

Resettlement Plan

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Sarulla Geothermal Power Development Project (Republic of Indonesia)

Prepared by Sarulla Operations Limited for the Asian Development Bank

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FINAL REPORT

Volume V: Resettlement Plan

**Development of Sarulla Geothermal Field and
Power Plant of 330 MW Capacity**

**North Tapanuli Regency
North Sumatera Province**

February 2015

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UNITS AND ABBREVIATIONS

ADB	Asian Development Bank
ADBs SPS	ADB Safeguard Policy Statement
ADB SP	ADB Safeguard Policy
AIDS	Acquired Immune Deficiency Syndrome
AKSI	Asosiasi Kewirausahaan Sosial Indonesia (also known as Indonesian Association of Social Entrepreneurship)
AMDAL	Analisis Mengenai Dampak Lingkungan
ANDAL	Analisis Dampak Lingkungan
BAPPEDA	Badan Perencanaan Pembangunan Daerah (also known as Regional Body for Planning and Development)
BBM	Bahan Bakar Minyak (also known as Fuel in English)
BLH	Badan Lingkungan Hidup (also known as Environmental Agency in English)
BDS	Business Development Service
BOP	Blow Out Preventer
BPD	Badan Pemusyawaratan Desa (also known as Village Representative Board)
BPN	Badan Pertanahan Nasional (also known as National Land Agency)
CAP	Corrective Action Plan
CDP	Community Development Program
COI	Corridor of Impact
CSOs	Civil Society Organisations
CSR	Corporate Social Responsibility
DoA	Deed of Assignment
DPs	Displaced Persons
dB	Decibel
dBA	Average Decibel
EIA	Environmental Impact Assessment
EPC	Engineering Procurement Contracting
EPFIs	Equator Principles Financing Institutions
ERM	Environmental Resources Management
ESC	Energy Sales Contract
ESDM	Energi Sumber Daya Mineral (also known as Energy Mineral and

	Resources)
ESIA	Environmental and Social Impact Assessment
ESC	Energy Sales Contract
ESMP	Environmental and Social Management Plan
FE	Final Evaluation
FGDs	Focus Group Discussions
FI	Financial Intermediary
FPIC	Free, Prior, and Informed Consent
GCCU	Geothermal Combined Cycle Unit
GRM	Grievance Redress Mechanism
GTRM	Grievance Tracking and Redress Mechanism
GN	Guidance Notes
H ₂ S	Hydrogen Sulphide
HIV	Human Immunodeficiency Virus
HR Dept.	Human Resources Department
HSE	Health, Safety and Environmental
HKBP	Huria Kristen Batak Protestan (also known as group Batak Christian Protestant)
IARRP	Ikatan Anak Rantau Rura Pangaloan (name of local NGO)
ICP	Informed Consultation and Participation
IDR	Indonesian Rupiah
IESR	Institute for Essential Service Reform
IEC	Information Education Consultation
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IFC PSs	International Finance Corporation Performance Standards
IGCCU	Integrated Geothermal Combined Cycle Unit
ILO	International Labour Organisation
IMARUPA	Ikatan Masyarakat Adat Rura Pangaloan (name of local NGO)
IPP	Indigenous People Plan
IPPs	Independent Power Producers
IPs	Indigenous Peoples
ISP	Integrated Social Plan
JBIC	Japan Bank for International Cooperation
JPIC	Justice, Peace and the Integrity of Creation

JOC	Joint Operation Contract
KPIs	Key Performance Indicators
LOI	Letter of Intent
MOE	Ministry Of Environment
MonEv	Monitoring and Evaluation
MSDS	Material Safety Data Sheet
MW	Mega Watt
NIL	Namora I Langit
NJOP	Nilai Jual Objek Pajak (also known as Tax Object for Sales Value)
NINDJA	Network for Indonesian Democracy, Japan
NGOs	Non-Governmental Organisation
Nm ³	Nano Meter Cubed
NO _x	Nitrogen Oxides
OEC	Ormat Energy Converter
OEM	Original Equipment Manufacturers
OHS	Occupational Health and Safety
ORC	Organic Rankine Cycle
PAPs	Project Affected Peoples
PAHs	Project Affected House
Pb	Lead
PKK	Pembinaan Kesejahteraan Keluarga (also known as Family Welfare Program)
PLTP	Pembangkit Listrik Tenaga Panas (also known as Geothermal Energy Power Plant in English)
PLN	PT Perusahaan Listrik Negara (State-owned Electricity Firm)
ppm	part per million
PS	Performance Standards
RAP	Resettlement Action Plan
RKL	Rencana Pengelolaan Lingkungan (also known as Environmental Management Plan)
RPL	Rencana Pemantauan Lingkungan (also known as Environmental Monitoring Plan)
RP	Resettlement Plan
RoW	Right of Way
SIL	Silangkitang
SOL	Sarulla Operations Limited

SOx	Sulphur Oxides
SPS	Safeguard Policy Statement
SR	Safeguard Requirements
Sq. m	Square Meter
SSCAR CAP	Social Safeguard Compliance Audit Report Corrective Action Plan
STIs	Sexually Transmitted Infections
TBC	Tuberculosis
UEM	United Evangelical Mission
UKL	Upaya Pengelolaan Lingkungan (also known as Environmental Management Effort)
UUPA	Undang-undang Pokok Agraria (also known as Principal Act for Agrarian)
UPL	Upaya Pemantauan Lingkungan (also known as Environmental Monitoring Effort)
UNSG	UNOCAL North Sumatera Geothermal
UPL	Upaya Pemantauan Lingkungan
USEPA	United States Environmental Protection Agency
WALHI	Wahana Lingkungan Hidup (also known as The Indonesian Forum for Environment)
WHO	World Health Organisation
WJP	West JEC Production Well
WJR	West JEC Re-injection Well
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

ES1 INTRODUCTION

Sarulla Operations Limited (SOL) is the operation company established by the Consortium of Itochu Corporation, Kyushu Electric Power Co., Inc., Ormat International, Inc. and PT. Medco Energi International Tbk. SOL plans to develop the geothermal field and power plant combined capacity of 330 MW in Sarulla, in Pahae Jae and Pahae Julu Districts, North Tapanuli Regency, North Sumatera Province (**Figure ES-1**). Details of the Project are provided in **Table ES-1**.

Tables ES-1 Summary of the Project for Development of the Geothermal Field and Construction of PLTP Sarulla

Item	Contents	
Project Name	Sarulla Geothermal Power Project	
Location	North Sumatra, Indonesia	
Capacity	320.8 MW, net (1 Unit of 105.4 MW net at Silangkitang ("SIL") and 2 Units of 107.7MW net at Namora-I-Langit ("NIL-1" and "NIL-2"))	
Sponsors	PT Medco Power Indonesia ("Medco")	:37.25%
	Itochu Corporation ("Itochu")	:25.00%
	Kyushu Electric Power Co., Inc. ("Kyuden")	:25.00%
	Ormat International, Inc. ("Ormat")	:12.75%
Project Co.	Sarulla Operations Ltd. ("SOL")	
Commercial Operation Date	SIL: (*) months after financial close NIL-1: (*) months after financial close NIL-2: (*) months after financial close	

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (v) of ADB's Public Communications Policy (2011)*

In relation to the Regency Spatial Plan, the Government of North Tapanuli Regency issued North Tapanuli Regency Regulation No. 19 of 1994 regarding North Tapanuli Regency spatial planning, which designated the sub districts of Pahae Jae (Silangkitang area or SIL) and Pahae Julu (Namora I Langit or NIL) as areas of geothermal natural resources.

Figure ES-1 Location of the Project for Development of Geothermal Field and Construction of PLTP Sarulla



ES1.1 Project Objectives and Benefits

The proposed Project has the following objectives:

- To overcome electricity shortage in Indonesia, especially in North Sumatera;
- To support the Government of Indonesia policy in energy diversification and fossil fuel consumption reduction; and
- To optimize the use of geothermal energy that has a high economic and environmental potential.

The Government of Indonesia will benefit from this proposed Project through an increase in electricity supply of 330 MW from geothermal energy which is environmentally friendly compared to traditional sources of electricity generation and is locally available in an area with an increasing energy demand. This project can help to reduce fossil fuel dependency in producing electricity by utilizing the renewable energy of geothermal.

The benefit will also reach local governments and the community in the North Sumatera Region as the direct beneficiary of the power generated from this project. It will help to improve the local economy by providing business and employment opportunities, particularly at the project location. This project will provide economic, social and technological benefits at national and regional levels.

ES1.2 *Purpose of this Resettlement Plan*

SOL, as part of this development plan, is seeking a financial investment from the Japan Bank for International Cooperation (JBIC), Asian Development Bank (ADB) and a group of Equator Principles Financing Institutions (EPFIs). Project proponents seeking financing from JBIC, ADB and EPFIs are required to comply with the applicable bank's environmental, social and health policies, developed for managing the environmental and social risks associated with project finance.

ERM was commissioned to prepare this Resettlement Plan (RP) for remaining lands to be acquired by the Project. The land acquisition process for the transmission line between SIL and NIL will be conducted through negotiated settlement where direct negotiations and agreements between land owners and SOL, facilitated by the government of North Tapanuli Regency. Where landowners refuse to sell their land, the project will seek to re-route. The transmission line alignment and footprint is already finalised and SOL has obtained a location permit from the relevant government authorities. . In addition SOL has acquired land in the NIL area. Therefore, SOL is required to update this RP following confirmation of these Project components.

Specifically, this Plan has been developed in order to meet the requirements set out by the ADB (namely the ADB's Safeguard Policy Statement and the Safeguard Requirement 2 (Involuntary Resettlement Safeguards)), as well as JBIC Social Requirements and the IFC's Performance Standard 5 (Land Acquisition and Involuntary Resettlement).

This report forms Volume V for the proposed development of the Sarulla Geothermal Field and Power Plant of 330 MW Capacity, North Tapanuli Regency, North Sumatera Province. All Volumes are as follows:

- Volume I: Environmental Compliance Audit Report and Corrective Action Plan;
- Volume II: Environmental and Social Impact Assessment (ESIA) Addendum;
- Volume III: Indigenous Peoples Plan (IPP);
- Volume IV: Social Safeguards Compliance Audit Report and Corrective Action Plan; and
- Volume V: Resettlement Plan (this Plan).

ES1.3 Report Contents

This RP presents affected land and assets of land owners based on transmission line of alignment, the location permit has been obtained and detailed design has been finalised. Socio-economic details on the Project Affected Peoples (PAPs) are presented based on a full survey with land owners for. The RP also presents the Project's entitlements matrix, income restoration activities, along with SOL's implementation budget, schedule and monitoring and reporting requirements. The RP has been updated based on final design, 100% asset inventory and census and key information disclosed to affected people during negotiation and prior to actual land take. The entitlement matrix may be enhanced but not downgraded and up to now, there are no new categories of people or impacts identified and/or changes in entitlements.

ES2 Scope of Land Acquisition and Resettlement Impacts

The construction of a combined length of 14km of 150 kV (high voltage) is overhead transmission line from Silangkitang field (SIL 1) to PLN substation and from Namora I Langit field (NIL 1) to PLN substation. The minimum clearance to the ground is 12 m from the main road, 9 m from the normal ground and 5.5 m from any trees. The transmission line from the power station to the tentative location of the PLN substation is about 2km. A typical 150kV transmission line has a corridor of impact of 18 meters (9 meters on each side of the transmission line) hence approximately 20 hectares of land will be within the corridor of impact (COI) of the transmission line. Land within the COI will not be acquired but some land use may be restricted hence an easement fee will be paid. There are a total of 38 towers for the T/L. The estimated total area of land required for each tower is 30 m x 30 m or 900 m². The total required for the T/L RoW is 165,000 m².

From NIL to SIL, 47 towers will be built from SIL to the PLN substation with an estimated distance of approximately 300 meters between each of the towers. It is estimated that each transmission tower will require 900 m², and therefore the total land required for the towers is 4 ha.

Land required for the Project will be procured through negotiated settlement. It will be undertaken in stages as the construction of the geothermal field progresses. SOL has identified 177 land owners that have been affected by the land acquisition process. In the most recent survey by SOL, as of August 2014, the transmission towers involve 55 landowners, 19 land owners for the WJP1N and Access Road 5 and 188 landowners for RoW.

The remaining land for acquisition for the transmission line is still being finalised therefore these figures may still change. SOL needs to finalise the survey and identification of land owners and conduct the socialization and negotiation with land owners. Before the remaining land owners for transmission line can be identified and surveyed, SOL is required to obtain the Location Permit (*Izin Lokasi*) for the transmission line from the GoI.

ERM conducted a survey of 150 landowners in seven villages (as not all 177 were available). The land owners surveyed will have their land acquired for the tower footprint (30 m x 30 m), Road 5 and WJP 1N.

The transmission line will pass through seven villages in Pahae Jae and Pahae Julu sub-districts. In SIL the villages include Silangkitang and Sigurung-gurung villages and in NIL Sitolu Ama, Hutabarat, Lumban Garaga, Sibaganding, Lumban Jaean, Lubung Pining and Simanampang villages.

ES3 ***Consultation and Grievances***

Consultation in relation to the Project and its impacts has been undertaken in the majority of the above villages since 2008, land acquisition socialisation activities associated with Tower Footprints, Road 5 and WJP 1 N have been conducted; however consultation with landowners for the tower footprints of the transmission line was been conducted in February 2014. However, land owners who are located along the RoW have not been compensated yet. SOL plans to commence these activities at the end of October 2014. The rates for land purchase are widely known in the affected villages as this has been discussed during community meetings however consultations with affected communities is still on-going.

SOL has established a grievance mechanism that is being managed by the external relations team. The grievance mechanism has been socialised with the majority of the PAPs.

ES4 ***Compensation and Entitlements***

The valuation methodology for the land compensation was based on the sub-district office reference for PLN (IDR 50,000 per m²) in 2010 and also 2013 land market prices (with no crops or plants) in the Pahae Julu (IDR 35,000 per m²). The compensation for land (IDR 65,000 per m²) was not based on its productivity or type of land. SOL is offering IDR 125,000 per m² for land and paddy (immature) which is considered by the Project to be above market replacement value. The valuation for plants was based on the Agriculture Agency in the North Tapanuli Regency rates that base price on the age of plants reflecting its type/category (seeds, unproductive and productive) and current/actual condition/type of land. Acquisition of structures will be based on Indonesian Regulations.

The following land owners are eligible for entitlements:

- Land owners who have lost access to land, plants and structures or any built assets as a result of Project land acquisition, whether or not they have legal title to the land including those with heritage land claims to the affected land;
- Land owners and owners of structures and trees whose land use or assets will be affected as a result of restricted use which will be imposed within the corridor of impact of the transmission line;
- Land owners who have lost housing as a result of Project land acquisition, including those with heritage land claims to the affected land;
- Land owners whose incomes have been significantly affected by loss of access to land as a result of Project land acquisition, whether or not they have legal title to the land, including with heritage land claims to the affected land; and
- Land owners who have special social categories which render them more vulnerable to social and economic displacement and also who have lost access to land as a result of the land acquisition.

Entitlements will include:

- Compensation at replacement cost for land and compensation based on agriculture agency rates for crops/plants which are considered above market prices;
- Moving assistance;
- Priority for vocational training and Project employment;
- Additional assistance to households according to vulnerability levels;
- Agriculture and livelihood restoration (as stated in the IPP); and
- Compensation for the easement fee of 10% of the current land value for tower bases (without deductions for taxes and administration cost).

SOL's external affairs team will be responsible for the delivery of the entitlements and implementation of the livelihood restoration program.

ES5 *Budget and Monitoring and Evaluation*

The RP budget is being developed by SOL and will be finalised after the census and inventory is complete. Currently SOL plans to complete the census and land survey when 100% of the land owners of the RoW have been compensated. A cut-off date will also be identified at this time. To date the cut-off date has been established only for the tower footprint land owners (21 February 2014). The budget will reflect the affected landowners needs and vulnerabilities.

SOL plan to undertake internal monitoring and external evaluations. The two processes will run simultaneously and will be used to ensure that the resettlement is meeting the objectives outlined in this Plan. The external evaluations will be undertaken by a third party to ensure that the Project is meeting ADB, JBIC and IFC standards for resettlement; restoring and where possible improving livelihoods of the PAPs. In the mean time, SOL is in the process of appointing an external monitoring agency.

1 INTRODUCTION

1.1 PROJECT PROPONENT

SOL or “Sarulla Operations Limited” is the operation company established by the Consortium of Itochu Corporation, Kyushu Electric Power Co., Inc., Ormat International, Inc. and PT. Medco Energi International Tbk. SOL plans to develop the geothermal field and the power plant in Sarulla, in Pahae Jae and Pahae Julu Districts, North Tapanuli Regency, North Sumatera Province. Project proponent contact details can be found below:

Company : SARULLA OPERATIONS Ltd. (SOL)

Address : The Energy Building 51st Floor
SCBD Lot 11A, Jl Jend Sudirman
Jakarta 12190
INDONESIA

Telephone : +62 (0)21-29951648

Facsimile : +62 (0)21- 29951649

In the development of the Sarulla geothermal field and power plant at 330 MW capacity, the Consortium and SOL signed a DOA with PT. PLN (Persero); a JOC with PERTAMINA Geothermal Energy; and an ESC 1 with PERTAMINA Geothermal Energy - and PT. PLN (Persero).

1.2 REPORT CONTEXT

The Indonesian electricity business is largely conducted by the State and carried out by the State owned enterprise (PLN). Indonesia’s energy demand is increasing with a growth in electricity demand estimated at 7.1% annually (2006-2026). There is currently a shortage of electricity supply in several provinces, particularly in Java and Sumatera (Djamin, 2008). Operative, private sector and local enterprises have an opportunity to participate in the electricity business as Independent Power Producers (IPPs).

Indonesia is estimated to hold approximately 40% of the world’s estimated geothermal resource. These resources are concentrated within tectonic areas in Sumatera, Java and Sulawesi, in the same areas where electricity demand is under met. With traditional fossil fuels widely developed, the Indonesian Government has placed a priority on alternative energy development including renewable energy to enhance energy security.

SOL is proposing the Sarulla Geothermal Field and Power Plant Development Project to further develop the geothermal potential in Sumatera which commenced in 1993 by Unocal North Sumatera Geothermal (UNSG). As part of this development plan, SOL has already received a financial investment from the Asian Development Bank (ADB) and a number of Equator Principle Financing Institutions (EPFIs). However is still in the process of conducting some activities to comply with the applicable requirements. Project proponents seeking financing from the ADB and EPFIs are required to comply with the applicable bank’s environmental, social

and health policies, developed for managing the environmental and social risks associated with project finance.

The ADB and EPFIs recognise the specific issues associated with private sector projects and manage these through the ADB Safeguard Policies and Equator Principles.

ERM was commissioned to prepare this Resettlement Plan for remaining lands to be acquired by the Project. This Plan has been developed in order to meet the requirements set out by the ADB (namely the ADB's Safeguard Policy Statement and the Safeguard Requirement 2 (Involuntary Resettlement Safeguards)), as well as JBIC Social Requirements and the IFC's Performance Standard 5 (Land Acquisition and Involuntary Resettlement).

This report forms Volume V for the proposed development of the Sarulla Geothermal Field and Power Plant of 330 MW Capacity, North Tapanuli Regency, North Sumatera Province. All Volumes are as follows:

- Volume I: Environmental Compliance Audit Report and Corrective Action Plan;
- Volume II: Environmental and Social Impact Assessment (ESIA) Addendum;
- Volume III: Indigenous Peoples Plan (IPP);
- Volume IV: Social Safeguards Compliance Audit Report and Corrective Action Plan; and
- Volume V: Resettlement Plan (this report).

1.3 *STRUCTURE OF THIS RESETTLEMENT PLAN*

This report is structured as follows:

Chapter 1: Introduction;

Chapter 2: Project Description;

Chapter 3: Scope of the Land Acquisition and Resettlement;

Chapter 4: Socio-economic Information and Profile;

Chapter 5: Information, Disclosure, Consultation and Participation;

Chapter 6: Grievance Redress Mechanism;

Chapter 7: Legal Framework;

Chapter 8: Entitlements, Assistance and Benefits;

Chapter 9: Income Restoration and Rehabilitation;

Chapter 10: Resettlement Budget and Financing Plan;

Chapter 11: Institutional Arrangements;

Chapter 12: Implementation Schedule; and

Chapter 13: Monitoring and Reporting.

2 *PROJECT DESCRIPTION*

2.1 *DEVELOPMENT HISTORY*

The Project was initiated by UNOCAL North Sumatera Geothermal (UNSG), after the Energy Sales Contract (ESC) and Joint Operation Contract (JOC) were signed in 1993. Extensive exploration activities were then conducted including geo-scientific geology, geochemistry and geophysics investigations and the development of certain infrastructure such as well pads and access roads. This was followed by drilling activities between 1994 and 1998.

Nine exploratory wells (5 in SIL and 4 in NIL) were drilled in the contract area, followed by well completion and production testing to prove the quality and quantity of the resource.

After receiving the right to develop the Project, the Consortium has re-evaluated the Sarulla exploration data in order to undertake the next strategy for the field development stage of the Sarulla Contract Area.

The new development plan, including future drilling by utilizing reservoir forecast simulation, was established in 2011.

2.2 *SOL PROJECT LOCATION*

The proposed activity is located \pm 40 km south of Tarutung at the side of the Trans Sumatera Highway (Tarutung – Sipirok). Administratively, the Project is located in Pahae Jae and Pahae Julu Districts, North Tapanuli Regency, North Sumatera Province.

In relation to Regency Spatial Plan, the Government of North Tapanuli Regency issued North Tapanuli Regency Regulation No. 19 of 1994 regarding spatial planning, which designated the sub districts of Pahae Jae (Silangkitang area or SIL) and Pahae Julu (Namora I Langit) as areas of geothermal natural resources.

The Silangkitang field (SIL) has three (3) existing well pads developed by the former project proponent, UNSG in 1994. The pads are SIL 1, SIL 2 and SIL 3 and located around the periphery of these coordinates:

- SIL 1 - N201,374 and 510,500; and
- SIL2 - N202,126 and E508,614; SIL 3 - N199,925 and E510,910.

SIL is located in Pahae Jae District, North Tapanuli Regency. The pad locations can also be described as follows:

- SIL 1 - located in Silangkitang Village, about 50 meters from Sumatera Highways (Tarutung – Sipirok);
- SIL 2 - located at the north-west of SIL 1, on the side of Aek Batang Toru which is part of Sigurung-gurung Village; and
- SIL 3 - located at the south of SIL 1, in Pardomuan Nainggolan Village.

SIL 1 has three (3) existing wells, SIL 1-1, 1-2 and 1-3 drilled in 1994 through 1997 at the depth of around 2,000m. SIL 1-2 and 1-3 are planned to be used as permanent production wells for SIL PLTP. In 2008, these two wells underwent work-over to remove existing well plugs and in case of SIL1-3 repair a portion of the casing at 13-3/8" layer to prepare them for production testing and usage as permanent production wells. SIL 1-1 is not intended to be utilized as permanent well in the operation of SIL PLTP. It is intended to be used as a temporary reinjection well during the production flow testing of SIL 1-2 and SIL 1-3 (supplemental to SIL 2-1) and afterwards, the wells will continue to be used as monitoring point of reservoir. (*) additional production wells (allowing 1 as allocation for failure) are planned to be drilled in this SIL 1 pad to obtain the geothermal fluid quantity needed for SIL PLTP operations. (*) reinjection wells are also planned to be drilled in this SIL-1 pad.

SIL 2 pad has one (1) existing well, SIL 2-1. SIL 2-1 drilled in 1995 at the depth around 2,100m is not intended to be used as permanent part of the wells during operation of SIL PLTP. This is to be used as temporary reinjection (as the primary with SIL 1-1 and 3-1 as supplemental) well during the production flow testing of SIL 1-2 and 1-3 and afterwards, the wells will continue to be used as monitoring point of reservoir. (*) new reinjection wells are planned to be drilled in this SIL-2 pad.

SIL 3 pad has one (1) existing well, SIL 3-1 drilled in 1995 at the depth around 2,100m. SIL 3-1 is not intended to be used as permanent part of the wells during operation of SIL PLTP. This is to be used as temporary reinjection (as the supplemental to SIL 2-1) well during the production flow testing of SIL 1-2 and 1-3 and afterwards, the wells will continue to be used as monitoring point of reservoir.

Namora I Langit (NIL) field has three (3) existing well pads developed in 1997. The pads are NIL 1, NIL 2 and NIL 3 located around the periphery of these coordinates:

- NIL 1 - N207,509 and E501,941;
- NIL 2 - N208,245 and E501,131; and
- NIL 3 - N208,745 and E503,328.

The pad locations can also be described as follows:

- NIL 1 - located in Sibaganding, Lumban Jaeon, and Simataniari villages (there is one investigation well);
- NIL 2 - located in Sibaganding, Lumban Jaeon, and Simataniari villages (there are two investigation wells); and
- NIL 3 - located in Sibaganding, Lumban Jaeon, and Simataniari villages (there is one investigation well).

In order to mitigate significant static pressure differences between power plant and well pads, the most recent updates of the development strategy for the NIL geothermal field was developed, none of the 3 existing well pads will be utilized as locations for drilling the permanent (or initial/start-up) production wells, and consequently, none of the 4 investigation wells drilled in 1997 through 1998 at the depth of around 1,700m that exist therein. The existing well in NIL-3 pad will be used as temporary reinjection well during the early stage of drilling the new

production wells in NIL for well testing purposes until such time that permanent reinjection wells are drilled, afterwards, the well will continue to be used as monitoring point of reservoir. The permanent wells will be drilled on new well pads.

Table 2-1 *Number of Wells be Drilled on New Well Pads*

No	Location	Number of wells to be drilled
1	NIL-1n	(*) production wells (1 allocation for failure)
2	NIL-2n	(*) production well (1 allocation for failure)
3	WJP-1n	(*) production wells
4	WJR-1n	(*) reinjection wells
5	WJR-2	(*) reinjection wells

Source: SOL Data, 2013

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (v) of ADB's Public Communications Policy (2011)*

2.3 STAGES OF PROJECT ACTIVITY

The development of Sarulla geothermal field and 330 MW power plant includes the following activities:

- The development of Sarulla geothermal field i.e. Silangkitang (SIL) field and Namora I Langit (NIL) field;
- The construction and operation of 330 MW geothermal power plant, one unit at SIL and two units at NIL each with a nominal capacity of 110 MW;
- The construction of a combined length of 14km of 150 kV (high voltage) overhead transmission line from Silangkitang field (SIL 1) to PLN Substation and from Namora I Langit field (NIL 1) to PLN substation. The width of the T/L ROW will be based on PLN (9 m on each side). The minimum clearance to the ground is 12 m from the main road, 9 m from the normal ground, 5.5 m from any trees. **Table 2-2** shows the minimum distance from tower 150KV T/L to other areas based on Minister Regulation. Based on ESDM regulation No. 38/2013 landowners will not be able to plant trees of a certain height nor can they erect structures under the T/L RoW.

Table 2-2 *Minimum Distance from Tower 150KV T/L to Land Areas*

No	Location	150KV T/L
1	Open space or open yard	7.5
2	Area with specific situation:	
	a. Building without fire proof	13.5
	b. Building with fire proof	4.5
	c. Road traffic	9,0
	d. Trees, forest, plantation	4,5
	e. Sport yard	13.5

No	Location	150KV T/L
f.	Other high voltage overhead lines, i.e. communication network, radio antenna, television antenna, cable car	4.0
g.	Rail train	9.0
h.	Iron bridge, other iron frame for retaining conductor, electricity train, etc.	4.0
i.	Highest level or point on the mast standing tide	4.0

Source: Minster Regulation No.01. P.47.M.PE- 1992

The transmission line will be connected to the PLN substation; currently there are no other projects connecting to the substation which will be located on private land. PLN has acquired the land after obtaining the location permit (*Ijin Lokasi*). Information related to land area, land ownership and land use type of affected landowners is not currently available. To date, the SOL Land Acquisition Team has not received any information from PLN on this.

Drilling activities for the new production and injection wells in SIL are to take place at the existing well pads (previously developed by UNSG). For NIL, all are planned to be on the new well pad locations. The NIL new well pads are located on farmland and mixed forest areas.

The power plant locations for both SIL and NIL will be at mixed plantation areas. SIL is situated approximately 500 meter from the nearest residential area whilst NIL is located at least 1km from a residential area.

The project schedule for the development of Sarulla 330 MW power plant at SIL and NIL is presented in **Table 2-3**.

Table 2-3 *Project Schedule for the Development of Sarulla 330 MW Power Plant at Silangkitang (SIL) and Namora I Langit (NIL)*

Activity	Time	Month					
	0	+10	+20	+30	+40	+50	>50
Preconstruction	█						
Construction							
SIL		████████████████████					
NIL 1		██					
NIL 2		██					
Operation							
SIL					██		
NIL 1						██	
NIL 2							████████████████████

2.4 PROJECT LAND REQUIREMENTS

Land required for the Project will be procured for the Tower Footprints, Access Road 5 and WJP1N and will be affected limitations in use for land along RoW on a negotiated settlement basis. It will be undertaken in stages as the construction of the geothermal field progresses. The process will be conducted using direct negotiations and agreements between land owners and SOL. A total of 127 ha of land located in the districts of Pahae Jae and Pahae Julu, North Tapanuli Regency will be needed for the land use plan for the development at SIL and NIL is shown in **Table 2-4**.

Table 2-4 Land Use Plan and Area Required for SIL and NIL

Project Component	Estimated Required Area (m ²)	Acquired by UNOCAL	Acquired by SOL as of 30 September 2013	Private/ Government owned land or both	Remaining land to be acquired (and covered by this RP)	Current Land Use of Remaining Land to be Acquired
SIL						
Brine Injection Line (SIL 1-SIL 2)	18,498	-	18,498	Private	-	Mainly rice/paddy field
SIL 2 ke Batang Toru River	10,374	-	10,374	Private	-	Wild plantation area, Rice field area
Disposal For Power Plant	71,348	59,008	12,340	Private	-	Wild plantation area, Rice field area
Borrow Area	25,105	3,995	21,110	Private	-	Wild plantation area (various trees such as rubber, incense (Kemenyan), cacao, coffee and bushes)
Well Pad SIL 1	71,348	59,008	12,340	Private	-	Wild plantation area, Rice field area
Power Plant	196,946	131,339	64,360	Private	1,247	Wild plantation area (various trees such as rubber, incense (Kemenyan), cacao, coffee and bushes)

Project Component	Estimated Required Area (m ²)	Acquired by UNOCAL	Acquired by SOL as of 30 September 2013	Private/ Government owned land or both	Remaining land to be acquired (and covered by this RP)	Current Land Use of Remaining Land to be Acquired
SIL 2 Expansion & Access Road	53,110	23,110	-	Private	30,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
Laydown 1	28,000	-	-	Private	28,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
Laydown 2	40,454	20,454	-	Private	20,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
NIL						
Main Access Road (Road 1 & 1A)	131,711	95,476	33,447	Private	2,788	Mainly rice/paddy field
Well Pad NIL 2N & Access Road	57,231	-	57,231	Private	-	Wild plantation area, Rice field area
Disposal 1 & 2 & Access Road	176,050	-	176,050	Private	-	Wild plantation area, Rice field area
Borrow Area	93,923	-	87,900	Private	6,023	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
WJR 1N & Access Road	66,045	30,532	35,295	Private	218	Wild plantation area, Rice field area

Project Component	Estimated Required Area (m ²)	Acquired by UNOCAL	Acquired by SOL as of 30 September 2013	Private/ Government owned land or both	Remaining land to be acquired (and covered by this RP)	Current Land Use of Remaining Land to be Acquired
Power Plant & Access Road	228,113	-	228,113	Private	-	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
Laydown	80,000	-	-	Private	80,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
Road 5	120,000	-	-	Private	120,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
WJP 1	80,000	-	-	Private	80,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
NIL1 Exp& Access Road	80,000	-	-	Private	80,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)
WJR 2N & Access Road	40,000	-	-	Private	40,000	Wild plantation area (various trees such as rubber, incense (<i>Kemenyan</i>), cacao, coffee and bushes)

The land required for the power plant construction has already been taken into account in the land acquisition process for the development of geothermal field and construction of access roads. In the construction plan, one power plant unit will be built at SIL and two units at NIL. Each will have a capacity of 110 MW (a total of 330 MW). The amount of land required for the power plants is approximately 6.5 Ha for SIL and 22.6 Ha for NIL.

2.4.1 *Land Acquisition Process Considered for this Resettlement Plan*

This RP covers the impacts of acquisition land for transmission line tower footings, restricted use of land within the transmission line corridor of impact, acquisition of land in the NIL area for the Laydown, Road 5 and WJP 1N (**Figure 2-1**).

