



**Land Acquisition and Resettlement Action
Plan (LARAP)
for Waesano Geothermal Exploration
Project
Manggarai Barat Regency, Nusa Tenggara
Timur Province, Indonesia**



MARET 2019

GEUDP-WS-RPT-HSE-005-1 Waesano LARAP

Table of Contents

EXECUTIVE SUMMARY	IX
1. INTRODUCTION	1
1.1. BACKGROUND	1
1.2. SCOPE OF LARAP	1
1.3. REPORT STRUCTURE	2
2. DESCRIPTION OF THE PROJECT	3
2.1. PROJECT STATUS	3
2.2. PROJECT LOCATION	3
3. POTENTIAL IMPACTS	6
3.1. PROJECT COMPONENTS REQUIRE LAND	6
3.2. SCOPE OF IMPACTS	9
3.3. VULNERABLE PEOPLE	10
3.4. SEVERELY PAPs	10
3.5. SHARECROPPERS	10
4. SOCIO ECONOMICHOUSEHOLD SURVEY OF THE PROJECT AFFECTED PERSONS	17
4.1. Stakeholder Interview and Households Socio Economic Survey of the PAPs	17
4.2. Overview on the Result of Households Socio Economic Survey	18
4.3. Demographic Characteristic of PAPs	19
4.3.1. Age and Gender Distribution	19
4.3.2. Education	19
4.4. Economic Condition and Livelihoods	20
4.4.1. Livelihoods of the PAPs	20
4.4.2. Land Tenure and Land Use	22
4.4.3. Level of Welfare	23
4.5. HOUSING CONDITION	25
4.6. COMMUNITY PERCEPTION	26
4.6.1. Participation in Socialization	26
4.6.2. Knowledge of the Project	27
4.6.3. Concern toward the Project Land Acquisition	27
4.6.4. Willingness for Land Acquisition	28
4.6.5. Knowledge of the Project Grievance Process	29
5. LEGAL ANALYSIS	30
5.1. INDONESIA LAW AND REGULATIONS	30
5.1.1. Land Acquisition	30
5.1.2. Forestry Land Use	32
5.1.3. Other Related Regulations	33
5.2. WORLD BANK SAFEGUARDS POLICY ON LAND ACQUISITION	34
5.3. WORLD BANK POLICY ON GENDER	35
5.4. SMI GEUDP ESMF ON RESETTLEMENT POLICY	36
6. PROJECT ENTITLEMENT, ASSISTANCE AND BENEFICIAL MEASURES	43
6.1. GENERAL APPROACH	43
6.2. LAND ACQUISITION AND RESETTLEMENT SCHEMES	43
6.2.1. Resettlement of Individually-Owned Land and Assets	44
6.2.2. Land Acquisition of Access Road Widening Area	44
6.2.3. Non-Individually Owned Asset	45
6.3. ELIGIBILITY, CUT-OFF DATE, AND ENTITLEMENT OF COMPENSATION	45

7. VALUATION OF ASSETS AND CALCULATION OF COMPENSATION FOR LOSSES	49
7.1. VALUATION OF ASSETS	49
7.1.1. Compensation for Land Lease	50
7.1.2. Compensation of Non-Individually Owned Asset	50
7.1.3. Entitlement to Vulnerable and Severely PAPs.....	50
7.2. CALCULATION OF COMPENSATION	51
8. CONSULTATION, PARTICIPATION AND INFORMATION DISCLOSURE	52
8.1. CONSULTATION AT PRIOR TO PREPARATION OF LARAP DOCUMENT.....	52
8.2. CONSULTATION/SOCIALIZATION DURING PREPARATION OF LARAP DOCUMENT	53
8.3. DISCLOSURE	55
9. ORGANISATIONAL ARRANGEMENT AND RESPONSIBILITIES	56
10. IMPLEMENTATION SCHEDULE.....	58
11. COST AND BUDGET.....	61
11.1. COMPENSATION COST	61
11.1.1. Estimated Compensation for Land.....	61
11.1.2. Estimated Compensation for Affected Secondary Structure.....	61
11.1.3. Estimated Compensation for Affected Plants/Trees.....	61
11.1.4. Estimated Compensation for Forestry Land.....	61
11.1.5. Livelihood Restoration Budget	62
11.1.6. Budget for Land Certification.....	62
11.2. TOTAL BUDGET FOR IMPLEMENTATION OF LARAP	62
12. GRIEVANCE REDRESS MECHANISM.....	64
13. MONITORING AND REPORTING	67
14. BIBLIOGRAPHY	68
APPENDIX A QUESTIONNAIRE FORM.....	69

Figures

Figure 2-1 Proposed Waesano Project Exploration Facilities.....	5
Figure 3-1 Waesano Exploration Project Area of Interest (AOI) and Social Impact Zone.....	8
Figure 9-1 Project Management Unit (Jakarta Based)	57
Figure 9-2 Exploration Site Team	57
Figure 12-1 Grievance Redress Mechanism.....	66

Tables

Table 3-1 Land Requirement.....	6
Table 3-2 Scope of Impacts.....	9
Table 3-3 Vulnerable and Severely PAPs.....	11
Table 3-4. List of Project Affected Peoples (PAPs).....	13
Table 4-1 Stakeholders Interview during LARAP Study	17
Table 4-2 Age of Project Affected Peoples (PAPs).....	19
Table 4-3 Gender of PAPs.....	19

Table 4-4. Education Level per Gender Category	19
Table 4-5. Occupation of the PAPs.....	20
Table 4-6 Education and Occupation of the PAPs Affected by Well Pad and Main Facilities	21
Table 4-7 Education and Occupation of the PAPs Affected by Access Road Widening	21
Table 4-8. Livelihood of the Affected Household	21
Table 4-9 Average Land Ownership Area	23
Table 4-10 Average Land Ownership	23
Table 4-11. Expenses per Capita	24
Table 4-12. Income per Capita	24
Table 4-13 Social Assistance Programs	24
Table 4-14 Land Status	25
Table 4-15 House Building Condition	26
Table 4-16. PAPs Participation in Project Socialization	26
Table 4-17. PAPs Knowledge of Planned Project and Land Acquisition Plan.....	27
Table 4-18 PAPs Concern toward the Land Acquisition Plan	28
Table 4-19.PAPs Willingness for Land Acquisition	28
Table 4-20 Knowledge of Project Grievance Mechanism	29
Table 5-1 Gap Analysis	37
Table 6-1 Entitlement for the Project PAPs.....	46
Table 7-1. Replacement COst Assessment Using Indonesia's Valuation Approaches	49
Table 8-1 Consultation Prior to Preparation of LARAP Document	532
Table 8-2 Consultation /Socialization During Preparation of LARAP Document	533
Table 9-1 Roles and Responsibility of the Project Land Acquisition Process	56
Table 10-1 Land Acquisition Schedule	58
Table 11-1 Total Budget for Implementation of LARAP	62

Abbreviation

AMDAL	<i>Analisis Mengenai Dampak Lingkungan</i> Environmental Impact Assessment
AOI	Area of Interest
BG	<i>Badan Geologi</i> Geological Unit
BPN	<i>Badan Pertanahan Nasional</i> National Land Agency
BPS	<i>Badan Pusat Statistik</i> Central Bureau of Statistics
CDP	Community Development Program
CSR	Corporate Social Responsibility
Ditjen EBTKE	<i>Direktorat Jenderal Energi Baru Terbarukan dan Konservasi Energi</i> Directorate-General of New Renewable Energy and Energy Conservation
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EST	Exploration Site Team
FGD	Focus Group Discussion
GEUDP	Geothermal Energy Upstream Development Project
GIS	Geographical Information System
GRM	Grievance Redress Mechanism
HR	Human Resource
IDR	Indonesian Rupiah
IPPKH	<i>Ijin Pinjam Pakai Kawasan Hutan</i> Borrow and Use Permit of Forestry Area
KJPP	<i>Kantor Jasa Penilai Publik</i> or certified public appraisal
LARAP	Land Acquisition and Resettlement Action Plan
LAT	Land Acquisition Team
LRP	Livelihood Restoration Program
MAPPI	<i>Masyarakat Profesi Penilai Indonesia</i> Indonesian Society of Appraisers
MEMR	Ministry of Energy and Mineral Resources
NJOP	<i>Nilai Jual Objek Pajak</i> or Sale Value of Taxation Object
OP / BP	Operational Policy / Bank Procedures
PAPs	Project Affected People
PIB	Project Information Booklet
PMU	Project Management Unit
PNPB	<i>Penerimaan Negara Bukan Pajak</i> Non-Tax Government Income
PR	Presidential Regulation
SEP	Stakeholder Engagement Plan
SKBPT	<i>Surat Keterangan Bukti Kepemilikan Tanah</i> or Letter of Land Ownership Reference
SKT	<i>Surat Keterangan Tanah</i> or Reference Letter for Land Ownership
SMI	Sarana Multi Infrastruktur
SPPT PBB	<i>Surat Pemberitahuan Pajak Terhutang Pajak Bumi dan Bangunan</i> or Notification of Tax Liability for Land and Building Tax



