valuer General’s Price Schedule (2013) for economic plants and trees with additional increments based on market conditions for the current year and other customary obligatory costs. A replacement cost specialist will be engaged by PPL to assess the rates and ensure that replacement cost is factored into the valuation. Where required in case of dispute, the valuation for asset, and replacement cost of structures will be re-assessed by the officer of the Valuer General of PNG in close consultation with PPL and the Provincial Administration Division of Lands and Physical Planning.

145. **Land acquisition.** If land will need to be acquired, PPL will follow the established government land acquisition process under the Lands Act 1996, complying with the ADB SPS (refer to the Resettlement Plan for Port Moresby Transmission Line subprojects for details).

146. For the easement agreements for the medium-voltage distribution lines, PPL will follow these steps:

   (i) Land status check to confirm if the subject interested land has other interest attached to it.

   (ii) PPL intention made known to host Provincial Administration (including Provincial Lands Advisor) and Department of Lands and Physical Planning (DLPP) for a special meeting and dialogue.

   (iii) Initial land investigation by PPL Lands Officers and reporting to Project Management Unit (PMU) indicating the proposed medium-voltage distribution
line route whether within the city limit, customary land or partly of both respectively, and land ownership status.

(iv) Survey to be conducted by private registered survey firm for survey plan registration. Provincial and District Lands Advisor to confirm details of landowners.

(v) Approval by Town Authority of the host province.

(vi) Negotiation with the landowners on compensation amount and Memorandum of Agreement (MoA) signed between PPL and the landowners.

(vii) Compensation made to the customary landowners.

147. As these will be negotiated agreements, PPL will engage an independent third-party validator to oversee the agreement process, and the process must openly address the risk of asymmetry of information availability and bargaining power of both parties. The independent third-party validator will include a reputable member of the community like a religious leader, a school teacher, an independent court advocate, an NGO representative or a village head.

VIII. ENTITLEMENTS, ASSISTANCE AND BENEFITS

A. Affected Person’s Entitlements and Eligibility

148. Following is the eligibility for compensation to affected households:

(i) Landowners and/or users as of the cut-off date will be eligible for compensation for assets; and/or rehabilitation assistance if they are engaged in livelihood restoration activities on the affected land, as per the project policy.

(i) Any person or group that occupies or uses the land identified for the project construction after the cut-off date will not be eligible for compensation and/or assistance; they will be required to move from the land as per the provisions of the Land Act.

(ii) Households headed by women and other vulnerable households will receive further assistance.

149. Persons that are not covered in the census and inventory of losses are not eligible for compensation and other entitlements, unless they can show proof that (i) they have been inadvertently missed out during the census and the inventory of losses; or (ii) they have lawfully acquired the affected assets following completion of the census and the IOL and prior to the conduct of the detailed measurement survey (DMS). Any person or group that occupies or uses the land identified for the project after the cut-off date will not be eligible for any compensation and/or assistance. They will be required to move from the land as per the provisions of the Land Act. ID cards based on full census undertaken by PPL will be issued to all adult affected persons and will be used to identify them when payment of compensation is made by PPL.

150. Households who have affected assets located in the distribution line corridors, and affected households using state land, will be compensated for the loss of assets. Eligibility and entitlement for compensation and other assistance is standardized across the project. The Entitlement Matrix, as detailed in Table 11, includes impacts that may or may not be found in this subproject, but are included in this Draft Resettlement Plan, as the Entitlement Matrix is standardized for the entire project (relevant for all subprojects).
<table>
<thead>
<tr>
<th>Types of Impact</th>
<th>Entitled Person(s)</th>
<th>Entitlements</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provisions for loss of land assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <strong>Permanent acquisition of land</strong> (change in title from customary to state)</td>
<td>Legal owner(s), including customary landowners</td>
<td>Landowners will be provided equivalent size and quality of land, or cash compensation at replacement value.</td>
<td>Compensation will be determined based on the replacement value and through discussion with affected households, community leaders and PPL officials</td>
</tr>
<tr>
<td>2. <strong>Long-term lease</strong> (leasehold title)</td>
<td>Legal owner(s), including customary landowners. Government (for state-owned land)</td>
<td>The land title remains with the legal landowners; however, a long-term lease is negotiated with the customary landowner groups/legal owner at market rates and by agreement with the owners.</td>
<td></td>
</tr>
<tr>
<td>3. <strong>Temporary use of land through a short-term lease</strong> (less than 3 years) during construction (i.e., laydown areas)</td>
<td>Legal owner(s) of land, including customary landowners. Government (for state-owned land)</td>
<td>Landowners will be paid rent on terms negotiated between them and the contractor, but not less than current market rates. Land to be rehabilitated before the lease ends.</td>
<td>To be arranged by the Contractor in compliance with this RF.</td>
</tr>
<tr>
<td>4. <strong>Easement agreement for transmission and distribution lines</strong></td>
<td>Legal owner(s) of land, including customary landowners. Government (for state-owned land)</td>
<td>The land title remains with the customary landowners/legal owner; however, an easement agreement is made with the customary landowner groups/legal owners including compensation rates by agreement with the owners at market value.</td>
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<tr>
<td>5. <strong>Loss of use of land</strong></td>
<td>Customary land: Land users as recognized by clan leaders. State-owned land: Users or occupants</td>
<td>Use of alternative customary land will be arranged through negotiated agreements between the affected households, clan leaders and landowners, facilitated by the project. No compensation will be paid for use of the land, but assistance will be provided to landless or vulnerable households to secure use-access to</td>
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</table>
### Types of Impact