Land required for the Project will be procured through negotiated settlement. The land acquisition process for the transmission line between SIL and NIL will be conducted using direct negotiations and agreements between land owners and SOL, facilitated by the government of North Tapanuli Regency. The land required to build the transmission towers has already been purchased. SOL plans to maximise where possible the use of government/forestry lands. Where land owners are unwilling to sell their lands SOL will seek to reroute. At the time of writing (May 2014) 30 tower areas have been acquired through the negotiated settlements with no refusals to sell.

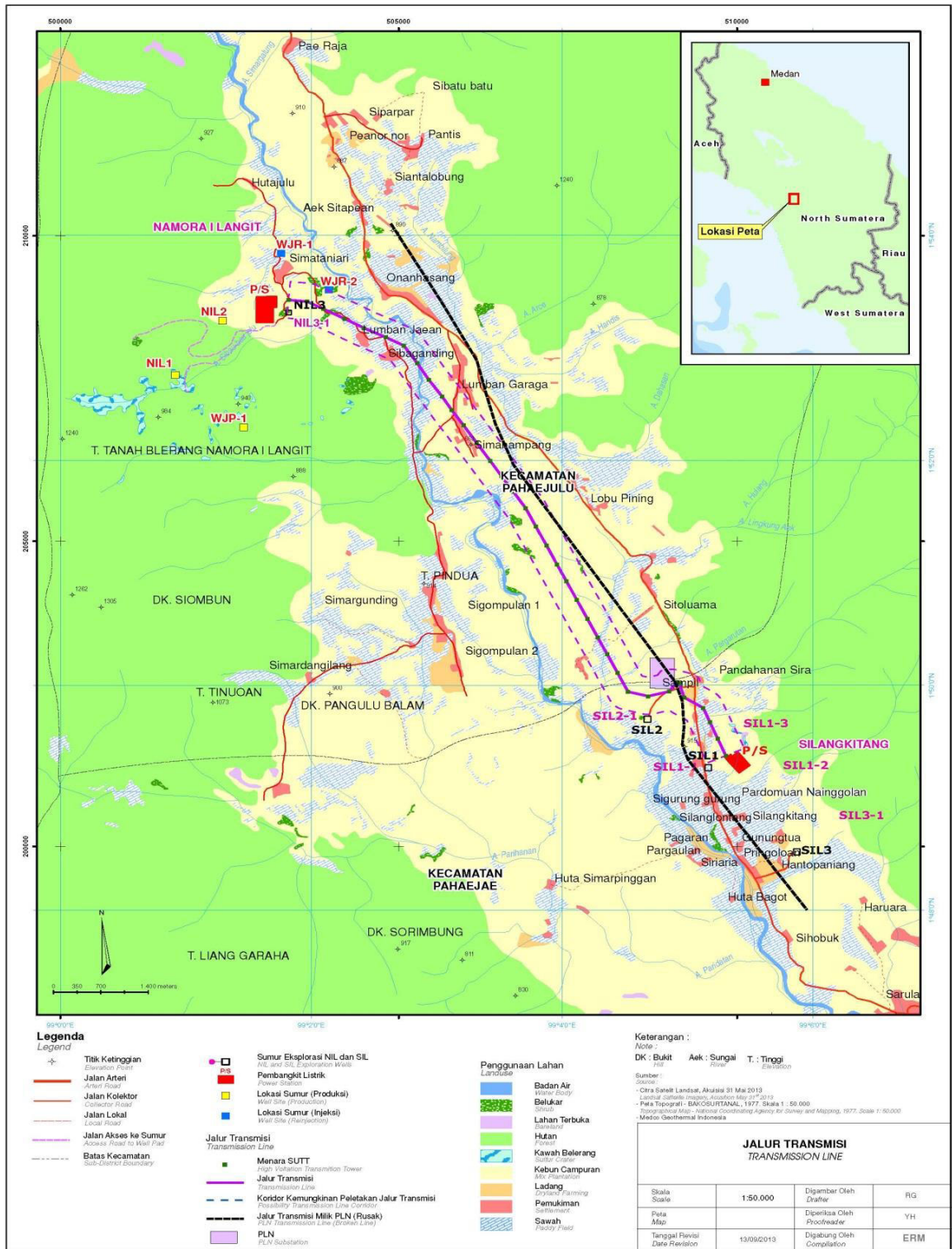
The purchased land will be used as platforms for the transmission towers (not for transmission lines). Approximately 30 towers¹ will be built with an estimated distance of 300 meters between each of the towers. It is estimated that each transmission tower will require 900m², and therefore the total of land required for 47 towers is 4 ha. SOL have estimated 900m² the following factors:

- Larger foundation sizes may be required where the soil conditions are not stable; and
- Cut and fill area allowances are needed for the foundations located in sloping area.

Furthermore the size factors in the fact that some landowners may insist on SOL purchasing their remaining unviable land.

¹ SOL conducted a land survey in April, 2014, at the time of this survey the number of towers landowners was 28 people. The towers will be located almost same nature of land hence the impact of change from 36 to 30 towers is not considered by SOL as significant.

Figure 2-1 Location of the Transmission Line and High Voltage Transmission Tower



3 SCOPE OF LAND ACQUISITION AND RESETTLEMENT

3.1 AFFECTED PERSONS

As of April 2014, SOL initially identified 177 land owners, however as of August 2014, SOL has now identified a total of 262 landowners for the towers and T/L RoW. These landowners will be affected by the acquisition of land for the transmission line tower footings, restricted use of land within the transmission line corridor of impact, acquisition of land in the NIL area for the Road 5 and WJP 1N. **Table 3-1** shows the number of land owners identified.

Table 3-1 Total Number of Land Owners

No	Area name	Date/Month Action	Present estimates as of April 2014	Final number of affected house holds/people	Current Status
1	Transmission Line ROW	-	138	188	Identified and completed the initial survey for only 55 landowners for tower footprint. Impacts of restricted use of land and other assets inside the transmission line ROW has been done for 188 land owners.
2	Road 5 & WJP 1	October 3,2013	12	19	Identified and done the land survey
3	Tower	20-21 February 14	27	55	Identified and done the land survey. SOL has given the compensation.
Total			177	262	

Source: SOL Primary Data, 2013

3.1.1 Transmission Line Affected Landowners

The construction of a combined length of 14km of 150 kV (high voltage) overhead transmission line from Silangkitang field (SIL 1) to the PLN substation and from Namora I Langit field (NIL 1) to PLN substation. The minimum clearance to the ground is 12 m from the main road, 9 m from the normal ground and 5.5 m from any trees. The transmission line from the power station to the tentative location of the PLN substation is about 2km. A typical 150kV transmission line has a corridor of impact of 18 meters (9 meters on each side of the transmission line) hence approximately 20 hectares of land will be within the corridor of impact (COI) of the transmission line. Land within the COI will not be acquired but some land use may be restricted hence an easement fee will be paid. The total number of towers for the

T/L is 38 with an estimated total area of land required for each tower of 30 m x 30 m or 900 m² (total required for the T/L RoW is 165,000 m²). Indonesian regulations impose height restrictions for structures and trees under the lines. Impacts of restricted use of land and other assets inside the transmission line COI will be identified and surveyed prior to location permit has been obtained.

A total of 38 towers will be built with an distance of 400 ~~300~~ meters between each of the towers. It is estimated that each transmission tower will require 900 m², and therefore the total land required is 4 ha.

Land will be acquired for the 14 km of 150kV transmission line from the NIL and SIL areas. The line routing was determined considering technical and economic factors; as well as environmental and social aspects including:

- Avoiding traversing or passing closely by urban areas, densely populated areas, settlement, schools, public buildings and market places;
- Avoiding traversing or passing closely by shrines, historical places, national parks and protected areas;
- Avoiding traversing in forest and water catchment zones;
- Keep electrical field, magnetic field, audible noise and TV interference as far as possible below national/international accepted levels;
- Keep impacts on flora, fauna, nesting places, animal trails, migration zones and sensitive ecological areas to a minimum; and
- Apply selected bush clearing, minimise access tracks.

The identified land owners for the transmission line are listed in **Table 3-2**. To date 38 towers requiring a footprint of 30 m x 30 m to support the transmission line ROW have been identified (out of a possible 47).

Table 3-2 Summary of Land Acquisition and Resettlement Impacts of T/L

No	Type of Land Acquisition	Number of Towers	Updated Number of Towers	Land Affected				Structures affected	
				Number of land owners	Updated Number of land owners	Area (sq.m.)	Updated Area (sq.m.)	Number of structure owners	Area (sq.m.)
1	Permanent Land Acquisition through Negotiated Settlement	30	38	27	55	27,089	35,922	3	320
2	Permanent Land Acquisition through Lease of Government Land	-	-	-	-	-	-	-	-
Subtotal		30	38	27	55	27,089	35,922	3	320

No	Type of Land Acquisition	Number of Towers	Updated Number of Towers	Land Affected				Structures affected	
				Number of land owners	Updated Number of land owners	Area (sq.m.)	Updated Area (sq.m.)	Number of structure owners	Area (sq.m.)
3	Temporary Land Acquisition/Lease - (in case required for track access to towers)	-	-	138	188	12,911	169,540	-	-
4	Land Use/Building Restrictions	-	-	-	-	-	-	8	632
Total		-	-	138	188	12,911	169,540	8	632
Grand Total		30		165	243	40,000	205,462	8	320

The land use to be acquired for the identified 38 transmission line towers involves 55 landowners is outlined in the **Table 3-3**. The T/L RoW is predominantly plantation and rice paddy fields.

Table 3-3 Existing potential land use to be affected by T/L ROW*

No	Category	Estimated* m ²
1	Rubber Plantation	10,000
2	Cacao Plantation	10,000
3	Pinang (<i>Areca Catechu</i>) Plantation	2,500
4	Rice Paddy Plantation	10,000
5	Mix Garden	2,500
6	Mix Fruit Trees	3,000
7	Empty land	2,000
	Total	40,000

Source: ERM Data, 2013

*At the time of writing SOL is still completing the compensation process for the RoW.

The list of land owners for T/L RoW and tower footprints is presented in **Table 3-4** as of August 2014.

Table 3-4 Total Number of Land Owners for T/L RoW and tower footprints (*)

No	Name of Land Owners	Domicile of Land Owners
T/L RoW Land Owners		
1		Silangkitang
2		Silangkitang
3		Silangkitang
4		Silangkitang

No	Name of Land Owners	Domicile of Land Owners
5		Silangkitang
6		Silangkitang
7		Silangkitang
8		Silangkitang
9		Silangkitang
10		Silangkitang
11		Silangkitang
12		Sigurung-gurung
13		Sigurung-gurung
14		Silangkitang
15		Silangkitang
16		Sigurung-gurung
17		Silangkitang
18		Silangkitang
19		Silangkitang
20		Silangkitang
21		Silangkitang
22		Silangkitang
23		Silangkitang
24		Silangkitang
25		Silangkitang
26		Sigurung-gurung
27		Sigurung-gurung
28		Sigurung-gurung
29		Sigurung-gurung
30		Sigurung-gurung
31		Sigurung-gurung
32		Sigurung-gurung
33		Sigurung-gurung
34		Sigurung-gurung
35		Sigurung-gurung
36		Sigurung-gurung
37		Sitoluama
38		Sitoluama
39		Sitoluama
40		Sitoluama
41		Sitoluama
42		Sitoluama
43		Sitoluama
44		Sitoluama
45		Sitoluama

No	Name of Land Owners	Domicile of Land Owners
46		Sitoluama
47		Sitoluama
48		Sitoluama
49		Sitoluama
50		Sitoluama
51		Sitoluama
52		Sitoluama
53		Sitoluama
54		Sitoluama
55		Sitoluama
56		Sitoluama
57		Sitoluama
58		Sitoluama
59		Sitoluama
60		Simanampang
61		Simanampang
62		Simanampang
63		Simanampang
64		Simanampang
65		Simanampang
66		Simanampang
67		Simanampang
68		Simanampang
69		Simanampang
70		Simanampang
71		Simanampang
72		Simanampang
73		Simanampang
74		Simanampang
75		Simanampang
76		Simanampang
77		Simanampang
78		Simanampang
79		Simanampang
80		Simanampang
81		Simanampang
82		Simanampang
83		Simanampang
84		Simanampang
85		Simanampang
86		Simanampang

No	Name of Land Owners	Domicile of Land Owners
87		Simanampang
88		Simanampang
89		Simanampang
90		Simanampang
91		Simanampang
92		Simanampang
93		Simanampang
94		Hutabarat
95		Hutabarat
96		Hutabarat
97		Hutabarat
98		Hutabarat
99		Hutabarat
100		Hutabarat
101		Hutabarat
102		Hutabarat
103		Hutabarat
104		Hutabarat
105		Hutabarat
106		Hutabarat
107		Hutabarat
108		Hutabarat
109		Hutabarat
110		Hutabarat
111		Hutabarat
112		Hutabarat
113		Hutabarat
114		Hutabarat
115		Hutabarat
116		Hutabarat
117		Hutabarat
118		Hutabarat
119		Hutabarat
120		Hutabarat
121		Hutabarat
122		Hutabarat
123		Sibaganding
124		Lumbanjaean
125		Sibaganding
126		Sibaganding
127		Sibaganding

No	Name of Land Owners	Domicile of Land Owners
128		Sibaganding
129		Sibaganding
130		Sibaganding
131		Sibaganding
132		Sibaganding
133		Sibaganding
134		Sibaganding
135		Sibaganding
136		Sibaganding
137		Sibaganding
138		Lumbanjaean
139		Sibaganding
140		Sibaganding
141		Sibaganding
142		Sibaganding
143		Sibaganding
144		Sibaganding
145		Sibaganding
146		Lumbanjaean
147		Lumbanjaean
148		Lumbanjaean
149		Sibaganding
150		Lumbanjaean
151		Onan Hasang
152		Onan Hasang
153		Onan Hasang
154		Onan Hasang
155		Onan Hasang
156		Onan Hasang
157		Onan Hasang
158		Onan Hasang
159		Onan Hasang
160		Onan Hasang
161		Onan Hasang
162		Onan Hasang
163		Onan Hasang
164		Onan Hasang
165		Onan Hasang
166		Onan Hasang
167		Onan Hasang
168		Onan Hasang

No	Name of Land Owners	Domicile of Land Owners
169		Onan Hasang
170		Onan Hasang
171		Onan Hasang
172		Onan Hasang
173		lontung dolok
174		Lontung Dolok
175		Lontung Dolok
176		Onan Hasang
177		Sibaganding
178		Sibaganding
179		Sibaganding
180		Sibaganding
181		Lumbanjaean
182		Simataniari
183		Simataniari
184		Simataniari
185		Sibaganding
186		Simataniari
187		Sibaganding
188		Silangkitang
1		Sibaganding
2		Simataniari
3		Sibaganding
4		Sibaganding
5		Lontung Dolok
6		Lontung Dolok
7		Onan Hasang
8		Onan Hasang
9		Onan Hasang
10		Onan Hasang
11		Onan Hasang
12		Onan Hasang
13		Onan Hasang
14		Lumbanjaean
15		Sibaganding
16		Lumbanjaean
17		Lumbanjaean
18		Lumbanjaean
19		Sibaganding
20		Sibaganding

No	Name of Land Owners	Domicile of Land Owners
21		Sibaganding
22		Sibaganding
23		Hutabarat
24		Hutabarat
25		Hutabarat
26		Hutabarat
27		Hutabarat
28		Simanampang
29		Simanampang
30		Simanampang
31		Simanampang
32		Simanampang
33		Simanampang
34		Simanampang
35		Simanampang
36		Simanampang
37		Simanampang
38		Simanampang
39		Simanampang
40		Simanampang
41		Sitoluama
42		Sitoluama
43		Sitoluama
44		Sitoluama
45		Sitoluama
46		Sitoluama
47		Sigurung-gurung
48		Sigurung-gurung
49		Sigurung-gurung
50		Silangkitang
51		Silangkitang
52		Silangkitang
53		Silangkitang
54		Silangkitang
55		Silangkitang

Source: SOL Data, August 2014

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

3.1.2 Road 5 and WJP 1

In total 46 ha of land will be acquired for the use of supporting Project facilities for Power Plant, i.e. Road 5 and WJP 1 (the production well).

There are 12 land owners associated with the Road 5 and WJP 1 (Table 3-5), to date there are 19 land owners. The majority of the land owners reside in Sibaganding and Lumban Jaean Village in Pahae Julu Sub-District.

Table 3-5 Total Number of Land Owners for Road 5 and WJP (*)

No.	Name of Land Owners	Size of affected land (m ²)	Land Use Classification	Domicile of Land Owners
1		2,350	Plantation	Lumban Jaean and Sibaganding
2		2,431	Rice-paddy field	Lumban Jaean and Sibaganding
3		4,314	Rice-paddy field	Lumban Jaean and Sibaganding
4		8,692	Plantation	Lumban Jaean and Sibaganding
5		3,263	Plantation	Lumban Jaean and Sibaganding
6		6,760	Rice-paddy field	Lumban Jaean and Sibaganding
7		9,366	Rice-paddy field	Lumban Jaean and Sibaganding
8		3,466	Plantation	Lumbanjaean
9		45,862	Plantation	Sibaganding
10		23,737	Plantation	Subaganding
11		6,432	Rice-paddy field	Sibaganding
12		4,593	Plantation	Lumbanjaean
	Total	121,266		

Source: SOL Data, April 2014

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

The remaining land for acquisition for Road 5 and WJP 1N has been identified and surveyed. The land to be acquired will pass through eight villages in Pahae Jae and Pahae Julu Sub Districts. The full survey and identification of land owners for the transmission line RoW has been conducted for 138 land owners for T/L RoW and 27 land owners for T/L towers (as well as the 12 associated with the Road 5 and WJP 1). The identification of all land owners in the T/L ROW alignment, including users, was finalised at the end of March 2014. Based on the census and final asset inventory, the following categories of affected people were identified: (i) significantly affected people or those losing 10% or more of their productive assets (income generating) or income-generating assets and/or requiring physical displacement of housing; (ii) vulnerable households such as the elderly, female-

headed households. From among those significantly affected, SOL has identified those losing more than 50% of their total landholding or those whose remaining land will be unviable (i.e. equal to or less than 400 sq.m.).

4 SOCIO-ECONOMIC INFORMATION AND PROFILE

4.1 METHODOLOGY APPLIED

ERM conducted a survey of 150 landowners in seven villages from 2nd to 12th April 2014. As mentioned previously not all 177 landowners were available at the time of the field survey. The majority of land owners surveyed will have their land acquired for the tower footprint (30 m x 30 m), T/L ROW, Road 5 and WJP 1. **Table 4-1** shows the list of land owners who were interviewed.

The sampling method to conduct the survey was a purposive sampling method; respondents were selected to represent each of the Project Affected Villages.

SOL has updated this RP document based on a 100% census and asset inventory after finalisation of the detailed engineering design in April 2014.

4.2 SOCIO ECONOMIC PROFILE OF POPULATION ALONG T/L ROUTE, ROAD 5 AND WJP 1 N

This section presents a summary of the socio-economic profile of the population along the tentative route of the T/L ROW and proposed Project facilities. The focus of the socio-economic field study has been in the two sub-districts. The data is based on sub-district in figures and interviews undertaken by ERM during August 2013 and April 2014.

The T/L ROW will pass through ten villages in Pahae Jae and Pahae Julu Sub-districts. The villages affected at SIL area are Silangkitang and Sigurung-gurung villages and at NIL Sibaganding, Lumban Jaean, Simataniari, Onang Hasang, Sitoluama, Simanampang, Hutabarat, and Lontung Dolok villages.

The majority of land owners interviewed were farmers, except for one land owner who now lives in Medan. One land owner was female with four children and one plot land was rented by the Hutabarat Village Head who cultivates rice paddy and cacao plants on the land to be acquired by the Project.

The potentially impacted villages have a very similar economic profile to those identified in NIL and SIL and reported in the IPP.

4.2.1 Demographic Profile

4.2.1.1 Age Distribution

Generally the age distribution of males and females is relatively similar. The population in Pahae Julu sub-district is more than population in Pahae Jae. Both villages have more than 30% of the population between ages 0 to 14 and over 50% of the population between 15 and 64 (based on Pahae Julu and Pahae Jae Sub district in Figure, 2012) (**Table 4-1** and **Table 4-2**).

Table 4-1 Age Distribution of Project Area

No	Age Distribution	Pahae Jae Sub-district		Total		Pahae Julu Sub-district		Total	
		Male	Female	N	%	Male	Female		%
1	0-14	1,927	1,911	3,838	35.83	2,213	2,173	4,386	36.85
2	15-64	2,998	3,104	6,102	56.95	3,244	3,279	6,523	54.81
3	65+	239	535	774	7.22	346	647	993	8.34
Total				10,714	100.00	Total		11,902	100.00

Source: Pahae Jae and Pahae Julu Sub-district in Figure, 2012

Table 4-2 Age Distribution of Project Affected People (PAPs)

Affected Villages	Age (Years)										PAH	
	≤ 14		15 - 24		25 - 54		55 - 64		≥ 65		n	%
	n	%	n	%	n	%	n	%	n	%		
Pahae Jae												
Silangkitang	0	0	0	0	9	6,00	2	1,33	2	1,33	13	8,67
Sigurung-gurung	0	0	0	0	3	2,00	2	1,33	2	1,33	7	4,67
Total	0	0	0	0	12	8,00	4	2,67	4	2,67	20	13,33
Pahae Julu												
Sibaganding	0	0.00	0	0.00	14	9.33	3	2.00	3	2.00	20	13.33
Lumban Jaean	0	0.00	0	0.00	5	3.33	2	1.33	0	0.00	7	4.67
Simataniari	0	0.00	0	0.00	0	0.00	1	0.67	0	0.00	1	0.67
Onan Hasang	0	0.00	0	0.00	12	8.00	1	0.67	6	4.00	19	12.67
Sitoluama	1	0.67	0	0.00	9	6.00	8	5.33	4	2.67	22	14.67
Simanampang	0	0.00	1	0.67	13	8.67	7	4.67	13	8.67	34	22.67
Hutabarat	0	0.00	0	0.00	11	7.33	6	4.00	8	5.33	25	16.67
Lontung Dolok	0	0.00	0	0.00	2	1.33	0	0.00	0	0.00	2	1.33
Total	1	0.67	1	0.67	66	44	28	18.67	34	22.67	130	86.67
Grand Total	1	0.67	1	0.67	78	52	32	21.33	38	25.33	150	100

Source: ERM Primary Data, April 2014

4.2.1.2 Gender Distribution

Lontung Dolok has the highest household population, while Simataniari has the lowest. **Table 4-3** also shows that all the villages have the same average of people per household; with most households having an average of two children.

Table 4-3 Household Population

No	Village	Household Population		
		Population	Household Population	Average People per Household
Pahae Jae				
1	Silangkitang	758	182	4
2	Sigurung-gurung	623	163	4
Total		1,381	345	4
Pahae Julu				
1	Sitoluama	693	169	4
2	Simanampang	435	119	4
3	Hutabarat	580	160	4
4	Sibaganding	478	105	4
5	Simataniari	452	111	4
6	Lumban Jaean	500	115	4
7	Onan Hasang	469	129	4
8	Lontung Dolok	844	198	4
Total		4,451	1,106	4

Source: Sub-district in Figure, 2012

The baseline survey identified that most of the affected households in the Project area were male (78%). Simanampang and Sigurung-gurung have the highest female household heads (with a ratio of 4:3). Based on **Table 4-4**, the most household heads to be affected are in Simanampang.

Table 4-4 Gender of Project Affected Household Heads and People

Affected Villages	Household Heads (HH)				Total HH
	Male		Female		
	n	%	n	%	
Pahae Jae					
Silangkitang	12	8.00	1	0.67	13
Sigurung-gurung	4	2.67	3	2.00	7
Total	16	10.67	4	2.67	20
Pahae Julu					
Sibaganding	16	10.67	4	2.67	20
Lumban Jaean	7	4.67	0	0.00	7
Simataniari	1	0.67	0	0.00	1
Onan Hasang	15	10.00	4	2.67	19
Sitoluama	19	12.67	3	2.00	22
Simanampang	22	14.67	12	8.00	34
Hutabarat	19	12.67	6	4.00	25
Lontung Dolok	2	1.33	0	0.00	2
Total	101	67.33	29	19.33	130
Grand Total	117	78.00	33	22.00	150

Source: ERM Primary Data, April 2014

4.2.1.3 Education

Education levels within the Project affected households are relatively good. Most of the affected households have at least an elementary school education with many graduating junior and senior high school (Table 4-5).

Table 4-5 Education Level of Project Affected Peoples (PAPs)

Affected Villages	PAP (n)	Education Level											
		Not completed Elementary School		Elementary School		Junior High School		Senior High School		University		Did not attend school	
		n	%	n	%	n	%	n	%	n	%	n	%
Pahae Jae													
Silangkitang	46	0	0	15	3.78	9	2.27	13	3.27	9	2.27	0	0
Sigurung-gurung	15	0	0	1	0.25	3	0.76	5	1.26	6	1.51	0	0
Total	61	0	0	16	4.03	12	3.02	18	4.53	15	3.78	0	0
Pahae Julu													
Sibaganding	46	0	0	14	3.53	18	4.53	7	1.76	7	1.76	0	0
Lumban Jaean	24	0	0	8	2.02	3	0.76	9	2.27	4	1.01	0	0
Simataniari	12	0	0	0	0.00	0	0.00	2	0.50	10	2.52	0	0
Onan Hasang	53	0	0	13	3.27	20	5.04	15	3.78	5	1.26	0	0
Sitoluama	69	0	0	19	4.79	18	4.53	23	5.79	10	2.52	0	0
Simanampang	70	0	0	23	5.79	19	4.79	18	4.53	10	2.52	0	0
Hutabarat	57	0	0	20	5.04	16	4.03	17	4.28	4	1.01	0	0
Lontung Dolok	5	0	0	0	0.00	2	0.50	2	0.50	1	0.25	0	0
Total	336	0	0	97	24.43	96	24.18	93	23.43	50	12.59	0	0
Grand Total	397	0	0	113	28.46	108	27.20	111	27.96	65	16.37	0	0

Source: ERM Primary Data, April 2014

Females and males in the Project affected area appear to have the same opportunities in education (Table 4-6). Education facilities within the Project affected area are limited. There is only one senior high school (in Hutabarat) and one junior high school (in Lumban Jaean village) within the Project area. All the Project affected communities have a primary school except Sibaganding. However the student to teacher ratio and student to facility ratio appear satisfactory in the area. Usually affected households go to another village or regency to obtain higher education (Table 4-7).

Table 4-6 Education Level of Project Affected People by Gender (PAPs)

Affected Villages	PAP (%)	Education Level by Gender (%)											
		Not completed Elementary School		Elementary School		Junior High School		Senior High School		University		Did not attend school	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Pahae Jae													
Silangkitang	10,65	0,20	0,00	0,99	2,17	2,56	1,18	1,38	1,38	0,39	0,20	0,20	0,00
Sigurung-gurung	3,35	0,00	0,00	0,20	0,59	0,79	0,59	0,39	0,59	0,00	0,20	0,00	0,00
Total	14,00	0,20	0,00	1,18	2,76	3,35	1,78	1,78	1,97	0,39	0,39	0,20	0,00
Pahae Julu													
Sibaganding	13,02	0,20	0,20	1,78	1,38	2,37	1,18	2,17	2,56	0,39	0,79	0,00	0,00
Lumban Jaean	5,92	0,00	0,20	0,99	0,59	1,18	0,99	0,59	0,39	0,00	0,59	0,39	0,00
Simataniari	0,99	0,00	0,00	0,00	0,00	0,59	0,00	0,00	0,00	0,00	0,39	0,00	0,00
Onan Hasang	13,81	0,00	0,20	1,38	2,37	2,37	1,97	2,76	2,17	0,20	0,20	0,20	0,00
Sitoluama	16,17	0,00	0,00	1,97	2,96	2,56	2,56	3,35	2,37	0,20	0,00	0,00	0,20
Simanampang	19,13	0,20	0,59	3,35	3,16	3,35	1,97	2,17	2,96	0,20	0,79	0,20	0,20
Hutabarat	15,78	0,00	0,20	2,37	2,37	2,96	2,56	2,56	1,78	0,59	0,20	0,00	0,20
Lontung Dolok	1,18	0,00	0,00	0,20	0,00	0,39	0,00	0,20	0,39	0,00	0,00	0,00	0,00
Total	86,00	0,00	0,00	0,20	0,00	0,39	0,00	0,20	0,39	0,00	0,00	0,79	0,59
Grand Total	100,00	0,20	0,00	1,38	2,76	3,75	1,78	1,97	2,37	0,39	0,39	0,99	0,59

Source: ERM Primary Data, April 2014

Table 4-7 Education Facilities and Number of Community Education Level of Project Area

No	Village	Primary School		Junior high school		Senior high school		Vocational school	
		Community Number	Education Facilities	Community Number	Education Facilities	Community Number	Education Facilities	Community Number	Education Facilities
Pahae Jae									
1	Silangkitang	190	2	0	0	0	0	0	0
2	Sigurung-gurung	90	1	0	0	0	0	0	0
Total		280	3	0	0	0	0	0	0
Pahae Julu									
1	Sitoluama	238	2	0	0	0	0	0	0
2	Simanampang	71	1	0	0	0	0	0	0
3	Hutabarat	59	1	0	0	453	1	0	0
4	Sibaganding	0	0	0	0	0	0	0	0
5	Simataniari	70	1	0	0	0	0	0	0
6	Lumban Jaean	153	2	110	1	0	0	0	0
7	Onan Hasang	102	1	0	0	0	0	0	0
8	Lontung Dolok	97	1	0	0	0	0	180	0
Total		790	9	110	1	453	1	180	0

Source: Sub-district in Figure, 2012

4.2.1.4 Religion

The majority of Project affected households across the ten villages are Christian (Protestant); a few households practising Islam or Catholicism (Table 4-8). Table 4-9 presents -religious facilities available in the Project area.

Table 4-8 Religion of Project Affected Household Heads

Affected Villages	PAH (n)	Religion Level									
		Muslim		Christian Protestant		Christian Catholic		Hindu		Buddhist	
		n	%	n	%	n	%	n	%	n	%
Pahae Jae											
Silangkitang	13	0	0	13	8.67	0	0.00	0	0.00	0	0.00
Sigurung-gurung	7	0	0	7	4.67	0	0.00	0	0.00	0	0.00
Total	20	0	0	20	13.33	0	0	0	0	0	0
Pahae Julu											
Sibaganding	20	0	0.00	20	13.33	0	0.00	0	0.00	0	0.00
Lumban Jaean	7	0	0.00	7	4.67	0	0.00	0	0.00	0	0.00
Simataniari	1	0	0.00	0	0.67	0	0.00	0	0.00	0	0.00
Onan Hasang	19	0	0.00	19	12.67	0	0.00	0	0.00	0	0.00
Sitoluama	22	0	0.00	21	14.00	1	0.67	0	0.00	0	0.00
Simanampang	34	0	0.00	31	20.67	3	2.00	0	0.00	0	0.00
Hutabarat	25	1	0.67	21	14.00	3	2.00	0	0.00	0	0.00
Lontung Dolok	2	0	0.00	2	1.33	0	0.00	0	0.00	0	0.00
Total	130	1	0.67	122	81.33	7	4.67	0	0	0	0
Grand Total	150	1	0.67	142	94.67	7	4.67	0	0.00	0	0.00

Source: ERM Primary Data, April 2014

Table 4-9 Religion Facilities of Project Area

No	Village	Mosque/musholla	Protestant Church	Catholic Church	Temple
Pahae Jae					
1	Silangkitang	0	1	0	0
2	Sigurung-gurung	0	0	0	0
Total		0	1	0	0
Pahae Julu					
1	Sitoluama	0	7	0	0
2	Simanampang	0	1	0	0
3	Hutabarat	0	3	1	0
4	Sibaganding	0	0	0	0
5	Simataniari	1	3	0	0
6	Lumban Jaean	0	4	0	0
7	Onan Hasang	0	2	0	0
8	Lontung Dolok	1	6	0	0
Total		2	26	1	0

Source: Sub-district in Figure, 2012

4.2.1.5 *Household Characteristic*

Based on **Table 4-10** the number of households with more than two families living in one house reached 55.34%. In general a new family will still live with their parents until they can afford to have a new house. The husband will invite his wife to stay at his parent's house before he has new house of their own.

4.2.1.6 *Duration of Residence in the Project Affected Villages*

Based on the survey findings the majority of affected households have lived in their respective villages for more than 10 years (59.47%); 22.2% since birth. Households living in their village for less than 10 years are 15.34 % (**Table 4-11**).

4.2.2 *Environmental Health Profile*

The environmental sanitation of a village is a good indicator used to understand the quality of a community's health conditions. There are three aspects which are of importance: availability of clean water, toilet use, and household garbage disposal.