SPI 204	Indonesia Valuation Standards 204
UKL	<i>Upaya Pengelolaan Lingkungan</i> or Environmental Management Effort
UPL	<i>Upaya Pemantauan Lingkungan</i> or Environmental Monitoring Effort
USD	United Stated Dollar

Definition of Terms

Project Affected persons (PAPs)/ Community/ Households (AHs)	Refers to any person or persons, customary or local community, private or public institution who are displaced (physical or economic) as result of temporary impacts during construction, restriction on land use or on access to legally designated parks and protected areas. The affected community/ households/ person is those who utilize, control, or possess the affected land or non-land objects.
Compensation	Payment in cash or in kind (e.g. land-for-land) to replace losses of land, housing, income and other assets caused by the Project. All compensation is based on the principle of replacement cost, which is the method of valuing assets to replace the loss at current market value, and any transaction costs such as administrative charges, taxes, registration and titling costs. In the absence of functioning markets, a compensation structure is required that enables affected people to restore their livelihoods to level at least equivalent to those maintained at the time of dispossession, displacement, or restricted access.
Cut-off date	Cut-off date is the date the census begins. The cut-off date could also be the date the project area was delineated, prior to the census, provided that there has been an effective public dissemination of information on the area delineated, and systematic and continuous dissemination subsequent to the delineation to prevent further population influx.
Eligibility	Refers to any person who has settled in the subproject area before the cut-off date that suffers from (i) loss of shelter, (ii) loss of assets (land, space above and below the surface of the land, buildings, plant, and objects related to the land) and/or or ability to access such assets, permanently or temporarily, or (iii) other losses that can be appraised. such as transaction costs, interest, on loss of residual land, loss of income sources or livelihood regardless of relocation, profession shift, and other types of loss stated by the assignor, will be entitled to compensation and/or assistance).
Entitlement	A range of measures comprising compensation, income restoration support, transfer assistance, income substitution, relocation support, etc. which are due to the AHs, depending on the type and severity of their losses, to restore their economic and social base.
Livelihood Restoration Program	<p>This involves re-establishing productive livelihood of the displaced persons to enable income generation equal to or, if possible, better than that earned by the displaced persons before the resettlement.</p> <p>This is a program designed with various activities that aim to support affected persons to recover their income / livelihood to pre-subproject levels. The program is designed to address the specific needs of the affected persons based on the socio-economic survey and consultations.</p>
Involuntary resettlement	<p>Refers to physical and economic displacement as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. Such displacement can be full or partial, permanent or temporary.</p> <p>When the displaced persons have no right to refuse the land acquisition by the state that result in their displacement. This occurs when land is acquired through (i) expropriation by invoking the eminent domain power of the state, or (ii) land is acquired through negotiated settlement when the pricing is negotiated in a</p>

	process where expropriation will be the consequence of a failure in the negotiation.
Land acquisition	The process where an individual, household, firm or private institution is compelled by an agency needing land for public interest to alienate all or part of the land it owns or possesses to the ownership and possession of that agency in return for compensation at replacement costs.
Meaningful Consultation	A process that (i) begins early in the project preparation stage and is carried out on an on-going basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.
Negotiated Land Acquisition	The agency in need of land can carry out land acquisition directly with the respective owners through negotiation based on the result of appraisal by an Appraiser or a Public Appraiser for the sake of efficiency. ¹
Rehabilitation	Assistance provided in cash or in kind to project APs (especially the vulnerable) due to the loss of productive assets, incomes, employment or sources of living, to supplement payment of compensation for acquired assets, in order to achieve, at a minimum, full restoration of living standards and quality of life.
Relocation	The physical displacement of an AP from her/his pre-project place of residence and/or business.
Severely impacted persons	Those who experience significant/major impacts due to (i) losses of 10% or more of their total productive land, assets and/or income sources due to the project; and/or (ii) relocation due to insufficient remaining residential land to rebuild.
Vulnerable groups	Distinct groups of people who might suffer disproportionately or face the risk of being marginalized by the effects of resettlement and specifically include: (i) households headed by women, elderly, or disabled, (ii) households falling under the generally accepted indicator for poverty, (iii) landless households, and (iv) ethnic minorities.

¹ Per Regulation No. 6 of 2015 of the National Land Agency (*Peraturan Menteri Agraria dan Tata Ruang/Kepala Badan Pertanahan Nasional Nomor 6 Tahun 2015 tentang Perubahan atas Peraturan Kepala Badan Pertanahan Nasional Nomor 5 Tahun 2012 tentang Petunjuk Teknis Pelaksanaan Pengadaan Tanah*) paragraph 53, and Presidential Decree of the Republic of Indonesia Number 4 Year 2016 Concerning the Acceleration of Development of Electricity Infrastructures Article 34

Executive Summary

1. PT Sarana Multi Infrastruktur (SMI) is appointed by the Ministry of Finance (MoF) of Indonesia as the implementing agency for Waesano Geothermal Exploration Project, located in Waesano Village, at Manggarai Barat Regency of Nusa Tenggara Timur Province (hereafter referred as “the Project”). The Project is part of government-sponsored exploration-drilling program in partnership with the World Bank under the Geothermal Energy Upstream Development Project (GEUDP).
2. This Land Acquisition and Resettlement Action Plan (LARAP) is prepared as part of PT SMI commitment to meet the GEUDP Environmental and Social Management Framework (ESMF) for sub-projects require involuntary land acquisition. The objective of this LARAP is to assess the scope of impacts from the Project land requirements, while providing guidance on the approach to land acquisition implementation for the Project. Description of the Project land acquisition and resettlement scheme will be discussed in terms of how it will be managed, either through land leases of individually-owned land, or borrow and use, and how this should be implemented to adhere to GoI laws and regulations, as well as GEUDP ESMF, with reference to the World Bank Operational Policy 4.12 on Involuntary Resettlement.
3. Summary of the Project land acquisition and resettlement scope of impacts as follow:
 - Land lease of 88 land parcels of approximately 170,872 m² large area affecting 62 people/ household for the main exploration area of the Project (including well pad and its supporting facilities);
 - Compensation of 35 parcels of approximately 6,685 m² to 20 PAPs will be affected by the access road widening;
 - A total of five(5) land parcels of the non-individually owned asset of forestry, village government, and community of Nunang; and
 - About 23,479 of plants and trees above the land, as well as six (6) units of plantation hut will be affected.
4. Household Socio Economic Survey is conducted to gather socio-economic baseline information of the Project affected people (PAPs) and their household's data. It was conducted to 68 of 82 (83%) of PAPs, while remaining 14 PAPs were not available to interview during the time of survey was conducted. Detailed measurement survey (DMS) will be conducted by West Manggarai District Land Office (Kantor ATR/BPN Kabupaten Manggarai Barat) in order to verify measurement result from cadastral survey of affected land, identification and inventory of non-land asset affected and ensure all was free from any ownership dispute the owners. The owners of the land and other affected assets will be involved during DMS. The DMS results will be used as final reference for payment of compensation and leasing.
5. Among others, this report also identifies 63 PAPs categorized as vulnerable and severely impacted including as follow:
 - 42 people of women head of household, elderly head of household, and those living below the regional poverty line are identified as vulnerable group; and
 - 58 people experience severely impacts including 10% or above of loss of land and income.
6. For the implementation of the Project land acquisition process, a set of regulatory requirements and best practices standards are also presented to provide guidance of the Project minimum obligation for compensation of land at full replacement values, as presented in Section 5 of this report. Meanwhile large part of entitlement and calculation of land compensation will be conducted under the MAPPI's SPI 204, which defines provision of compensation for both, physical and non-physical objects that reflects the replacement cost as required by the PRF (ESMF).
7. Eligibility, cut-off date, and entitlement for each of the affected people are summarised as follow:

- PAPs eligible for compensation including persons with formal legal rights to the loss land in its entirety or in part; those who have no formal ownership rights to such land, but who have claims to such lands that are recognized or recognizable under national laws e.g. through tax payment; persons cultivated the lands of over 10 years and planted the loss land; however do not have claims to the land; and institutions have rights over the loss land under Indonesia Law;
 - The cut off date refers to the date when cadastral measurement is completed, which is at 31 August 2018 which has been disseminated to PAPs during socialization of land acquisition.. This step is necessary to anticipate issues related to compensation, potential opportunistic behaviour and other potential negative impacts. After the cut-off date, those who encroach into the project area, or any of its subprojects, will not be entitled to compensation or any other assistance;
 - Compensation, Valuation, and Assistance. An entitlement matrix has been prepared to cover any losses and compensation as well as assistance to be provided for the PAPs. Compensation, leasing and assistance will be provided in cash or other forms as agreed by the PAPs and PT SMI for affected farmlands, secondary structures, and trees, and crops at replacement cost, as determined by an independent appraiser, without depreciation. Assistance is continuously ongoing, extended through PT SMI's Corporate Social Responsibility unit to cover livelihood/income restoration activities.
8. Implementation budget will cost approximately **IDR 10, 615,584,753,-** or **USD 758,256,-** including for land lease with compensation of affected structure and plants above the land, also livelihood restoration program planning and operational cost of the land acquisition implementation.
 9. Participation and Disclosure. Series of consultations were held with all affected communities and PAPs, district and subdistrict local governments and down to the village level as coursed through community leaders (*tua golo*). Issues, concerns and suggestions raised by the communities were noted and incorporated into the development of this LARAP document. Following approval from the World Bank, the LARAP document will be generated and produced in a timely manner, and posted in both World Bank's and PT SMI's websites, and at any locally accessible place in a form and language understandable to the affected communities and other stakeholders. The project information will be made available to affected communities as leaflets or brochure in Bahasa Indonesia.
 10. The implementation of this LARAP will involve across units in the internal PT SMI and the Project's Team, including PMU Safeguard Team, Social Specialist, Exploration Site Team (EST) – in particular Site Manager and Community Relations Officer. Externally, in collaboration of SMI PMU Safeguard Team and the EST will liaise with the government of Manggarai Barat Regency throughout the whole land acquisition process within the proposed schedule presented in Section 10 of the report.
 11. As part of stakeholder engagement strategy a grievance redress mechanism (GRM) which can be accessed by PAPs has been developed and disclosed to PAPs during socialization. In the field level, an agrieved people can be lodged their complaints or grievance through drop box (which available in each sub-village and subdistrict office) and /or through specific mobile number managed by PMU. This GRM will be further disseminate to communities through distribution of booklet and put on the public facilities in each sub village. Regular grievance management reports will be produced and included in the periodic environmental and social management and monitoring implementation report.
 12. .PMU Safeguards Team will undertake periodic monitoring of the implementation of the LARAP implementation components. Independent monitoring to review and evaluate the implementation of land acquisition will be conducted if deemed necessary. Implementation report will be developed at the final end of the land acquisition process which will be submitted to the ministry of Finance and World Bank.

1. Introduction

1.1. Background

1. With the identified potential for geothermal energy in Indonesia, the Government of Indonesia has set up a government-sponsored exploration-drilling program in partnership with the World Bank under the Geothermal Energy Upstream Development Project (GEUDP), to manage barriers of geothermal power development due to large risk and prohibitive costs associated with exploring the resource. PT Sarana Multi Infrastruktur (Persero) ("SMI") will be one of the implementing agencies for the program based on the assignment from the Ministry of Finance of Indonesia. From a technical point of view, the Ministry of Energy and Mineral Resources (MEMR) under the Directorate General of Renewable Energy and Energy Conservation (Ditjen EBTKE) and the Geological Unit (Badan Geologi – BG) will take part actively in the program. The program will be focused on green field areas in the eastern part of Indonesia.
2. Based on a recommendation from the MEMR, SMI proposes the first geothermal exploration site at Waesano Village on Manggarai Barat Regency, Flores Island (hereafter referred as "the Project"). The Waesano Geothermal Exploration Project is one of several projects planned by the Government to facilitate the exploration phase and deliver data to the market on exploitable geothermal resources. The activities would be carried out to accelerate renewable energy development in Indonesia and to promote sustainable development in the energy sector.
3. Following the Project plan to seek funding from the World Bank, AECOM was previously commissioned to develop an Abbreviated (Preliminary) Land Acquisition and Resettlement Action Plan (LARAP) to meet the World Bank requirements for managing land acquisition and involuntary resettlement, as has been adopted by SMI in its GEUDP Environmental and Social Management Framework (ESMF) for Geothermal Energy Upstream Development Project, which includes Resettlement Policy Framework (RPF). Since during that time the Project is still at the design stage and detailed information regarding the required land for its development was not yet available, the Preliminary LARAP as part of the ESIA document was developed as an initial assessment based on general information without directly consulting with the project affected people. It was agreed with the World Bank that the LARAP would be updated at a later stage of the Project once the requirements of land and location for each of the Project facilities had been confirmed.
4. In July 2018 the Project conducted a cadastral survey and land ownership boundary assessment on the confirmed Project location. Cadastral measurement was conducted by census involving the owners of affected assets and accompanied by village staff, measuring boundary of land to be used for project and inventory non-land assets on the affected land. AECOM was recommissioned to undertake the update LARAP, the inventory of losses refer to cadastral measurement result and a socio-economic household survey to the affected households. Further discussion on this report's objectives, scope of land acquisition and resettlement, as well as approach and study limitations are provided in the following sections.

1.2. Scope of LARAP

5. This LARAP is prepared by referring to the final design for:
 - Project area (well pad and supporting facilities: base camp, drilling water treatment facility, contractor camp and spoil d
 - isposal area)
 - Widening of the district road to project area, in which there will be widening in 23 spots of the road for the mobilization of the heavy vehicles and materials.

Specifically, this LARAP ensures that the land acquisition will be avoided, minimized, mitigated or compensated through the process of social assessment as part of the environmental and social impact assessment. PT SMI will refer to the requirements of the Gol regulation and World Bank OP 4.12 on Involuntary Resettlement as set up in the RPF (of the ESMF) to avoid, remedy or mitigate the impacts as part of this process

1.3. Report Structure

6. This LARAP is structured as follows:

- Section 1: Introduction of the report, background; objectives and report structure;
- Section 2: Description of the Project and overview of the land requirements as part of project description for the current exploration stage;
- Section 3: Potential Impacts identified the scope of area and land required for the Project development;
- Section 4: Census of the Project Affected Persons (Project Affected People) discusses the general approach and desktop review and household census for undertaking the LARAP study, including activities conducted when developing the Preliminary report, baseline information of the affected people, including their household characteristics, economic situation and livelihood, land status and land tenure system, and perception;
- Section 5: Legal Analysis provides the regulatory framework and applicable standards used for the Project to procure land for the current exploration stage;
- Section 6: Project Entitlement, Assistance and Beneficial Measures describes the confirmed scope and process of land acquisition and resettlement specific for the current exploration stage of the Project;
- Section 7: description of procedure and mechanism followed for the valuation of assets and calculation of compensation;
- Section 8: Consultation, Participation and Information Disclosure describes historical stakeholder engagement undertaken to date, and recommendation for future and ongoing stakeholder engagement of the LARAP implementation;
- Section 9: Organisational Arrangement and Responsibilities presents organisational arrangement and responsibilities for different schemes of land acquisition and resettlement processes on main facilities and road widening;
- Section 10: Implementation Schedule provides indicated time schedule for the LARAP implementation;
- Section 11: Cost and Budget reports on the estimated cost and budget to procure the land as well as to implement livelihood restoration;
- Section 12: Grievance Redress Mechanism includes the Project grievance mechanism to handle grievances associated with the land acquisition implementation; and
- Section 13: Monitoring and Reporting describes the Project plan for undertaking regular monitoring of the land acquisition process and livelihood restoration of the affected people.