<table>
<thead>
<tr>
<th>Types of Impact</th>
<th>Entitled Person(s)</th>
<th>Entitlements</th>
<th>Implementation</th>
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</thead>
<tbody>
<tr>
<td>another piece of similar land, size and quality, where possible.</td>
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<tr>
<td>Cash compensation at replacement cost will be paid for any damaged crops and trees.</td>
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<tr>
<td><strong>Provision for loss of productive assets (crops and trees)</strong></td>
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</tbody>
</table>
| **6. Loss of perennial crops and trees, including fruit and timber trees of economic value** | Owners of standing seasonal crops and trees | Compensation for damages as follows:  
(i) Affected households given 60-day notice to harvest crops and timbers  
(ii) Cash compensation for perennial crops and fruit bearing trees based on annual net product market value multiplied by 4 years  
(iii) Cash compensation equivalent to prevailing market price of timber and non-fruit trees  
Households losing more than 10% of their annual income will be given the opportunity for priority employment during construction, and the opportunity to participate in the livelihood restoration program. | All compensation assessed according to the DMS and cost survey shall be paid in full, prior to beginning of civil works. If further damage or loss occurs during civil works, the PMU will carry out further assessments and pay additional compensation as rapidly as possible, direct to the owners (including women). |
| **7. Loss of seasonal crops** | Owners of short-term crops (regardless of their status in relation to land) | Provision of 60-day notice to harvest standing seasonal crops. If harvest is not possible, cash compensation for crops (or share of crops) equivalent to prevailing market price. | Compensation to be determined based on market rate and in discussion with affected households, community people and PPL officials. |

**Loss of commercial, residential and cultural structures**
<table>
<thead>
<tr>
<th>Types of Impact</th>
<th>Entitled Person(s)</th>
<th>Entitlements</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Loss of residential and other permanent or semi-permanent private or common structures</td>
<td>Owners of the structures affected communities and groups (whether having legal title to land or not)</td>
<td>Full cash compensation for affected structures, at replacement cost (i.e., full value of replacement materials and labor at current market value, together with any other transaction costs), without deduction for depreciation or salvaged materials. Alternatively, structures will be replaced or restored to an equal or better condition. Assistance will be provided to relocate the household including an allowance agreed with affected households for adequate food and other consumable expenses. * Adequate allowance will be provided for handling/transport costs as applicable for each affected household to transport belongings. * An allowance of K500 per household to cover the costs of a house forming ceremony. Additional assistance for vulnerable household including finding a suitable alternative location for informal settlers, ensuring that it is livable (refer to below).</td>
<td>Entitled to salvaged materials, no deductions will be made to compensation paid for depreciation or value of salvaged materials. During the detailed engineering design stage, the compensation costs for the affected structures will be determined by a government certified valuer either working within PPL or an outside contractor. A detailed measurement survey will be conducted for each structure and costs calculated based on replacement values, in discussion with affected households, community people and officials from PPL.</td>
</tr>
<tr>
<td>9. Loss of commercial structure (permanent and semi-permanent)</td>
<td>Owners of the commercial structure (whether having legal title to land or not)</td>
<td>Will be given advance notice and assistance to find appropriate new location (at least 60 days prior to construction to provide opportunity for affected households to find a new site). Full cash compensation for affected structures at replacement cost (i.e., full value of replacement materials and labor at current market value, together with any other transaction), without deduction for depreciation or salvaged materials. Alternatively, structures will be replaced or restored to an equal or better condition.</td>
<td>Entitled to salvaged materials, no deductions will be made to compensation paid for depreciation or value of salvaged materials.</td>
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<tr>
<td>Types of Impact</td>
<td>Entitled Person(s)</td>
<td>Entitlements</td>
<td>Implementation</td>
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<td>A shifting allowance of K100 and handling/transport cost of K100 for owners of each affected house/business.</td>
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<td>New trade store/stall will be constructed prior to removing the existing structures.</td>
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<td>Assistance will be provided to relocate the business including an agreed adequate allowance with affected household for food and other consumable expenses. *</td>
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<td>Allowance will be provided for handling/transport costs for each affected business to transport goods, inventory and equipment. *</td>
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<td>Compensation for lost income based on average monthly income until the replacement structure has been established, if applicable. *</td>
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<td>Opportunity to participate in the livelihood restoration program, if needed. *</td>
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<td></td>
<td>Additional compensation for vulnerable household. *</td>
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<td></td>
<td>Affected workers</td>
<td>Compensation allowance to cover affected income, if required*</td>
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<td></td>
<td>Owners of temporary vendor businesses (whether having legal title to land or not)</td>
<td>Due to their mobility, Informal vendors will be given advance notice to move their tables at a safe distance during construction, and if needed, assistance to locate to an alternative site in which to move.</td>
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<tr>
<td>Types of Impact</td>
<td>Entitled Person(s)</td>
<td>Entitlements</td>
<td>Implementation</td>
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<tr>
<td>10. Temporary disruption of business activities or loss of income and livelihood resources</td>
<td>Owners of trade stores and other roadside businesses; roadside vendors</td>
<td>Will be provided advance notice (at least 60 days) and assistance to relocate business with minimal impacts on income.</td>
<td>Business owner or vendor will sign an agreement with the PMU and/or DLPP regarding the date of removal from the land required for upgrading the road. Special attention to be paid in identifying any vulnerable groups during the census and DMS.</td>
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<td></td>
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<td>If required, affected households / owners will be entitled to compensation based on the number of days of lost income up to a maximum period of 2 months.*.</td>
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</tr>
<tr>
<td>11. Loss of Communal Resources</td>
<td>Owners of community facilities</td>
<td>Will be provided advance notice (at least 60 days) prior to removal.</td>
<td>Entitled to salvaged materials, no deductions will be made to compensation paid for depreciation or value of salvaged materials.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full cash compensation for affected structure, at replacement cost (i.e., full value of replacement materials and labor at current market value, together with any other transaction costs), without deduction for depreciation or salvaged materials. Alternatively, structures will be replaced or restored to an equal or better condition.</td>
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<td>A new temporary (if required) and permanent location for the affected community facility will be arranged in consultation with the affected church owners and members.</td>
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<td></td>
<td>Assistance will be provided to relocate the community facility. Advance notice of at least 60 days will be provided to provide time for the owner / community members to find a new location. The community facility will not be removed until a new one is built in a new location.</td>
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<td></td>
<td>An agreed reasonable allowance between community leaders and PPL will be provided for handling/transport costs of church group/owners to transport belongings.*</td>
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<tr>
<td>Types of Impact</td>
<td>Entitled Person(s)</td>
<td>Entitlements</td>
<td>Implementation</td>
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<tr>
<td><strong>12. Graves, cemeteries, burial and tambu sites</strong></td>
<td>Owners and family members of graves/ cemeteries/ burial sites</td>
<td>A new location for the affected graves will be arranged in consultation with the affected families and owners. Compensation will be paid in accordance with the provisions of the 2013 Valuer General’s Compensation Schedule, with annual increases based on market rates. An allowance of K1,600 per grave to be utilized in the ceremony (includes pigs), purchase of the new coffin, transport, and other associated costs.</td>
<td>All compensation shall be paid in full, prior to beginning of civil works.</td>
</tr>
</tbody>
</table>