4.2.2.1 *Source of Clean Water*

Table 4-12 indicates that most of the households obtain clean water for drinking, washing and cleaning sourced from the mountain springs (75.33%). A few households use self-owned wells or the river for their daily needs. Specifically the households in Onan Hasang, Sitoluama and Lontung Dolok, communities obtain clean water from the mountain springs and river.

4.2.2.2 *Sanitation Facilities*

The data collected during the surveys also identified that most households have self-owned toilets; however some are still using public toilets and the river to dispose of human waste (Table 4-13).

4.2.2.3 *Sanitation Facilities for Garbage Disposal*

When disposing of household garbage most of the households burn their waste but some dispose of it in the river (**Table 4-14**). Currently there is no municipal waste removal service in the Project area.

Table 4-10 Number of Family Members per Household

Affected Villages	Affected Households (n)	Family Members in One Household															
		1		2		3		4		5		6		7		8	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Pahae Jae																	
Silangkitang	13	1	0.67	2	1.33	2	1.33	3	2.00	4	2.67	1	0.67	0	0.00	0	0.00
Sigurung-gurung	7	3	2.00	1	0.67	2	1.33	0	0.00	1	0.67	0	0.00	0	0.00	0	0.00
Total	20	4	2.67	3	2.00	4	2.67	3	2.00	5	3.33	1	0.67	0	0.00	0	0.00
Pahae Julu																	
Sibaganding	20	8	5.33	1	0.67	2	1.33	6	4.00	0	0.00	3	2.00	0	0.00	0	0.00
Lumban Jaean	7	0	0.00	0	0.00	3	2.00	1	0.67	1	0.67	2	1.33	0	0.00	0	0.00
Simataniari	1	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.67	0	0.00	0	0.00
Onan Hasang	19	5	3.33	3	2.00	4	2.67	2	1.33	2	1.33	1	0.67	1	0.67	1	0.67
Sitoluama	22	4	2.67	3	2.00	4	2.67	2	1.33	2	1.33	1	0.67	0	0.00	0	0.00
Simanampang	34	16	10.67	7	4.67	1	0.67	7	4.67	1	0.67	1	0.67	0	0.00	0	0.00
Hutabarat	25	7	4.67	6	4.00	5	3.33	4	2.67	2	1.33	0	0.00	1	0.67	0	0.00
Lontung Dolok	2	0	0.00	0	0.00	1	0.67	1	0.67	0	0.00	0	0.00	0	0.00	0	0.00
Total	130	40	26.67	20	13.33	21	14.00	26	17.33	9	6.00	9	6.00	2	1.33	3	2.00
Grand Total	150	44	29.33	23	15.33	25	16.67	29	19.33	14	9.33	10	6.67	2	1.33	3	2.00

Source: ERM Primary Data, April 2014

Table 4-11 Duration of Residence in Project Affected Villages

Affected Villages	Project Affected Households (n)	Duration of Residence									
		Since Birth		< 1 years		>1- 5 years		5-10 years		>10 years	
		n	%	n	%	n	%	n	%	n	%
Pahae Julu											
Silangkitang	60	8	1,63	0	0,00	3	0,61	6	1,22	43	8,76
Sigurung-gurung	19	5	1,02	1	0,20	1	0,20	0	0,00	12	2,44
Total	79	13	3	1	0,20	4	0,81	6	1,22	55	11,20
Pahae Julu											
Sibaganding	55	11	2,24	1	0,20	6	1,22	9	1,83	28	5,70
Lumban Jaean	29	5	1,02	2	0,41	2	0,41	5	1,02	15	3,05
Simataniari	7	0	0,00	0	0,00	0	0,00	0	0,00	7	1,43
Onan Hasang	53	18	3,67	1	0,20	4	0,81	5	1,02	25	5,09
Sitoluama	90	19	3,87	0	0,00	8	1,63	5	1,02	58	11,81
Simanampang	93	25	5,09	1	0,20	6	1,22	9	1,83	52	10,59
Hutabarat	76	17	3,46	1	0,20	5	1,02	9	1,83	44	8,96
Lontung Dolok	9	1	0,20	0	0,00	0	0,00	0	0,00	8	1,63
Total	412	96	19,55	6	1,22	31	6,31	42	8,55	237	48,27
Grand Total	491	109	22,20	7	1,43	35	7,13	48	9,78	292	59,47

Source: ERM Primary Data, April 2014

Table 4-12 Clean Water Sources of Project Affected Households

Affected Villages	Project Affected Households (n)	Source of Clean Water (%)			
		Self-Owned Well	Public Well	River	Spring Mountain
Pahae Jae					
Silangkitang	13	1,33	0,00	3,33	4,00
Sigurung-gurung	7	2,00	0,00	0,67	3,33
Total	20	3,33	0,00	4,00	7,33
Pahae Julu					
Sibaganding	20	6,00	0,00	0,67	6,67
Lumban Jaean	7	1,33	0,00	0,00	3,33
Simataniari	1	0,67	0,00	0,00	0,00
Onan Hasang	19	0,00	0,00	0,67	12,00
Sitoluama	22	0,00	0,00	3,33	11,33
Simanampang	34	1,33	0,00	2,00	19,33
Hutabarat	25	1,33	0,00	1,33	14,00
Lontung Dolok	2	0,00	0,00	0,00	1,33
Total	130	3,33	0,00	8,00	68,00
Grand Total	150	12,67	0,00	12,00	75,33

Source: ERM Primary Data, April 2014

Table 4-13 Sanitation Facility for Personal Disposal of Project Affected Households

Affected Villages	Project Affected Households (n)	Personal Disposal (%)			
		Self-Owned Pit Latrine	River	Public Toilet	Other
Pahae Jae					
Silangkitang	13	0,67	5,33	2,67	0,00
Sigurung-gurung	7	2,67	1,33	0,67	0,00
Total	20	3,33	6,67	3,33	0,00
Pahae Julu					
Sibaganding	20	8,00	2,00	3,33	0,00
Lumban Jaean	7	1,33	1,33	2,00	0,00
Simataniari	1	0,67	0,00	0,00	0,00
Onan Hasang	19	5,33	2,00	4,67	0,67
Sitoluama	22	8,00	4,67	2,00	0,00
Simanampang	34	12,67	4,67	4,00	1,33
Hutabarat	25	13,33	0,67	2,00	0,67
Lontuk Dolok	2	0,67	0,67	0,00	0,00
Total	130	50,00	16,00	18,00	2,67
Grand Total	150	53,33	22,67	21,33	2,67

Source: ERM Primary Data, April 2014

Table 4-14 Sanitation Facility for Garbage Disposal of Project Affected Households

Affected Villages	Project Affected Households (n)	Garbage Disposal (%)			
		Collective Disposal	Burnt	River	Yard
Pahae Jae					
Silangkitang	13	0,00	6,67	1,33	0,67
Sigurung-gurung	7	0,67	2,67	1,33	0,00
Total	20	0,67	9,33	2,67	0,67
Pahae Julu					
Sibaganding	20	0,00	12,67	0,67	0,00
Lumban Jaean	7	0,00	4,67	0,00	0,00
Simataniari	1	0,00	0,67	0,00	0,00
Onan Hasang	19	0,67	10,00	2,00	0,00
Sitoluama	22	0,00	14,00	0,67	0,00
Simanampang	34	0,00	20,00	2,67	0,00
Hutabarat	25	0,00	16,00	0,00	0,67
Lontuk Dolok	2	0,00	0,67	0,67	0,00
Total	130	0,67	78,67	6,67	0,67
Grand Total	150	1,33	88,00	9,33	1,33

Source: ERM Primary Data, April 2014

4.2.2.4 Accessibility of Affected Households

Based on the survey findings the majority (60%) of affected households reside more than 5km from a market. However there is a market located in Onan Hasang (Table 4-15).

Table 4-15 Accessibility of Affected Households to the Market

Affected Villages	Project Affected Households (n)	Distance to the Market			
		<1km	1-3 km	3-5 km	>5 km
Pahae Jae					
Silangkitang	13	0,00	0,00	0,00	8,67
Sigurung-gurung	7	0,00	0,00	0,00	4,67
Total	20	0,00	0,00	0,00	13,33
Pahae Julu					
Sibaganding	20	1,33	3,33	1,33	7,33
Lumban Jaean	7	1,33	0,67	0,00	2,67
Simataniari	1	0,00	0,67	0,00	0,00
Onan Hasang	19	8,00	1,33	0,00	3,33
Sitoluama	22	0,00	0,00	0,00	14,67
Simanampang	34	2,00	6,67	0,67	13,33

Affected Villages	Project Affected Households (n)	Distance to the Market			
		<1km	1-3 km	3-5 km	>5 km
Hutabarat	25	0,67	8,00	4,00	4,00
Lontuk Dolok	2	0,00	0,00	0,00	1,33
Total	130	13,33	20,67	6,00	46,67
Grand Total	150	13,33	20,67	6,00	60,00

Source: ERM Primary Data, April 2014

4.2.2.5 Vulnerability of the Area

Based on **Table 4-16**, all households have experienced vulnerability; in particular associated with avalanches and droughts (except Sigurung-gurung).

Table 4-16 Vulnerability of the Area

Affected Village	Households Surveyed (n)	Household Surveyed Experienced with Vulnerability of Area							
		Tornado	Flooding	Avalanche	Landslide	Wildfire	Drought	Disease Outbreak	Other
		<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>		
Pahae Jae									
Silangkitang	26	12	2	8	0	0	4	0	0
Sigurung-gurung	9	5	0	4	0	0	0	0	0
Total	35	17	2	12	0	0	4	0	0
Pahae Julu									
Sibaganding	28	2	0	16	0	0	8	1	1
Lumban Jaean	8	1	0	5	0	0	1	0	1
Simataniari	2	0	0	1	0	0	1	0	0
Onan Hasang	9	2	0	5	0	0	2	0	0
Sitoluama	35	10	0	15	0	9	1	0	0
Simanampang	39	0	0	19	0	1	18	0	1
Hutabarat	40	1	0	17	2	10	9	1	0
Lontuk Dolok	2	0	0	0	0	0	2	0	0
Total	163	16	0	78	2	20	42	2	3
Grand Total	198	33	2	90	2	20	46	2	3

Source: ERM Primary Data, April 2014

4.2.3 Economic Profile

The economy of the North Sumatra Province is almost entirely derived from the agricultural sector. This sector is a major economic resource for local revenues; acting as the key source of income and employment for the local people. Employment and business opportunities in the non-agricultural sector are limited, however the Project is likely to provide a significant number of local jobs and business opportunities once construction commences.

Sources of income in the agricultural sector include production of fields for rice-paddy, rubber, cacao, trees and incense (gum benzoin). On the rice land, usually people cultivate other crops such as corn, beans, and chili. The households rarely sell rice plants, as the rice is largely used to meet the basic needs for household consumption.

There are labor shortages in the agricultural sector due to the increased number of people migrating away from the area; especially the younger generations. To fulfill the manpower needs, females now play a significant and role in the agricultural sector whilst still having a key role in maintaining the household.

4.2.3.1 Livelihoods of the Project Affected Households

Similar to the province level, the survey identified that the primary livelihood within the Project area is based around the agricultural sector (Table 4-17).

Table 4-17 Livelihoods of Project Affected Households

Affected Villages	Project Affected Households (n)	Livelihood of Project Affected Households					
		Farmer	Government Official	Private Employee	Entrepreneur	Army/Police	Others
Pahae Jae							
Sigurung-gurung	7	7	0	0	0	0	0
Silangkitang	13	11	0	0	2	0	0
Total	20	18	0	0	2	0	0
Pahae Julu							
Hutabarat	25	20	3	2	0	0	0
Lontung Dolok	2	2	0	0	0	0	0
Lumbanjaean	7	7	0	0	0	0	0
Onan Hasang	19	18	1	0	0	0	0
Sibaganding	20	20	0	0	0	0	0
Simanampang	34	29	4	1	0	0	0
Simataniari	1	1	0	0	0	0	0
Sitoluama	22	21	0	0	1	0	0
Total	130	118	8	3	0	0	0
Grand Total	150	136	8	3	3	0	0

Source: ERM Primary Data, April 2014

Most affected households (90.67% or 136 households) in the two districts work as farmers. The remaining work as government officials (8 households), private employees (3 households) or entrepreneurs (3 households). Given the high reliance on land for income and subsistence the Project land acquisition will certainly impact the majority of affected households.

Table 4-18 identified that the highest monthly average household income in both districts is from farming activities. This is followed by private employee and government official incomes in the Pahae Julu District and by entrepreneur incomes in Pahae Jae.

Table 4-18 Monthly Average Income of Project Affected Households by Occupation

Affected Villages	Monthly Average Income (IDR)	Monthly Average Income by Occupation (IDR)					
		Farmer	Government Official	Private Employee	Entrepreneur	Army/Police	Others
Sigurung-gurung	1,590,000	1,590,000	0	0	0	0	0
Silangkitang	4,030,000	3,671,818	0	0	6,000,000	0	0
Total	2,810,000	2,630,909	0	0	3,000,000	0	0
Hutabarat	1,268,000	1,055,000	1,033,333	3,750,000	0	0	0
Lontung Dolok	900,000	900,000	0	0	0	0	0
Lumbanjaean	1,100,000	1,100,000	0	0	0	0	0
Onan Hasang	889,473.7	938,888.9	0	0	0	0	0
Sibaganding	1,165,000	1,165,000	0	0	0	0	0
Simanampang	1,117,941	1,100,690	1,072,500	1,800,000	0	0	0
Simataniari	1,000,000	1,000,000	0	0	0	0	0
Sitoluama	1,757,002	1,840,668	0	0	0	0	0
Total	1,149,677	1,137,530.8	263,229.17	693,750	0	0	0
Grand Total	1,979,839	1,436,206.5	210,583.33	555,000	600,000	0	0

Source: ERM Primary Data, April 2014

Table 4-19 shows 86.7% of households that live within the Project area have an income above the village poverty line; 13.3% of households are below.

Table 4-19 Household Income and Poverty Levels

Village	Number of Households													
	Below Village Poverty Line (IDR 238,368 per capita)		956,000-2,000,000		2,000,001-4,000,000		4,000,001-6,000,000		6,000,001-8,000,000		>8,000,000		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A. Pahae Jae Sub District														
Silangkitang	1	0,7%	8	5,3%	4	2,7%	0	0,0%	0	0,0%	0	0,0%	13	8,7%
Sigung-gurung	1	0,7%	5	3,3%	1	0,7%	0	0,0%	0	0,0%	0	0,0%	7	4,7%
Subtotal	2	1,3%	13	8,7%	5	3,3%	0	0,0%	0	0,0%	0	0,0%	20	13,3%
B. Pahae Julu Sub District														
Sibaganding	4	2,7%	13	8,7%	2	1,3%	1	,7%	0	0,0%	0	0,0%	20	13,3%
Lumban Jaean	1	0,7%	6	4,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	7	4,7%
Simataniari	0	0,0%	1	,7%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	1	0,7%
Onan Hasang	3	2,0%	13	8,7%	2	1,3%	1	0,7%	0	0,0%	0	0,0%	19	12,7%
Sitoluama	4	2,7%	18	12,0%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	22	14,7%
Simanampang	5	3,3%	24	16,0%	4	2,7%	0	0,0%	1	,7%	0	0,0%	34	22,7%
Hutabarat	1	0,7%	21	14%	3	2%	0	0,0%	0	0,0%	0	0,0%	25	16,7%
Lontuk Dolok	0	0,0%	2	1,3%	0	0,0%	0	0,0%	0	0,0%	0	0,0%	2	1,3%
Subtotal	18	12,0%	98	65,3%	11	7,3%	2	1,3%	1	0,7%	0	0,0%	130	86,7%
Grand Total	20	13,3%	111	74,0%	16	10,7%	2	1,3%	1	0,7%	0	0,0%	150	100,0%

Source: ERM Primary Data, April 2014

4.2.3.2 Housing Conditions of Project Affected Households

The surveys revealed that the majority of the housing wall structures in the two sub districts are made of soft board-walls (**Table 4-20**). This is generally an indicator for households who have a poor socio-economic status and can be deemed as vulnerable.

Table 4-20 Housing Condition of Project Affected Households

Affected Villages	Average Income of PAPs	Housing Physical Type of Wall (%)				
		Brick-wall	Hardwood-Wall	Bamboo	Soft board-Wall	Other
Pahae Jae						
Sigurung-gurung	4.70	0.70	0.00	0.00	4.00	0.00
Silangkitang	8.60	3.30	1.30	0.00	3.30	0.70
Total	13.30	4.00	1.30	0.00	7.30	0.70
Pahae Julu						
Hutabarat	16.70	3.30	2.00	0.70	10.70	0.00
Lontung Dolok	1.30	0.00	0.00	0.00	1.30	0.00
Lumbanjaean	4.70	0.70	0.70	0.00	3.30	0.00
Onan Hasang	12.60	1.30	0.00	0.00	11.30	0.00
Sibaganding	13.40	2.70	2.00	0.00	8.70	0.00
Simanampang	22.70	6.00	0.00	0.00	16.00	0.70
Simataniari	0.70	0.70	0.00	0.00	0.00	0.00
Sitoluama	14.60	3.30	2.00	0.00	9.30	0.00
Total	86.70	18.00	6.70	0.70	60.60	0.70
Grand Total	100.00	22.00	8.00	0.70	67.90	1.40

Source: ERM Primary Data, April 2014

4.2.4 Ethnic Profile

Most residents of in North Sumatra have a Batak ethnic background; known to have an open and relatively dynamic culture. Their social organization is patrilinear that known as the 'marga' or clan system. Members of similar 'marga' regard each other as relatives of the nearest grandmother.

The Batak community are mutually binding; implementing activities on the basis of lineage and marriage. Many communal activities take place within this community such as weddings, building a house, and ceremonies of a religious nature.

Patrilinear kinship systems that take place are based on the principle of *dalihan na tolu*, which means that the Batak society are seen as a pan (pot) and *dalihan na tolu* are the three furnaces that maintain the balance within the pan. Each furnace must keep and maintain the equilibrium of the pan to stand firm. To achieve this balance all three have to work together.

Table 4-21 provides information pertaining to the majority of ethnic groups that were identified during the survey. Batak ethnic household were surveyed in 81 households in Pahae Jae subdistrict and 484 households in the Pahae Julu Sub-District. Four households were identified as Minang in the Pahae Julu Sub District.

Table 4-21 Ethnic Distribution of Project Affected Households

Affected Villages	Project Affected Households (n)	Ethnic Distribution of Project Affected Households				
		Batak	Minang	Melayu	Aceh	Lainnya
Pahae Jae						
Sigurung-gurung	19	19	0	0	0	0
Silangkitang	62	62	0	0	0	0
Total	81	81	0	0	0	0
Pahae Julu						
Hutabarat	92	92	0	0	0	0
Lontung Dolok	9	9	0	0	0	0
Lumbanjaeen	37	37	0	0	0	0
Onan Hasang	77	77	0	0	0	0
Sibaganding	66	64	2	0	0	0
Simanampang	110	110	0	0	0	0
Simataniari	6	5	1	0	0	0
Sitoluama	91	90	1	0	0	0
Total	488	484	4	0	0	0
Grand Total	569	565	4	0	0	0

Source: ERM Primary Data, April 2014

4.2.4.1 Clan Structure and Customary System

4.2.4.1.1 Pahae Julu Sub District

The Pahae Julu sub-district has eight villages affected by Project. There are three large clans affected by the Project; Hutabarat, Panggabean and Sitompul (**Table 4-22**).

4.2.4.1.2 Pahae Jae Sub District

The Pahae Jae sub-district has two large clans affected by the Project; Sihombing and Sitompul. Other smaller clans include Gulton Nababan, Parapat, Sibarani and Simatupang (**Table 4-23**).

4.2.4.2 Cultural Practices

Social relationships are based on two types of ties community and kinship. Both bonds are manifested in joint activities such as the weddings, funerals, and other social activities. When a resident is getting married not only is his/her family involved but many relatives and neighbors. When a citizen dies the neighbors and relatives will also directly provide assistance. Similarly, when family problems emerge the relatives and residents will try to find a solution together (**Table 4-24**).

Table 4-22 Dominant Clans in the Pahae Julu Sub District

No.	Name of Village	Project Affected Households (%)	Clan or Marga (%)														
			Arianja	Aritonang	Dongoran	Gultom	Hutabarat	Hutapea	Hutasoit	Lumbantobi ng	Manullang	Nainggolan	Pakpahan	Pangabea	Parapat	Pasaribu	Siagian
1	Hutabarat	19.23	0.77	0.00	0.00	0.00	6.15	0.00	0.00	0.00	0.00	0.77	0.00	1.54	0.00	3.08	0.77
2	Lontung Dolok	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
3	Lumbanjaean	5.38	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Onan Hasang	14.62	0.00	0.00	0.77	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	3.08	0.77
5	Sibaganding	15.38	0.00	0.00	0.00	0.00	0.77	0.77	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.77	0.00
6	Simanampang	26.15	0.00	0.00	0.00	0.77	0.77	0.00	0.00	3.85	0.00	0.77	0.00	10.77	0.00	1.54	0.00
7	Simataniari	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Sitoluama	16.92	0.00	0.00	0.00	0.00	11.54	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.77	0.00	0.00

Source: ERM Primary Data, April 2014

Table 4-23 Dominant Clans in the Pahae Julu Sub District (cont.)

No.	Name of Village	Project Affected Households (%)	Clan or Marga (%)														
			Sihombing	Silaban	Silalahi	Simanjuntak	Simanungkalit	Simatupang	Simorangkir	Sinaga	Siregar	Sitompul	Situmorang	Sormin	Tambunan	Tampubolon	Tanjung
1	Hutabarat	19.23	0.00	0.00	0.00	0.77	0.00	0.00	0.77	0.00	0.77	1.54	0.00	0.00	0.00	2.31	0.00
2	Lontung Dolok	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Lumbanjaean	5.38	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.08	0.00	0.00	0.00	0.00	0.00
4	Onan Hasang	14.62	0.00	0.77	0.77	0.00	0.77	0.00	0.00	0.77	3.85	1.54	0.00	0.77	0.00	0.00	0.00
5	Sibaganding	15.38	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	11.54	0.00	0.00	0.00	0.00	0.00
6	Simanampang	26.15	0.00	0.00	0.00	2.31	0.00	0.00	0.00	0.00	0.00	3.08	0.77	0.00	0.77	0.00	0.77
7	Simataniari	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
8	Sitoluama	16.92	1.54	0.00	0.00	0.00	0.77	0.77	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00

Source: ERM Primary Data, April 2014

Table 4-24 Dominant Clan in Pahae Jae Sub District

No.	Name of Village	Project Affected Households (n)	Clan or Marga (%)						
			(Pamungka Huta/Sisuan Bulu)						
			Gultom	Nababan	Parapat	Sibarani	Sihombing	Simatupang	Sitompul
1	Silangkitang	65	0	5	0	5	45	0	10
2	Sigurung-gurung	35	5	0	5	5	0	5	15

Source: ERM Primary Data, April 2014

Table 4-25 Cultural Practices of Project Affected Households

Affected Villages	Project Affected Households (n)	Cultural Practices by Project Affected Households			
		Wedding	Funeral	Land Use	Problem Solving
Pahae Jae					
Sigurung-gurung	19	6	6	2	5
Silangkitang	37	11	11	5	10
Total	56	17	17	7	15
Pahae Julu					
Hutabarat	51	19	19	3	10
Lontung Dolok	6	2	2	0	2
Lumbanjaean	24	7	7	4	6
Onan Hasang	57	18	18	8	13
Sibaganding	53	18	18	5	12
Simanampang	87	31	29	8	19
Simataniari	3	1	1	0	1
Sitoluama	59	20	20	4	15
Total	340	116	114	32	78

Source: ERM Primary Data, April 2014

4.2.4.3 Cultural Heritage

Several households have cultural heritage (e.g. family cemeteries) on their land that is being acquired by the Project; especially in Hutabarat and Simanampang (Table 4-26).

Table 4-26 Cultural Heritage on Land acquired by SOL

Affected Villages	Project Affected Households (n)	Cultural Heritage by Project Affected Households	
		Yes	No
Pahae Jae			
Sigurung-gurung	7	0	7
Silangkitang	13	0	13
Total	20	0	20
Pahae Julu			
Hutabarat	25	1	24
Lontung Dolok	2	0	2
Lumbanjaean	7	0	7
Onan Hasang	19	0	19
Sibaganding	20	0	20
Simanampang	34	1	33
Simataniari	1	0	1
Sitoluama	22	0	22
Total	130	2	128

Source: ERM Primary Data, April 2014

4.2.4.4 *Community Leaders*

4.2.4.4.1 *Pahae Julu Sub District*

Key community leaders in the Project area are religious figure and traditional figures as well as village heads. Households in Pahae Julu have a high respect for all three figure heads. The majority of affected households in the Pahae Julu sub-district felt their community leaders had played a positive role over the past five years (except in Simataniari). The majority of affected households in the Project area have a high expectation that their community leaders will improve the economic conditions in the village (**Table 4-27**).

Table 4-27 Community Leaders and Expectations by Project Affected Households in Pahae Julu Sub District

Aspects	Villages							
	Hutabarat	Lontong Dolok	Lumbanjaean	Onan Hasang	Sibagandi	Simanampang	Simataniari	Situluama
Community leaders:								
Religious figure	6.6%	0.5%	2.3%	4.8%	5.4%	8.9%	0.3%	5.6%
Traditional figure	6.9%	0.5%	2.0%	4.8%	5.1%	8.7%	0.3%	5.9%
Village heads	5.6%	0.5%	2.0%	4.6%	4.8%	7.9%	0.3%	5.6%
Change of the village in 5 years								
Positive	18.3%	2.4%	3.7%	14.6%	15.9%	24.4%	1.2%	13.4%
Negative	2.4%	0.0%	3.7%	1.2%	1.2%	4.9%	6.1%	3.7%
Expectation/hope toward Sarulla Geothermal Power Plant regarding :								
Employment	10.3%	1.1%	2.3%	5.7%	6.9%	12.6%	0.0%	6.9%
To run and operate the Power Plant in the near future (as soon as possible)	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Economy	6.9%	0.0%	4.6%	6.9%	13.8%	13.8%	1.1%	5.7%

Source: ERM Primary Data, April 2014

4.2.4.4.2 Pahae Jae Sub District

Table 4-28 indicates households in Pahae Jae also have a high respect for religious and traditional figures as well as village heads. The majority felt their community leaders had played a positive role over the past five years and similar to Pahae Julu sub-district have a high expectation that their community leaders will improve the economic conditions in the village.

Table 4-28 Community Leaders and Expectations by Project Affected Households in Pahae Jae Sub District

Aspects	Villages	
	Sigurung-Gurung	Silangkitang
Community leaders:		
Religious figure	12.8%	21.3%
Traditional figure	12.8%	21.3%
Village heads	10.6%	21.3%
Change of the village in 5 years		
Positive	28.6%	50.0%
Negative	7.1%	14.3%
Expectation/hope toward Sarulla Geothermal Power Plant regarding :		
Employment	30.8%	38.5%
To run and operate the Power Plant in the near future (as soon as possible)	0.0%	7.7%
Economy	0.0%	23.1%

Source: ERM Primary Data, April 2014

4.2.5 Vulnerability Profile

4.2.5.1 Identification of Vulnerable Groups

The majority of vulnerable household heads are elderly people and females (Table 4-29). Most are vulnerable, because it is more difficult to access employment opportunities and females also have multiple roles which make it more difficult to maintain a full time occupation.

Table 4-29 Vulnerable Group by Project Affected Households

Affected Villages	Project Affected Households (n)	Vulnerable Group by Project Affected Households	
		Female Household	Elderly People
Pahae Jae			
Silangkitang	13	1	2
Sigurung-gurung	7	3	2
Total	20	4	4

Affected Villages	Project Affected Households (n)	Vulnerable Group by Project Affected Households	
		Female Household	Elderly People
Pahae Julu			
Sibaganding	20	4	3
Lumban Jaean	7	0	0
Simataniari	1	0	0
Onan Hasang	19	4	6
Sitoluama	22	3	4
Simanampang	34	12	13
Hutabarat	25	6	8
Lontuk Dolok	2	0	0
Total	130	29	34

Source: ERM Primary Data, April 2014

4.2.6 Remaining Landholding in the Project Area and Surroundings

4.2.6.1 Individual/Household Land

Based on the survey of affected people covering 150 landowners, 149 PAH (20 PAHs in Pahae Jae and 129 PAH in Pahae Julu) are significantly affected or losing 10% or more of their productive or income-generating assets has been acquired. From among those significantly affected, there are a total of 139 PAHs (20 PAHs in Pahae Jae and 119 PAH in Pahae Julu) who lost more than 50% of their total landholding. Of these PAHs, 23 owners had remaining land classified as unviable (i.e. equal to or less than 400 sq.m.) of which 3 are in Pahae Julu and 20 in Pahae Jae. Males were the only landowners with remaining unviable land (Table 4-30 and Table 4-31). There are no people with 100% loss. No households will require physical displacement of housing or commercial assets.