2. Description of the Project

2.1. Project Status

7. The Waesano Geothermal Exploration Project is intended to facilitate investments in geothermal energy and to provide technical assistance and capacity building for geothermal exploration. The focus of the Project will be on the geothermal power development market on Flores Island, where electrification rates are lowest, poverty rates are highest and electricity generation is heavily reliant on diesel. Investing in geothermal power is expected to have long-term benefits for Indonesia's sustainable development, electricity generation diversification and energy security.
8. To utilise geothermal energy, production wells are drilled down into the heated water contained within the Earth's crust - the geothermal reservoir. Once these geothermal reservoirs are tapped into, the heated water and steam rise to the surface where the steam is separated and used to power steam turbines, which then generate mechanical energy that can be harnessed as electricity. Brine and condensate are returned via reinjection wells back to the geothermal reservoir.
9. The Project's name under some reports is referenced as The Waesano Geothermal Exploration Project², while the Sano Nggoang name is used in other documents such as the Spatial Planning of Manggarai Barat Regency as well as some segments of the Screening Report. The name of Waesano³ refers to the name of the village where the project was first initiated, while Sano Nggoang is the name of the lake, which is also used as the name of the village and sub-district. Although both "Waesano" and "Sano Nggoang" are used interchangeably in the references, this document will use "Waesano" as the name of the project.
10. The Waesano Project will cover the exploration phase of geothermal development, including permitting and field survey, land acquisition, workforce recruitment, land clearing and preparation, equipment and material mobilization, access road improvement, infrastructure and well pad development, exploration drilling, well testing, site closure, and site restoration and revegetation. The Project is still in the planning phase and layouts and operations may change according to the ongoing evaluation. Currently, the exploration activities will be carried out within a maximum area of 1.5 ha for the slimhole drilling well pad and 2.5 ha for a standard drilling well pad, with the depth of each well reaching 1,500 – 2,500 meters. The exploration activities will be divided into Phase 1 and Phase 2. Phase 1 will include three slimhole drillings selected at Well Pad A, B, or E. The scope of activities in Phase 2 will include one standard hole drilling at any selected well pad after Phase 1 is completed. Alternative locations for well pads have been prepared to anticipate potential Project change. The estimated total land requirement for project development is presented in Section 2.3.2.
11. It is understood that geothermal exploitation is a separate development phase that will not be part of the Waesano Geothermal Exploration project. The nature and scale of the exploitation phase is not well understood at the time of the preparation of this LARAP. If the drilling concludes that the geothermal resource is sufficient for energy production, and there is sufficient demand for additional electricity generation on Flores, the resource could be developed. This development will occur beyond the life of the Waesano Geothermal Exploration project. Land acquisition is included as one of project activities for the exploitation phase.

2.2. Project Location

12. The Waesano Geothermal Exploration Project is primarily located in Waesano Village in Sano Nggoang Sub-district, Manggarai Barat Regency of East Nusa Tenggara Province, Indonesia. This includes the proposed 4 well pads areas of WS-A, B, D, and E, and main facilities. The total size of the proposed geothermal exploration activity is approximately 10 km² situated in the area surrounding Lake Sano Nggoang, a 2.5 km diameter sulfuric crater lake in the center of Mount Waesano, on the southwest corner of Flores Island. The

²Terms of Reference for Waesano Project, RFP, 2016; GEUDP Social and Environmental Safeguards Screening of Potential Sites for Geothermal Development in Eastern Indonesia – Screening Report for Waesano, March 2016

³According to Central Bureau of Statistics (*Badan Pusat Statistik*), the written form of the village name uses 2 words – "Waesano". The name of the geothermal project will use "Waesano" as one word.

Project location map is shown in Figure 2-1 below.

13. Although the location is only about 35 km east of Labuan Bajo, the capital of Manggarai Barat Regency, because of poor road conditions in the last 23 km to the site, it takes around two to three hours to reach the project location. The asphalt road from Labuan Bajo to Wae Lolos, the entry point to Werang, which is the capital of Sano Nggoang Sub-district, is in good condition, though there are some potholes found on the road from Wae Lolos to Werang. The road from Werang to the lake is in poor condition.
14. Waesano Village is connected by Trans Flores Road from Labuan Bajo Port to the main Manggarai Barat district road, and local village access road. The main road (Trans Flores Highway) is an asphalt road that is 38 km and 6m wide; the existing local access road connecting main road and project site is also an asphalt road at 23 km and 2 m wide. Some upgrading and road widening work is planned along these roads to allow transporting drilling rig and its supporting equipment.



3. Potential Impacts

3.1. Project Components Require Land

15. The footprints for the well pads, base camp, drilling water treatment facility, contractor camp and spoil disposal area for the Project are located in Lempe, Nunang and Dasak Sub-villages of Waesano Village, Sano Nggoang Sub-district, Manggarai Barat Regency. In addition, since the local roads cannot accommodate project traffic without substantial upgrades and due to the fact that project traffic has the potential to impact community amenities and safety, the project will involve road improvement and construction of several bridges, a new district road bypass as well as several district roads widening efforts.
16. The list of the Project exploration facilities that require land area acquisition is as follows, as reported in the Final Cadastral Survey (Land Ownership Survey, conducted by Jacobs) Report (also seen in Figure 3-1):
 - Well pad WS-A (slim hole) and WS-A (standard hole), including Laydown Area, Civil Contractor Camp, Spoil Disposal Area No. 3, and Drilling Water Treatment Area 1;
 - Well pad WS-B (slim hole) and WS-B (standard hole), including Construction Laydown Area;
 - Well pad WS-D (slim hole) and WS-D (standard hole), including Spoil Disposal Area No. 1, and New Bypass of District Road to Well pad WS-D (slim hole);
 - Well pad WS-E (slim hole) and WS-E (standard hole), including Spoil Disposal Area No. 2 and District Road to Well Pad WS-D;
 - Drilling Base Camp Area (slim hole) and Drilling Base Camp Area (standard hole), include Drilling Water Treatment Area 2 and Road Junction to Well pad WS-D and Drilling Water Treatment Area 2;
 - Spoil Disposal Area No. 4, Spoil Disposal No. 5, and Spoil Disposal No. 6;
 - Cut and filled at Km 27.4 Trans Flores Public Road; and
 - Existing District Road widening at STA 0+740, STA 1+300, STA 2+050, STA 2+450, STA 3+820, STA 5+500, STA 5+580, STA 6+590, STA 6+730, STA 7+080 to STA 7+280, STA 7+370, STA 10+430, STA 12+640, STA 12+690, STA 17+420, STA 17+660, STA 18+830, STA 19+000, and STA 21+350.
17. The total area for the proposed well pads and supporting facilities is approximately 17.76 hectares, with a total of 123 affected land parcels. The details of each area are provided in Table 3-1.

Table 3-1 Land Requirement

Project Facilities	Estimated Area of Land Requirement (m ²)*	Affected Land Parcels
Well pad WS-A (slim hole and standard hole), Laydown Area, Civil Contractors Camp, and Spoil Disposal Area No. 3	44,253.923	27
Drilling Water Treatment Area 1	2,165.547	3
Well pad WS-B (slim hole and standard hole) and Laydown Area	28,446.089	27
Well pad WS-D (slim hole and standard hole)	23,909.36	1
Spoil Disposal Area No. 1	11,239.86	2
New Bypass Road to WS-D (STA 1+100)	1,738.66	1
Well pad WS-E (slim hole and standard hole) and Spoil Disposal Area No. 2	33,460.45	8
Drilling Base Camp Area (slim hole and standard hole)	8,351.914	6
Drilling Water Treatment Area 2	2,415.165	1