**Impacts on vulnerable groups and loss of livelihoods**

| 13. Impacts on vulnerable affected households | Vulnerable affected households identified by social surveys and census assessments. (e.g., female h/h heads, disabled, elderly, unemployed or landless etc.) | Will be provided advance notice of at least 60 days prior to impacts. Vulnerable households will receive (i) priority for any project-related employment; (ii) opportunity to participate in the livelihood restoration program, and (iii) additional cash allowance for food and other necessities while rebuilding residential/business structures or re-planting food gardens. * | Amounts to be determined following DMS and socioeconomic assessments. |

**Unforeseen impacts and losses**

| 14. Unforeseen impacts or losses | Affected households, concerned displaced persons, poor and vulnerable groups. | Unanticipated impacts will be documented and mitigated based on the principles agreed in this RP, according to ADB’s safeguard policies. | To be implemented as per principles of the RF and ADB’s safeguard policy. |

*Specific compensation amounts will be specified in the entitlement matrix of the updated Resettlements Plans following the surveys, assessments and valuations based on the detailed engineering designs.
B. Assistance to Vulnerable Groups

151. Vulnerable households will be identified during the concept design stage and reassessed at the detailed engineering design stage. Additional assistances will be provided to vulnerable households with affected assets. Assistance will include (i) priority for any employment in construction and maintenance works; (ii) participation in the livelihood restoration program, and (iii) additional cash allowance. PPL will encourage the successful contractor to offer employment to at least one adult member from each vulnerable household on construction-related activities on a full-time basis.

IX. SOCIAL IMPACT ASSESSMENTS

152. During the concept design and detailed engineering design stages, further assessments will be required for each of the distribution line subprojects, encompassing medium voltage lines, low voltage lines, installation of transformers and household connections, based on geographic areas. PPL will undertake a thorough assessment of the socio-economic impacts of each distribution line, including (i) inventory of losses and assessments of additional land needed for easements; (ii) census of affected households and socio-economic surveys, (iii) establishment of a database, (iii) detailed measurement surveys of affected assets such as trees and crops conducted. Consultations with affected households and communities will be held before during and after the completion of these surveys. The results of the surveys and assessments will be used to prepare the Updated Resettlement Plans. Updated Resettlement Plans may be prepared based on geographic areas, and as a result there will likely be a number of plans prepared and implemented.