Table 4-30 Categories of Project Affected People in Pahae Jae Sub District and Pahae Julu Sub District

Impact	Pahae Jae						Pahae Julu						Total
	Female		Male		SubTotal		Female		Male		Subtotal		
	n	%	n	%	n	%	n	%	n	%	n	%	
* 50-100% Loss	4	3%	16	11%	20	13%	29	19%	90	60%	119	79%	139
100% Loss	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Unviable	4	3%	16	11%	20	13%	1	1%	2	1%	3	2%	23
Viable	0	0%	0	0%	0	0%	28	19%	88	59%	116	77%	116
* 10-49% Loss	0	0%	0	0%	0	0%	1	1%	9	6%	10	7%	10
Unviable	0	0%	0	0%	0	0%	0	0%	7	5%	7	5%	7
Viable	0	0%	0	0%	0	0%	1	1%	2	1%	3	2%	3

Impact	Pahae Jae						Pahae Julu						Total
	Female		Male		SubTotal		Female		Male		Subtotal		
	n	%	n	%	n	%	n	%	n	%	n	%	
* Less than 10% Loss	0	0%	0	0%	0	0%	0	0%	1	1%	1	1%	1
Unviable	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Viable	0	0%	0	0%	0	0%	0	0%	1	1%	1	1%	1
Grand Total	4	3%	16	11%	20	13%	30	20%	100	67%	130	87%	150

Source: ERM Primary Data, January 2015

Table 4-31 Remaining Landholding of Project Affected People in Pahae Jae Sub District (*)

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
1			8.357,00	1.157,00	13,84	7.200,00	86,16%
2			13.900,00	900,00	6,47	13.000,00	93,53%
3			12.333,00	1.333,00	10,81	11.000,00	89,19%
4			6.017,00	1.017,00	16,90	5.000,00	83,10%
5			11.156,00	1.156,00	10,36	10.000,00	89,64%
6			26.268,00	1.268,00	4,83	25.000,00	95,17%
7			23.138,00	138,00	0,60	23.000,00	99,40%
8			10.967,00	967,00	8,82	10.000,00	91,18%
9			11.525,00	1.525,00	13,23	10.000,00	86,77%
10			6.333,00	1.333,00	21,05	5.000,00	78,95%
11			30.600,00	600,00	1,96	30.000,00	98,04%
12			10.432,00	432,00	4,14	10.000,00	95,86%
13			16.265,00	1.265,00	7,78	15.000,00	92,22%
14			10.032,00	32,00	0,32	10.000,00	99,68%
15			20.746,00	746,00	3,60	20.000,00	96,40%
16			10.157,00	157,00	1,55	10.000,00	98,45%
17			11.255,00	1.255,00	11,15	10.000,00	88,85%
18			10.349,00	349,00	3,37	10.000,00	96,63%
19			5.030,00	30,00	0,60	5.000,00	99,40%
20			3.458,00	1.458,00	42,16	2.000,00	57,84%

Table 4-32 Remaining Landholding of Project Affected People in Pahae Julu Sub District (*)

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
21			15.151,00	151,00	1,00	15.000,00	99,00%

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
22			50.727,00	727,00	1,43	50.000,00	98,57%
23			1.740,00	526,00	30,23	1.214,00	69,77%
24			805,00	417,00	51,80	388,00	48,20%
25			5.570,00	570,00	10,23	5.000,00	89,77%
26			20.342,00	342,00	1,68	20.000,00	98,32%
27			2.219,00	319,00	14,38	1.900,00	85,62%
28			750,00	456,00	60,80	294,00	39,20%
29			600,00	216,00	36,00	384,00	64,00%
30			4.200,00	1.095,00	26,07	3.105,00	73,93%
31			8.218,00	218,00	2,65	8.000,00	97,35%
32			2.561,00	161,00	6,29	2.400,00	93,71%
33			8.393,00	393,00	4,68	8.000,00	95,32%
34			802.238,00	238,00	0,03	80.000,00	9,97%
35			1.150,00	418,00	36,35	732,00	63,65%
36			16.646,00	646,00	3,88	16.000,00	96,12%
37			10.096,00	96,00	0,95	10.000,00	99,05%
38			11.037,00	1.037,00	9,40	10.000,00	90,60%
39			20.008,00	8,00	0,04	20.000,00	99,96%
40			11.360,00	1.360,00	11,97	10.000,00	88,03%
41			1.440,00	653,00	45,35	787,00	54,65%
42			17.431,00	2.431,00	13,95	15.000,00	86,05%
43			5.898,00	898,00	15,23	5.000,00	84,77%
44			60.000,00	4.314,00	7,19	53.600,00	89,33%
45			2.100,00	630,00	30,00	1.470,00	70,00%
46			740,00	359,00	48,51	381,00	51,49%
47			1.350,00	300,00	22,22	1.050,00	77,78%
48			36.760,00	6.760,00	18,39	30.000,00	81,61%
49			21.557,00	1.557,00	7,22	20.000,00	92,78%
50			21.366,00	9.366,00	43,84	12.000,00	56,16%
51			2.800,00	704,00	25,14	2.096,00	74,86%
52			6.142,00	142,00	2,31	6.000,00	97,69%
53			2.469,00	969,00	39,25	1.500,00	60,75%
54			10.495,00	495,00	4,72	10.000,00	95,28%
55			2.163,00	963,00	44,52	1.200,00	55,48%
56			12.104,00	104,00	0,86	12.000,00	99,14%
57			560,00	290,00	51,79	270,00	48,21%
58			40.413,00	413,00	1,02	40.000,00	98,98%
59			10.357,00	357,00	3,45	10.000,00	96,55%
60			1.500,00	494,00	32,93	1.006,00	67,07%

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
61			22.500,00	2.669,00	11,86	19.831,00	88,14%
62			30.000,00	2.616,00	8,72	27.384,00	91,28%
63			30.499,00	499,00	1,64	30.000,00	98,36%
64			97.781,00	13.781,00	14,09	80.000,00	81,82%
65			2.665,00	665,00	24,95	2.000,00	75,05%
66			450,00	344,00	76,44	106,00	23,56%
67			762,00	262,00	34,38	500,00	65,62%
68			1.254,00	54,00	4,31	1.200,00	95,69%
69			1.240,00	565,00	45,56	675,00	54,44%
70			20.187,00	187,00	0,93	20.000,00	99,07%
71			20.384,00	384,00	1,88	20.000,00	98,12%
72			20.454,00	454,00	2,22	20.000,00	97,78%
73			640,00	432,00	67,50	208,00	32,50%
74			20.574,00	574,00	2,79	20.000,00	97,21%
75			342.151,00	351,00	0,10	341.800,00	99,90%
76			18.681,00	681,00	3,65	18.000,00	96,35%
77			3.360,00	864,00	25,71	2.496,00	74,29%
78			30.387,00	389,00	1,28	30.000,00	98,73%
79			1.696,00	496,00	29,25	1.200,00	70,75%
80			8.590,00	590,00	6,87	8.000,00	93,13%
81			20.653,00	653,00	3,16	20.000,00	96,84%
82			550,00	198,00	36,00	352,00	64,00%
83			945,00	387,00	40,95	558,00	59,05%
84			50.448,00	448,00	0,89	50.000,00	99,11%
85			4.200,00	1.080,00	25,71	3.120,00	74,29%
86			1.200,00	117,00	9,75	1.083,00	90,25%
87			20.070,00	70,00	0,35	20.000,00	99,65%
88			1.200,00	540,00	45,00	660,00	55,00%
89			82.156,00	2.156,00	2,62	80.000,00	97,38%
90			5.816,00	816,00	14,03	5.000,00	85,97%
91			18.000,00	1.421,00	7,89	16.579,00	92,11%
92			15.171,00	171,00	1,13	15.000,00	98,87%
93			41.378,00	1.378,00	3,33	40.000,00	96,67%
94			8.000,00	1.458,00	18,23	6.542,00	81,78%
95			30.846,00	846,00	2,74	30.000,00	97,26%
96			24.045,00	4.045,00	16,82	20.000,00	83,18%
97			20.000,00	3.694,00	18,47	16.306,00	81,53%
98			30.198,00	198,00	0,66	30.000,00	99,34%
99			10.120,00	120,00	1,19	10.000,00	98,81%

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
100			40.585,00	585,00	1,44	40.000,00	98,56%
101			3.970,00	2.170,00	54,66	1.800,00	45,34%
102			10.198,00	198,00	1,94	10.000,00	98,06%
103			41.106,00	1.106,00	2,69	40.000,00	97,31%
104			31.596,00	1.596,00	5,05	30.000,00	94,95%
105			1.080,00	490,00	45,37	590,00	54,63%
106			4.200,00	1.080,00	25,71	3.120,00	74,29%
107			11.193,00	1.193,00	10,66	10.000,00	89,34%
108			330,00	203,00	61,52	127,00	38,48%
109			30.386,00	386,00	1,27	30.000,00	98,73%
110			957,00	157,00	16,41	800,00	83,59%
111			19.192,00	3.192,00	16,63	16.000,00	83,37%
112			1.000,00	159,00	15,90	841,00	84,10%
113			15.552,00	552,00	3,55	15.000,00	96,45%
114			18.898,00	898,00	4,75	18.000,00	95,25%
115			15.044,00	44,00	0,29	15.000,00	99,71%
116			21.588,00	1.588,00	7,36	20.000,00	92,64%
117			11.588,00	1.588,00	13,70	10.000,00	86,30%
118			15.000,00	5.000,00	33,33	10.000,00	66,67%
119			25.846,00	846,00	3,27	25.000,00	96,73%
120			4.000,00	1.006,00	25,15	2.994,00	74,85%
121			11.795,00	1.795,00	15,22	10.000,00	84,78%
122			18.000,00	2.221,00	12,34	15.779,00	87,66%
123			1.500,00	251,00	16,73	1.249,00	83,27%
124			10.666,00	666,00	6,24	10.000,00	93,76%
125			1.256,00	856,00	68,15	600,00	47,77%
126			1.440,00	579,00	40,21	861,00	59,79%
127			5.262,00	262,00	4,98	5.000,00	95,02%
128			2.875,00	75,00	2,61	2.800,00	97,39%
129			3.374,00	174,00	5,16	3.200,00	94,84%
130			40.089,00	89,00	0,22	40.000,00	99,78%
131			3.500,00	29,00	0,83	3.471,00	99,17%
132			20.213,00	213,00	1,05	20.000,00	98,95%
133			1.868,00	868,00	46,47	1.000,00	53,53%
134			200.187,00	187,00	0,09	200.000,00	99,91%
135			30.641,00	641,00	2,09	30.000,00	97,91%
136			3.536,00	536,00	15,16	3.000,00	84,84%
137			21.652,00	1.652,00	7,63	20.000,00	92,37%
138			1.800,00	90,00	5,00	1.710,00	95,00%

No	Name		Total Landholding (m ²)	Land Acquired by Project		Remaining Landholding	
	Male	Female		(m ²)	%	(m ²)	%
139			1.140,00	740,00	64,91	400,00	35,09%
140			36.432,00	6.432,00	17,65	30.000,00	82,35%
141			20.787,00	10.787,00	51,89	10.000,00	48,11%
142			2.000,00	722,00	36,10	1.278,00	63,90%
143			5.404,00	404,00	7,48	5.000,00	92,52%
144			39.326,00	306,00	0,78	39.020,00	99,22%
145			5.224,00	1.024,00	19,60	4.200,00	80,40%
146			50.835,00	835,00	1,64	50.000,00	98,36%
147			5.122,00	122,00	2,38	5.000,00	97,62%
148			40.104,00	104,00	0,26	40.000,00	99,74%
149			1.500,00	355,00	23,67	1.145,00	76,33%
150			30.261,00	261,00	0,86	30.000,00	99,14%

Source: ERM Primary Data, January 2015

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

Based on in-depth interviews with the village heads and clan/sub clan leaders, it was identified there are no communal lands owned by any of the villages, clans or sub clans. The land ownership is therefore purely based on individual families, the majority of whom have the right of land ownership from heritage.

4.2.7 Extent of Economic and Physical Displacement

4.2.7.1 Structure Ownership

Information provided by SOL's LAQ Team indicates there are eight permanent and semi-permanent structures affected by the Project in Simanampang and Hutabarat due to T/L ROW. (*)

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

4.2.7.2 Land Asset Ownership

The majority (106) of households affected by the land acquisition own less than 1,000 m² (Table 4-33). Only one household in Onan Hasang and Sibaganding has land affected more than 10,000 m².

Table 4-33 Land Asset affected by Project Affected Lands

Affected Village	Number and Size of Project Affected Land							
	Agricultural							
	Land Owner Household (n)		<1,000 m ²		1,000-10,000 m ²		>10,000 m ²	
	n	%	n	%	n	%	N	%
Pahae Jae								

Silangkitang	7	4.67%	4	2.67%	3	2.00%	0	0.00%
Sigurug-gurung	13	8.67%	6	4.00%	7	4.67%	0	0.00%
Total	20	13.33%	10	6.67%	10	6.67%	0	0.00%
Pahae Julu								
Hutabagasan	28	18.67%	23	15.33%	5	3.33%	0	0.00%
Janji Natogu	1	0.67%	0	0.00%	1	0.67%	0	0.00%
Lontung Dolok	2	1.33%	2	1.33%	0	0.00%	0	0.00%
Lumban Jaean	7	4.67%	6	4.00%	1	0.67%	0	0.00%
Onan Hasan	18	12.00%	14	9.33%	3	2.00%	1	0.67%
Parik Matia	1	0.67%	1	0.67%	0	0.00%	0	0.00%
Sibaganding	22	14.67%	16	10.67%	5	3.33%	1	0.67%
Simanampang	29	19.33%	19	12.67%	10	6.67%	0	0.00%
Simataniari	2	1.33%	1	0.67%	1	0.67%	0	0.00%
Sitoluama	20	13.33%	14	9.33%	6	4.00%	0	0.00%
Sub Total	130	86.67%	96	64.00%	32	21.33%	2	1.33%
Grand Total	150	100.00%	106	70.67%	42	28.00%	2	1.33%

Source: ERM Primary Data, January 2015

4.2.7.3 Use of Compensation

The land survey identified 94 land owners who were unclear how they would spend their compensation; 25% of PAHs land owners said the compensation would be used for primary needs i.e. meals and health costs; remaining land owners indicated they would save (27% of PAHs) and will purchase new land.

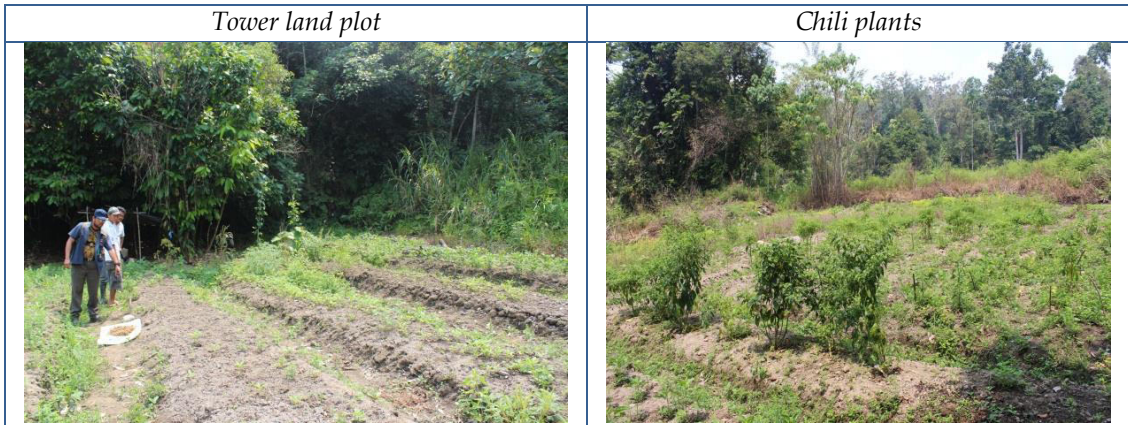
Use of Compensation	Use of Compensation																			Total Affected House hold	
	Bangunan Baru	Tanah untuk hunian baru	Tanah untuk pertanian baru	Biaya pindah	Kebutuhan primer (sandang, pangan, papan)	Kebutuhan sekunder (rekreasi, dll)	Tabungan	Modal Usaha	Transportasi (Mobil, Sepeda, Motor)	Lainnya											
Pahae Jae																					
Silangkitang	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	3	5%	0	0%	0	0%	0	0%	4
Sigurung-gurung	0	0%	0	0%	0	0%	1	2%	2	4%	0	0%	2	4%	0	0%	0	0%	1	2%	6
Sub Total	0	0%	0	0%	0	0%	1	2%	2	4%	1	2%	5	9%	0	0%	0	0%	1	2%	10
Pahae Julu																					
Hutaba-gasan	0	0%	0	0%	0	0%	0	0%	2	4%	0	0%	2	4%	0	0%	0	0%	0	0%	4
Janji Natogu	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
ontung dolok	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
lumban jaean	1	2%	0	0%	1	2%	2	4%	2	4%	0	0%	2	4%	1	2%	0	0%	2	4%	11
onan hasan	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
parik matia	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
sibaganding	0	0%	0	0%	0	0%	2	4%	3	5%	0	0%	2	4%	2	4%	0	0%	2	4%	11
simanampang	0	0%	1	2%	0	0%	1	2%	3	5%	1	2%	2	4%	0	0%	1	2%	1	2%	10
simataniari	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Simatupang	0	0%	0	0%	1	2%	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	1	2%	3
sitoluama	0	0%	1	2%	0	0%	1	2%	2	4%	0	0%	2	4%	0	0%	0	0%	1	2%	7
Sub Total	1	2%	2	4%	2	4%	7	13%	12	21%	1	2%	10	18%	3	5%	1	2%	7	13%	46
Grand Total	1	2%	2	4%	2	4%	8	14%	14	25%	2	4%	15	27%	3	5%	1	2%	8	14%	56

Source: ERM Primary Data, January 2015

4.2.7.4 *Type of Plants will be affected by SOL*

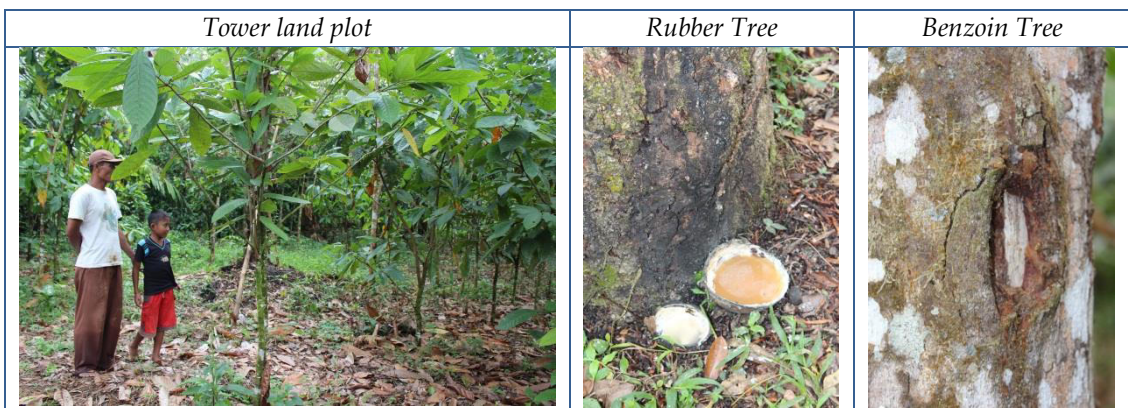
The description related to type of plants that will be acquired by SOL in the transmission line RoW can be seen in the below pictures. Some land plots are tenure, but the majority of land plots are still being cultivated by the land owners.

Figure 4-1 Land Plot 1



The land owner has 2,000 m² of land from their parents. However, they do not use the land. Their neighbour cultivates vegetables (chili and spinat tree) on their land.

Figure 4-2 Land Plot 2



This land owner has farms rice paddy; he also has other land plots to plant perennials. He has 40 cacao trees, 20 benzoin trees, 40 rubber trees, 3 sugar palm trees that will be potentially acquired by Project.



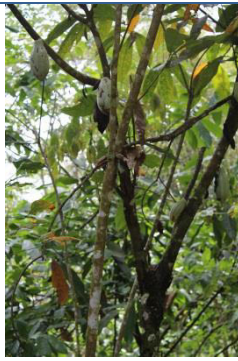
Figure 4-3 Land Plot 3








This land owner has 100 rubber trees, 20 cacao trees, one sugar palm tree, one mango tree, one durian tree, and other perennials.

Figure 4-4 Land Plot 4

<i>Tower land plot</i>	<i>Petai Tree</i>	<i>Cacao Tree</i>
		

This land owner has five cacao trees, two benzoin trees on his land plot. He does not cultivate this land but hires labour to cultivate and take the crops from his land. He has 5,500 m² of land (0.55 ha).

Figure 4-5 Land Plot 5

<i>Tower land plot</i>	<i>Durian Tree</i>	<i>The mark land</i>
		

The land owner is living in Medan, so he rents his land and receives rent of around IDR 2,000,000 per year. The sharecropper has cultivated rice paddy and one durian tree.

Figure 4-6 Land Plot 6

<i>Pineapple Trees</i>	<i>Banana Tree</i>	<i>Durian Tree</i>
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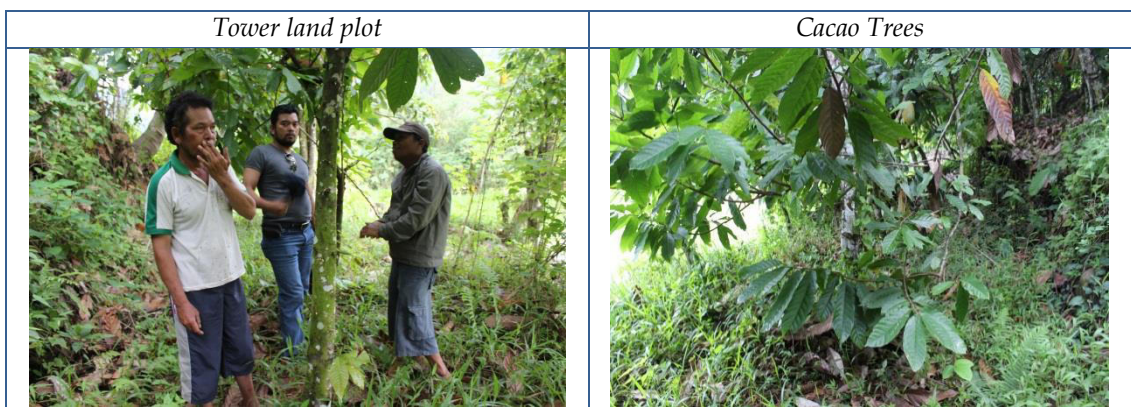
This land owner has around 30,000 m² (3 Ha), after the surveyor identified and marked the land. It has twenty pineapple trees, banana, sugar cane and durian tree.

Figure 4-7 Land Plot 7



This land belongs to the land owner who has five children. One of his sons is now farming rice paddy on total land 1,300 m² (0.13 ha).

Figure 4-8 Land Plot 8



This land owner is 60 years old and has two children. He and his two brothers who live in Medan and have heritage land from their parents totalling 45,000 m² (4.5 ha). He has a mandate to cultivate rice paddy and cacao trees on the land. Twenty cacao trees and one mango tree will be acquired by the Project.

4.3 ANALYSIS ON PHYSICAL AND ECONOMIC DISPLACEMENT SIGNIFICANCE

4.3.1 Loss of Land Assets

Error! Reference source not found. summarises the number of PAHs who have lost 10%, 11-20%, 21-30%, 31-50% or >50% of their total landholdings/land usage due to the Project land acquisition process. The majority of land is used for agricultural income-generating process hence it is important to understand the extent of land loss.

Of the 150 households surveyed for the RP:

- 139 households have lost more than 50% of their land;
- 10 households have lost 10-49% of their land; and
- 1 land owners have lost less than 10% of their land.

Therefore the majority of PAHs lost a significant portion (>10%) of the land that is used for income generating purposes, however they still have another source of income.

4.3.2 Loss of Structural Assets

It is identified that eight structural assets were compensated for. There are permanent and non permanent structures affected by the Project.

4.3.3 Loss of Income

Based on land owner's interviews, the majority of land owners have not lost income due to the LAQ undertaken by SOL. They still have another source of income, eg their children who live outside of village have sent funds to their parents or they still can work as sharecroppers on other lands not acquired by SOL.

4.3.4 Income below the Poverty Regional Minimum Wage

The regional minimum wage in North Tapanuli Regency is IDR 1,325,000.00; the survey indicated there are 18 land owners with an income below IDR 500,000.00

4.3.5 Loss of Business (Sustainability of Business)

There were no PAHs identified without a source of loss of business

4.3.6 Source of Income: None (Livelihood)

There were no PAHs identified without a source of income.

4.3.7 Vulnerable Affected Household

There were 72 PAHs identified a vulnerable affected household, there are 33 PAHs female households and 38 PAHs elderly people.

4.4 FINDINGS FROM SURVEY QUESTIONNAIRE

A Social Survey was undertaken to understand the socio-economic profile of the Project affected land owners. A total of 150 people were interviewed. All land

owners have been compensated by SOL and T/L RoW has been completed in August-November 2014.

The majority of those surveyed indicated they understood the Project however concerns regarding land issues were raised in all villages (**Table 4-34**). Furthermore the majority indicated they understood how the land price was calculated by SOL and that they were satisfied. More than 50% of PAHs attended socializations and negotiation meetings.

Table 4-34 Participating in Land Acquisition Process

Affected Villages	Project Affected Households (n)	Socialization		Negotiation		Compensation	
		n	%	n	%	n	%
Pahae Jae							
Silangkitang	7	7	4,67%	8	5,33%	7	4,67%
Sigurung-gurung	13	4	2,67%	3	2,00%	13	8,67%
Sub Total	20	11	7,33%	11	7,33%	20	13,33%
Pahae Julu							
Hutabagasan	28	9	6,00%	6	4,00%	28	18,67%
Janji Natogu	1	1	0,67%	0	0,00%	1	0,67%
Lontung Dolok	2	0	0,00%	0	0,00%	2	1,33%
Lumban Jaean	7	4	2,67%	3	2,00%	7	4,67%
Onan Hasan	18	7	4,67%	9	6,00%	18	12,00%
Parik Matia	1	1	0,67%	1	0,67%	1	0,67%
Sibaganding	22	12	8,00%	9	6,00%	22	14,67%
Simanampang	29	12	8,00%	6	4,00%	29	19,33%
Simataniari	2	1	0,67%	1	0,67%	1	0,67%
Sitoluama	20	4	2,67%	5	3,33%	20	13,33%
Total	130	51	34,00%	40	26,67%	130	86,67%
Grand Total	150	62	41,33%	51	34,00%	150	100,00%

Source: ERM Primary Data, January 2015

5 INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

5.1 OVERVIEW

This sub-section focusses on the Information Disclosure, Consultation and Participation activities conducted and planned by SOL. These are requirements set out in the Asian Development Bank's (ADB) Safeguard Policy Statement (SPS) 2009 and in the International Finance Corporation's (IFC) Performance Standards (PS) 2012. This Chapter specifically discusses Information Disclosure, Consultation and Participation requirements, activities undertaken with the identified Project communities, government agencies and representative groups (e.g. farming) and planned future activities.

5.2 CULTURALLY SENSITIVE CONSULTATION AND PARTICIPATION ACTIVITIES

5.2.1 Identification of Stakeholders

Stakeholders are defined as *people or entities that are affected or may have an interest in the Project*. SOL's key stakeholders were identified through a stakeholder analysis process at the beginning of the Project. The key stakeholders directly affected by the Project activities are identified as follows:

- Project Affected Communities;
- Village heads from four villages in Pahae Jae Sub District;
- Village heads from five villages in Pahae Julu;
- Pahae Jae and Pahae Julu Sub District heads;
- Community leaders from nine villages;
- Religious leaders from nine villages; and
- Youth leaders from nine villages.

5.2.2 Consultation Methodologies

To date no socialization activities have been conducted related to the land acquisition however Project information will be made accessible and understandable to all PAPs when the socialization activities are implemented. Consultation will be carried out using the local Batak and Indonesian language in a gender sensitive manner. The various methods of consultations will include:

- **Verbal:** consultations from early in the project cycle i.e. socializations, an informal meeting, a public meeting and a focus group discussion with village heads and land owners; and
- **Written:** brochures, leaflets or booklets.

5.2.3 Information Disclosure

The effort to disclose information about this RP and Land Acquisition Process will rely on informal and formal meetings with village heads and land owners, in order

to enhance stakeholder understanding of the RP process and to avoid intimidation. The RP information includes:

- (i) Measurement of losses;
- (ii) Detailed assets valuations;
- (iii) Entitlements and special allowance for income restoration;
- (iv) Grievance procedures;
- (v) Timing of payment; and
- (vi) Displacement schedule.

SOL commenced their socialisation activities in later 2013 for the landowners potentially affected by Project components for which land has yet to be acquired. However, information about the compensation is well known in the Project area as land has already been acquired for other Project facilities. Upon the finalization of identification of land owners in T/L ROW alignment, the Executive Summary of this RP together with the IPP/ISP Executive Summary will be made available in the local Batak language in each village office in early May 2014.

5.3 *CONSULTATION UNDERTAKEN TO DATE*

This section provides an overview of the Information Disclosure, Consultation and Participation process that has been implemented to date by SOL. This includes:

- Information education consultation (IEC) materials;
- Dissemination protocols;
- Consultation activities from 2008 until 2012;
- Consultation conducted to date; and
- Planned future consultation including disclosure of the IPP.

5.3.1 *IEC Materials*

ADB's SPS states that consultation and participation are central to the achievement of the safeguard policy objectives. It explicitly requires the borrower/client to carry out meaningful consultation with affected persons and communities within the vicinity of the project location. Thus, in order to achieve this objective, SOL is required to ensure that all information related to the Project is well informed and communicated to the communities, groups, or peoples affected by the Project.

This also implies that information disclosure is not merely a one off process but that it is conducted continuously throughout the Project cycle allowing for an effective flow of information. One of the most important aspects of information disclosure is the preparation and establishment of IEC materials.

SOL has prepared numerous forms of IEC materials including brochures/leaflets, Project location maps, pictures/photos and video presentations etc. Such materials are required to be:

- Culturally appropriate and effective: The materials are presented in a language that is understood by the local communities; the IEC materials consider all local customs and values. Even though the Indonesian language is widely spoken and understood by the local communities, the Batak (the majority ethnic group in the project location) speak the Batak language therefore Batak is used when producing IEC materials for this group.
- Clear and understood by the communities: SOL recognises the importance of providing concise and clear information in the IEC materials. Materials are presented in a structured format and are as informative as possible but not in an exhaustive way.

The Project will ensure that all affected people have access to the information concerning the Project and its impacts. Therefore SOL's IEC materials will be made accessible to all affected communities as well as other related stakeholders.

Information and issues covered in the IEC materials range from Project information (project footprints, village settlements, etc.), the Environmental Impact Assessment (EIA) related information, job vacancies, grievance forms, etc. SOL understands the importance of sharing Project information with its local communities. This is demonstrated through the provision of the EIA executive summary document in the affected villages.

The EIA executive summary document has been made available in each village administration office. The complete EIA (ANDAL, RKL/RPL) documents are available in the sub-district offices in Pahae Jae (Silangkitang Area) and Pahae Julu (Namora I Langit Area).

SOL also developed materials that were presented and explained to the local communities/affected communities during consultation activities conducted in September 2013. The materials will consist of the following information:

- Introduction of the Project proponent/management;
- Explanation on the Project and its related activities;
- Location of Project facilities and boundaries and facilities closest to local communities;
- Potential impacts from the Project (positive and negative) and how they will be managed;
- Important environmental components to be understood; and
- SOL's grievance mechanism.

As the consultation process is not a one-off activity the IEC materials will be developed throughout the Project lifecycle as one of the tools for information disclosure to the local communities.

5.3.1.1 *Distribution of IEC materials*

In order to ensure that IEC materials are accessible to the general public, especially the affected people, SOL will establish locations where disclosure and the distribution of materials will take place.

At the village level, distribution of IEC materials will be shared via the:

- Head of village and local communities leaders/informal leaders;
- Village board information;
- Village administration staff; and
- Representatives from community group.

At the sub-district level materials will be distributed through the:

- Sub district administration staff; and
- Information board.

At the Project level, the IEC materials will be communicated and presented by SOL's Project field team and management. This task will be managed by SOL's Project external relations team. The team will be divided into two coverage areas, one for the SIL area and the other for the NIL area.

5.3.2 *Information Dissemination Protocols*

This section explains the information dissemination protocols which SOL has and will continue to apply for the Project. The purpose of these protocols is to ensure that all related stakeholders participate in and are well informed of Project meetings or activities conducted in their area.

Considering the national, ADB and IFC information dissemination requirements and local customs in the Sarulla area, SOL will undertake information dissemination in the following forms.

5.3.2.1 *Direct Communication*

Where information is communicated face to face with the intended individuals. Verbal communication to disseminate information to local communities in the Project area is accepted locally as most villagers communicate in this manner.

This is conducted by sending/distributing notification/invitation letters to the individuals/villagers.

5.3.2.2 *Indirect Communication*

This will be undertaken in the form of a notification through the village information board, brochures, and also newspapers or electronic media, such as radio and television.

5.3.2.3 Protocol and Implementation

The guidelines on public consultation, as stipulated by the Government of Indonesia in Minister of Environmental Number 17 year 2012, do not explain in detail the protocols for information dissemination. However the Project will use the regulation as a reference in the implementation, and it will also refer to local culture and practices so information can be well disclosed to the local communities and the public.

Initial Communication with the Heads of the Sub Districts and Villages

Prior to conducting any meetings or activities, the SOL field team/external relations will first coordinate and communicate the planned activity with the heads of the sub districts and villages. In these initial discussions the schedule will also be agreed to ensure the timing is suitable and does not conflict with other key community activities or events. In addition the location of the venue will be agreed. Where possible meetings will take place in the evening to allow the community to carry out their farming activities as normal.

Invitation – written and verbal

After the schedule is agreed with the head of the villages or sub-districts SOL will then prepare a formal invitation letter to be sent to all intended persons/individuals or groups. This invitation will then be distributed to all the intended individuals via the head of each village by SOL's external relation officers.

In addition to the written invitation, as the external relation officers are locally recruited, they will also disseminate information on planned meetings and discussions verbally. SOL's intent is to ensure that communication on proposed consultation events is undertaken as early as possible to the villagers/participants. This should be at least one week before any activity takes place.

Follow up on invitations

The SOL field team (i.e. the external relation officers) will then follow up with the head of each village to confirm attendees. If the intended person is unable to attend SOL will encourage them to nominate a representative to attend in their place. (This also occurred during the land acquisition socialisation/negotiation process in instances where land owners reside outside of the Project area).

In general the agenda for the above stakeholder meetings follows the below:

- Prayer followed by a welcome speech by SOL and other attendees; Explanation and presentation on current Project activities by SOL. This will also include a two way discussion on the identified potential impacts and risks, and the proposed measures and actions to mitigate the impacts;
- Open discussion in a Question and Answer format;
- Documentation including minutes, attendee list and photos; and
- Closing prayer.

When the majority of villagers are Christian the meeting will be opened and closed with a prayer, performed by the community leader or *Sintua* (church minister).

Language

Local communities in the Pahae Jae and Pahae Julu sub districts are predominantly Batak and use both Indonesian and Batak in their daily communication. They understand Indonesian very well and use it in their daily conversation. However, older people in the communities prefer to use Batak. Thus meetings and activities conducted to date by SOL have been in both languages to accommodate all generations. During informal meetings Batak is and will continue to be used to build a closer relationship with the local communities.

For certain activities, such as land surveying and staking, the process will be slightly different as the meetings will involve less people:

- Coordination with the village head to explain the activity and identify the affected land owners;
- Contact the intended person/land owner directly (accompanied by the village head) to set up the meeting;
- Meet with the land owner (or small group of land owners) to explain land surveying activities; and
- Based on whether consent is obtained from the land owner and village head the survey is conducted.

This protocol will continue to be used when disseminating information to the local communities; adjustments will be made in accordance with the local communities' needs.

5.3.3 SOL Consultations up to 2013

This section presents an overview of public consultation activities undertaken by SOL between 2008 and 2014.

The Project commenced consultation activities in 2008 with stakeholders including local government and related agencies, affected communities/groups, local NGOs and other related stakeholders. The objectives of these activities were to:

- Commence the consultation process early in the Project planning phase with affected communities and other related stakeholders;
- Disclose information on Project related information;
- Establish a relationship with local communities, understand their concerns and discuss how the Project could address the issues raised; and
- Undertake socialisation activities for the acquisition of land required for project facilities.