Project Facilities	Estimated Area of Land Requirement (m ²)*	Affected Land Parcels
Road Junction to Drilling Water Treatment Area 2 and to Well pad WS-D	820.237	3
Spoil Disposal Area No. 4	5,296.256	5
Spoil Disposal Area No. 5	3,711.171	3
Spoil Disposal Area No. 6	5,064.248	1
Public Road upgraded to WS-D (STA 0+330)	266.983	1
Public Road upgraded to WS-D (STA 0+700)	667.187	1
Existing Trans Flores Public Road widening at KM 27.4	317.690	1
Existing Public Road widening at STA 0+740	112.063	1
Existing Public Roads widening at STA 1+300	495.381	2
Existing Public Roads widening at STA 2+050	48.861	1
Existing Public Roads widening at STA 2+450	497.434	2
Existing Public Roads widening at STA 3+820	104.968	1
Existing Public Roads widening at STA 5+500	114.474	1
Existing Public Roads widening at STA 5+870	105.852	2
Existing Public Roads widening at STA 6+590	114.344	1
Existing Public Roads widening at STA 6+730	95.160	1
Existing Public Roads widening at STA 7+080 to STA 7+280	617.838	5
Existing Public Roads widening at STA 7+370	748.116	1
Existing Public Roads widening at STA 10+430	28.368	1
Existing Public Roads widening at STA 12+640	54.794	1
Existing Public Roads widening at STA 12+690	354.335	1
Existing Public Roads widening at STA 17+420	52.749	2
Existing Public Roads widening at STA 17+660	46.738	1
Existing Public Roads widening at STA 18+830	885.816	4
Existing Public Roads widening at STA 19+000	545.054	2
Existing Public Roads widening at STA 21+350	411.345	2
TOTAL	177,558.43	123

Source: Final Land Ownership Survey Report (Jacobs, September 2018)

*The estimated area is taken from cadastral survey drawings based on current landownership status. The West Manggarai Land Office (BPN Kabupaten Manggarai Barat) will conduct detailed measurement of affected assets to be used as final reference for payment.

- For the next stage, the exploitation phase, the geothermal power plant operation will require land acquisition for the main facility including the power house, operation control room, cooling tower, steam pipelines, access road and supporting facilities including a switchyard, transmission line, etc. The power plant will require a maximum of 1 ha, irrespective of the generation technology selected (binary plant normally has a larger footprint than condensing steam plant, but either should fit within this 1 ha area). It is most likely that access will be by extension from an existing well pad and, given the rugged topography, this will require approximately 3 km of new road to be constructed. This, however, will only be confirmed once the Project exploration phase is completed. A separate LARAP will be prepared for any acquired land or other assets needed if exploitation is proposed.

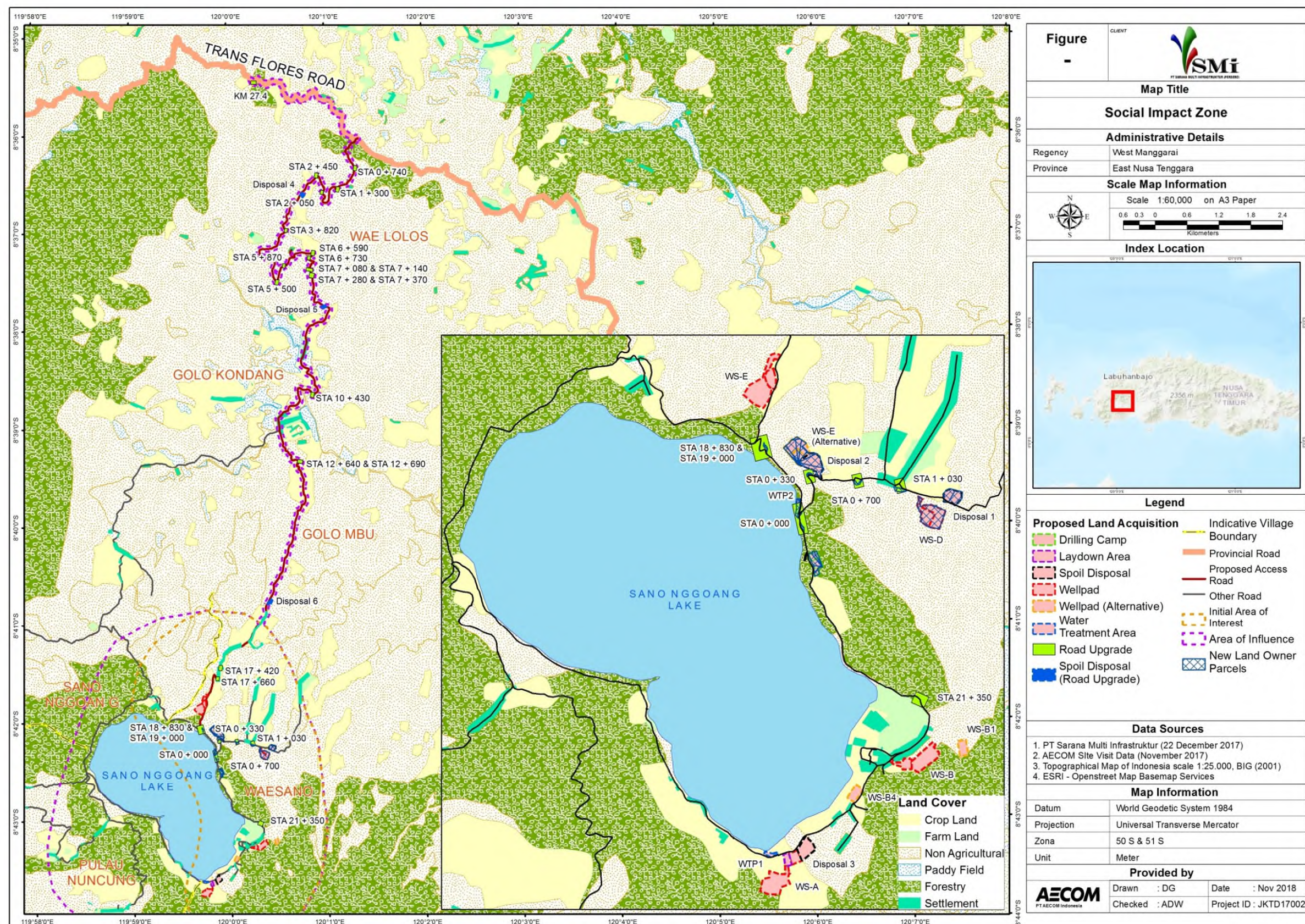


Figure 3-1 Waesano Exploration Project Area of Interest (AOI) and Social Impact Zone

3.2. Scope of Impacts

19. Data of PAPs and their losses mentioned in this LARAP refer to cadastral measurement result. The cadastral measurement was carried out to determine boundary of area needed for project area, including access road. The cadastral survey was conducted by census involved the owner of affected assets and accompanied by village staff, measured boundary of land to be used for project and inventory of non-land asset on the affected land. Measurement of land by cadastral will be verified by District National Land Office (BPN) of West Manggarai District, an agency who has authority to issue formal land measurement result. Verification by BPN also carried out to ensure that the affected land is free from any ownership dispute. The verification result by BPN will be used as a reference for eligibility for payment of compensation of the affected land for road widening and leasing for the affected land in main project area.
20. An socio economic households survey was carried out by AECOM in September 2018 to get information on the land ownership status and socio economic condition of PAPs in order to determine severity and vulnerability of PAPs. Socio economic household survey was conducted to 68 of 82 (83%) of PAPs, the other 14 PAPs were not available during the time of survey.
21. According to the cadastral measurement and socio economic households survey it was identified a total of 82 project affected peoples who owned 123 parcel of land, 1 communal land and 4 village land will be affected by project. Of 62 PAPs from the total 82 PAPs will be temporary affected by well pad and project facilities, while remaining 20 PAPs will be permanently affected or acquired for widening of access road. Table 3-2 provides the summary of scope of impacts.

Table 3-2 Scope of Impacts

Loss of Asset/PAPs	Unit	Quantity for Each Activity	
		Well pad and supporting facilities	Road Widening
Total affected land (temporary loss)	parcels m ²	88 170,872.88	35 6,685.55
Project Affected Peoples	Male HH Female HH	55 7	20 0
Forestry Land	parcels m ²	3 26,315.21	0 0
Communal Land	parcels m ²	1 909.76	0
Village Government Land	parcels m ²	3 531.07	1 237.90
Sharecroppers	Male HH Female HH	3 0	2 0
Affected secondary structures (i.e. hut)			
- Affected PAPs	Male HH Female HH	6 0	0 0
- Affected structures	hut unit	6	0
- Affected large area	m ²	38	0
Affected plants:			
Trees/Timbers	tree/plant number	4,460	39
Fruit Trees	tree/plant number	1,291	43
Annual harvested plantation	tree/plant number	9,645	13
Crops	tree/plant number	7,986	2
Vulnerable PAPs*:			
- Women	people/ HH	6	1
- Elderly	people/ HH	10	0
- Women head of household	people/ HH	5	0

- Elderly head of household	people/ HH	7	2
- Poor	people/ HH	31	3
Severely impacted PAPs*:			
- 10% or above loss of land	people/ HH	43	0
- 10% or above loss of income	people/ HH	43	3

Source: Final Land Ownership Survey Report (Jacobs, September 2018)

3.3. Vulnerable People

22. Some parties, identified as vulnerable parties, will be more affected by the Project land acquisition due to their current circumstances. The following categories of vulnerability were assessed according to cadastral measurement and socio economic household survey.