153. Inventory of losses and assessment of additional land needed for easements. Based on the designs, an IOL will be conducted in areas identified where road ROW is not sufficient and there is a potential need to negotiate easement agreements with landowners or when there may be potential impacts on structures, assets or productive trees. Specific data that needs to be gathered includes (i) type or nature of landholding and assets that will be affected by the project, (ii) size; (iii) type and extent of possible project impacts; and (iv) name of owner/tenant of the property/assets that will be affected (if readily available). It will identify areas where there may be land disputes. A cut-off date will be established as the date of the commencement of the IOL and census in the area and this will be publicized in advance by PPL.

154. Census and socio-economic survey of affected households. The census and socioeconomic survey of affected households will be conducted to document the status of potentially affected households within the subproject impact area and identify vulnerable affected households. It shall cover 100% of affected households / entities and should identify and record all affected persons. The survey will include a socio-economic profile of affected households and entities, especially their assets and main sources of livelihood. These resettlement investigations will be the basis to prepare a detailed inventory of losses for each affected household in terms of type and extent of impact with respect to land, structure, livelihoods, and access to common property resources, if any.

155. Database. All information gathers from the IOL and surveys will be entered into a computer database. This database will support the preparation and implementation of the Updated Resettlement Plans and will be used for monitoring and reporting purposes and facilitate efficient management and monitoring of compensation distribution. The collected data and the analysis shall quantify the degree of losses and implications for the affected households in terms of living conditions, livelihoods, income loss, intangible loss, and other impoverishment risks.
156. **Detail Measurement Survey.** PPL and resettlement/valuation specialists will undertake surveys for each distribution line, based on detailed/final technical design. Detailed measurement survey (DMS) or sometimes called Replacement Cost Survey includes the following: (i) a full inventory/measurement of all affected land/other assets losses including buildings, crops, trees, and income that is subject to compensation; (ii) for structures it would describe the type of (construction) materials used, i.e. concrete, brick, mud/mud-brick etc.; (iii) an assessment of unit replacement values for each affected item/loss will be conducted to ascertain the value of losses and identify rehabilitation measures to mitigate impacts. The PPL lands team, following the standard DLPP procedure, will undertake the DMS and may involve the Department of Agriculture and Livestock representatives. A valuator (either from government will provide valuation report and define the replacement value per item per affected household. The valuation report will serve as a basis for defining compensation package along with other entitlements. The valuation for asset, and replacement cost of structures, may also be re-assessed by a certified government valuator in close consultation with PPL, the Provincial Administration Division of Lands and Physical Planning, and/or the Valuer General of PNG, if required.

157. The above-mentioned data shall be analyzed to review the social impact of each subproject on the affected households and communities, in particular the poor, women, and other vulnerable and disadvantaged groups, although given the distribution lines will predominately be located within road ROW the impacts on affected households are expected to be minor. Nonetheless, PPL will be supported by safeguard consultants to ensure this is the case for each geographic area.

X. **INCOME RESTORATION AND REHABILITATION**

A. **Possible Livelihood Risks**

158. The possible livelihood risks for affected households in the distribution line subprojects relate to the impacts on subsistence gardens and productive trees, including fruit trees, such as banana, cocoa, coconut, mango and betelnut, located within the road ROW. There are also potential livelihood disruptions for the approximate 120 trade store owners and their workers.

B. **Income Restoration**

159. A Livelihood Restoration and Improvement Program will be implemented to restore or rehabilitate incomes and livelihoods that are affected by the project, including short-term and long-term interventions that are gender sensitive and culturally appropriate. The program will be specific to the impacts and preferred livelihood restoration options of affected households, per subproject area and where needed. Strategies for income and livelihood restoration shall be consistent with the requirements of ADB safeguard policies and may include but not be limited to (i) support to access existing government programs and services, (ii) vocational training opportunities, (iii) employment information and referral, (iv) opportunities to avail of project employment through training prior to construction and preferential hiring, (v) financial management and entrepreneurial training, (vi) training on re-establishing food gardens and crops within the height limits, and (vii) targeted interventions for women and vulnerable persons. PAPs who lose 10% or more of their productive assets or whose income is impacted by more than 10%, as well as vulnerable affected households, will be entitled to participate in the program. The program will be designed in consultation with affected households and government stakeholders, and details of the program will be included in the Updated Resettlement Plans.
XI. RESETTLEMENT BUDGET AND FINANCING PLAN

A. Land Acquisition and Compensation Costs

160. All funds required for land acquisition, compensation and allowances, operation and administration, surveys, monitoring and reporting will be financed by PPL using their own funds. As shown in Table 1, a budget has been estimated at 9,280,500.00 Kina (USD $2,644,017), of which 6,470,000 Kina is expected to comprise of direct costs for payment of compensation.