Consultation activities were conducted, where possible, in a venue closest to the local communities. However, in some villages, where no sufficient venues were available, it was agreed with the village heads to hold the meetings in a church or school classroom located close to the village (due to their larger capacity). Some meetings were also held at SOL's Project office meeting hall in Silangkitang. In instances where this occurred SOL provided transportation for the community.

Meeting participants consisted of both men and women who were given equal opportunities to voice their concerns and expectations during the question and answer sessions. A summary of consultation activities conducted between 2008 and 2014 is described in **Table 5-1**.

Between August 2013 and February 2014 socialization activities were undertaken by SOL in the 8 Project affected villages. The primary aim of which was to disclose the Project activities and discuss the potential impacts and mitigation measures; along with discussing community concerns, the grievance mechanism and settlement process. Furthermore an NGO and CSO information sharing session was held in Jakarta in September 2013. NGO/CSO attendees included AKSI (for Gender, Social and Ecological Justice, WALHI (Selaku pengkampanye tambang dan energi), IESR (Institute for Essential Services Reform) and WWF (World Wildlife Fund). SOL, ADB, ERM and ENVIRON were also in attendance. The detailed minutes and attendances lists of both are presented in Annex A.

Table 5-1 Public Consultations Activities Undertaken Between 2008 and 2014

Activities	Date	Stakeholders/ attendees	Description
Project socialization at Silangkitang	5 th February 2008	Head of villages, Representatives of local communities, Representatives of Local Government	Explanation on Project plan and activities
Public consultation in relation to AMDAL preparation	28 th March 2008	Local communities from seven affected villages, Head of Villages, Communities' leaders, Youth groups, Church leaders from both Pahae Jae & Pahae Julu, North Tapanuli Local Government	Information disclosure and discussion on project plan and activities, discussion on communities' concerns and inputs
Project socialization with government institutions in Tarutung	6 th May 2008	Bupati of North Tapanuli, Head of Local Government Offices/ agencies, Head of Sub District of Pahae Julu and Pahae Jae	Information disclosure on project plan and activities
Project socialization regarding land acquisition process for re-injection route	6 th June 2008	Local communities, Head of villages, Head of Sub District	Explanation and discussion on land acquisition process and plan for re-injection line route
Socialization/ Seminar of Sarulla project to local NGOs groups, local communities and local Governments representatives	25 th June 2008	Church Associations and NGOs -JPIC HKBP, JPIC UEM,KSPPM, NINDJA JAPAN, Local Government Agencies (BAPPEDA, North Tapanuli Bupati Office), representative of local communities, Head of Villages	The impact of PLTP Sarulla towards community life and the environment
Socialization of well work over activity in Silangkitang	15 th July 2008	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Information disclosure on well work over plan and activity
Well work over ceremony in Silangkitang	15 th Aug 2008	Local Government of North Tapanuli, local communities, Head of Villages, Communities' elders, Head of Sub districts	Ceremony event prior to commencing the well work over activity
Dialogue forum with local communities and local NGO - IMARUPA & IARRP	11 th Jan 2011	member of local House of Representatives of North Tapanuli, IMARUPA NGO, IARRP NGO, Head of Villages, Local communities' representatives	Discussions related to concerns on environmental impacts and the project's community development program
Discussion/Meeting with local communities, representatives of North Tapanuli Local Government and IMARUPA/ IARRP	24 th March 2011	Head of villages, village elders, Chairman of IMARUPA NGO and staff, Chairman of IARRP NGO and staff, Representative of Local Government, Head of Sub districts, representatives of local communities	Discussion on the project's CSR program and stakeholders (local communities, SOL, Local NGOs (IMARUPA & IARRP), local government) commitment to support the implementation of the project
Project and AMDAL socialization/explanation (in 13 villages) of Pahae Jae and Pahae Julu	23 th March 2011, 15 - 18 th April 2011	Head of villages, villagers and community leaders	Explanation on geothermal project, environmental impact and project's AMDAL document, communities concerns

Activities	Date	Stakeholders/ attendees	Description
Socialization on land acquisition to brine Injection line land owners	25th Nov 2009	Land owners, Head of Villages, Head of Sub district, BPN (Land Agency Office), Agricultural Office	Explanation and discussion on project's land acquisition plan/ activities for brine injection line route
1st negotiation meeting for Brine Injection line – land owners	9th Dec 2010	Land owners, Head of Villages, Head of Sub district	Meeting/negotiation on land price
2nd negotiation meeting for Brine Injection line – land owners	19th Jan 2011	Land owners, Head of Villages, Head of Sub district	Same as above
3rd negotiation meeting for Brine Injection line – land owners	24th March 2011	Land owners, Head of Villages, Head of Sub district	Meeting/negotiation on final agreement on land price
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in Namor I Langit (NIL) Area			
1st group	29th April 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
2nd group	30th April 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
3rd group	1st May 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement & number of plants
4th group	2nd May 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
5th group	6th May 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
Socialization on land acquisition/ confirmation of land measurement and number of plants, project activities and impact to land owners in Silangkitang (SIL) Area – Silangkitang and Sigurung-gurung	7th May 2013	Land owners, Head of Villages, Head of Sub districts	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in NIL Area	17th June 2013	SOL Staff, Sibaganding Village Head, Lumban Jaean Village Head and Sub District Head	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants.

Activities	Date	Stakeholders/ attendees	Description
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in SIL Area	10 th July 2013	SOL Staff, Silangkitang Village Head, Sigurung-gurung Village Head, Land Owners.	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
Discussion/sharing on Sarulla Activities in Silangkitang Village	27 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Sigurung-gurung Village	28 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Pardamaean Nainggolan Village	29 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Simataniari Village	30 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Pardomuan Nainggolan Village	30 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Janji Natogu/Onan Hasang Village	31 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Discussion/sharing on Sarulla Activities in Sibaganding/Lumban Jaean Village	31 th August 2013	Local communities, head of villages, Head of Sub Districts, Representative of Local Government	Sharing/discussion about Project plan and activities and its impacts
Signing situation map, inventory result, nominative and agreement letter on purchase area for SIL 3, Laydown 1,2 and Disposal for Drilling	6 th September 2013	SOL Staff, Pahae Jae Sub District Head	Land Owners signed the situation map, inventory result, nominative and agreement letter.
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in NIL Area	17 th October 2013	SOL Staff, Sibaganding Village Head, Lumban Jaean Village Head, Simataniari Village Head and Sub District Head	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants

Activities	Date	Stakeholders/ attendees	Description
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in NIL Area	9 th November 2013	SOL Staff, Sibaganding Village Head, Lumban Jaean Village Head, Simataniari Village Head and Sub District Head	Explanation on Project plan and activities and its impacts and confirmation of land measurement and number of plants
Socialization with land owners' Tower Footprint Area in NIL and SIL Area	12 th November 2013	SOL Staff, Pahae Jae Sub District Head, Pahae Julu Sub District Head, Sigurung-gurung Village Head, Silangkitang Village Head, Hutabarat Village Head, Sitoluama Village Head, Sibaganding Village Head and Lumban Jaean Village Head	Explanation on Project plan and activities and requested to support from community leaders and land owners.
Socialization on land acquisition/confirmation of land measurement and number of plants, project activities and impact to land owners in NIL Area related to Tower Footprint	18 th December 2013	SOL Staff, Pahae Jae Sub District Head, Pahae Julu Sub District Head, Simanampang Village Head, Lontung Dolok Village Head, Hutabarat Village Head, Sitoluama Village Head, Silangkitang Village Head, Sigurung-gurung Village Head and Onan Hasang Village Head	Explanation on Project plan and activities and requests to support from community leaders and land owners.
Land and plants compensation for Tower Footprint in SIL and NIL Area	20 th February 2014	SOL Staff, Simanampang Village Head, Sitoluama Village Head, Silangkitang Village Head, Sigurung-gurung Village Head, Representative from Pahae Julu Sub District Office, Representative from Pahae Jae Sub District Office, Pahae Jae Police Head, Pahae Jae Army Head, Attorney, Land Owners	Land acquisition payment process
Land and plants compensation for Tower Footprint in NIL Area	21 st February 2014	SOL Staff, Sibaganding Village Head, Lumbanjaeon Village Head, Simataniari Village Head, Hutabarat Village Head, Simanampang Village Head, Lontung Dolok Village Head, Pahae Julu Sub District Head, Pahae Julu Police Head, Pahae Julu Army Head, Attorney and Land Owners	Land acquisition payment process

5.3.4 *Consultation and Participation Activities during the Construction and Operation Phase*

Aside from the consultation and participation activities that have been conducted to date, SOL will continue to conduct public consultation and disclosure activities in various forms. This is not only to comply with ADB, IFC or other international finance standards, but also to establish good communication and relationships with all SOL’s stakeholders; especially the affected communities and the communities living in the vicinity of the Project area. Throughout the Project, regular meetings and co-ordination with various stakeholders will be planned and scheduled. This will include disclosure of the ESIA and ESMP.

Table 5-2 Key Activities for Planned Future Consultation and Participation

Phase	Issues to be discussed	Planned schedule	Responsibility
Construction	Disclosure of recruitment and opportunities for local man power/contractors	2 months before activity commences	SOL’s EPC contractor/ sub-contractor
	Disclosure of project CSR program planning and implementation	First when construction starts and continually thereafter based on agreement with the related affected communities	SOL
	Disclosure of ESMP monitoring report through Head of Village and local communities focal points	Every six months	SOL
Operation	Socialization to all related stakeholders on the commencement of the project operation	1 month before commissioning	SOL
	Disclosure of ESMP monitoring reports	Every six months	SOL
	Discussion with affected local communities on any issues/concerns during project operation	Once in three months	SOL
Decommissioning	Public announcement on decommissioning of the plant & facilities, potential impacts and how they will be managed	2 months before decommissioning	SOL
	Consultation and socialization to the affected communities, local workers/employees and all employees affected	2 months before decommissioning	SOL

6 *GRIEVANCE REDRESS MECHANISM*

SOL has established a timely and effective Grievance Mechanism, with responsibility lying with the external relations department, that has been socialised to the PAPs. Grievances are raised to the department by land owners through verbal and written channels; there are two main contact points for grievances; one for the SIL area, the other for the NIL area.

SOL's external relations department also receive grievances via the village head offices in the nine villages surrounding the SOL Project site. The grievance form used by the land owners is presented in **Figure 6-1**. When grievances are submitted SOL prioritise the land issues and complaints as follows:

- First Priority: Grievances directly affecting the Project development i.e. grievances concerning land plots within the Project site;
- Second Priority: Grievances related to significant impacts on the community;
- Third Priority: Grievances with insufficient or unclear evidence or documentation that require clarification and further investigation; and
- Fourth Priority: Grievances with no supporting evidence or documentation.

Figure 6-2 illustrates SOL's grievance process in more detail.

Figure 6-1 SOL's Grievance Form


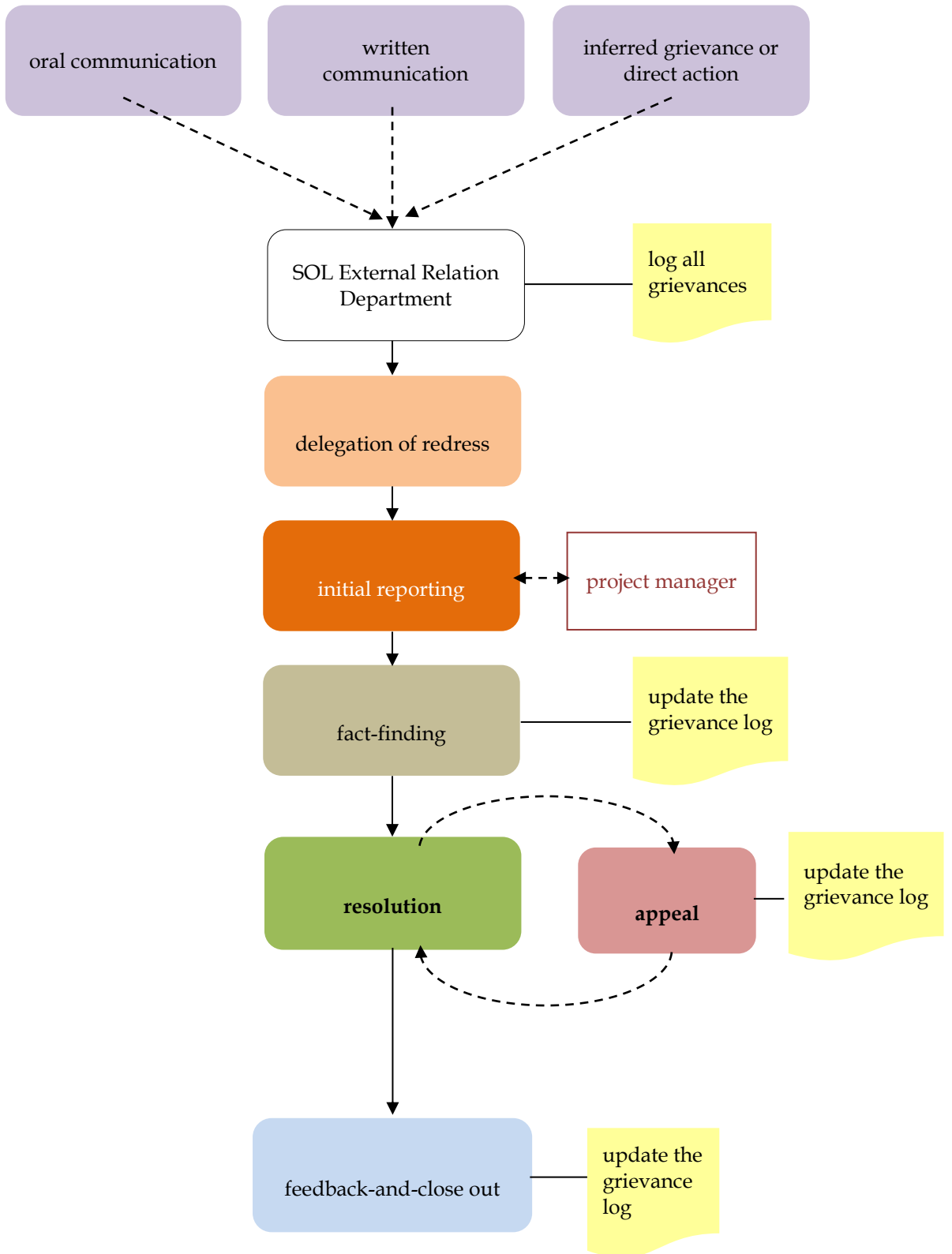
	
Grievance Form Date:	
<i>Reference Number</i>	
<i>Full Name</i>	
<i>Contact information</i>	<i>Address:</i> <i>Telephone</i> <i>Email:</i>
<i>Description of Incident or Grievance</i> (What happened? When did it happen? Where did it happen? Who did it happen to? What is the result of the problem?) :	
<i>What would be your suggestion/recommendation to resolve the problem?</i>	
<p><i>Consent to disclose grievance-related information to the third parties</i></p> <p>I am aware that this grievance of mine is submitted to PLTP Sarulla, but it may refer to actions of third parties, (for example, contractors of PLTP Sarulla). I understand that in order to efficiently resolve my grievance PLTP Sarulla will have to contact these third parties so as to check into the facts stated in the grievance and work out a solution.</p> <p>I hereby agree that PLTP Sarulla can disclose this grievance (as well as additional information related to this grievance) to third parties.</p>	
Signature	
Received by : Signature : Date :	

Figure 6-2 Quick Reference Guide to Grievance Mechanism



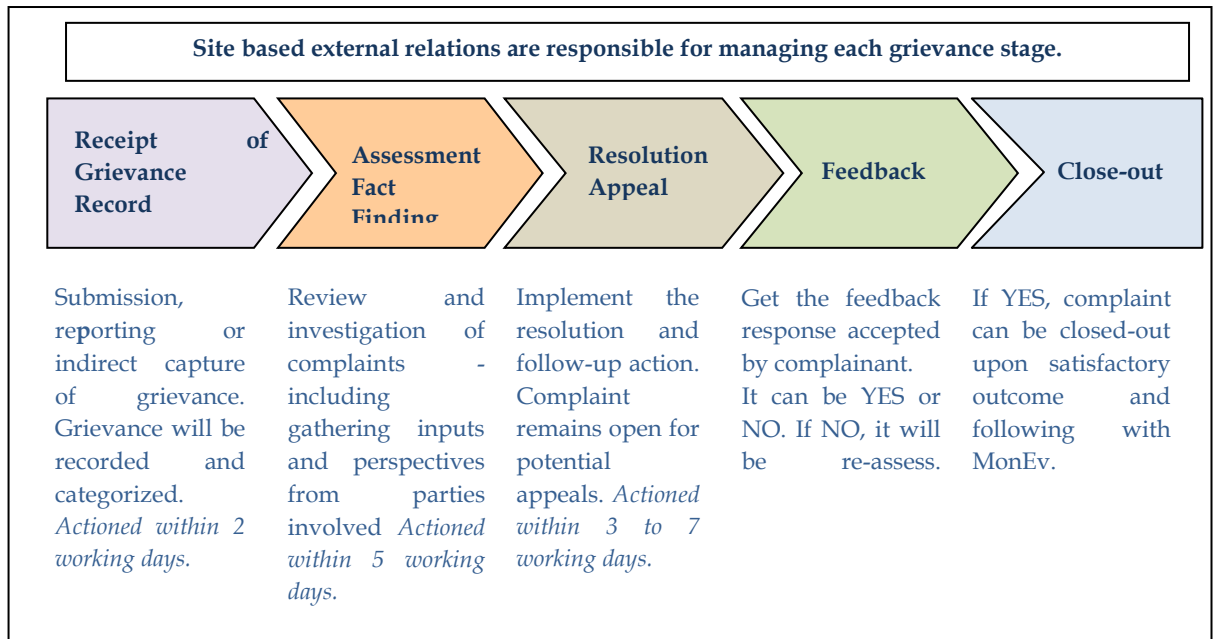
SOL’s grievance mechanism has been designed as a locally based, Project specific design that assesses and resolves community complaints and concerns related to all Project activities. The Project grievance mechanism offers a package of widely understood and effective processes to address affected communities’ concerns and complaints. To date community grievances received by the Project have been verbal, without any recorded documentation. To address this SOL plans to record future

consultations and grievances in accordance with ADB and IFC requirements (i.e. via written documentation).

6.1 GRIEVANCE TRACKING AND REDRESS MECHANISM

The Project Grievance Tracking and Redress Mechanism (GRTM) that is triggered the instance a community complaint is received is illustrated in **Figure 6-3**. This is a five step process based on international lender guidance.

Figure 6-3 Summary Overview of the Project Grievance Tracking and Redress Mechanism



NB: At any stage of the grievance mechanism, affected people are not bound by the GRM and have recourse to the normal legal channels

6.2 RECEIPT OF GRIEVANCES

The initial procedure for grievance redress involves a entering the grievance information into the GTRM database—a grievance log and tracking system that will equip SOL management to identify, understand and address vulnerabilities in Project implementation. The GTRM database will be utilised to: a) register, track and recall information about specific grievances and b) categorise reports of grievances by type and frequency.

The original grievance form is kept in the village head office or by the community representative.

A generic report of the grievance is generated from the initial GTRM database that is entered by the external relations department in coordination with an appointed manager. This report includes all details known at the time the grievance is registered, and indicates what, if any, information is needed before a full account of the grievance can be logged. This initial report also serves to provide context and guidance for the fact-finding investigation. Timelines for fact-finding and implementation of possible actions will be established as appropriate for the type

and severity of the grievance. The time period to receive a grievance is within two working days.

6.3 ASSESSMENT AND FACT-FINDING INVESTIGATION OF GRIEVANCE REDRESS

The external relations department reviews and undertakes a fact-finding investigation of each grievance received by SOL. These investigations shall seek to establish a clear picture of the circumstances surrounding a particular grievance. Investigations shall verify the information contained in the initial grievance report specifically:

- Identity of the complainant and nature of the complaint;
- Identify the status of the complaint, including if it has been resolved by any immediate remedial actions, if the aggrieved expects that any particular actions need to be implemented, if no action toward resolution is known or expected, etc.; and
- Review supporting evidence for any disputed claims.

For grievances that involve a large number of people or entire villages, community meetings will be held with both open sessions for people to air their complaints and facilitated sessions to help collaboratively identify potential redress actions. Fact-finding investigations undertaken by SOL will rely on consultation that is free of discrimination and coercion.

The review and fact-finding investigation may result in the grievance being resolved; or follow-up actions being required with further coordination within SOL. Following this the external relations department can decide who is responsible for responding to the grievance and overseeing redress. The time period to assess the grievance is within five working days.

6.4 RESOLUTION AND APPEAL ON GRIEVANCE REDRESS

Resolution will be undertaken with the hope that agreement on a grievance resolution is achieved at the Project level (i.e. preventing complainants from proceeding to higher levels, such as government authorities). In some cases, redress actions may necessitate coordination with the local authorities. Resolution processes and approaches will rely, whenever possible, on local approaches to conflict resolution. Local authorities and/or respected leaders will be consulted for their insights and advice on the grievance and its proper resolution.

Resolution involves decision-making about grievance redress actions. Through co-ordination with other SOL departments, the External Relations Department is able to handle the communities' grievances and decide on how SOL will respond to the grievance with suitable resolution and a follow-up action plan. SOL will respond in the following ways:

- Written. Upon reaching agreement with the aggrieved, all such understandings shall be put in writing and a statement signed by both SOL and the complainant will be distributed to all sides involved in the grievance.

- Verbal. Meeting with complaints or dialogue/open meeting with groups – External Relations will ensure the effective and timely communication of grievance notifications, fact-finding inquiries, and will facilitate forums for remediation and restitution decisions.

If a complainant is not satisfied with the implementation outcomes of an agreed-upon grievance resolution measure, he/she may appeal the outcome. Written appeals may be registered with SOL’s external relations department directly, or complainants may express their desire for an appeal to their Kepala Desa, community representative, or village community relations. When an appeal is registered, SOL will investigate the cause of dissatisfaction associated with the implemented resolution measure and identify follow-up actions that are agreeable to the aggrieved party. No grievance shall be considered closed if an appeal process is pending or active. If however SOL has acted in good faith to resolve a grievance, and the aggrieved party refuses to acknowledge satisfactory resolution after three separate appeal and resolution processes, SOL reserves the authority to list the grievance as intractable and can terminate the appeals process. This time period to respond is between within three and seven working days.

6.5 *FEEDBACK OF GRIEVANCE*

Once a grievance has been resolved, the complainant shall be invited to give feedback about the resolution process. They may be asked to indicate their level of satisfaction with the mitigation measures once such measures have been implemented. In all cases, the aggrieved must be aware of the outcome of his/her complaint. If the complainant is anonymous, information on resolution of the complaint shall be posted on the relevant village bulletin boards.

Following the resolution decision, the GTRM database shall be updated to reflect the status, on-going redress measures and the perception of the aggrieved in regard to these measures.

6.6 *CLOSE-OUT*

Close-out reports are generated upon completion of the grievance resolution process. Reviewing the information logged in the GTRM database, External Relations—working with the SOL field team and other managers engaged in the grievance resolution process—generate a summary write-up of the resolution process. Close-out reports should:

- Contain details of the duration of time it took for each step of the grievance resolution process;
- List resolution measures agreed-upon and describe the implementation process;
- Provide an evaluation of the resolution process by external relations;
- Provide feedback from the aggrieved on the resolution process;
- If appeals were registered, indicate the cause for dissatisfaction with the implementation of the initial resolution measures and explain what was done differently during the appeals resolution process; and
- Reflect on lessons learned.

6.7 *RESOURCES AND RESPONSIBILITIES*

The external relations department is responsible for managing grievances. Should the grievance be escalated beyond site decision makers SOL's senior management will take responsibility for closing out the grievance.

6.8 *GRIEVANCE MECHANISM DISCLOSURE*

SOL has prepared a simple grievance mechanism and provided contact details and information material to the affected communities. The details of the mechanism were disclosed to the local communities during the land acquisition socialization activities between April 30 and May 7 2013.

Future disclosure of the grievance mechanism will be integral to effective public consultation and strategic engagement. This will include disclosing to the following stakeholders:

- Local Community Centres;
- Village Heads Offices;
- Municipal and Central Government Offices;
- Local Universities or Academic Research Centres; and
- Offices of Local NGOs and Community-Based Organisations.

7 LEGAL FRAMEWORK

7.1 PRINCIPLES AND OBJECTIVES FOR LAND ACQUISITION

7.1.1 National Regulation

Law No. 5 of 1960, known as the Basic Agrarian Law or UUPA (*Undang Undang Pokok Agraria*) is the legal basis for land rights in Indonesia. The purpose of this law was to create a uniform national system for land law and land rights, based on customary laws and the utilisation of customary law norms, concepts, principle, systems and institutions². Replacement of land affected by business activities is regulated by the Regulation of the Minister of Agrarian Affairs No. 2 of 1993 regarding Procedures to Obtain Location Permits and Land Titles for a Company within the Framework of Capital Investment, and the Decree of the Minister of Agrarian Affairs No. 21 of 1994 regarding Procedures to Obtain Land Titles for a Company within the Framework of Capital Investment.

Government of Indonesia (GoI) regulations do not specifically address the issue of physical and economic displacement as outlined in IFC PS 5 (IFC, 2012) or compensation with regards to private project developments.

Key regulations relevant to land compensation and resettlement issues for the SOL include those as outlined in **Table 7-1**.

Table 7-1 Indonesian National Regulations Applicable Land Acquisition

Topic	Regulation	Citation
Land Rights	Law No. 5 of 1960 regarding Basic Agrarian Law: <ul style="list-style-type: none">Establishes rights to land that can be granted to individuals or institutions. Government Regulation No. 40 of 1996 regarding Right of Cultivation, Right to Build, and Right to Use of Land: <ul style="list-style-type: none">Further development of Chapter II, article 16 of Law No. 5 of 1960Explains the requirements for granting Land RightsIdentifies the relevant authorities and responsibilities of all concerned partiesDefines the status of land and the objects on it, and the changes to status that occur when the land rights expire.	Article 16 point 1 Chapter III: Right to Build Chapter IV: Right to Use
Location Permit and Land Acquisition	Regulation of the Ministry for Agrarian Affairs No. 2 of 1993 regarding Procedures to Obtain Location Permits and Land Titles for a Company within the Framework of Capital Investment. Decree of the Ministry for Agrarian Affairs No. 21 of 1994 regarding Procedures to Obtain Land Titles for a Company within the Framework of Capital Investment.	Chapter II: Location Permit Chapter III: Land Acquisition

² UUPA regulates rights to land through the issuance of a Land Certificate by BPN, of which there are: - Property rights, hereditary rights; the strongest and fullest rights that may belong to people regarding land.-Right of cultivation (*Hak Guna Usaha* - HGU); the right to use of State land for agricultural enterprises, fisheries and animal husbandry. - Right to build (*Hak Guna Bangunan* - HGB); the right to build on State land. - Right to use (*Hak Pakai*); the rights granted to one party to use the land for any purpose.

Topic	Regulation	Citation
		Chapter II: Land Acquisition through the Transfer of Rights
Location Permit	<p>Regulation of the Ministry for Agrarian Affairs No. 2 of 1999 regarding Location Permit:</p> <ul style="list-style-type: none"> Regulates the maximum area that can be owned, the permit period, procedures to provide location permits, and the rights and obligations of owners. <p>Decree of the Ministry for Agrarian Affairs No. 22 of 1993 regarding Guidelines for Granting Location Permits in the Framework of the Implementation of Reg. No. 2/1993</p> <ul style="list-style-type: none"> Addresses land compensation requirements and procedures. <p>Announcement of the State Minister for Agrarian Affairs/Head of BPN, No. 460-3697 of Dec. 26, 1995.</p> <ul style="list-style-type: none"> This announcement prohibits any Company from releasing land without previously obtaining a Location Permit. 	<p>Articles 4, 5, 6, 8.</p> <p>Appendix</p> <p>-</p>
Land Use Permit	Law No. 51 of 1960 regarding Prohibition of Use of Land Without Permission from the Owner.	Article 2
Land Registration	<p>Government Regulation No. 24 of 1997 regarding Land Registration.</p> <p>Regulation of the Minister for Agrarian Affairs/Head of BPN No. 3 of 1997 regarding the Implementing Provisions of Government Regulation No. 24 of 1997 regarding Land Registration:</p> <ul style="list-style-type: none"> Responsible legislation for planning, the implementation of land parcel mapping measurements, and all land acquisition phases/processes. 	<p>Article 24</p> <p>-</p>
Compensation	The legal basis for location permit mechanism is stipulated in the Head of National Land Agency Regulation No. 2 Year 1999. Private Business entities may impellent land procurement through direct negotiation with land owners on a 'willing seller-willing buyer' basis.	-
Land Issues	Regulation No. 5 of 1999 regarding Community Communal Rights Issues; Guidelines for Settling Customary Law	-

7.1.2 *Information, Consultation and Disclosure*

SOL is committed to enforce all applicable laws and regulations of the Indonesian Government. The below summarises the relevant articles and paragraphs in the laws and regulations in relation to public consultation and disclosure that SOL will comply with:

- Act No. 32 Year 2009 regarding Environmental Protection and Management:
- Outlines requirements for public involvement and information disclosure during the AMDAL process.

- Outlines the importance of social and environmental resources and values and delegates responsibility to project proponents to protect and preserve these values.
- Requires project proponents to conduct stakeholder engagement during project scoping.
- Requires project proponents to obtain community input into the project risk assessment process and definition of the project social zone of impact.
- Minister of Environment Regulation No. 17 Year 2012 regarding Guidelines for Community Involvement in the Process of Environmental Impact Assessment and Environmental Permits.
- Outlines requirements for community involvement and information disclosure during the AMDAL process and Environmental Permits.
- Requires all development projects to involve the community - providing information in a transparent and accountable manner, equality among parties, resolving problems fairly and wisely, coordinating and communicating across all parties.

7.2 *ASIAN DEVELOPMENT BANK (ADB)*³

The ADB's SPS and Public Communications Policy emphasise the importance of consultation and public participation in development projects, particularly with those people who are likely to experience social impacts as a result. The consultation and public participation process must be substantive and meaningful. It should be performed at the initial phase of the project, through open and transparent procedures and without coercion. The ADB also emphasise the importance of involving stakeholders in the decision-making stages of the project. Stages may include the design, impact assessment, mitigation planning, and implementation phases.

The ADB SP defines clients' roles and responsibilities for project management – including requirements for information disclosure.

Details of consultation and disclosure requirements for each of these SR are as to:

- Carry out meaningful consultation with affected people and facilitate their informed participation;
- Ensure women's participation in consultation;
- Involve stakeholders, including affected people and concerned Non-governmental organisations (NGOs), early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account; and
- Continue consultations with stakeholders throughout project implementation as necessary to address issues related to the environmental assessment.

³ <http://www.adb.org/documents/safeguard-policy-statement>

The Resettlement Plan (RP) has been prepared and formulated to meet Indonesian Laws and ADB Safeguard Policy Statements 2009. It contains estimates of the Project Affected Households (PAH), types of impact and compensation procedures. The key objective of the RP is to guide SOL's future Land Acquisition Process to support compliance with Indonesian Law and ADB and IFC guidelines and policies.

The key principles for land acquisition include:

- Land acquisition will be avoided or at least minimized;
- Compensation will ensure to maintain pre-project living standards of Displaced Persons (DPs);
- DPs will be fully consulted and informed on compensation options;
- DPs socio-cultural institutions will be applied;
- Land acquisition procedures will be equally apply to women and men;
- Lack of formal title will not prevent compensation rights under the entitlements matrix;
- Land acquisition will be contained and executed as an integral part of the Project and budgets for LAR will be included in the Project costs;
- Impact to structures or building will be avoided or minimized; and
- All Land acquisition and compensation payments will be completed and endorsed by ADB prior to civil works commencement in the impact area.