- Women head of household – among the identified female land owners, 5 women are head of household;
- Elderly head of household – among the identified elderly, 9 people are head of household; and
- Poverty identified from low welfare level –34 of PAPs living below the regional poverty line.

3.4. Severely PAPs

23. Severely PAPs refer to affected persons who will (i) lose 10% or more of their total productive assets, (ii) have to relocate, and/or (iii) lose 10% or more of their total income sources due to the project. According to cadastral census and socio economic households survey, it was identified severely PAPs are as follow :

- 43 people experience 10% or above loss of land – this is defined through comparing the total household land ownership with the loss of land affected by the Project; and
- 46 people experience 10% or above loss of income – this is defined through comparing the income generated from the affected productive agricultural land against the total household income. Of note, not all of the affected land is planted with productive plants therefore some generated income less than the others, while some PAPs depend on the affected land for their household income, resulting to significant loss of income i.e. 10% or above.

Table 3-3 below are presented detailed vulnerable and severely PAPs, while detailed name of PAPs and their losses are presented in table 3-4.

3.5. Sharecroppers

24. The LARAP study identified five affected PAPs who cultivate their fields with the help of sharecroppers, as follows:

- Land owned by Serpatius Senaman, whose land will be affected by well pad WS-B;
- Land owned by Paulus Din, whose land will be affected by well pad WS-B;
- Land owned by Flavianus Wely Daud, whose land will be affected by well pad WS-E;
- Land owned by Antonius Suhardi, whose land will be affected by road widening; and
- Land owned by Damianus Ndalung, whose land will be affected by road widening.

However, of note as identified from the ESIA and Preliminary LARAP, generally sharecroppers work on multiple land areas to meet their household needs. Therefore, the temporary land and income loss is not likely to significantly impact them. Confirmation of sharecroppers' data will need to be conducted during the ATR/BPN Verification PAPs data, which is planned to be conducted prior to land compensation payment

Table 3-3.Vulnerable and Severely PAPs

No	Name	Vulnerable Category			Severely Impacted Category	
		Women Head of Household	Elderly Head of Household	Poor	10% or above loss of land	10% or above loss of income
1.	Fianus Daud (Flavianus Wely Daud)			√	√	
2.	Petrus Lapur				√	
3.	Yohanes Krisostomus Purnama			√	√	√
4.	Yusup Usma			√	√	√
5.	Florianus Sonjo				√	√
6.	Sisilia Nawun	√		√	√	√
7.	Stefanus Rabu			√	√	√
8.	Usman Sidik				√	√
9.	Hendrikus Habur				√	√
10.	Arnoldus Viktor Terang				√	√
11.	Siprianus Sudarti				√	√
12.	Anastasia Anu	√		√	√	√
13.	Donatus Hana			√	√	√
14.	Ismail Sion			√	√	√
15.	Kristina Keros (a/n Petrus Samat)				√	√
16.	Martinus Madur			√	√	√
17.	Yohanes Bechemans Pedo				√	√
18.	Maksimus Mal				√	
19.	Tinus Baru			√	√	√
20.	Marhaul	√			√	√
21.	Eduardus F.H.W. Medang				√	
22.	Yohanes (Ian) Harung				√	√
23.	Nikolaus Olen			√	√	√
24.	Martinus Maksi			√	√	
25.	Fransiskus Toka Mose				√	
26.	Maria Margarita Muen (Martianus Madur in Jacob Report)				√	√
27.	Afentinus Swardi			√	√	√
28.	Marselus Sambul			√	√	
29.	Frederikus Janu			√	√	√
30.	Damasius Daman			√	√	
31.	Alosyus Huladarma			√	√	
32.	Mateus Aku			√	√	√
33.	Yusup Saban			√	√	
34.	Andreas Jebarus				√	√
35.	Mustami				√	√

No	Name	Vulnerable Category			Severely Impacted Category	
		Women Head of Household	Elderly Head of Household	Poor	10% or above loss of land	10% or above loss of income
36.	Maksimus Hambur				√	√
37.	Aloysius Datut		√		√	√
38.	Markus Masi			√	√	√
39.	Nico Gego		√		√	√
40.	Damianus Daud (Damidau)			√	√	
41.	Yosep Ance			√	√	√
42.	Belasius Sijaga				√	√
43.	Serpatus Senaman				√	
44.	Siprianus Jalu			√		√
45.	Raimundus Rabu		√			√
46.	Maria Mia					√
47.	Valentinus Emang			√		√
48.	Yoseph Erwin Rahmat			√		√
49.	Kanis Hola					√
50.	Sisi Nalus	√				√
51.	Tomas Turuk		√	√		√
52.	Adrianus Handu		√	√		√
53.	Andrianus Stefani					√
54.	Yosep Subi			√		√
55.	Nikolaus Ambuk			√		√
56.	Damianus Ndalung		√			√
57.	Yohanes Aben			√		√
58.	Aloysius Sahu		√			√
59.	Maria Mia	√	√	√		
60.	Paulus Din		√			
61.	Petrus Samat			√		
62.	Sirilus Hamsi			√		
63.	Bernadus Jemalu			√		

Source: LARAP Study, 2018

Table 3-4 List of Project Affected Peoples (PAPs)

No ID Data	Land Owner	Land Affected for Development of Project Facilities	Affected Land (m ²)	Land Ownership Status	Total Household Large Area (m ²)*	Affected Structure	% of Affected Land*	% of Affected Income*
1	Tadius Tahun (a/n Anastasia Anu)	WS-A/Laydown Contractor Area/Civil	2,939.77	SKBPT	5,600.00	-	52.50	35.48
2	Eduardus F.H.W. Medang	WS-A/Laydown Contractor Area/Civil	1,370.79	SKBPT	1,371.00	-	99.98	9.52
3	Fransiskus Toka Mose	WS-A/Laydown Contractor Area/Civil	1,858.00	SKBPT	3,600.00	-	51.61	4.94
4	Nico Gego	WS-A/Laydown Contractor Area/Civil	4,112.00	SKBPT	11,480.00	-	35.82	10.72
5	Alosyus Huladarma	WS-A/Laydown Contractor, Water Treatment 1, Drilling Camp Area/Civil	13,321.11	SKBPT	22,810.00	-	58.40	5.05
6	Frans Ama	Water Treatment 1 & Drilling Camp	348.23	SKBPT	65,000.00	-	0.54	0.01
7	Yohanes (Ian) Harung	Water Treatment 1	3,335.07	SKBPT	3,335.00	-	100.00	44.57
8	Yoseph Erwin Rahmat	Drilling Camp	953.09	SKBPT	13,680.00	-	6.97	88.53
9	Donatus Hana	Drilling Camp	3,454.29	SKBPT	11,455.00	-	30.16	41.59
10	Yohanes Bechemans Pedo	Drilling Camp	1,915.93	SKBPT	10,526.44	-	18.20	22.20
11	Kanis Hola	Drilling Camp	152.70	SKBPT	2,000.00	-	7.64	52.00
12	Tinus Baru	Drilling Camp	323.27	SKBPT	1,188.25	-	27.21	25.54
13	Marhaul	Drilling Camp	1,662.64	SKBPT	3,912.00	-	42.50	72.07
14	Nikolaus Olen	Drilling Camp	1,864.00	No doc	1,864.00	-	100.00	90.57
15	Afentinus Swardi	Drilling Camp	1,866.27	SKBPT	1,866.00	-	100.00	89.35
16	Adrianus Handu	Drilling Camp	247.01	SKBPT	7,100.00	-	3.48	26.06
17	Marselus Sambul	Drilling Camp	437.12	SKBPT	437.12	-	100.00	100.00