<table>
<thead>
<tr>
<th>SN</th>
<th>Item Description</th>
<th>Amount (Kina)</th>
<th>Amount (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Land</td>
<td>3,600,000.00</td>
<td>1,025,641.03</td>
</tr>
<tr>
<td>2</td>
<td>Non-Land Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi-permanent trade stalls and stores</td>
<td>120,000.00</td>
<td>34,188.03</td>
</tr>
<tr>
<td></td>
<td>Trees and crops of commercial value</td>
<td>1,500,000.00</td>
<td>427,350.43</td>
</tr>
<tr>
<td>3</td>
<td>Livelihood Restoration Program and support for affected businesses</td>
<td>500,000.00</td>
<td>142,450.14</td>
</tr>
<tr>
<td>4</td>
<td>Allowances/cash support for other assistances to affected households and support for vulnerable households</td>
<td>750,000.00</td>
<td>213,675.21</td>
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<tr>
<td></td>
<td><strong>Sub Total (A)</strong></td>
<td><strong>6,470,000.00</strong></td>
<td><strong>1,843,304.84</strong></td>
</tr>
<tr>
<td>B</td>
<td>Implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Land Survey (DMS)</td>
<td>1,200,000.00</td>
<td>341,880.34</td>
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<tr>
<td>2</td>
<td>Consultations</td>
<td>400,000.00</td>
<td>1,139,600.11</td>
</tr>
<tr>
<td>3</td>
<td>Asset inventory and valuation</td>
<td>Internal PPL cost</td>
<td></td>
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<tr>
<td></td>
<td><strong>Sub Total (B)</strong></td>
<td><strong>1,600,000.00</strong></td>
<td><strong>455,840.46</strong></td>
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<tr>
<td></td>
<td><strong>Subtotal (A + B)</strong></td>
<td><strong>8,070,000.00</strong></td>
<td><strong>2,299,145.30</strong></td>
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<tr>
<td></td>
<td>Contingency (15%)</td>
<td>1,210,500.00</td>
<td>344,871.79</td>
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<td><strong>Total estimated cost</strong></td>
<td><strong>9,280,500.00</strong></td>
<td><strong>2,644,017.09</strong></td>
</tr>
</tbody>
</table>

Source: PPL

161. As the distribution line components are at a preliminary conceptual design stage, estimates have been provided for the amount of compensation required for the easement agreements, but nominal amounts included for the other cost estimates – based on other similar projects implemented by PPL (including ADB-financed projects). A more detailed budget will be prepared during the concept design stage, and a final accurate budget will be included in the Updated Resettlement Plans based on the detailed engineering designs.
B. Flow of Funds

162. Funds for land and other productive assets to be compensated will be paid directly to affected households by PPL either through bank transactions or by cash payments, whichever is more practical for affected households. PPL will ensure accountability and transparency by keeping signed records and photographs during payments.

163. Payment for temporary acquisition of additional land will be made directly by the contractor to local affected households if the need arises during implementation works. It will be based on a lease agreement between the two parties as to the actual amount. The contractor is required to comply with the policies outlined in the Resettlement Plan, PNG Laws and ADB SPS. The agreements will not involve the PPL or other parties unless affected households are dissatisfied with the amounts offered by the contractor. Nonetheless, PPL will conduct due diligence on the leases to ensure they satisfy PNG Law, ADB SPS and the policies outlined in this Resettlement Plan.

C. Source of Resettlement Funds

164. PPL will be responsible for all costs relating to land and resettlement. PPL is financially responsible for all resettlement activities during the project including the costs associated with asset inventory and valuation, Resettlement Plan updating and implementation including compensation payment to affected households, and the monitoring and evaluation of these resettlement activities. In this context, PPL will allocate sufficient budget for both direct compensation costs, assistances and staff resources for implementation and monitoring of the Resettlement Plan activities under the project.

XII. INSTITUTIONAL ARRANGEMENTS

A. Roles and Responsibilities (for Implementation of the Resettlement Plan)

165. Department of Petroleum and Energy (DPE). As Executing Agency (EA) for the project, DPE has overall responsibility to manage the planning, implementation and monitoring related to land acquisition, mitigation of impacts on assets located within road ROW, and minimizing impacts on project-affected households. In this particular project, DPE has delegated majority of the roles to PPL, and has confined its role in strategic guidance, high-level decisions and overall performance monitoring of the project.

166. PNG Power Limited (PPL). As the Implementing Agency, PPL has the responsibility to carry out day-to-day activities related to land acquisition, use of easements, impacts on assets and resettlement.

167. These activities will include:
   (i) collaborating with, and assist District Land Officer (DLO), Customary Land Officer (CLO), valuer and surveyor in consultation with ILG officials to carry out negotiations and agreements with affected landowners or land-users in compliance with the project policies and ADB requirements;
   (iii) selecting, authorizing, mobilizing and paying for the private valuer and surveyor;
   (iv) establishing PMU and safeguard team;
   (v) recruiting staff and consultants;
   (vi) providing resources to carry out surveys, investigations, assessments and consultations, including where necessary PPL expertise or contracted expertise to prepare the updated resettlement plan and to carry out the
census, Inventory of Loss and Detailed Measurement Survey / Replacement Cost Surveys;

(vii) allocating and paying funds for affected assets including land, assets, and improvements;

(viii) organizing consultations with affected communities and ensuring that all stakeholders are informed about the Project, its policies and procedures; ensure that all requirements concerning public disclosure of the provisions for land acquisition and compensation; and overseeing and monitoring the grievance redress process.