The ADB Safeguard Policy Statement 2009 applies to losses due to both to physical and economic displacement caused by involuntary acquisition of land and is based on the following principles:

- Involuntary resettlement should be avoided wherever feasible;
- Where population displacement is unavoidable, it should be minimized by providing viable livelihood options;
- Replacing what is lost: if individuals or a community must lose all or part of their land, means of livelihood, or social support systems, so that a project might proceed, they will be compensated and assisted through replacement of land, housing, infrastructure, resources, income sources, and services, in cash or kind, so that their economic and social circumstances will be at least restored to the pre-project level. All compensation is based on the principle of replacement cost;
- Each involuntary resettlement is conceived and executed as part of a development project or program. ADB and executing agencies or project sponsors, during project preparation, assess opportunities for Displaced Persons (DP)s to share project benefits. The affected people need to be provided with sufficient resources and opportunities to re-establish their livelihoods and homes as soon as possible, with time-bound action in coordination with the civil works;

- DPs are to be fully informed and closely consulted. DPs are to be consulted on compensation and/or resettlement options, including relocation sites and socioeconomic rehabilitation. Pertinent resettlement information is to be disclosed to the affected people at key points, and specific opportunities provided for them to participate in choosing, planning, and implementation options. Grievance redress mechanisms for affected people are to be established. Where DPs are vulnerable, resettlement planning decisions will be preceded by a social preparation phase to enhance their participation in negotiation, planning, and implementation;
- Social and cultural institutions: institutions of the DPs, and, where relevant, of their hosts, are to be protected and supported. DPs are to be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted;
- No formal title: indigenous groups, ethnic minorities, pastoralists, people who claim for such land without formal legal rights, and others, who may have usufruct or customary rights to affected land or other resources, often have no formal legal title to their lands. The absence of a formal legal title to land is not a barrier to ADB policy entitlements. DPs who neither have formal legal rights nor recognized or recognizable claims to land should be compensated for all non-land assets and for other improvements to the land;
- Identification: DPs are to be identified and recorded as early as possible in order to establish their eligibility through a population record or census that serves as an eligibility cut-off date, preferably at the project identification stage, to prevent a subsequent influx of encroachers or others who wish to take advantage of such benefits;
- The poorest: particular attention must be paid to the needs of the poorest affected people, and vulnerable groups that may be at high risk of impoverishment. This may include those without legal title to land or other assets, households headed by females, the elderly or disabled and other vulnerable groups, particularly indigenous peoples. Appropriate assistance must be provided to help them improve their socio-economic status;
- The full resettlement costs are to be included in the presentation of the project costs and benefits. This includes costs for compensation, relocation and rehabilitation, social preparation and livelihood programs as well as the incremental benefits over the without project situation (which are included in the presentation of project costs and benefits). The budget also includes costs for planning, management, supervision, monitoring and evaluation, land taxes, land fees, and physical and price contingencies. Where loans include subprojects, components or investments prepared only after project approval and loans through financial intermediaries that are likely to cause involuntary resettlement, sufficient contingency allowance must be allocated for resettlement prior to approval of the loan. Similarly, resettlement plans should also reflect the timeframe for resettlement planning and implementation;

- Eligible costs of compensation: relocation and rehabilitation may be considered for inclusion in the ADB loan financing for the project, if requested, to assure timely availability of the required resources and to ensure compliance with involuntary resettlement procedures during implementation; and
- Compensation and rehabilitation is to be provided before the land is acquired.

7.3 JAPAN BANK FOR INTERNATIONAL COOPERATION (JBIC) GUIDELINES FOR CONFIRMATION OF ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

JBIC's Guidelines state the following of relevance for consideration for the Project:

- People to be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported by the project proponents, etc. in a timely manner. Prior compensation, at full replacement cost, must be provided as much as possible.
- The project proponents must make efforts to enable the people affected by the project, to improve their standard of living, income opportunities and production levels, or at least to restore them to pre-project levels; and
- Appropriate participation by the people affected and their communities must be promoted in planning, implementation and monitoring of involuntary resettlement plans and measures against the loss of their means of livelihood. In addition, appropriate and accessible grievance mechanisms must be established for the people affected and their communities.

In addition JBIC assess whether the Project meets the requirements of the IFC, as discussed below.

7.3.1 International Finance Corporation (IFC)⁴

7.3.1.1 IFC Performance Standards (PS)

The IFC has adopted policy requirements and guidelines (IFC PS) relevant to public consultation and disclosure to ensure projects are implemented in an environmentally and socially responsible manner.

The IFC's Policy on Social and Environmental Sustainability highlights the need for community engagement and broad community support. Specifically, it states that *the IFC is committed to working with the private sector to put into practice processes of community engagement that ensure the free, prior, and informed consultation of the affected communities ... leading to broad community support for the project within the affected communities...* The IFC's definition of broad community support is *a collection of expressions by the affected communities, through individuals or their recognized representatives, in support of the project.*

⁴ http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Sustainability/Sustainability+Framework/Sustainability+Framework+-+2012/Performance+Standards+and+Guidance+Notes+2012/

The IFC PSs on Social and Environmental Sustainability define clients' roles and responsibilities for project management—including requirements for information disclosure. There are a total of eight PSs and PS 1: Assessment and Management of Environmental and Social Risks and Impacts; and PS 5: Land Acquisition and Involuntary Resettlement are relevant to this RP.

PS 1 establishes the importance of effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them. Community engagement is defined as *an on-going process involving the client's disclosure of information, free of external manipulation, interference, or coercion, and intimidation, and conducted on the basis of timely, relevant, understandable and accessible information.*

PS 5 requires consultation on matters associated with land acquisition and involuntary resettlement and evidence of informed participation with the affected persons and communities in the decision-making processes. It stipulates that consultation *will continue during the implementation, monitoring, and evaluation of compensation payment and resettlement.*

IFC policies on resettlement and compensation for land use loss applicable to the SOL are covered primarily by Performance Standard 5 (PS 5): Land Acquisition and Involuntary Resettlement. Key PS 5 principles applicable include the following:

- Involuntary resettlement should be avoided whenever possible; involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition;
- If involuntary resettlement is unavoidable, either as a result of a negotiated settlement or expropriation, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project, determine who will be eligible for compensation. Involuntary resettlement should be conceived as an opportunity for improving the livelihoods of the affected people and undertaken accordingly;
- Where involuntary resettlement is unavoidable, all people affected by it should be compensated fully and fairly for lost assets, with special consideration given to vulnerable populations;
- The livelihoods and standards of living of displaced persons should be improved or at least restored;
- All people affected by involuntary resettlement should be consulted and involved in resettlement planning to ensure that the mitigation of adverse effects as well as the benefits of resettlement are appropriate and sustainable;
- Compensation for lost assets should be calculated on a replacement cost basis;
- Living conditions among displaced persons should be improved through provision of adequate housing with security of tenure⁵ at resettlement sites;

⁵ A resettlement site offers security of tenure if it protects the resettled person from forced evictions.

- All efforts should be made to explore feasible alternative project designs to avoid any physical relocation of Indigenous Peoples from their communally held traditional or customary lands under use; and
- The client will offer affected communities at least compensation and due process available to those with full legal title to land in the case of commercial development of their land under national laws, together with culturally appropriate development opportunities; land-based compensation or compensation in-kind will be offered in lieu of compensation case where feasible.

Other relevant PS 5 policy points can be seen in **Table 7-2**.

Table 7-2 *Applicable IFC Compensation Framework Requirements*

Topic	Regulation	Citation
Avoid/ Minimize involuntary resettlement	To avoid or at least minimize involuntary resettlement wherever feasible by exploring alternative project designs	PS 5, Objectives
Mitigation Methods	To mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons' use of land by: (i) providing compensation for loss of assets at replacement cost; and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected	PS 5, Objectives
Income Restoration	To improve or at least restore the livelihoods and standards of living of displaced persons	PS 5, Objectives
Replacement Cost	Compensation for land and other assets should be calculated at the market value plus the transaction costs related to restoring the assets. When displacement cannot be avoided, the client will offer displaced persons and communities' compensation for loss of assets at full replacement cost and other assistance to help them improve or at least restore their standards of living or livelihoods, as provided in this Performance Standard.	GN 5, G3 PS 5, para. 8
Compensation for those with customary claims to land	Those who suffer negative social and economic impacts as a result of the acquisition of land or land use rights for a project may range from those having legally recognized rights or claims to the land, to those with customary claims to land, and those with no legally recognized claims.	GN 5, G3;
Non-land acquisition economic displacement compensation	In the event of potential adverse economic, social or environmental impacts by project activities other than land acquisition, the client's Social and Environmental Assessment process under Performance Standard 1 should address how these impacts will be avoided, minimized, mitigated or compensated for.	GN 5, G10
Entitlements for poor and vulnerable groups	The plan will be designed to mitigate the negative impacts of displacement, identify development opportunities, and establish the entitlements of all categories of affected persons... with particular attention paid to the needs of the poor and the vulnerable (see Performance Standard 1, paragraph 12).	PS 5, para 12

Topic	Regulation	Citation
Entitlements: income restoration	Provide additional targeted assistance (e.g., credit facilities, training, or job opportunities) and opportunities to improve or at least restore their income earning capacity, production levels, and standards of living to economically displaced persons whose livelihoods or income levels are adversely affected. Provide transitional support to economically displaced persons, as necessary, based on a reasonable estimate of the time required to restore their income earning capacity, production levels, and standards of living	PS 5, para 20

In addition, the following PS 5 principles are also applicable for the land acquisition and involuntary resettlement.

- The proposed Project should engage with affected communities, including host communities, through the process of stakeholder engagement. Disclosure of relevant information and participation of affected communities and persons should continue during the planning, implementation, monitoring, and evaluation of compensation payments, livelihood restoration activities, and resettlement to achieve outcomes that are consistent with the objectives of the performance standard;
- 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; and
- Grievance mechanism should be established as early as possible in the project development phase. This will allow the Project to receive and address specific concerns about compensation and relocation raised by displaced persons or members of host communities in a timely fashion, including a recourse mechanism designed to resolve disputes in an impartial manner.

7.3.1.2 *Policy on Disclosure of Information*

The 2012 IFC Policy on Disclosure of Information is a 13-page document outlining the scope of materials that the IFC makes publically available—either on a routine basis or upon request. This disclosure policy is intended to reflect the IFC’s commitment to transparent business practices in-line with its Policy on Social and Environmental Sustainability and the PSs.

In accordance with the prescripts of IFC’s PSs, the disclosure policy requires that IFC clients self-disclose information to project-affected parties about all types of adverse environmental and social impacts that could potentially result from the project, as well as the client’s plan to mitigate or eliminate these impacts.

7.4 *GAP ANALYSIS*

There are similarities between the objectives and approaches as well as substantial overlaps between the ADB SPS SR2, IFC Performance Standard 5 and the Government of Indonesia’s (GOI) land compensation and land acquisition regulations. The key differences include:

1. ADB SPS 2 requires the compensation value to be calculated at full replacement cost which includes: (i) fair market value; (ii) transaction cost; (iii) interest accrued; (iv) transitional and restoration cost, and (v) other applicable payments. Provisions on land compensation values in the President Decree No. 65 Year 2006 and Regulation of Head of Land National Agency (BPN) No. 3 Year 2007 include:
 - The value for land compensation uses the real value, by considering the selling value of the taxable object in the year of compensation (i.e. government tax value/ NJOP) as well as the following aspects:
 - land location;
 - land status;
 - land use; and
 - other factors influencing the land price;
 - The values for plants and structure compensation are estimated by the government agency responsible in the two areas, and in accordance to the standard value stipulated in the applicable regional legislation.
2. The land owners who have neither formal legal rights nor recognised or recognisable claims or customary claims to the land but without full legal title (non-title) to be eligible for compensation for use of the land, for lost assets such as crops, irrigation infrastructure, and other improvements made to the land (but not for the land) at full replacement cost.

As regulated by the President Decree No. 65 Year 2006 and Regulation of Head of Land National Agency (BPN) No. 3 Year 2007, the following people are eligible for the compensation:

- Legitimate land owners or their heirs;
- For endowment (*waqaf*) land, compensation given to the Nazhir, i.e. the mandated person responsible for the land use and management as mandated by the previous land owner;
- The legitimate holder of right to use the land; and
- When any customary asset is affected, compensation can be provided in the form of replacement assets through the development of public facilities.

Indonesian legislation does not specifically regulate how the non-titled land right holder is eligible for compensation.

3. In case of compensation for structures, GOI regulations (KepMen ESDM No. 975 K Year 1999 & Permen ESDM No.01) apply depreciation to structures whereas ADB SPS does not apply depreciation when calculating the compensation rate for structures and assets.
4. ADB SPS 2 requires qualified and experienced experts to undertake the valuation of acquired assets. In applying this method of valuation, depreciation of structures and assets should not be taken into account.

5. ADB SPS 2 require land owners who suffer economic displacement, a comprehensive income and livelihood rehabilitation program, supported by an adequate budget, to be in place to help the displaced persons improve, or at least restore, their income and livelihoods. Preference in the form of compensation is given to the displaced person, including replacement land.

The Indonesian regulation stipulates that compensation can be provided in the form of:

- cash money;
- replacement land;
- housing resettlement;
- combination from two or more options above;
- for customary asset: development of public facilities or any other forms useful for the local welfare; and
- other forms agreed by all related parties.

It does not stipulate the project to compensate the livelihood restoration of the displaced person; however it requires the determination of the form and value of compensation should be obtained through consultation process.

6. Where cash compensation for land is provided to affected people whose livelihoods are land based, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost; this is not defined in the Indonesian regulation;
7. ADB SPS requires special measures to accomplish income restoration and provide support, when necessary, for affected vulnerable households; this is not regulated by Indonesian law;
8. A full census should be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project;
9. Disclosure of relevant information, consultation, and participation of affected communities and persons SOL will continue during the planning, implementation, monitoring and evaluation of compensation payments and livelihood restoration activities;

Provisions for disclosure of information and consultation are stipulated in the President Decree No. 65 Year 2006, as follows:

- Disclosure of information conducted to explain about the project objective, benefit for community, as well as to obtain the community approval or willingness on the land to be acquired for the project needs;
- When objections with regards to the Project are recorded, additional disclosure and consultation sessions should be conducted;

- Consultation is also conducted in stages to determine the form and value of compensation;
- Separated consultation to be conducted when any objection to the form and value of compensation is recorded.

The Indonesian Decree does not regulate the continuity of the consultation from planning to post-compensation.

10. The grievance mechanism should allow the Project to receive and address specific concerns raised by displaced persons or members of host communities in a timely fashion, including a recourse mechanism designed to resolve disputes in an impartial manner. As such the resolution process should involve adequate consultation with the affected people; while the Regulation of Head of BPN No. 3 Year 2007 indicates the grievance to be handled through formal channels; i.e. regional government and courts.
11. Where land is acquired through negotiated settlement wherein an adequate and fair price is offered for land and/or other assets, ADB SPS SR2 requires that the borrower/client engage an independent external party to document the negotiation and settlement processes whereas this arrangement is not required under GOI regulations.

The regulation of Head of BPN No. 3 Year 2007 stipulates there should be an independent external party involved during the assessment of compensation value, rather than during negotiation process.

12. SOL will not issue notice to proceed for any civil works contract (or will not allow any construction activities) until (i) payment has been fully disbursed to PAP/PAH; (ii) already-compensated PAP/PAH have cleared the acquired land in a timely manner; and (iii) that the area is free from any encumbrances.

The regulation of Head of BPN No. 3 Year 2007 indicates a project physical development can be started once the compensation payment and the release of land right process have been completed.

8 ENTITLEMENTS, ASSISTANCE AND BENEFITS

This Chapter describes the following compensation activities to define PAHs/PAPs entitlements and eligibility and resettlement assistance measures (including an entitlement matrix). It also sets out the valuing and disbursing compensation for land, structure and crops and other assets.

8.1 PROCESS OF LAND SURVEY, ASSET INVENTORY AND CENSUS

Land for this project is being procured through direct negotiated settlement under the “Izin Lokasi”, or location permit mechanism. Under this *Izin Lokasi* mechanism, the Project holds no right to expropriate land owners from their land. Land acquisition is to be done based on negotiation and agreed price with land owners. The steps in procuring land for this Project is as follows:

Step 1. As stipulated in the Head of National Land Agency Regulation No. 2/1999, the first step in this mechanism is to first obtain location permit from the local government governing project location.

Step 2. The next task is to identify the Project’s adverse impacts and communities that will be affected by undertaking a land survey and mapping the different types of land according to use and potential impacts by the Project. This supports planning in order to identify features such as population settlements, infrastructure, natural vegetation, land use patterns, natural water sources, etc. The ultimate goal of this RP is to enhance, or at least restore, the livelihoods of all PAHs/PAPs in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

Step 3. Once this land survey is undertaken, SOL will undertake an inventory of affected assets to gather data of all lost assets. The survey will account for land acquisition, loss of physical assets and loss of income, either temporary or permanent, resulting from displacement of household members from employment or income generating resources i.e. agricultural, fishery, etc. The collective assets, such as natural water resources, livestock grazing area, irrigation system and community structures will be recorded separately.

Step 4. After the asset inventory, SOL will undertake the census that will cover 100% of land owners; this is undertaken by:

- Enumerating and collecting basic information on the affected communities;
- Registering the affected population by locality;
- Establishing a list of legitimate PAHs/PAPs before the Project’s onset that counters spurious claims from those moving into the Project area solely in anticipation of Project benefits; and
- Providing a baseline for monitoring and evaluation.

The purpose of the survey is to identify the nature and significance of project impacts, also to collect gender-disaggregated data to address gender issues. The census will provide a demographic overview of the population, and will cover people's assets and main sources of livelihood and provide gender-disaggregated socioeconomic data. Such data will be important to determine if special actions should compose a part of the RP to address the resettlement-related needs of female PAPs.

Step 5. Based on the results of mapping, asset inventory, socio-economic surveys and census, an updated resettlement plan will be prepared by SOL for Lenders' after finalisation of detailed engineering design.

8.2 *COMPENSATION RATE*

Compensation will be disbursed by the Project to pay the PAHs/PAPs for the loss of physical assets, i.e. land, plants, structure and crops, also other assets, revenue and income resulting from economic displacement or physical relocation whether these losses are temporary or permanent. Through a negotiated settlement, an adequate and fair price for land and/or other assets is expected will be offered to PAHs/PAPs. The price, i.e. the compensation rate should be made at full replacement cost. Full replacement cost is the cost of replacing an affected asset of the same or better quality in the current land and/or housing market. After acceptable compensation rates are established, they are applied to RP inventory of losses for all households and enterprises affected by the Project.

The valuation methodology for the land compensation was based on the sub-district office reference for PLN (IDR 50,000 per m²) in 2010 and also current land market prices (with no crops or plants) in the Pahae Julu (IDR 35,000 per m²). The compensation for land (65,000IDR/m²) was not based on its productivity or type of land.

Consultations with the village leaders indicate that the current average price for paddy land and rice is 73,000IDR/m². SOL are offering 125,000IDR/m² which considers that 1 m² of rice paddy equals 20 clumps at 1,500IDR per clump (for 2 harvests. (The land price for rice paddy is the same (65,000IDR/m²; which includes rice paddy plants).The land price offered is considered above market replacement value.

The valuation for plants was undertaken by the Agriculture Agency in the North Tapanuli Regency (who update their rates annually). The list of compensation prices for plants is categorised by three types: (i) Seeds, (ii) Unproductive plants, and (iii) Productive plants including fruit-bearing trees. The compensation rate offered for plants is considered reasonable as the Agriculture Agency based the rate on the current market price of each type of plant and depending on the age and remaining productive life. The price is based on the age of plants reflecting the type/category (seeds, unproductive and productive); the compensation rate is based on the age of plants (current/actual condition/type of land) as agreed with the land owners.

The rate was released on 10 August 2009 by the Agricultural Agency values. Based on the current market, the cost of rubber seeds is 5,000.00IDR⁶; hence SOL are offering compensation at double the value despite using 2009 values.

The compensation rate offered for plants is considered reasonable as the Agriculture Agency based the rate on the current market price. The rate was released on 10 August 2009 by the Agricultural Agency values. Based on the current market, the cost of rubber seeds is 5,000.00IDR⁷; hence SOL are offering compensation at double the value despite using 2009 values.

As per Indonesian Regulations, the rate for an old house is 700,000IDR/ m² and for a new house 1,300,000IDR/m². Compensation for structures will be based on replacement value on a per square meter basis inclusive of the current cost of materials plus labour and mutually agreed with the structure owner. An update for structure prices will be provided after the finalization of all compensation activities for the T/L RoW landowners.

8.2.1 *Entitlement Matrix*

This section defines Project Affected Household entitlements and eligibility and describes resettlement assistance measures. SOL will provide the entitlements to the project affected people according to the specifications in **Table 8-1** Entitlement Matrix of this Resettlement Plan.

Compensation to land owners who have lost access to land as a result of project land acquisitions, whether or not they have legal title to the land including those with heritage land claims to the affected land.

Compensation to land owners who have lost plants and structures or any built assets on land lost as a result of project land acquisitions, including those with heritage land claims to the affected land.

Compensation and Resettlement Assistance to land owners who have lost housing as a result of project land acquisition, including those with heritage land claims to the affected land.

Income Restoration to land owners whose incomes have been significantly affected by loss of access to land as a result of project land acquisition, whether or not they have legal title to the land, including with heritage land claims to the affected land.

Transition Assistance to land owners who have special social categories which render them more vulnerable to social and economic displacement and also who has lost of access to land as a result of project LAQ.

⁶ <http://bibitkaret.com/kenapa-bibitkaret-com>

⁷ <http://bibitkaret.com/kenapa-bibitkaret-com>

Table 8-1 Entitlements Matrix

No	Type of Loss	Types of Land Owners	Entitlement	Details
1	Loss of land	<ul style="list-style-type: none"> ▪ Legal owners ▪ Land owners with heritage land rights 	Compensation at replacement cost	<ul style="list-style-type: none"> • Appropriate price/compensation as mutually agreed with the land owners • This value is all inclusive of the market price land value plus additional transaction costs. • 60 days' notice for agricultural lands to harvest standing seasonal crops. If notice cannot be given, compensation for share of crops will be provided • Additional compensation for vulnerable households or support to find and negotiate for replacement land • Payment of all taxes and administrative costs will be borne by SOL
2	Loss of trees, crops, perennials	Owners and beneficiaries of land use	<p>Compensation based on agriculture agency. (agriculture agency issues rates on an annual basis.</p> <p>The price is based on the age of plants reflecting the type/category (seeds, unproductive and productive); the compensation rate is based on the age of plants (current/actual condition/type of land) as agreed with the land owners.</p>	<ul style="list-style-type: none"> • Cash compensation for the loss of trees, crops, perennials • 60 days advance notice to land owners to harvest fruits, standing crops, and remove trees, if desired
3	Loss of structure and business	Property owners	<ul style="list-style-type: none"> ▪ Compensation at replacement value, including lost assets ▪ Moving assistance 	<ul style="list-style-type: none"> • Appropriate price/compensation as mutually agreed with the land owners • Moving assistance in lump sum payment
4	Significant loss of income	Land owners with significant loss of income due to loss of land use	Priority for vocational training and BDS, and Project employment	<ul style="list-style-type: none"> • Prioritise employment offer from SOL (or Project contractor) Agriculture and livelihood restoration are components of the ISP
5	Moderate loss of income	Land owners with moderate loss of income due to loss of land use	Priority for Project employment	<ul style="list-style-type: none"> • Prioritise employment offer from SOL (or Project contractor)

No	Type of Loss	Types of Land Owners	Entitlement	Details
6	Losses experienced by vulnerable groups	Vulnerable house-holds including households headed by women, elderly, very poor or those with disabled or many children	Additional assistance to households according to vulnerability levels	<ul style="list-style-type: none"> • Employment offer from SOL (or Project contractor) for 24 months • Priority for CDP Health and Education components • Priority for CDP components agriculture and livelihood restoration
7	Non-land economic displacement	Households at risk of income loss	<ul style="list-style-type: none"> ▪ Priority for Agriculture and livelihood restoration 	<ul style="list-style-type: none"> • Agriculture and livelihood restoration are components of the Community Development Plan • SOL will give employment preferences to these land owners households, if appropriate
8	Land Owners whose lands within T/L ROW	<ul style="list-style-type: none"> ▪ Legal owners ▪ Land owners with heritage land rights ▪ Structure owners 	<p>Compensation at easement fee of 10% current land value of land for tower bases without deductions for taxes and administration cost.</p> <p>Compensation at easement fee of 15% of current structure value.</p>	<ul style="list-style-type: none"> • Cash compensation 10% of IDR 65,000 per m² for the loss of the use of land at replacement cost. • Cash compensation 15% of structure value based on list of structure value from appraisal team.

8.2.2 *Compensation Disbursement*

SOL has compensated all land owners who have lost land as part of the Project land acquisition process. The detailed timetable for delivery of entitlements will be established by June 2014. PAHs/PAPs may have multiple entitlements, so it is advisable for compensation payment to be paid out in full to allow PAHs/PAPs to purchase replacement land, prepare the farm land plot or to construct new house/shops. The disbursement of compensation to PAHs/PAPs enables SOL to determine if payments are being used for the PAHs/PAPs intended purposes, if not SOL should adjust the compensation framework accordingly. A compensation timetable can be linked to the overall Schedule of RP implementation, that can be served as well as implementation milestones for the purposes of RP monitoring and evaluation.

8.2.3 *Cut-Off Date*

Establishing a cut-off date ensures all Project affected people understand the date of completion of the census and eligibility. The cut-off date is normally set by Land Acquisition Team as procedures to establish PAHs/PAPs who are eligible to receive compensation and resettlement assistance by the Project. When persons occupy the Project area/build new structures or grow new crops after cut-off date these new assets are not eligible for compensation and/or resettlement assistance. The census for T/L towers' land owners was conducted in April 2014 with a cut-off date established and communicated prior to census (21 February 2014). The cut-off date was well publicised in the community and affected people should be given adequate time to harvest any crops on cultivated land, dismantle and transfer fixed assets or structures, among other tasks including any cultural or religious ceremonies.⁸

⁸ The cut-off date for tower footprints, Road 5 and WJP 1 could not be implemented in timely manner. Therefore the census for all landowners who have been compensated from September-February 2014 has been conducted in 21 February. For the landowners of T/L ROW the cut-off date will be around October, however the initial census has been conducted in April 2014.

9 INCOME RESTORATION AND REHABILITATION

9.1 LIVELIHOOD RESTORATION

The livelihood restoration strategy will adopt a broader concept of livelihood restoration than that required by local legislations. It will promote both income restoration and the social development processes which enable resettled people to maintain and improve their income levels over time. The strategy will be based on the following principles:

- The Project will play the lead role in implementing the livelihood restoration strategy for resettled households through planning, finance, implementation and monitoring the strategy.
- The Project will aim to obtain support from local government on this.
- Livelihood restoration will require attention to both resettled households' incomes and to the social factors - including social cohesion - which serve to sustain their standards of living over time.
- Planning for livelihood restoration will require coordination with government development priorities; training, infrastructure and service provision. It will also require an understanding of regional economic conditions and the markets for goods, services and labour which will provide opportunities for resettled households' business development and employment.
- The Project will be able to provide long-term employment opportunities for only a small proportion of resettled households. SOL has developed a draft Recruitment Plan to ensure local communities participate in the Project (see Annex D: Volume III: Indigenous Peoples Plan).
- The Project will, however, provide a greater number of short-term employment opportunities during construction, which will be important in maintaining affected households' incomes during the period immediately following resettlement. It will also promote broader economic development in the region, which is expected to create increased demand for goods and services.
- Where possible, the livelihood restoration strategy will be integrated with broader ISP activities of the project, to ensure synergies in achieving cost efficiencies and development outcomes in both programs.
- The strategy will pay particular attention to the needs of vulnerable land owners (e.g. those losing 100% of their land or those who will be left with only unviable land).

9.1.1 *Methodology for Preparing the Livelihood Restoration Strategy*

Since the livelihood restoration will be implemented based on existing government programs and services, the livelihood restoration strategy will be developed in consultation with local governments, and in consultation with the affected communities. Livelihood restoration integrates three elements, which are summarized below.

9.1.1.1 *Analysis of Government Programs and Priorities*

A review of existing governmental measures and resources will be conducted to understand local context. Those opportunities might include government's business development and training programs; infrastructure development; social service provision and poverty alleviation strategies. This means the livelihood restoration strategy must be integrated into government planning and budgeting processes. It therefore requires assessment of the government resources and capacities available to support the Project's livelihood restoration needs, and of areas where further resources and capacity development may be required.

9.1.1.2 *Economic Assessment*

An assessment of local economic conditions is required to understand patterns of growth in the local economy and demand for labour, goods and services, which provide income-generating opportunities for resettled people. Data on government economic planning, economic trends and forecasts, sectoral development, local business opportunities and constraints fed into this assessment. Project's economic contribution, local content and employment strategies, as well as ISP activities, are also relevant.

9.1.1.3 *Livelihood Restoration Planning*

Based on the above tasks, the Project will develop an outline livelihood restoration strategy and action plan, consistent with the ADB requirements and local legislation; and based on preliminary consultation with government authorities and representatives of affected households. These livelihood programs will be linked to the social programs in the IPP which is provided in Error! Reference source not found..

Table 9-1 Tentative Livelihood Restoration Action Plan (as per the ISP) per village

An estimated budget of IDR 33,800,000,000 is allocated for procurement of land through negotiated settlement. This excludes the easement fee for the COI, budget for **trees** (fruit-bearing and timber) and **crops** (rice paddy, perennial and standing) which will be determined following the detailed census and asset inventory. Income restoration activities and transition assistance for vulnerable groups will be provided within the scope of the IPP budget for which a budget of IDR 200,000,000 per annum is allocated.

The detailed budget for the Resettlement Plan will be prepared by SOL following the census and asset inventory in April 2014. The budget will be as follows: (i) detailed costs of land acquisition, livelihood and income restoration, (ii) source of funding, (iii) administrative cost, including staff training, (iv) monitoring cost, and (v) arrangement costs for approval and responsibilities is with SOL for RP, the flow of funds and contingency arrangements. SOL will ensure timely fund's disbursement for RP implementation and will prepare all the necessary plans. The assistance cost will be allocated and disbursed prior to financial close. A contingency of up to 15% of total amount will be applied.

Table 10-1 provides a template for resettlement budget and cost estimates that should be adjusted based on final asset inventory and prices set by the agricultural agency at the time of acquisition.

Table 10-1 Tentative Resettlement Budget and Financing*

Item	Unit Rates (IDR)	Total Quantity	Estimated Amount (IDR)	Source of Funding
A. Compensation for Acquisition of Private Properties				
Land (at replacement cost)	65,000/m ²	150	33,800,000,000.00	SOL Funding
Trees (fruit-bearing and timber) and Crops (rice paddy, perennial and standing)	List of Compensation Rate for Trees and Crops	n/a	10,000,000,000.00	SOL Funding
Easement fee for land within the COI	6,500/m ² or 10% of land price for towers	Approximately 32 ha	208,000,000.00	SOL Funding
B. Livelihood Restoration				
Income Restoration for claimants experiencing significant/moderate income loss	Lump sum	Lump sum	200,000,000.00	Income Restoration activities will be provided within the scope of the ISP Program for each village Planning budget
Transition Assistance for vulnerable households	Lump sum	Lump sum	50,000,000.00	Transition Assistance will be provided within the scope of the CSR Program

Item	Unit Rates (IDR)	Total Quantity	Estimated Amount (IDR)	Source of Funding
				Planning budget
C. Support Implementation {Please provide estimates based on current rates for salaries, surveys, etc.}				
Planning and Negotiations	Lump Sum	Lump Sum	60,000,000.00	SOL Funding
Management, Administration and Staff Training	Lump Sum	Lump Sum	266,400,000.00	SOL Funding
Budget for Consultation Activities and management of Grievance Mechanism	Lump Sum	Lump Sum	60,000,000.00	SOL Funding
Independent Monitoring & Evaluation Consultancy (incl. verification, meetings, coordination & travel)	Lump Sum	Lump Sum	1,285,000,000.00	SOL Funding
Land Surveys and Plan Inventories	Lump Sum	150	420,530,000.00	SOL Funding
Sub-Total				
D. Total Costs				
Sub-Total (IDR)			46,349,930,000.00	
Contingency (15% of the total)			6,952,489,500.00	
Grand total (IDR)			53,302,419,500.00	

* Compensation rates for different types of land will be provided after SOL obtains information from its appraisal team.

The **institutions** responsible for the delivery, coordination and implementation of all entitlement policy activities, income restoration programs and special measures for vulnerable groups related to the SOL RP are outlined in **Table 11-1**.