No ID Data	Land Owner	Land Affected for Development of Project Facilities	Affected Land (m ²)	Land Ownership Status	Total Household Large Area (m ²)*	Affected Structure	% of Affected Land*	% of Affected Income*
18	Frederikus Janu	Drilling Camp	4,003.51	SKBPT	10,000.00	-	40.04	93.02
19	Mateus Aku	Drilling Camp	375.18	SKBPT	525.00	-	71.46	56.02
20	Damianus Daud (Damidau)	Drilling Camp	2,389.35	SKBPT	20,000.00	-	11.95	8.74
21	Yosep Ance	Drilling Camp	2,848.26	SKBPT	8,500.00	-	33.51	14.96
22	Belasius Sijaga	Drilling Camp	1,423.38	SKBPT	5,720.00	-	24.88	27.05
23	Aleksander Lambut	WS-B	47.32	No doc	2,100.00	-	2.25	0.57
24	Siprianus Jalu	WS-B	912.38	SKBPT	11,625.00 1,954.00	-	7.85	76.56
25	Petrus Lapur	WS-B	1,094.69	SKBPT	1,954.00 3,800.00	-	56.02	0.00
26	Yohanes Krisostomus Purnama	WS-B	1,890.71	SKBPT	3,800.00 14,300.00	-	49.76	76.86
27	Raimundus Rabu	WS-B	410.00	SKBPT	14,300.00	-	2.87	16.87
28	Paulus Din	WS-B	77.00	SKBPT	4,600.00	-	1.67	48.90
29	Hendrikus Habur	WS-B	829.77	SKBPT	3,900.00	-	21.28	53.83
30	Arnoldus Viktor Terang	WS-B	3,000.80	SKBPT	7,360.00	-	40.77	47.34
31	Maria Mia	WS-B	331.11	No documentati on	10,900.00	-	3.04	53.66
32	Valentinus Emang	WS-B	378.92	SKBPT	4,600.00	-	8.24	12.27
33	Kristina Keros (a/n Petrus Samat)	WS-B	7,999.00	SKBPT	12,003.24	-	66.64	52.13
34	Martinus Madur	WS-B	926.42	SKBPT	1,301.42	-	71.19	21.19
35	Maksimus Mal	WS-B	5,222.00	SKBPT	8,220.00	-	63.53	2.76

No ID Data	Land Owner	Land Affected for Development of Project Facilities	Affected Land (m ²)	Land Ownership Status	Total Household Large Area (m ²)*	Affected Structure	% of Affected Land*	% of Affected Income*
36	Agus Jamu	WS-B	104.73	SKBPT	5,101.48	-	2.05	0.00
37	Maria Margarita Muen (Martianus Madur in Jacob Report)	WS-B	1,130.87	SKBPT	1,630.92	-	69.34	81.82
38	Tomas Turuk	WS-B	132.82	SKBPT	3,034.00	-	4.38	23.97
39	Sisi Nalus	WS-B	265.08	No doc	3,200.00	-	8.28	49.08
40	Martinus Maksi	WS-B	4,049.69	No doc	21,800.00	-	18.58	8.68
41	Damasius Daman	WS-B	868.13	SKBPT	3,900.00	-	22.26	9.24
42	Bene Banu	WS-B	592.71	SKBPT	23,500.00	-	2.52	4.12
43	Serpatius Senaman	WS-B	8,311.84	SKBPT	46,570.00	-	17.85	0.00
44	Fianus Daud (Flavianus Wely Daud)	WS-E & Spoil Disposal 2	3,435.48	SKBPT	4,000.00	1 unit of plantation hut (6 m ²)	85.89	0.00
45	Yusup Usma	WS-E & Spoil Disposal 2	10,549.13	No doc	15,001.75	1 unit of plantation hut (8 m ²)	70.32	85.34
46	Usman Sidik	WS-E & Spoil Disposal 2	6,357.15	SKBPT	6,357.00	1 unit of plantation hut (.6..m ²)	100.00	94.02
47	Siprianus Sudarti	WS-E & Spoil Disposal 2	4,071.94	SKBPT	12,071.94	1 unit of plantation hut(.6 m ²)	33.73	25.46
48	Ismail Sion	WS-E & Spoil Disposal 2	3,453.98	SKBPT	19,943.00	-	17.32	6.64
49	Florianus Sonjo	WS-E & Spoil Disposal 2, Road STA 0+330	5,859.75	SKBPT	5,958.24	1 unit of plantation hut (6 m ²)	98.35	89.41
50	Stefanus Rabu	Water Treatment 2	2,704.33	No doc	2,705.16	1 unit of plantation hut (6 m ²)	99.97	16.87

No ID Data	Land Owner	Land Affected for Development of Project Facilities	Affected Land (m ²)	Land Ownership Status	Total Household Large Area (m ²)*	Affected Structure	% of Affected Land*	% of Affected Income*
51	Sirilus Hamsi	Water Treatment 2	531.07	SKBPT	8,000.00	-	6.64	3.45
52	Yusup Saban	Spoil Disposal 4	1,724.54	SKBPT	6,000.00	-	28.74	6.11
53	Andreas Jebarus	Spoil Disposal 4	928.59	SKBPT	4,920.00	-	18.87	59.59
54	Mustami	Spoil Disposal 4	1,142.83	SKBPT	2,550.00	-	44.82	87.73
55	Maksimus Hambur	Spoil Disposal 4	1,321.37	SKBPT	12,430.00	-	10.63	61.87
56	Selerinus Sedan Endon	Spoil Disposal 4	178.93	SKBPT	10,850.00	-	1.65	6.15
57	Aloysius Datut	Spoil Disposal 5	1,076.81	SKBPT	4,000.00	-	26.92	27.83
58	Markus Masi	Spoil Disposal 5	2,339.51	SKBPT	8,750.00	-	26.74	80.71
59	Andrianus Stefani	Spoil Disposal 5	295.00	SKBPT	7,416.00	-	3.98	83.63
60	Sisilia Nawun	Spoil Disposal 6	5,064.25	SKBPT	17,118.95	-	29.58	57.35
61	Yosep Subi	Road Widening	48.86	SKBPT	11,650.00	-	0.42	27.54
62	Antonius Hardi	Road Widening	295.32	SKBPT	12,750.00	-	2.32	8.54
63	Bernadus Jemalu	Road Widening	114.47	SKBPT	16,500.00	-	0.69	0.27
64	Nikolaus Ambuk	Road Widening	105.85	SKBPT	7,376.00	-	1.44	18.38
65	Damianus Ndalung	Road Widening	114.34	SKBPT	34,050.00	-	0.34	32.84
66	Yohanes Aben	Road Widening	95.16	SKBPT	15,000.00	-	0.63	42.38
67	Aloysius Sahu	Road Widening	409.13	SKBPT	38,125.00	-	1.07	29.13
68	Ali Saedun	Road Widening	112.06	SKBPT	20,000.00	-	0.56	2.09

Source: Final Land Ownership Survey Report (Jacob, September 2018) and Socio Economic Household Survey conducted during preparation of LARAP, excluded 14 PAPs which could not be interviewed

4. Socio Economic Household Survey of the Project Affected Persons

25. As mentioned in the previous chapter, socio economic household survey baseline information gathering pertaining to the use of the affected land through questionnaire interviews to the affected households, undertaken from 19 – 29 August 2018 (questionnaire form is attached in **Appendix A**). The current survey was focusing more on socio economic survey for each affected household to seek out recent perceptions and acceptance toward the planned land acquisition, as well as identifying some potential problems with overlapping land ownership issues.
26. Some study limitations were experienced during the development of this report:
 - Socio-economic survey of the affected people was undertaken on 19 – 29 August 2018 based on land ownership information provided by SMI in the Draft Land Ownership Survey Report of 16 August 2018. Land ownership data for some of the facilities (including for WS-E, drilling camp, soil disposal 5, and road widening) were not confirmed yet prior to the site visit, and therefore there are some differences in the final number of affected people. The Final Report of Land Ownership was received on 3 September 2018;
 - In the case where the affected people were not at home during the census period, one of the household members present at home (e.g. wife or adult son (age 18 years or more)) was interviewed instead – there were five (5) cases of this; and
 - One (1) person (i.e. Serpatius Senaman whose land will be affected for Well Pad WS-B) was travelling out of town, so was interviewed through a phone call, and therefore could only provide limited information
27. Considering that limitation, socio economic survey was conducted to 68 of 82 (83%) of PAPs, while remaining 14 PAPs was not available to interview during the time of survey was conducted. Detailed measurement survey (DMS) will be conducted by West Manggarai District Land Office (Kantor ATR/BPN Kabupaten Manggarai Barat) in order to verify measurement of affected land, identification and inventory of non-land asset affected and ensure that each plot of land is free from any ownership dispute. The owners of the land and other affected assets will be involved during DMS. The DMS results will be used as final reference for compensation and leasing payment.