(ix) preparing, reviewing, and endorsing the draft and updates/final Resettlement Plan prior to submitting to ADB for clearance, ensuring that all matters related to land acquisition are complete and properly reported upon;

(x) monitoring the progress of allocation and disbursement of funds for compensation, and ensuring that funds are available, and compensation is paid in a timely manner; and

(xi) undertaking all other activities including the monitoring of land acquisition and resettlement related activities.

168. **Project Management Unit (PMU).** The PMU will have the responsibility (delegated by the DPE and PPL) to carry out all operations and deliverables, including the preparation and implementation of resettlement plans, in strong coordination with the Lands Division. The team of PPL staff and qualified safeguards consultants, with skills in environment, land acquisition/resettlement, community development, indigenous peoples and gender, will carry out and coordinate the consultations, screening, surveys, census and other fieldwork to implement the Resettlement Plans, as well as the tasks of monitoring and reporting on progress. The PMU will engage consultants that can speak local languages in subproject areas in order to support meaningful consultation outcomes. They will also brief and liaise closely with safeguards staff from the Design and Supervision Consultant (DSC).

169. **Office of the Provincial Governments.** OPA, including the provincial lands officers (PLU) and DLO will collaborate with PPL to plan, implement, and monitor land acquisition activities – if they are required by the subproject. The responsibilities include:

(i) Undertake cadastral surveys of land required permanently (long-term) for the project and estimate the area of land required for temporary acquisition by the subproject, where required.

(xii) Negotiate and sign agreements for the acquisition/use of customary land with the clan leaders and affected landowners and/or land-users.

(xiii) Consult with and advise affected communities about the project, the policies, and procedures when land is required and the rights and responsibilities of directly affected households and other indirectly affected people.

170. **Local Level Government.** Ward Councilors will facilitate all consultations with local communities, affected households and other stakeholders. They will be responsible for collaborating with PPL to organize and carry out these consultations on a participatory basis. They will also be assisting to resolve disputes of affected households and provide reports to PMU Officer. They will assist with the identification of owners of assets. Government officers will provide support during consultations with stakeholders, as needed. They will provide information and support in the design and development of the Livelihood Restoration and Improvement Program.

171. **Department of Land and Physical Planning** (DLPP) will process all reports and following the established procedures transfer land title to PPL, as detailed in the Updated Resettlement Plan (if needed). The new title will be issued to PPL once the entire process is
completed and relevant payments have been made. Respective officials in DLPP will collaborate with the PMU in this regard.

172. In addition, officials from DLPP may support the PMU in identification of owners of land and assets, valuation of land and assets, negotiation, preparation of necessary land documents, consulting and advising the community regarding the project policies and procedures when additional land is required and the rights and responsibilities of affected households and other stakeholders. PMU or PPL will send a letter to the respective officer in DLPP requesting the necessary support.

173. **Design and Supervision Consultant (DSC).** The DSC will employ national and international safeguard specialists to support the preparation of final and/or updated Resettlement Plans, support the implementation, monitoring and reporting of these plans, and supervise the compliance of the contractors’ operations in terms of safeguards requirements in their contracts. This includes compliance with the Environmental Management Plan (prepared by the contractor and reviewed and validated by the DSC safeguards experts), and compliance with the Resettlement Plans. During the pre-construction phase, the DSC will ensure that social issues that need to be addressed by the design engineers are considered. Following award of the contract, the DSC safeguards specialists will provide social safeguards induction for the contractor. They will ensure that the contractor has access to the social assessments of the subprojects and advise them of their responsibilities to mitigate social impacts. DSC safeguards compliance specialist will also undertake regular site visits and compliance checks and prepare regular reports.

B. **Institutional Support and Capacity Building Activities**

174. The project includes institutional support and capacity building activities to strengthen the implementation of the Resettlement Plan. The capacity building activities will cover subjects such as: (i) the government policies and procedures for acquisition of land; (ii) ADB policies and procedures on social safeguards; (iii) applying the government and ADB policies in the project, including valuation; and (iv) methods on surveys and data collection to update Resettlement Plan and conduct community consultations and awareness programs. The activities will target people from PPL, Ward officers, relevant staff of the Valuer General and other organizations involved in land acquisition and compensation activities. The capacity building activities will be implemented by international and national social safeguard specialists that will be engaged for the project, and who will form part of the DSC.

C. **Role of Civil Society Groups**

175. Civil society organizations (CSOs) and non-government organizations (NGOs) within the subproject area will be invited to participate in stakeholder consultation activities and will be provided information about the project. There are at least two Port Moresby based NGO groups that have worked with PPL in the past. These two NGOs are the Centre for Environment, Law and Community Rights (CELCR) and Environment Law Centre (ELC). Both these NGOs are non-sectarian and have a good understanding of resettlement, customary ownership rights, gender equity and indigenous people’s development. During the detailed engineering design stage, PPL will consider options to engage an CSO or NGO to deliver livelihood restoration and improvement activities, as required.