Table 11-1 *Responsible Institutions for delivery of entitlements*

Type of Loss	Types of Land owners	Entitlement	Institutions	
			Within SOL	Outside SOL
Loss of use of land by land owner	Legal owners Land owners with heritage land rights	Compensation at replacement cost <i>site</i> .	External Affairs Department	Village Government officials, particularly the Village Head <i>Bupati</i> (Head of Regency)
Physical displacement	Legal owners Land owners with heritage land rights	Relocation assistance sufficient to restore standards of living at an adequate alternative level	External Affairs Department	Village Government officials, particularly the Village Head <i>Bupati</i> (Head of Regency)
Loss of trees, crops, perennials	Owners and beneficiaries of land use	Compensation at market value	External Affairs Department	Village Government officials, particularly the Village Head <i>Bupati</i> (Head of Regency)
Loss of structures	Legal owners Land owners with heritage land rights	Compensation at full replacement cost	External Affairs Department	Village Government officials, particularly the Village Head <i>Bupati</i> (Head of Regency)
Significant loss of income	Land owners with significant loss of income due to loss of land use	Priority for vocational training and BDS, and Project employment	External Affairs Department Human Resources Department Communications Department	Village Government officials, particularly the Village Head
Moderate loss of income	Land owners with moderate loss of income due to loss of land use	Priority for Project employment	External Affairs Department Human Resources Department	Village Government officials, particularly the Village Head

Type of Loss	Types of Land owners	Entitlement	Institutions	
			Within SOL	Outside SOL
Losses experienced by vulnerable groups	Vulnerable households including households headed by women, elderly, very poor, or those with disabled or many children	Additional assistance to households according to vulnerability levels	External Affairs Department Human Resources Department	Village Government officials, particularly the Village Head Village Women’s Organisation (PKK) Village-level Community Health Centre Assistance Office (<i>Puskesmas Pembantu</i>)
Non-land economic displacement	Farmers at risk of income loss	Priority for vocational training and BDS (Business Development Service) or Community Development Plan	Communications Department Human Resources Department	Village Government officials, particularly the Village Head

The RP should set up the organisational framework for who will responsible for the roles for resettlement activities. **Figure 11-1** and **Figure 11-2** illustrate SOL’s overall and RP Organisational Frameworks. **Figure 11-2** presents how SOL will assist in preparation, implementation and monitoring of RP and coordinate with the relevant government agencies so that those aspects of resettlement can be facilitated more efficiently by SOL and other entities (such as NGOs, consultant and contractors). This structure is likely to change over the next few months of planning and preparation and therefore will be updated in this RP.

Figure 11-1 SOL's Organisational Structure

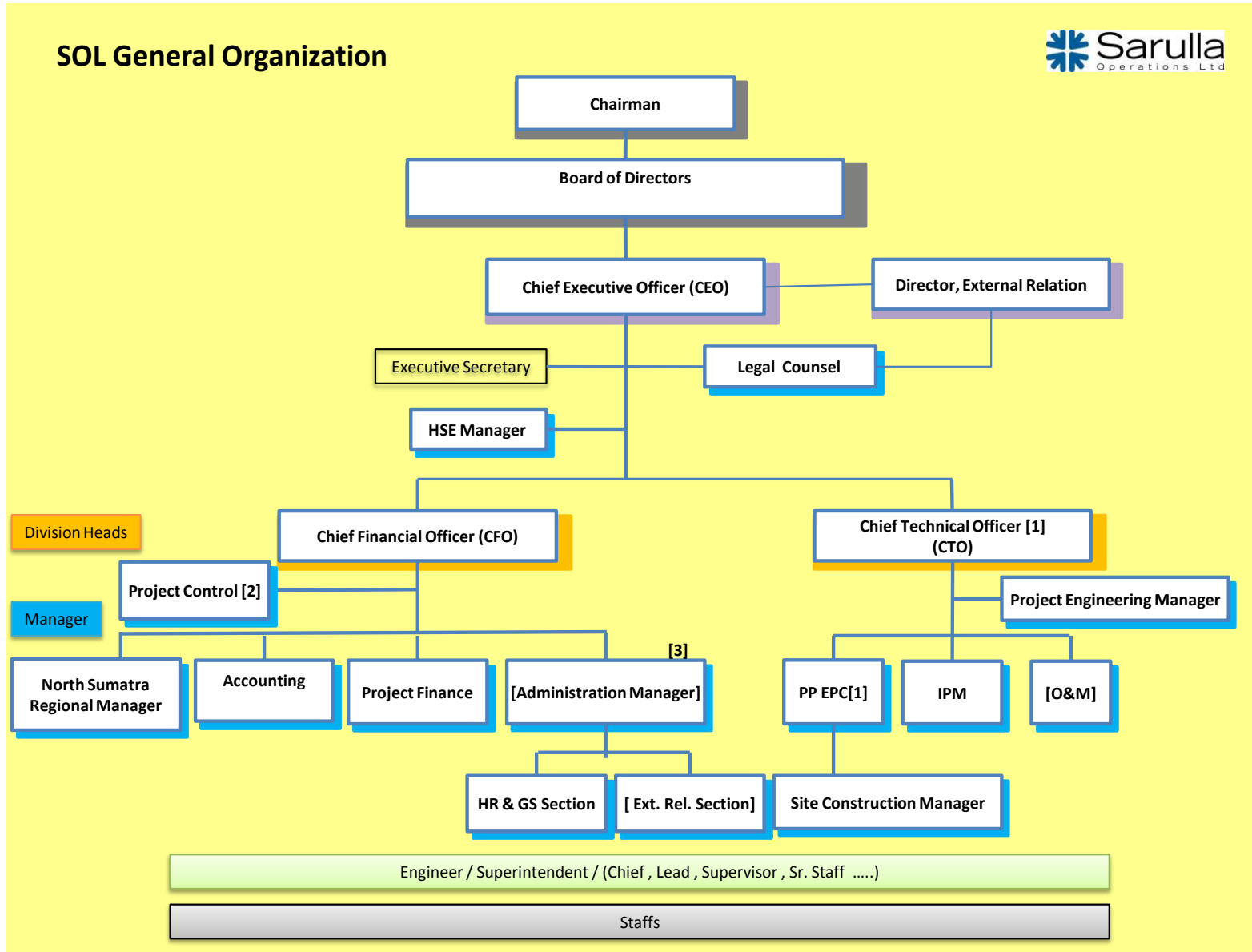
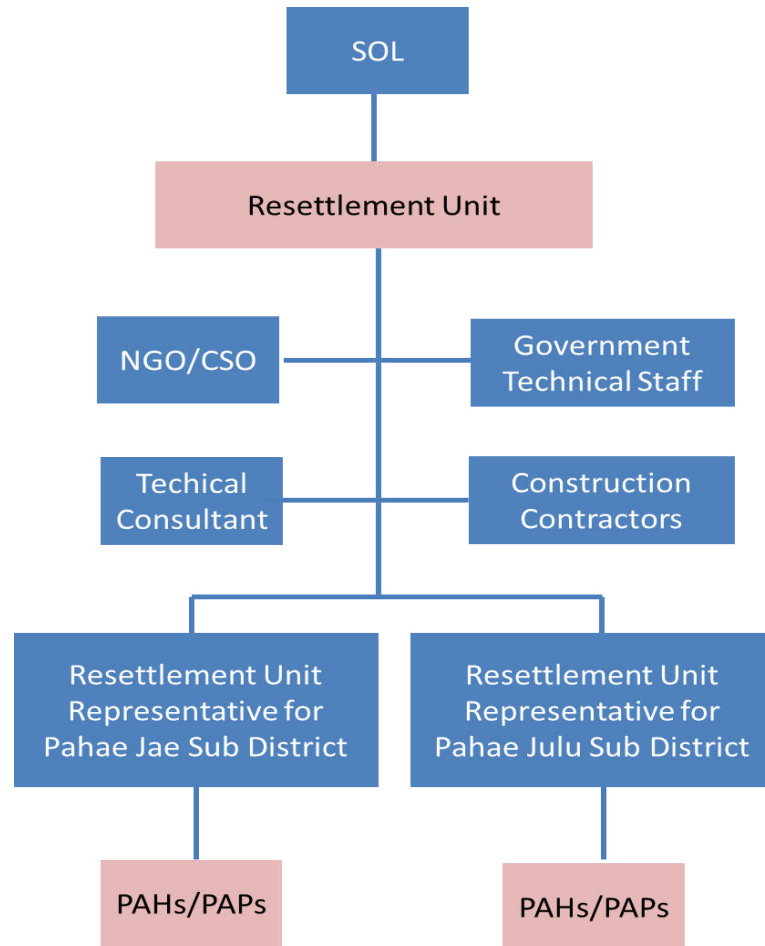


Figure 11-2 presents SOL’s resourcing for the planning and implementation of the RP. The Resettlement Unit refers to SOL’s Land Acquisition team who are responsible for the overall socialisation and negotiation activities. The external relations team is responsible for stakeholder’s coordination and communication. Currently the IPP (and ISP) and RP will be implemented by SOL’s Land Acquisition team and External relations team.

Figure 11-2 Organisational Framework for Resettlement Management



12 ***IMPLEMENTATION SCHEDULE***

The RP provides the implementation time schedule showing how PAHs/PAPs will be provided for before demolition begins (**Table 12-1**). As of January 2015 SOL is still in the process of appointing an external monitoring agency.

Table 12-1 Estimated Implementation Schedule of Resettlement Plan

No	Task	Start Date	2014										2015					
			Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
1	Public Notification of Land Acquisition:																	
2	Land Survey, Census and Assets Inventory:																	
	Land Survey																	
	Asset Inventory and Census																	
	Disclosure of Land Survey Results and Compensation																	
	Survey of Tombs, Wells, Spring and Collective Assets																	
	Disclosure of Tomb and Well Survey Results																	
3	Relocation and Rehabilitation Planning																	
	Livelihood Restoration Planning																	
4	Updating of the RAP	January 2015																
	Disclosure of key information (summary RP)	February 2015																
	Lenders' review and approval of updated RP	March 2015																
5	Compensation Payment:																	
	Payment for Demolition of Crops and Land Attachments																	
	Payment for Land Acquisition																	
	Payment for Transitional Allowance to Affected Persons																	
	Compensation for Other Collective Asset (i.e. Tomb, etc.)																	
6	Livelihood Restoration Implementation																	
7	Internal Monitoring																	
8	External Monitoring																	
	Recruitment of External Monitor	11/14																
	1 st External Monitoring	04/15																
	2 nd External Monitoring	10/15																

No	Task	Start Date	2014										2015					
			Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
	3 rd External Monitoring	04/16																
	4 th External Monitoring	10/16																
	Livelihood Restoration Survey	11/17																
	Resettlement Completion Audit	01/18																
	Resettlement Completion Audit Final Report	03/18																

13 *MONITORING AND REPORTING*

The Monitoring and Evaluation (M&E) mechanism provides the basis to assess the overall success of the land acquisition and resettlement and the effectiveness of the various processes and measures. This mechanism is based on two components; internal monitoring and external evaluations.

These two processes will run simultaneously – the internal monitoring process will run as part of day to day resettlement activities and will be used to ensure that the resettlement is meeting the objectives outlined in the Plan. The external evaluations are designed to provide a third party, objective assessment to ensure that the project is meeting international standards for resettlement, by restoring and where possible improving livelihoods of the resettled population.

13.1 *INTERNAL MONITORING PROCESS*

The overall objectives and tasks of the internal monitoring process are to:

- Identify suitable indicators for issues to be monitored;
- Measure progress against indicators at appropriate intervals, and analyse data against a pre-resettlement baseline; and
- Set up a system to regularly respond to M&E findings by adapting existing measures or by modifying implementation processes.

This monitoring process will be used to analyse progress and change at regular intervals. It should be linked to the various stages of the implementation of this plan.

13.1.1 *Issues to be monitored*

The monitoring programme will have a strong component for monitoring of the displaced and vulnerable ineligible families. It will also have a strong component for monitoring of people who have customary/traditional claims for land and other assets. For example if a person has put forward a claim (of being a customary land owner) the monitoring process will have to capture the progress on the investigation done and the process followed to verify his/her claims. This process is critical to address the dissatisfaction and discontent amongst the people who feel that their claims and interests were not addressed in the vetting process.

The monitoring component is intrinsically linked to the progress in land survey and physical demarcation of the area. The monitoring process will lay special emphasis on the families that are disadvantaged/vulnerable and cannot cope economically. It will be the responsibility of the project to pay particular attention to the needs/concerns of this group of people and take appropriate measures to rehabilitate them. The list below provides a list of some monitoring indicators that could be examined as a part of the process:

- No of vulnerable households and their status;
- Skill levels in the community especially amongst the affected Project affected families and how it has changed over a period of time;

- Literacy levels with focus of female and child literacy;
- Standard of living quantified by asset ownership, quality of house, access to amenities (clean drinking water, sanitation, roads, electricity etc.);
- Land ownership/user rights of affected families;
- Occupation/livelihood profile and changes therein;
- Influx and out-migration;
- Work participation rate of male and females;
- Occupational pattern of the family – number of family members in occupations and nature of that occupation and income generated from it;
- Average annual income levels of households;
- Nature of traditional/customary rights used for livelihood generation if any
- Total landownership at the family/household level (private, traditional, customary);
- Proportion of landless, agricultural labourers, sharecroppers;
- Type of housing/commercial structure value;
- Personal access to durable assets and any movable assets;
- Ownership of livestock;
- Access to common property resources;
- Access/arrangement/adequacy of physical infrastructure (road, electricity, drinking water, sanitation, telecommunication, etc.); and
- Access/arrangement/adequacy of social infrastructure (education, health, credit sources, markets, skill development, play grounds, worship places, etc.).

The monitoring mechanism will not only focus on the physical progress of resettlement but also look at the processes, methods and procedures being followed in achieving the goals of resettlement. It will follow the spirit and intent behind the resettlement programme and has to be sensitive to the needs and demands of the affected families. The importance and significance of the process is as important as the outcome of the resettlement programme. Potential indicators which could be monitored to assess satisfaction and success on such issues would include (but not be limited to):

- Have the families formed new cultural and social links?
- What are the problems faced day to day due to the move. How have their lives changed?
- Quality of housing/services;
- Resolution of grievance;
- PAPs satisfaction with the resettlement programme;
- Restoration of livelihood activities; and
- Approach of staff/officials handling the resettlement programme.

13.1.2 *Measuring Progress against Indicators*

The monitoring will develop a common system for monitoring indicators both during and following resettlement. A typical monitoring database will include (but not be limited to):

- Activity (e.g. resettlement tasks);
- Target date for completion;
- Progress to date (e.g. 60%);
- Progress in the last month (e.g. 20 households shifted);
- Target for this month;
- Reasons for delay, if any; and
- Action to be taken, including specific responsibilities.

13.1.3 *Reporting*

Consolidated internal monthly reports with key findings from the on-going monitoring will be prepared and key findings discussed and suitable actions taken. Any issues that arise from the monitoring that have not been addressed and require intervention will be discussed by all the parties concerned. This monthly progress review will aim to ensure that important issues are immediately rectified. SOL will prepare semi-annual monitoring reports on RP implementation and submit this to Lenders for review and public disclosure on ADB website. SOL will prepare a resettlement completion report at the end of the RP implementation period.

13.2 *EXTERNAL MONITORING PROCESS*

In addition to the internal monitoring process, external assessment of the resettlement will be undertaken through an external expert (either a consultancy firm or a nongovernment organization) comprised of well qualified social experts. This external expert will carry out two reviews annually, focusing on the assessment of compliance with social commitments contained in Indonesian legislation, ADB, JBIC and IFC's Performance Policy and Standards, in the ESIA and its attached action plans. The external expert will act as the independent third party to document the disclosure of information (valuations, plans etc.), land acquisition, negotiation and settlement processes to ensure that the process is fully transparent. The external monitor will also carry out a socio-economic survey every two years from the start date of RP implementation. The external monitoring process will be based on:

Process indicators that measure effectiveness of processes (consultation, grievance) and inputs like people, equipment and materials and identify areas where improvements to existing processes are required. Process indicators include:

- Transparency of the implementation process;
- Adequacy of staff and the capacity of the implementation agencies;
- Compliance of the RP;

- Effectiveness of the Grievance Process;
- Adequacy and effectiveness of Public Consultation process; and
- Effectiveness of the Internal Monitoring Mechanism.

Outcome indicators that assess the effectiveness of the resettlement and changes that have occurred to the communities' standard of living. The most appropriate outcome indicators will need to be determined as part of the monitoring process. The following lists a sample of potential indicators that could be used:

- Assets:
 - Reconstruction of housing (if required)
 - Change in housing size/number of rooms
 - Change in House quality
 - Change in asset ownership (farm equipment, livestock)
- Livelihoods:
 - Change in the number of unemployed
 - Shift in occupations/stability of income sources
 - Change in income per household
 - Change in skill levels
- Expenditure:
 - Change in expenditure patterns
 - Expenditure on health, education, food, entertainment
- Access to Infrastructure:
 - Change in access to community facilities:
 - Change in access to health care, education, transport etc.
 - Increase/decrease in access to health care centres, markets
- Networks:
 - Change in community/household interactions
 - Increase/decrease in emotional bonding/attachment

A detailed terms of reference for external monitoring, taking account the external monitoring and third party validation in the SSCAR CAP, IPP and this RP, will be agreed with Lenders for the construction and operations phases of the Project. Lenders will be involved in the selection of external monitor.

13.2.1 Resettlement Completion Audit

The purpose of the Resettlement Completion Audit is to verify the project's compliance with ADB, JBIC and IFC Standards and Policies as well as Indonesian Legislation. Following receipt of the resettlement completion report from SOL, external expert undertake a resettlement audit which will have the following specific objectives:

General assessment of the implementation of the CAP for those significantly affected by prior land acquisition covered in the CAP and RAP against the objectives of the SPS SR2 on Involuntary Resettlement and methods set forth in the RAP;

Assessment of compliance of implementation with laws, regulations and safeguard policies (PS5); Assessment of the fairness, adequacy and promptness of the compensation and resettlement procedures as implemented;

Evaluation of the impact of the compensation and resettlement program on livelihood restoration, measured through incomes and standards of living, with an emphasis on the “no worse-off if not better-off” requirement; and

Identification of potential corrective actions necessary to mitigate the negative impacts of the program, if any, and to enhance positive impacts.

The Completion Audit will be based on documents and materials generated by internal and external monitoring, field assessment with affected people.

ANNEXES

Annex A
List of Land Owners ()*

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
SIL AREA										
1			Tower 30	RP	Silangkitang	1.157	11.280.750	38.651.250	49.932.000	21-Feb-14
2			T/L ROW	RP		661	6.444.750	28.326.200	34.770.950	21-Feb-14
3			T/L ROW	RP		109	1.062.750	8.570.000	9.632.750	21-Feb-14
4			T/L ROW	RP		1.644	16.029.000	71.659.600	87.688.600	21-Feb-14
5			T/L ROW	RP		1.349	13.152.750	30.926.000	44.078.750	21-Feb-14
6			T/L ROW	RP		280	2.730.000	13.909.200	16.639.200	21-Feb-14
7			T/L ROW	RP	Sigurung-gurung	967	9.428.250	81.235.400	90.663.650	21-Feb-14
8			T/L ROW	RP		1.275	12.431.250	95.484.000	107.915.250	21-Feb-14
9			T/L ROW	RP	Silangkitang	1.525	14.868.750	44.586.600	59.455.350	21-Feb-14
10			T/L ROW	RP		655	6.386.250	53.634.000	60.020.250	21-Feb-14
11			T/L ROW	RP	Pahae Jae	-	-	-	-	-
12			Tower 2	RP	Silangkitang	900	8.775.000	16.891.300	25.666.300	21-Feb-14
13			T/L ROW	RP	Silangkitang	1.333	12.996.750	-	12.996.750	-
14			Tower 30	RP	Silangkitang	1.333	12.996.750	-	12.996.750	21-Feb-14
15			T/L ROW	RP	Sigurung-gurung	1.388	13.533.000	41.379.600	54.912.600	21-Feb-14
16			T/L ROW	RP	Silangkitang	432	4.212.000	22.920.000	27.132.000	21-Feb-14
17			Tower 4	RP	Silangkitang	1.017	9.915.750	15.018.050	24.933.800	21-Feb-14
18			T/L ROW	RP		429	4.182.750	27.440.000	31.622.750	21-Feb-14
19			Tower 28	RP	Sigurung-gurung	143	1.394.250	8.301.400	9.695.650	21-Feb-14
20			T/L ROW	RP		660	6.435.000	10.021.000	16.456.000	21-Feb-14
21			T/L ROW	RP		1.076	10.491.000	13.005.200	23.496.200	21-Feb-14
22			T/L ROW	RP	Sigurung-gurung	-	-	-	-	-
23			T/L ROW	RP		1.866	18.193.500	173.828.800	192.022.300	21-Feb-14
24			T/L ROW	RP	Silangkitang	74	721.500	9.025.000	9.746.500	21-Feb-14
25			T/L ROW	RP	Silangkitang	1.439	14.030.250	90.159.900	104.190.150	21-Feb-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
26			T/L ROW	RP	Silangkitang	157	1.530.750	6.720.000	8.250.750	21-Feb-14
27			T/L ROW	RP	Sigurung-gurung	1.255	12.236.250	112.741.600	124.977.850	21-Feb-14
28			T/L ROW	RP	Silangkitang	349	3.402.750	95.345.000	98.747.750	21-Feb-14
29			T/L ROW	RP		355	3.461.250	10.065.000	13.526.250	21-Feb-14
30			T/L ROW	RP	Sigurung-gurung	30	292.500	2.590.500	2.883.000	21-Feb-14
31			T/L ROW	RP		1.265	12.333.750	23.420.400	35.754.150	21-Feb-14
32			T/L ROW	RP		272	2.652.000	23.680.000	26.332.000	21-Feb-14
33			T/L ROW	RP		4.036	39.351.000	88.091.600	127.442.600	21-Feb-14
34			T/L ROW	RP	Silangkitang	-	-	-	-	-
35			Tower 27	RP	Sigurung-gurung	1.329	12.957.750	123.021.600	135.979.350	21-Feb-14
36			T/L ROW	RP		116	1.131.000	3.480.000	4.611.000	21-Feb-14
37			T/L ROW	RP		506	4.933.500	15.180.000	20.113.500	21-Feb-14
38			T/L ROW	RP		319	3.110.250	11.745.000	14.855.250	21-Feb-14
39			T/L ROW	RP		616	6.006.000	42.778.600	48.784.600	21-Feb-14
40			T/L ROW	RP		525	5.118.750	72.271.500	77.390.250	21-Feb-14
41			T/L ROW	RP		318	3.100.500	16.628.600	19.729.100	21-Feb-14
42			T/L ROW	RP	Silangkitang	1.458	14.215.500	45.275.000	59.490.500	21-Feb-14
43			Tower 4	RP	Silangkitang	138	1.345.500	-	1.345.500	-
1			T/L ROW	RP	Lumbanjaean	151	1.472.250	4.530.000	6.002.250	-
2			Tower 7B	RP	Lumbanjaean	306	2.983.500	-	-	20-Feb-14
3			T/L ROW	RP	Simanampang	727	7.088.250	25.222.000	32.310.250	-
4			T/L ROW	RP	Simanampang	526	5.128.500	13.401.900	18.530.400	23-Okt-14
5			T/L ROW	RP	Hutabarat	417	4.065.750	12.379.100	16.444.850	23-Okt-14
6			Tower 18	RP	Simanampang	1.037	10.110.750	10.078.250	20.189.000	20-Feb-14
7			ROAD 5	RP	Lumbanjaean dan	2.350	22.912.500	-	-	03-Okt-12

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
			& WJP (WJP)		Sibaganding					
8			Tower 13	RP	Simanampang	8	78.000	-	-	20-Feb-14
9			T/L ROW	RP	Lumbanjaean	570	5.557.500	17.100.000	22.657.500	-
10			T/L ROW	RP	Onan Hasang	342	3.334.500	19.250.000	22.584.500	24-Okt-14
11			T/L ROW	RP	Sitoluama	319	3.110.250	70.563.500	73.673.750	-
12			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	338	3.295.500	10.140.000	13.435.500	24-Okt-14
13			T/L ROW	RP		1.662	16.204.500	44.487.500	60.692.000	24-Okt-14
14			T/L ROW	RP	Hutabarat	145	1.413.750	-	1.413.750	24-Okt-14
15			Tower 9	RP	Hutabarat	1.024	9.984.000	51.502.050	61.486.050	23-Okt-14
16			Tower 13	RP	Simanampang	835	8.141.250	-	-	20-Feb-14
17			Tower 25	RP	Sitoluama	898	8.755.500	5.800.750	14.556.250	21-Feb-14
18			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	4.314	42.061.500	-	-	03-Okt-12
19			T/L ROW	RP	Hutabarat	456	4.446.000	16.840.000	21.286.000	23-Okt-14
20			T/L ROW	RP		1.788	17.433.000	72.183.600	89.616.600	24-Okt-14
21			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	8.692	84.747.000	-	-	03-Okt-12
22			T/L ROW	RP		366	3.568.500	4.095.000	7.663.500	00-Jan-00
23			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	3.263	31.814.250	-	-	03-Okt-12
24			T/L ROW	RP	Simanampang	216	2.106.000	-	-	23-Okt-14
25			T/L ROW	RP		1.426	13.903.500	74.346.800	88.250.300	22-Okt-14
26			T/L ROW	RP	Simanampang	1.095	10.676.250	-	-	23-Okt-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
27			T/L ROW	RP	Hutabarat	218	2.125.500	-	-	23-Okt-14
28			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	6.760	65.910.000	-	-	03-Okt-12
29			Tower 7A	RP	Onan Hasang	160	1.560.000	-	-	20-Feb-14
30			T/L ROW	RP	Hutabarat	161	1.569.750	1.790.000	3.359.750	23-Okt-14
31			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean dan Sibaganding	338	3.295.500	1.792.500	5.088.000	03-Okt-12
32			Tower 22	RP	Sitoluama	898	8.755.500	11.389.550	20.145.050	21-Feb-14
33			T/L ROW	RP	Hutabarat	393	3.831.750	62.401.000	66.232.750	23-Okt-14
34			T/L ROW	RP	Sitoluama	646	6.298.500	10.421.700	16.720.200	22-Okt-14
35			T/L ROW	RP	Simanampang	238	2.320.500	7.140.000	9.460.500	23-Okt-14
36			T/L ROW	RP	Sibaganding	-	-	-	4.849.500	23-Okt-14
37			T/L ROW	RP		2.256	21.996.000	77.833.600	99.829.600	00-Jan-00
38			T/L ROW	RP	Hutabarat	418	4.075.500	44.332.000	48.407.500	23-Okt-14
39			T/L ROW	RP		420	4.095.000	12.600.000	16.695.000	24-Okt-14
40			T/L ROW	RP	Sitoluama	96	936.000	850.000	1.786.000	-
41			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean	3.466	33.793.500	-	-	03-Okt-12
42			T/L ROW	RP	Onan Hasang	1.360	13.260.000	51.675.000	64.935.000	-
43			T/L ROW	RP	Hutabarat	653	6.366.750	22.050.000	28.416.750	23-Okt-14
44			T/L ROW	RP	Hutabarat	-	-	-	5.906.000	23-Okt-14
45			T/L ROW	RP	Sibaganding	-	-	-	-	-
46			T/L ROW	RP	Sitoluama	630	6.142.500	22.436.000	28.578.500	-
47			T/L ROW	RP		2.512	24.492.000	73.724.000	98.216.000	24-Okt-14
48			T/L ROW	RP	Hutabarat	359	3.500.250	23.566.400	27.066.650	23-Okt-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
49			T/L ROW	RP	Hutabarat	300	2.925.000	38.540.000	41.465.000	24-Okt-14
50			T/L ROW	RP		261	2.544.750	17.830.000	20.374.750	24-Okt-14
51			T/L ROW	RP	Lontung Dolok	-	-	-	-	-
52			ROAD 5 & WJP (WJP)	RP	Sibaganding	45.862	447.154.500	-	-	03-Okt-12
53			T/L ROW	RP	Onan Hasang	1.557	15.180.750	49.010.000	64.190.750	24-Okt-14
54			T/L ROW	RP	Lumbanjaean	704	6.864.000	27.710.000	34.574.000	24-Okt-14
55			T/L ROW	RP	Hutabarat	142	1.384.500	7.549.000	8.933.500	23-Okt-14
56			T/L ROW	RP		344	3.354.000	8.175.000	11.529.000	24-Okt-14
57			T/L ROW	RP	Sitoluama	969	9.447.750	23.004.800	32.452.550	22-Okt-14
58			Tower 7B	RP	Lumbanjaean	795	7.751.250	35.781.000	43.532.250	06-Jul-05
59			T/L ROW	RP	Onan Hasang	495	4.826.250	15.090.000	19.916.250	24-Okt-14
60			T/L ROW	RP	Hutabarat	-	-	-	26.446.500	-
61			T/L ROW	RP	Hutabarat	963	9.389.250	30.930.100	40.319.350	23-Okt-14
62			T/L ROW	RP	Onan Hasang	104	1.014.000	-	-	-
63			T/L ROW	RP		2.046	19.948.500	28.540.000	48.488.500	24-Okt-14
64			T/L ROW	RP		333	3.246.750	9.990.000	13.236.750	24-Okt-14
65			T/L ROW	RP		110	1.072.500	3.765.000	4.837.500	23-Okt-14
66			T/L ROW	RP	Sibaganding	290	2.827.500	8.700.000	11.527.500	24-Okt-14
67			T/L ROW	RP	Simanampang	413	4.026.750	36.080.400	40.107.150	23-Okt-14
68			T/L ROW	RP	Onan Hasang	357	3.480.750	11.145.000	14.625.750	-
69			T/L ROW	RP	Sitoluama	494	4.816.500	14.945.000	19.761.500	22-Okt-14
70			Tower 7	RP	Sibaganding	384	3.744.000	-	-	20-Feb-14
71			T/L ROW	RP	Sitoluama	2.669	26.022.750	76.640.000	102.662.750	22-Okt-14
72			T/L ROW	RP	Sitoluama	2.616	25.506.000	85.420.000	110.926.000	22-Okt-14
73			T/L ROW	RP	Simanampang	499	4.865.250	2.408.450	7.273.700	23-Okt-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
74			Tower 7B	RP	Lumbanjaean	351	3.422.250	-	-	20-Feb-14
75			T/L ROW	RP	Sitoluama	665	6.483.750	77.566.700	84.050.450	22-Okt-14
76			ROAD 5 & WJP (WJP)	RP	Sibaganding	23.737	231.435.750	-	-	03-Okt-12
77			T/L ROW	RP		1.154	11.251.500	28.543.200	39.794.700	24-Okt-14
78			T/L ROW	RP	Onan Hasang	344	3.354.000	23.530.000	26.884.000	24-Okt-14
79			T/L ROW	RP	Sitoluama	262	2.554.500	8.910.000	11.464.500	22-Okt-14
80			T/L ROW	RP		404	3.939.000	12.595.000	16.534.000	00-Jan-00
81			T/L ROW	RP	Sitoluama	54	526.500	21.306.500	21.833.000	-
82			T/L ROW	RP		198	1.930.500	7.600.200	9.530.700	00-Jan-00
83			T/L ROW	RP	Simanampang	565	5.508.750	17.400.000	22.908.750	23-Okt-14
84			Tower 5	RP	Onan Hasang	104	1.014.000	-	-	20-Feb-14
85			T/L ROW	RP	Sibaganding	187	1.823.250	5.610.000	7.433.250	24-Okt-14
86			T/L ROW	RP	Sibaganding	454	4.426.500	1.059.000	5.485.500	24-Okt-14
87			T/L ROW	RP		579	5.645.250	17.370.000	23.015.250	24-Okt-14
88			T/L ROW	RP	Hutabarat	432	4.212.000	12.960.000	17.172.000	-
89			T/L ROW	RP	Simanampang	574	5.596.500	19.402.800	24.999.300	23-Okt-14
90			Tower 5	RP	Onan Hasang	810	7.897.500	-	-	20-Feb-14
91			T/L ROW	RP		1.484	14.469.000	62.017.400	76.486.400	23-Okt-14
92			T/L ROW	RP	Simanampang	1.024	9.984.000	207.101.450	217.085.450	-
93			T/L ROW	RP	Simanampang	893	8.706.750	-	-	23-Okt-14
94			T/L ROW	RP	Onan Hasang	864	8.424.000	-	-	-
95			T/L ROW	RP	Sibaganding	-	-	-	43.343.750	24-Okt-14
96			T/L ROW	RP	Onan Hasang	-	-	-	-	-
97			T/L ROW	RP	Hutabarat	-	-	-	26.967.750	-
98			T/L ROW	RP	Onan Hasang	389	3.792.750	11.670.000	15.462.750	24-Okt-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
99			T/L ROW	RP	Onan Hasang	496	4.836.000	-	-	-
100			T/L ROW	RP		246	2.398.500	14.117.200	16.515.700	23-Okt-14
101			T/L ROW	RP		1.008	9.828.000	9.075.000	18.903.000	24-Okt-14
102			T/L ROW	RP	Lontung Dolok	590	5.752.500	33.565.000	39.317.500	24-Okt-14
103			T/L ROW	RP	Sibaganding	653	6.366.750	29.261.750	35.628.500	24-Okt-14
104			Tower 4	RP		108	1.053.000	2.025.000	3.078.000	24-Okt-14
105			T/L ROW	RP	Simanampang	198	1.930.500	23.582.200	25.512.700	23-Okt-14
106			T/L ROW	RP	Onan Hasang	-	-	-	-	24-Okt-14
107			T/L ROW	RP	Simanampang	387	3.773.250	19.989.000	23.762.250	23-Okt-14
108			T/L ROW	RP	Sibaganding	448	4.368.000	43.093.500	47.461.500	-
109			T/L ROW	RP	Simanampang	1.080	10.530.000	54.401.100	64.931.100	23-Okt-14
110			T/L ROW	RP	Simanampang	243	2.369.250	4.606.500	6.975.750	23-Okt-14
111			T/L ROW	RP	Sibaganding	70	682.500	3.930.000	4.612.500	24-Okt-14
112			T/L ROW	RP	Hutabarat	540	5.265.000	34.208.100	39.473.100	23-Okt-14
113			T/L ROW	RP		124	1.209.000	3.720.000	4.929.000	24-Okt-14
114			T/L ROW	RP	Sibaganding	-	-	-	-	23-Okt-14
115			Tower 4	RP	Lontung Dolok	444	4.329.000	-	-	20-Feb-14
116			T/L ROW	RP	Sitoluama	-	-	-	-	23-Okt-14
117			T/L ROW	RP		2.422	23.614.500	42.421.250	66.035.750	00-Jan-00
118			T/L ROW	RP	Hutabarat	-	-	-	-	-
119			T/L ROW	RP	Simanampang	1.378	13.435.500	47.112.150	60.547.650	-
120			T/L ROW	RP	Simanampang	1.458	14.215.500	98.958.000	113.173.500	-
121			T/L ROW	RP		328	3.198.000	9.840.000	13.038.000	00-Jan-00
122			T/L ROW	RP	Simanampang	846	8.248.500	230.704.250	238.952.750	23-Okt-14
123			T/L ROW	RP	Simanampang	-	-	-	-	-
124			Tower 3	RP	Sibaganding	120	1.170.000	-	-	20-Feb-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
125			T/L ROW	RP		781	7.614.750	23.580.000	31.194.750	24-Okt-14
126			T/L ROW	RP	Hutabarat	-	-	-	8.392.500	-
127			T/L ROW	RP		567	5.528.250	14.780.000	20.308.250	24-Okt-14
128			T/L ROW	RP	Sitoluama	4.045	39.438.750	109.633.200	149.071.950	22-Okt-14
129			T/L ROW	RP	Onan Hasang	355	3.461.250	51.122.150	54.583.400	24-Okt-14
130			T/L ROW	RP	Sitoluama	898	8.755.500	106.031.600	114.787.100	20-Feb-14
131			T/L ROW	RP	Simanampang	198	1.930.500	-	-	20-Feb-14
132			T/L ROW	RP	Simanampang	-	-	-	-	-
133			T/L ROW	RP	Hutabarat	2.170	21.157.500	-	-	03-Okt-12
134			T/L ROW	RP	Sitoluama	198	1.930.500	-	-	-
135			T/L ROW	RP		108	1.053.000	3.240.000	4.293.000	23-Okt-14
136			T/L ROW	RP		951	9.272.250	28.530.000	37.802.250	24-Okt-14
137			T/L ROW	RP	Simanampang	1.106	10.783.500	67.540.200	78.323.700	23-Okt-14
138			T/L ROW	RP		846	8.248.500	59.773.600	68.022.100	00-Jan-00
139			T/L ROW	RP	Sibaganding	25	243.750	1.000.000	1.243.750	24-Okt-14
140			T/L ROW	RP	Hutabarat	1.080	10.530.000	10.697.500	21.227.500	23-Okt-14
141			T/L ROW	RP	Simanampang	-	-	-	61.181.200	23-Okt-14
142			T/L ROW	RP	Simanampang	1.080	10.530.000	23.535.800	34.065.800	23-Okt-14
143			T/L ROW	RP	Simanampang	1.193	11.631.750	-	-	-
144			T/L ROW	RP	Hutabarat	203	1.979.250	46.025.000	48.004.250	23-Okt-14
145			T/L ROW	RP		386	3.763.500	11.580.000	15.343.500	24-Okt-14
146			T/L ROW	RP	Sibaganding	386	3.763.500	-	-	-
147			T/L ROW	RP		134	1.306.500	-	1.306.500	24-Okt-14
148			T/L ROW	RP	Onan Hasang	157	1.530.750	4.755.000	6.285.750	24-Okt-14
149			T/L ROW	RP		433	4.221.750	12.990.000	17.211.750	24-Okt-14
150			T/L ROW	RP	Simanampang	3.192	31.122.000	89.409.000	120.531.000	23-Okt-14