D. **Involvement of Women in Resettlement Planning and Management**

176. PPL will ensure that both males and females in the affected households will be consulted during the preparation of the updated Resettlement Plan, during the design process and project implementation, including understanding the gender roles in the households such as who is responsible for planting, harvesting and marketing of affected crops, trees and other
potentially affected assets. For example, if women are responsible for planting the affected crops, women need to be consulted regarding timing of harvesting and may need to solely, or jointly with their husband, receive compensation for these assets. In addition, women will also be consulted on potential resettlement impacts from the project activities and recommendations sought on mitigation measures to avoid or minimize impacts to people and properties.

177. PPL will ensure that local groups opposed to such a provision (e.g., some clan leaders) will not be able to prevent women affected households jointly receiving compensation from damaged assets, being paid equally to men affected households or to enjoy other benefits such as an opportunity to work on the project.

178. In line with ADB Safeguard and Gender policies, PPL will ensure that women benefit from the opportunities through consultations with women on compensation. During compensation, both wife and husband will be present to sign and collect compensation. This practice has already been done in other PPL projects. PPL will encourage women and ensure equal participation during further consultations with affected households and communities.

### XIII. IMPLEMENTATION SCHEDULE

179.

180. Table presents the implementation schedule for resettlement activities including (i) updating the Resettlement Plan; (ii) implementing the Resettlement Plan; and (iii) monitoring activities including grievance redress mechanism.

**Table 13: Implementation Plan**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule</th>
<th>In-Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Updating the Resettlement Plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Establish PMU and Safeguard team</td>
<td>At project approval</td>
<td>PPL</td>
</tr>
<tr>
<td>2. Continue consultations with project communities and affected households, providing updates on the progress of the project</td>
<td>Ongoing</td>
<td>PPL</td>
</tr>
<tr>
<td>3. Set up the GRM, including the Grievance Redress Committee and provide training and orientation on roles and functions</td>
<td>Following mobilization of the DSC</td>
<td>PPL, DSC</td>
</tr>
<tr>
<td>4. Screen land requirements and impacts on assets within the road ROW based on concept designs for the medium voltage and low voltage distribution lines. During the design process ensure that social impacts are avoided or minimized.</td>
<td>When concept designs are being prepared and finalized</td>
<td>Design and Supervision Consultant (DSC), International Social Safeguards Specialist (ISSS)</td>
</tr>
<tr>
<td>5. Verify land ownership of proposed subproject sites through land title search and meeting with Department of Lands and Provincial Government.</td>
<td></td>
<td>PPL, ISSS</td>
</tr>
<tr>
<td>6. Follow up consultation with project communities, affected households/people on potential impacts to their assets and secure agreement on preferred resettlement/relocation measures (if required). Communicate the project’s cut-off date.</td>
<td></td>
<td>PPL, DSC, ISSS</td>
</tr>
<tr>
<td>7. Re-assess land requirements and impacts on assets within the road ROW based on detailed engineering designs for the medium voltage and low voltage distribution lines.</td>
<td>When detailed designs are being prepared and finalized (Month 0)</td>
<td>Design and Supervision Consultant (DSC)</td>
</tr>
<tr>
<td>Activity</td>
<td>Schedule</td>
<td>In-Charge</td>
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</tr>
<tr>
<td>During the design process ensure that social impacts are avoided or minimized.</td>
<td></td>
<td>International Social Safeguards Specialist (ISSS)</td>
</tr>
<tr>
<td>8. Re-verify land ownership of land identified as needing easement agreements from the detailed engineering designs.</td>
<td>Month 1-2</td>
<td>PPL ISSS</td>
</tr>
<tr>
<td>9. Select, authorize, mobilize, and pay for the private valuer and surveyor.</td>
<td>Month 1-2</td>
<td>PPL DSC</td>
</tr>
<tr>
<td>10. Follow up consultation with project communities, affected households/people to provide updates on impacts and communication of the project cut-off date for newly affected assets.</td>
<td>Month 2-3</td>
<td>PPL DSC ISSS</td>
</tr>
<tr>
<td>11. Undertake final asset inventory of losses and carry out census of affected households for land and non-land assets to identify impacts to affected households and small local business owners (trade stalls, and trade stores et al). Conduct meaningful consultations during this process.</td>
<td>Month 3-4</td>
<td>PPL DSC Asset Valuer</td>
</tr>
<tr>
<td>12. Follow PPL and government procedures regarding easement agreements and in line with ADB SPS</td>
<td>Month 3-4</td>
<td>PPL DSC</td>
</tr>
<tr>
<td>13. Consult with customary landowners (groups and clans) regarding the easement agreements to ensure informed consent.</td>
<td>Month 4-5</td>
<td>PPL ENB Provincial Government</td>
</tr>
<tr>
<td>14. Update Resettlement Plan and conduct public disclosure in project sites.</td>
<td>Month 5</td>
<td>PPL Councilor LLG officials PMU/DSC/ISSS</td>
</tr>
<tr>
<td>15. Submit updated Resettlement Plan to ADB for clearance and posting on ADB website</td>
<td>Month 5</td>
<td>PPL PMU</td>
</tr>
<tr>
<td>16. ADB no-objection to proceed with implementation of the Resettlement Plan</td>
<td>Month 5</td>
<td>ADB</td>
</tr>
</tbody>
</table>

**B. Implementation of Resettlement Plan**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule</th>
<th>In-Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Undertake the signing of the easement agreements and provide compensation of affected assets as required in accordance with national laws, agreements made with affected households, details of the Updated Resettlement Plan and ADB safeguard policies.</td>
<td>Month 6-prior to construction</td>
<td>PPL</td>
</tr>
<tr>
<td>18. Payment of checks/cash/materials to affected households</td>
<td>Month 6-prior to construction</td>
<td>PPL DSC/PMU/ISSS</td>
</tr>
<tr>
<td>19. Start of livelihood restoration program prior to construction</td>
<td>Month 6 throughout the construction stage</td>
<td>PPL DSC/PMU/ISSS</td>
</tr>
<tr>
<td>20. Compensation completion report submission to ADB</td>
<td>Before construction</td>
<td>PPL DSC/PMU/ISSS</td>
</tr>
<tr>
<td>21. Issues notice to proceed with civil works</td>
<td>Following ADB clearance of Compensation Completion Report</td>
<td>ADB</td>
</tr>
<tr>
<td>22. Commencement of civil works including clearance of land(s)</td>
<td>Following issuance of notice to proceed</td>
<td>PPL/PMU Contractor</td>
</tr>
</tbody>
</table>

**C. Monitoring of Resettlement Plan Implementation**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Schedule</th>
<th>In-Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Establish socioeconomic baseline of affected households</td>
<td>Established in the Updated Resettlement Plan</td>
<td>PPL/DSC</td>
</tr>
<tr>
<td>24. Preparation of monitoring indicators and system for collection of data</td>
<td>Established in the Updated Resettlement Plan</td>
<td>DSC</td>
</tr>
<tr>
<td>25. Conduct on-going monitoring and submits semi-annual safeguards report to ADB</td>
<td>On-going until construction completion</td>
<td>PPL/DSC</td>
</tr>
<tr>
<td>26. Conduct post-resettlement survey and final evaluation report.</td>
<td>On project completion</td>
<td>PPL/DSC</td>
</tr>
</tbody>
</table>
XIV. MONITORING AND REPORTING

181. The primary objective of monitoring is to identify as early as possible the activities achieved and the cause(s) of constraints so that the arrangements in the Resettlement Plan implementation can be adjusted. Monitoring also provides an avenue for affected households to provide feedback on the Resettlement Plan implementation and corrective actions, if required. Monitoring is essential because Resettlement Plan implementation is often the critical path for any project where civil works are involved, due to issues of landownership, compensation, and resettlement that may cause a delay in civil works. The early identification of the causes of delay will enable PPL (with support from PMU), to prepare the mitigating measures during Resettlement Plan implementation.

182. The project will monitor all activities associated with implementation of compensation for affected assets, resettlement and livelihood restoration and other key activities to implement the Resettlement Plan. The scope of monitoring includes: (i) compliance with the agreed policies and procedures for identification of affected households and affected local livelihoods, asset valuation, payment and resettlement; (ii) prompt approval, allocation and disbursement of compensation payments to affected households by PPL, including if necessary supplemental compensation for additional and/or unforeseen losses; and (iii) remedial actions, as required.

183. The monitoring will also cover the social impacts of the subproject and whether affected households are able to restore, and preferably improve, their pre-project living standards, affected incomes, and productive capacity. PPL will prepare and submit:
(i) A final and/or updated Resettlement Plan based on detailed engineering designs;
(xiv) Semi-annual safeguards monitoring reports during the implementation of the Resettlement Plan and throughout the construction period;
(xv) Compensation Completion Report, prior to the commencement of physical works activities; and
(xvi) Final Evaluation Report.

184. All compensation and resettlement tasks will be monitored internally, together with any grievance and their resolution, and progress reported to the government and ADB on a semi-annual basis. Monitoring will be carried out by PPL, with the assistance of the DSC and the local government. ADB will conduct review missions. Process indicators will relate to implementation outputs and deliverables. All data collected will be disaggregated by gender. These will be collected directly from the field and will be reported monthly to the PMU to assess the Resettlement Plan implementation progress and adjust the work plan if necessary. These reports will be consolidated in the safeguard monitoring reports for ADB and submitted semi-annually.
ANNEX 1: Indicative List of Distribution Line Components
ANNEX 2: Rapid Assessment of Impacts of Medium-Voltage Lines
ANNEX 3: Draft Communications Strategy
ANNEX 4: Consultation Record Sample