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
151			Tower 21	RP	Sitoluama	898	8.755.500	11.555.500	20.311.000	22-Okt-14
152			T/L ROW	RP		204	1.989.000	6.279.000	8.268.000	24-Okt-14
153			T/L ROW	RP	Onan Hasang	242	2.359.500	8.140.750	10.500.250	23-Okt-14
154			T/L ROW	RP		172	1.677.000	5.120.250	6.797.250	23-Okt-14
155			T/L ROW	RP	Sibaganding	552	5.382.000	29.206.750	34.588.750	24-Okt-14
156			T/L ROW	RP		2.222	21.664.500	51.177.500	72.842.000	24-Okt-14
157			T/L ROW	RP	Simanampang	44	429.000	-	-	23-Okt-14
158			T/L ROW	RP	Simanampang	1.588	15.483.000	35.003.000	50.486.000	23-Okt-14
159			T/L ROW	RP	Hutabarat	1.588	15.483.000	61.454.000	76.937.000	23-Okt-14
160			T/L ROW	RP	Simanampang	5.000	48.750.000	2.452.797.550	2.501.547.550	23-Okt-14
161			T/L ROW	RP	Simanampang	-	-	-	-	-
162			T/L ROW	RP		156	1.521.000	15.477.800	16.998.800	00-Jan-00
163			T/L ROW	RP		1.918	18.700.500	63.129.400	81.829.900	00-Jan-00
164			T/L ROW	RP	Onan Hasang	-	-	-	-	-
165			T/L ROW	RP	Sitoluama	1.006	9.808.500	30.680.000	40.488.500	22-Okt-14
166			T/L ROW	RP		130	1.267.500	7.210.000	8.477.500	24-Okt-14
167			T/L ROW	RP	Simanampang	1.795	17.501.250	45.905.200	63.406.450	23-Okt-14
168			T/L ROW	RP	Hutabarat	2.221	21.654.750	62.745.000	84.399.750	23-Okt-14
169			T/L ROW	RP	Simanampang	-	-	-	115.506.050	-
170			T/L ROW	RP	Simanampang	251	2.447.250	28.425.800	30.873.050	23-Okt-14
171			Tower 8	RP	Sibaganding	666	6.493.500	30.654.250	37.147.750	24-Okt-14
172			T/L ROW	RP		641	6.249.750	36.890.600	43.140.350	24-Okt-14
173			T/L ROW	RP	Hutabarat	-	-	-	29.852.250	24-Okt-14
174			T/L ROW	RP	Hutabarat	856	8.346.000	25.680.000	34.026.000	23-Okt-14
175			T/L ROW	RP	Onan Hasang	579	5.645.250	25.473.450	31.118.700	23-Okt-14
176			T/L ROW	RP	Sitoluama	-	-	-	-	-

No	Name		Name Area	RP/SSCAR	Domicile	Land area acquired (m ²)	Total Compensation for Land	Total Compensation for Crops/ Trees acquired	Total Compensation (IDR)	Date Paid
	Male	Female								
177			T/L ROW	RP		75	731.250	2.286.600	3.017.850	23-Okt-14
178			T/L ROW	RP	Hutabarat	-	-	-	-	-
179			T/L ROW	RP		679	6.620.250	13.003.600	19.623.850	23-Okt-14
180			Tower 12	RP	Simanampang	89	867.750	15.615.000	16.482.750	20-Feb-14
181			T/L ROW	RP	Hutabarat	174	1.696.500	28.080.000	29.776.500	23-Okt-14
182			T/L ROW	RP	Sitoluama	29	282.750	-	282.750	23-Okt-14
183			Tower 10	RP	Hutabarat	868	8.463.000	-	-	20-Feb-14
184			T/L ROW	RP	Sibaganding	213	2.076.750	6.456.000	8.532.750	23-Okt-14
185			T/L ROW	RP	Sibaganding	187	1.823.250	8.030.000	9.853.250	24-Okt-14
186			T/L ROW	RP		2.156	21.021.000	5.375.000	26.396.000	24-Okt-14
187			T/L ROW	RP	Onan Hasang	641	6.249.750	-	6.249.750	23-Okt-14
188			T/L ROW	RP	Onan Hasang	536	5.226.000	17.966.000	23.192.000	23-Okt-14
189			T/L ROW	RP	Sitoluama	1.652	16.107.000	288.350.350	304.457.350	21-Feb-14
190			Tower 11	RP	Hutabarat	146	1.423.500	4.613.600	6.037.100	23-Okt-14
191			ROAD 5 & WJP (Road 5)	RP	Sibaganding	6.432	62.712.000	-	-	03-Okt-12
192			T/L ROW	RP	Sitoluama	90	877.500	2.765.000	3.642.500	22-Okt-14
193			ROAD 5 & WJP (Road 5)	RP	Lumbanjaean	4.593	44.781.750	-	-	03-Okt-12
194			T/L ROW	RP		585	5.703.750	8.121.600	13.825.350	23-Okt-14
195			T/L ROW	RP	Onan Hasang	827	8.063.250	9.449.400	17.512.650	16-Sep-13
196			T/L ROW	RP		148	1.443.000	4.440.000	5.883.000	24-Okt-14
197			T/L ROW	RP	Simanampang	722	7.039.500	31.618.800	38.658.300	23-Okt-14
198			T/L ROW	RP	Onan Hasang	404	3.939.000	-	-	-

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

Annex B
List of Land Owners Interviewed()*

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
1			Tower 30	Silangkitang	8.357,00	1.157,00	7.200,00	13,84
2			Tower 2	Silangkitang	13.900,00	900,00	13.000,00	6,47
3			Tower 30	Silangkitang	12.333,00	1.333,00	11.000,00	10,81
4			Tower 4	Silangkitang	6.017,00	1.017,00	5.000,00	16,90
5			Tower 28	Sigurung-gurung	11.156,00	1.156,00	10.000,00	10,36
6			Tower 27	Sigurung-gurung	26.268,00	1.268,00	25.000,00	4,83
7			Tower 4	Silangkitang	23.138,00	138,00	23.000,00	0,60
8			T/L ROW	Sigurung-gurung	10.967,00	967,00	10.000,00	8,82
9			T/L ROW	Silangkitang	11.525,00	1.525,00	10.000,00	13,23
10			T/L ROW	Silangkitang	6.333,00	1.333,00	5.000,00	21,05
11			T/L ROW	Sigurung-gurung	30.600,00	600,00	30.000,00	1,96
12			T/L ROW	Silangkitang	10.432,00	432,00	10.000,00	4,14
13			T/L ROW	Silangkitang	16.265,00	1.265,00	15.000,00	7,78
14			T/L ROW	Silangkitang	10.032,00	32,00	10.000,00	0,32
15			T/L ROW	Silangkitang	20.746,00	746,00	20.000,00	3,60
16			T/L ROW	Silangkitang	10.157,00	157,00	10.000,00	1,55
17			T/L ROW	Sigurung-gurung	11.255,00	1.255,00	10.000,00	11,15
18			T/L ROW	Silangkitang	10.349,00	349,00	10.000,00	3,37
19			T/L ROW	Sigurung-gurung	5.030,00	30,00	5.000,00	0,60
20			T/L ROW	Silangkitang	3.458,00	1.458,00	2.000,00	42,16
21			T/L ROW	Lumbanjaean	15.151,00	151,00	15.000,00	1,00
22			T/L ROW	Simanampang	50.727,00	727,00	50.000,00	1,43
23			T/L ROW	Simanampang	1.740,00	526,00	1.214,00	30,23
24			T/L ROW	Hutabarat	805,00	417,00	388,00	51,80
25			T/L ROW	Lumbanjaean	5.570,00	570,00	5.000,00	10,23
26			T/L ROW	Onan Hasang	20.342,00	342,00	20.000,00	1,68
27			T/L ROW	Sitoluama	2.219,00	319,00	1.900,00	14,38
28			T/L ROW	Hutabarat	750,00	456,00	294,00	60,80

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
29			T/L ROW	Simanampang	600,00	216,00	384,00	36,00
30			T/L ROW	Simanampang	4.200,00	1.095,00	3.105,00	26,07
31			T/L ROW	Hutabarat	8.218,00	218,00	8.000,00	2,65
32			T/L ROW	Hutabarat	2.561,00	161,00	2.400,00	6,29
33			T/L ROW	Hutabarat	8.393,00	393,00	8.000,00	4,68
34			T/L ROW	Simanampang	802.238,00	238,00	80.000,00	0,03
35			T/L ROW	Hutabarat	1.150,00	418,00	732,00	36,35
36			T/L ROW	Sitoluama	16.646,00	646,00	16.000,00	3,88
37			T/L ROW	Sitoluama	10.096,00	96,00	10.000,00	0,95
38			Tower 18	Simanampang	11.037,00	1.037,00	10.000,00	9,40
39			Tower 13	Simanampang	20.008,00	8,00	20.000,00	0,04
40			T/L ROW	Onan Hasang	11.360,00	1.360,00	10.000,00	11,97
41			T/L ROW	Hutabarat	1.440,00	653,00	787,00	45,35
42			ROAD 5 & WJP (Road 5)	Lumbanjaean	17.431,00	2.431,00	15.000,00	13,95
43			T/L ROW		5.898,00	898,00	5.000,00	15,23
44			ROAD 5 & WJP (Road 5)	Sibaganding	60.000,00	4.314,00	53.600,00	7,19
45			T/L ROW	Sitoluama	2.100,00	630,00	1.470,00	30,00
46			T/L ROW	Hutabarat	740,00	359,00	381,00	48,51
47			T/L ROW	Hutabarat	1.350,00	300,00	1.050,00	22,22
48			ROAD 5 & WJP (Road 5)	Sibaganding	36.760,00	6.760,00	30.000,00	18,39
49			T/L ROW	Onan Hasang	21.557,00	1.557,00	20.000,00	7,22
50			ROAD 5 & WJP (Road 5)	Sibaganding	21.366,00	9.366,00	12.000,00	43,84
51			T/L ROW	Lumbanjaean	2.800,00	704,00	2.096,00	25,14
52			T/L ROW	Hutabarat	90,00	142,00	6.000,00	157,78
53			T/L ROW	Sitoluama	2.469,00	969,00	1.500,00	39,25

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
54			T/L ROW	Onan Hasang	10.495,00	495,00	10.000,00	4,72
55			T/L ROW	Hutabarat	2.163,00	963,00	1.200,00	44,52
56			T/L ROW	Onan Hasang	12.104,00	104,00	12.000,00	0,86
57			T/L ROW	Sibaganding	560,00	290,00	270,00	51,79
58			T/L ROW	Simanampang	40.413,00	413,00	40.000,00	1,02
59			T/L ROW	Onan Hasang	10.357,00	357,00	10.000,00	3,45
60			T/L ROW	Sitoluama	1.500,00	494,00	1.006,00	32,93
61			T/L ROW	Sitoluama	22.500,00	2.669,00	19.831,00	11,86
62			T/L ROW	Sitoluama	30.000,00	2.616,00	27.384,00	8,72
63			T/L ROW	Simanampang	30.499,00	499,00	30.000,00	1,64
64			Tower 7B	Lumbanjaean	97.781,00	13.781,00	80.000,00	14,09
65			T/L ROW	Sitoluama	2.665,00	665,00	2.000,00	24,95
66			T/L ROW	Onan Hasang	450,00	344,00	106,00	76,44
67			T/L ROW	Sitoluama	762,00	262,00	500,00	34,38
68			T/L ROW	Sitoluama	1.254,00	54,00	1.200,00	4,31
69			T/L ROW	Simanampang	1.240,00	565,00	675,00	45,56
70			T/L ROW	Sibaganding	20.187,00	187,00	20.000,00	0,93
71			Tower 7	Sibaganding	20.384,00	384,00	20.000,00	1,88
72			T/L ROW	Sibaganding	20.454,00	454,00	20.000,00	2,22
73			T/L ROW	Hutabarat	640,00	432,00	208,00	67,50
74			T/L ROW	Simanampang	20.574,00	574,00	20.000,00	2,79
75			Tower 7B	Lumbanjaean	342.151,00	351,00	341.800,00	0,10
76			T/L ROW	Simanampang	18.681,00	681,00	18.000,00	3,65
77			T/L ROW	Onan Hasang	3.360,00	864,00	2.496,00	25,71
78			T/L ROW	Onan Hasang	30.387,00	389,00	30.000,00	1,28
79			T/L ROW	Onan Hasang	1.696,00	496,00	1.200,00	29,25
80			T/L ROW	Lontung Dolok	8.590,00	590,00	8.000,00	6,87
81			T/L ROW	Sibaganding	20.653,00	653,00	20.000,00	3,16

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
82			T/L ROW	Simanampang	550,00	198,00	352,00	36,00
83			T/L ROW	Simanampang	945,00	387,00	558,00	40,95
84			T/L ROW	Sibaganding	50.448,00	448,00	50.000,00	0,89
85			T/L ROW	Simanampang	4.200,00	1.080,00	3.120,00	25,71
86			T/L ROW	Simanampang	1.200,00	117,00	1.083,00	9,75
87			T/L ROW	Sibaganding	20.070,00	70,00	20.000,00	0,35
88			T/L ROW	Hutabarat	1.200,00	540,00	660,00	45,00
89			T/L ROW		82.156,00	2.156,00	80.000,00	2,62
90			Tower 4	Lontung Dolok	5.816,00	816,00	5.000,00	14,03
91			T/L ROW	Sitoluama	18.000,00	1.421,00	16.579,00	7,89
92			T/L ROW		15.171,00	171,00	15.000,00	1,13
93			T/L ROW	Simanampang	41.378,00	1.378,00	40.000,00	3,33
94			T/L ROW	Simanampang	8.000,00	1.458,00	6.542,00	18,23
95			T/L ROW	Simanampang	30.846,00	846,00	30.000,00	2,74
96			T/L ROW	Sitoluama	24.045,00	4.045,00	20.000,00	16,82
97			T/L ROW	Sitoluama	20.000,00	3.694,00	16.306,00	18,47
98			T/L ROW	Simanampang	30.198,00	198,00	30.000,00	0,66
99			Tower 3	Sibaganding	10.120,00	120,00	10.000,00	1,19
100			T/L ROW		40.585,00	585,00	40.000,00	1,44
101			T/L ROW	Hutabarat	3.970,00	2.170,00	1.800,00	54,66
102			T/L ROW	Sitoluama	10.198,00	198,00	10.000,00	1,94
103			T/L ROW	Simanampang	41.106,00	1.106,00	40.000,00	2,69
104			T/L ROW	Sibaganding	31.596,00	1.596,00	30.000,00	5,05
105			T/L ROW	Hutabarat	1.080,00	490,00	590,00	45,37
106			T/L ROW	Simanampang	4.200,00	1.080,00	3.120,00	25,71
107			T/L ROW	Simanampang	11.193,00	1.193,00	10.000,00	10,66
108			T/L ROW	Hutabarat	330,00	203,00	127,00	61,52
109			T/L ROW	Sibaganding	30.386,00	386,00	30.000,00	1,27

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
110			T/L ROW	Onan Hasang	957,00	157,00	800,00	16,41
111			T/L ROW	Simanampang	19.192,00	3.192,00	16.000,00	16,63
112			T/L ROW	Onan Hasang	1.000,00	159,00	841,00	15,90
113			T/L ROW	Sibaganding	15.552,00	552,00	15.000,00	3,55
114			Tower 21	Sitoluama	18.898,00	898,00	18.000,00	4,75
115			T/L ROW	Simanampang	15.044,00	44,00	15.000,00	0,29
116			T/L ROW	Simanampang	21.588,00	1.588,00	20.000,00	7,36
117			T/L ROW	Hutabarat	11.588,00	1.588,00	10.000,00	13,70
118			T/L ROW	Simanampang	15.000,00	5.000,00	10.000,00	33,33
119			T/L ROW		25.846,00	846,00	25.000,00	3,27
120			T/L ROW	Sitoluama	4.000,00	1.006,00	2.994,00	25,15
121			T/L ROW	Simanampang	11.795,00	1.795,00	10.000,00	15,22
122			T/L ROW	Hutabarat	18.000,00	2.221,00	15.779,00	12,34
123			T/L ROW	Simanampang	1.500,00	251,00	1.249,00	16,73
124			Tower 8	Sibaganding	10.666,00	666,00	10.000,00	6,24
125			T/L ROW	Hutabarat	1.256,00	856,00	600,00	68,15
126			T/L ROW	Onan Hasang	1.440,00	579,00	861,00	40,21
127			T/L ROW	Sitoluama	5.262,00	262,00	5.000,00	4,98
128			T/L ROW		2.875,00	75,00	2.800,00	2,61
129			T/L ROW	Hutabarat	3.374,00	174,00	3.200,00	5,16
130			Tower 12	Simanampang	40.089,00	89,00	40.000,00	0,22
131			T/L ROW	Sitoluama	3.500,00	29,00	3.471,00	0,83
132			T/L ROW	Sibaganding	20.213,00	213,00	20.000,00	1,05
133			Tower 10	Hutabarat	1.868,00	868,00	1.000,00	46,47
134			T/L ROW	Sibaganding	200.187,00	187,00	200.000,00	0,09
135			T/L ROW	Onan Hasang	30.641,00	641,00	30.000,00	2,09
136			T/L ROW	Onan Hasang	3.536,00	536,00	3.000,00	15,16
137			T/L ROW	Sitoluama	21.652,00	1.652,00	20.000,00	7,63

No.	Name of Land Owners		Area Name	Domicile	Land Holding (m ²)	Land Affected (m ²)	Land Remaining (m ²)	Land Affected (%)
138			T/L ROW	Sitoluama	1.800,00	90,00	1.710,00	5,00
139			Tower 11	Hutabarat	1.140,00	740,00	400,00	64,91
140			ROAD 5 & WJP (Road 5)	Simataniari	36.432,00	6.432,00	30.000,00	17,65
141			T/L ROW	Onan Hasang	20.787,00	10.787,00	10.000,00	51,89
142			T/L ROW	Simanampang	2.000,00	722,00	1.278,00	36,10
143			T/L ROW	Onan Hasang	5.404,00	404,00	5.000,00	7,48
144			Tower 7B	Lumbanjaean	39.326,00	306,00	39.020,00	0,78
145			Tower 9	Hutabarat	5.224,00	1.024,00	4.200,00	19,60
146			Tower 13	Simanampang	50.835,00	835,00	50.000,00	1,64
147			T/L ROW	Sibaganding	5.122,00	122,00	5.000,00	2,38
148			Tower 5	Onan Hasang	40.104,00	104,00	40.000,00	0,26
149			T/L ROW	Onan Hasang	1.500,00	355,00	1.145,00	23,67
150			T/L ROW	Sibaganding	30.261,00	261,00	30.000,00	0,86

** This information has been removed as it falls within exceptions to disclosure specified in paragraph 97, (x) of ADB's Public Communications Policy (2011)*

Annex C
Permit Location Letter



BUPATI TAPANULI UTARA

KEPUTUSAN BUPATI TAPANULI UTARA

NOMOR : 23 TAHUN 2014

TENTANG

IZIN LOKASI PEMBANGUNAN JALUR TRANSMISI 150 KV DI DESA SILANGKITANG
KECAMATAN PAHAE JAE DAN DESA NAMORA I LANGIT KECAMATAN PAHAE JULU

Atas Nama PT. P L N (PERSERO)

SELUAS ± 100.000 M²

BUPATI TAPANULI UTARA,

- Membaca : Surat Permohonan Direktur PT. Sarulla Operations Limited Nomor SOL-
DIR-R00 tanggal 24 Mei 2013 perihal Pengajuan Permohonan Izin Lokasi
untuk jalur transmisi 150Kv atas nama PT. PLN (Persero) untuk proyek
PLTP Sarulla, seluas ± 100.000 M² yang terletak di Desa Silangkitang
Kecamatan Pahae Jae dan Desa Namora I Langit Kecamatan Pahae Julu,
Kabupaten Tapanuli Utara, Provinsi Sumatera Utara.
- Menimbang : a. bahwa dalam rangka penyediaan energi listrik di Sumatera Bagian Utara
dan untuk mendukung percepatan PLTP Sarulla yang terletak di Desa
Silangkitang dan Desa Namora I Langit, Kecamatan Pahae Jae dan
Kecamatan Pahae Julu, Kabupaten Tapanuli Utara;
- b. bahwa untuk maksud tersebut di atas, dirasa perlu memberikan **Izin
Lokasi** untuk keperluan **Pembangunan Jalur Transmisi 150 Kv** yang
ditetapkan dengan Keputusan Bupati Tapanuli Utara.
- Mengingat : 1. Undang-Undang Nomor 7 Drt Tahun 1956 tentang Pembentukan Daerah
Otonom Kabupaten-kabupaten Dalam Lingkungan Daerah Provinsi
Sumatera Utara jo. Undang-Undang Nomor 15 Tahun 1964 tentang
Pembentukan Kabupaten Dairi jo. Undang-Undang Nomor 12 Tahun
1998 tentang Pembentukan Kabupaten Daerah Tingkat II Toba Samosir
dan Kabupaten Daerah Tingkat II Mandailing Natal jo. Undang-Undang
Nomor 09 Tahun 2003 tentang Pembentukan Kabupaten Nias Selatan,
Kabupaten Pakpak Bharat dan Kabupaten Humbang Hasundutan di
Provinsi Sumatera Utara;
2. Undang-Undang Nomor 5 Tahun 1960 tentang Peraturan Dasar Pokok-
Pokok Agraria (Lembaran Negara Tahun 1960 Nomor 104, Tambahan
Lembaran Negara Nomor 2034);
3. Undang-Undang Nomor 41 Tahun 1999 tentang Kehutanan (Lembaran
Negara Tahun 1999 Nomor 167, Tambahan Lembaran Negara Nomor
3888);

4. Undang-Undang/2

4. Undang-Undang Nomor 7 Tahun 2004 tentang Sumber Daya Air (Lembaran Negara Tahun 2004 Nomor 32, Tambahan Lembaran Negara Nomor 4377);
5. Undang-Undang Nomor 32 Tahun 2004 tentang Pemerintahan Daerah (Lembaran Negara Tahun 2004 Nomor 125, Tambahan Lembaran Negara Nomor 4437), sebagaimana telah diubah beberapa kali terakhir dengan Undang-Undang Nomor 12 Tahun 2008 (Lembaran Negara Tahun 2008 Nomor 59, Tambahan Lembaran Negara Nomor 4844);
6. Undang-Undang Nomor 26 Tahun 2007 tentang Penataan Ruang (Lembaran Negara Tahun 2007 Nomor 68, Tambahan Lembaran Negara Nomor 4725);
7. Undang-Undang Nomor 30 Tahun 2007 tentang Energi (Lembaran Negara Tahun 2007 Nomor 96, Tambahan Lembaran Negara Nomor 4746);
8. Undang-Undang Nomor 30 Tahun 2009 tentang Ketenagalistrikan (Lembaran Negara Tahun 2009 Nomor 133, Tambahan Lembaran Negara Nomor 5052);
9. Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup (Lembaran Negara Tahun 2009 Nomor 140, Tambahan Lembaran Negara Nomor 5059);
10. Peraturan Pemerintah Nomor 6 Tahun 1988 tentang Koordinasi Kegiatan Instansi Vertikal di Daerah (Lembaran Negara Tahun 1988 Nomor 10, Tambahan Lembaran Negara Nomor 3373);
11. Peraturan Pemerintah Nomor 38 Tahun 2007 tentang Pembagian Urusan Pemerintahan Antara Pemerintah, Pemerintahan Daerah Propinsi dan Pemerintahan Daerah Kabupaten/Kota (Lembaran Negara Tahun 2007 Nomor 82, Tambahan Lembaran Negara Nomor 4737);
12. Peraturan Pemerintah Nomor 13 Tahun 2010 tentang Jenis dan Tarif Atas Jenis Penerimaan Negara Bukan Pajak Yang Berlaku pada Badan Pertanahan Nasional (Lembaran Negara Tahun 2010 Nomor 18, Tambahan Lembaran Negara Nomor 5100);
13. Peraturan Pemerintah Nomor 27 Tahun 2012 tentang Izin Lingkungan (Lembaran Negara Tahun 2012 Nomor 48, Tambahan Lembaran Negara Nomor 5285);
14. Keputusan Presiden Nomor 32 Tahun 1990 tentang Pengelolaan Kawasan Lindung;
15. Keputusan Presiden Nomor 97 Tahun 1993 tentang Tata Cara Penanaman Modal sebagaimana telah diubah beberapa kali terakhir dengan Keputusan Presiden Nomor 117 Tahun 1999;
16. Peraturan Menteri Negara Agraria/Kepala Badan Pertanahan Nasional Nomor 2 Tahun 1999 tentang Izin Lokasi;
17. Peraturan Kepala Badan Pertanahan Nasional Republik Indonesia Nomor 4 Tahun 2006 tentang Organisasi dan Tata Kerja Kantor Wilayah Badan Pertanahan Nasional dan Kantor Pertanahan;
18. Peraturan Kepala Badan Pertanahan Nasional Republik Indonesia Nomor 2 Tahun 2011 tentang Pedoman Pertimbangan Teknis Pertanahan Dalam Penerbitan Izin Lokasi, Penetapan Lokasi dan Izin Perubahan Penggunaan Tanah.

Memperhatikan : Risalah Pertimbangan Teknis Pertanahan dalam Penerbitan Izin Lokasi Pembangunan Jalur Transmisi 150 Kv oleh Sarulla Operations Limited atas nama PT. PLN (Persero) atas tanah seluas ± 100.000 M² (Seratus ribu meter persegi) di Desa Silangkitang Kecamatan Pahae Jae dan Desa Namora I Langit Kecamatan Pahae Julu Kab. Tapanuli Utara Prov. Sumatera Utara dari Kepala Kantor Badan Pertanahan Nasional Kabupaten Tapanuli Utara Nomor : 22 / RPTP / IL / X / 2013 tanggal 08 Oktober 2013.

MEMUTUSKAN :

Menetapkan : KEPUTUSAN BUPATI TENTANG IZIN LOKASI PEMBANGUNAN JALUR TRANSMISI 150 Kv DI DESA SILANGKITANG KECAMATAN PAHAE JAE DAN DESA NAMORA I LANGIT KECAMATAN PAHAE JULU ATAS NAMA **PT. PLN (PERSERO)**, SELUAS ± 100.000 M²

KESATU : Memberikan **Izin Lokasi Pembangunan Jalur Transmisi 150 Kv** kepada Sarulla Operations Limited atas nama **PT. PLN (Persero)** yang berkedudukan di The Energy 51 th Floor SCBD Lot. 11 A, Jl. Jenderal Sudirman Kav. 52-53 Jakarta Selatan seluas ± 100.000 M² yang terletak di Desa Silangkitang Kecamatan Pahae Jae dan Desa Namora I Langit Kecamatan Pahae Julu, Kabupaten Tapanuli Utara, Provinsi Sumatera Utara, dengan syarat dan ketentuan sebagai berikut :

1. Kewajiban kepada Negara atas ganti kerugian tanah dan tanaman atau barang-barang milik Negara yang ada di atasnya, tidak dibenarkan melalui perantara dalam bentuk dan nama apapun juga melainkan harus dilakukan secara langsung kepada Instansi yang berwenang sesuai dengan peraturan perundang-undangan yang berlaku;
2. Sebelum tanah yang bersangkutan dibebaskan oleh Pemegang Izin Lokasi, maka semua hak atau kepentingan pihak lain yang sudah ada atas tanah tersebut tidak berkurang dan tetap diakui termasuk kewenangan yang menurut hukum dipunyai oleh pemegang hak atas tanah untuk memperoleh tanda bukti hak (sertifikat) dan kewenangan untuk menggunakan dan memanfaatkan tanahnya bagi keperluan pribadi atau usahanya sesuai rencana tata ruang yang berlaku, serta kewenangan untuk mengalihkannya kepada pihak lain;
3. Perolehan tanah harus diselesaikan dalam jangka waktu 12 (dua belas) bulan terhitung sejak tanggal Keputusan ini ditetapkan dan dapat diperpanjang paling lama 12 (dua belas) bulan, apabila tanah yang sudah diperoleh mencapai lebih dari 50 % dari luas tanah yang ditunjuk dalam Izin Lokasi;
4. Pemegang Izin Lokasi wajib membuat serta mengusahakan sarana dan prasarana pengendali pencemaran lingkungan hidup sesuai ketentuan yang berlaku dan apabila dikemudian hari terdapat efek samping yang mengakibatkan kerusakan/pencemaran lingkungan disekitar lokasi karena kegiatan Pemegang Izin Lokasi tersebut, hal tersebut adalah tanggung jawab **SARULLA OPERATIONS LIMITED**;