4.1. Stakeholder Interview and Households Socio Economic Survey of the PAPs

28. Most of the stakeholder consultations have been conducted during the Preliminary LARAP Study. Results of the consultation has been included in the Preliminary LARAP Report (March 2018), and Stakeholder Engagement Plan/ SEP (June 2018). The additional stakeholder interviews was undertaken with the Head of Sano Nggoang Sub-district, Head of Waesano Village, and customary leaders (see Table 4-1) below

Table 4-1 Stakeholders Interview during LARAP Study

No	Stakeholders	Date of Interview	Key Discussion Notes
1	Tu'a Golo Lempe	21 August 2018	Discussion on the planned land acquisition which has been acknowledged by the affected people in Ta'al and communication with Tu'a Golo.
2	Tu'a Golo Ta'al	25 August 2018	Discussion on the planned land acquisition which has been acknowledged by the affected people in Ta'al and communication with Tu'a Golo.
3	Tu'a Golo Nunang	26 August 2018	Confirming land ownership status of one of the affected land parcels under the name of Martianus Madur, however originally owned by Marita Muen (his cousin),

No	Stakeholders	Date of Interview	Key Discussion Notes
			<p>and historical patrilineal land inheritance system in Waesano that has been faded.</p> <p>Discussion regarding objection from some of the community members toward the Project activities due to e.g. increased presence of non-locals with different culture and belief.</p> <p><i>Tu'a Golo</i> stated that for the matter of land acquisition, the Village Head had no authority because land ownership was an individual right. The authority of the village head is only about administration, while for matters related to customary matters is the authority of <i>Tu'a Golo</i>. <i>Tu'a Golo</i> expressed his support for this Project and requested that each stage of the activities carried out to be coordinated with <i>Tu'a Golo</i>.</p>
4	Head of Waesano Village	26 August 2018	Concern on the Project as planned, including environmental impacts from the well pads' activities to nearby communities.
5	Head of Lempe Sub-Village	27 August 2018	Discussion on community's concerns about different information perceived by local communities from different sources regarding the Project impacts. There is further the expectation for future village development with the Project presence.
6	Head of Sano Nggoang District	27 August 2018	Understanding of the common process that is normally conducted to procure land for public interest development such as road widening and improvement, and suggestion for the Project to as soon as possible conduct a socialization meeting to explain the road widening plan to the affected people to obtain their approval.

4.2. Overview on the Result of Households Socio Economic Survey

29. The Project area of interest includes land that is owned individually by the local community, who are of Manggaraian ethnicity. Specifically, in Waesano Village, the locals identify themselves as the Mata Wae community, a sub-ethnic group of the Manggarai people, with a clear territory (*hamente*) within the Sano Nggoang region and its surroundings. They generally have the same identity and traditions as other sub-ethnic groups in Manggarai. What distinguishes them is that they have dialects and some unique traditions. In particular they recognize themselves as Mata Wae people, which is a different identity from the larger Manggarai community. This indicates that the identity of local community of Waesano Village as Mata Wae is very strong part of their identity. For example, they acknowledge that as Mata Wae they have a special area called *hamente Mata Wae*, with is their ancestor or old village (*kampong*) areas. In some local stories they have mentioned that they never left Sano Nggoang lake areas and its surrounding vicinity. Thus, the area of Mata Wae people is special within the area of Lake Sano Nggoang. Despite of this story, there is no specific different between this Mata Wae people with the rest of the community in the project area and are integrated well as Manggaraian people. The Project will also impact communities outside Waesano Village, especially landowners along the main road where road widening locations will require a land acquisition process. In general, the characteristics of the community are similar to those in the Waesano community.
30. Of note, according to the Final Land Ownership Survey (received on 3 September 2018) most of the land ownership status is based on Letter of Land Ownership Reference (SKBPT) acknowledged by Head of Village. However, the LARAP survey also identified that most of land owners paid tax over their land; therefore, has the evidence of tax payment letter (SPPT) as another evidence of their ownership right toward the land

4.3. Demographic Characteristic of PAPs

4.3.1. Age and Gender Distribution

31. Of the 68 PAPs censused, about 83.33% of PAPs who's affected of Wellpad and Main Facilities are in a productive age group of 15 – 64 years old and about 16.67% are above 64 years old (non-productive age group) (Table 4-2). A productive age indicates that landowners still have the potential to be employed by the project as compensation for the loss of land caused by the project.

Table 4-2 Age of PAPs

No	Age Category	PAPs			
		Well pads and main facilities	%	Road Widening	%
1	<15	0	0.00	0	0.00
2	15 – 64	50	83.33	6	75.00
3	>64	10	16.67	2	25.00

Source: LARAP Field Survey, 2018

Table 4-3. Gender of PAPs

No	Gender	PAPs			
		Well pads and main facilities	%	Road Widening	%
1	Male	52	86.67	8	100
2	Female	8	13.33	0	0

Source: LARAP Field Survey, 2018

32. About 86.67% of PAPs who are affected by the wellpads and/or main facilities are male (Table 4-3). While there are few female PAPs, they will also have a voice to negotiate for land compensation, with careful attention paid to vulnerable peoples. All those affected people by road widening are female.

4.3.2. Education

33. The education background of the PAPs is summarised in Table 4-4. Of all the landowners who have been interviewed, only 1 person had never attended school and the majority were elementary school graduates. This means that almost all PAPs can read, indicating they are able to be directly involved in the process of land acquisition, specifically related to the articles in the agreement letter between the project owner (government) and the affected landowner.

Table 4-4 Education Level per Gender Category

No	Education Level	PAPs							
		Well pads and main facilities				Road widening			
		Male	Female	Grand Total	%	Male	Female	Grand Total	%
1	Elementary school	25	7	32	53.33	4	0	4	50.00
2	Junior high school	10	0	10	16.67	1	0	1	12.50
3	Senior high school	11	0	11	18.33	2	0	2	25.00
4	University	6	0	6	10.00	1	0	1	12.50
5	Not graduating/ not going to school	0	1	1	1.67	0	0	0	0.00

Source: LARAP Study, 2018

4.4. Economic Condition and Livelihoods

34. Most people in Waesano Village work in the agricultural sector with more women than men working in this field. The description of economic condition and livelihoods of landowners is presented in the following sub-sections.

4.4.1. Livelihoods of the PAPs

35. Observation and interviews with local communities during the LARAP census identified that the majority of the interviewed households are working as farmers as their primary livelihood (81.67% affected by wellpad and 75% affected by road widening). Only a few of them are working as private employees, government officials, teachers, carpenters and entrepreneurs as the household's main income source. This indicates that the community has a strong livelihood connection to agricultural (plantation) land. However, the census also identified that these community plantations are considered small-scale undeveloped plantations, still managed traditionally within the family (i.e. minimum use of migrant laborers).
36. Further details regarding the PAPs livelihoods are presented in the following table:

Table 4-5 Occupation of the PAPs

No	Occupation	PAPs			
		Well pads and main facilities	%	Road widening	%
1	Farmer	49	81.67	6	75
2	Private Employee	2	3.33	1	12.5
3	Government Official	3	5.00	0	0
4	Teacher	2	3.33	0	0
5	Retiree	2	3.33	0	0
6	Unemployed	1	1.67	0	0
7	Carpenter	1	1.67	0	0
8	Entrepreneur	0	0.00	1	12.5
Grand Total		60	100	8	100

Source: LARAP Study, 2018

37. As shown in Table 4-6, a total of 69% of land-owning farmers who are affected by wellpad and/or main facilities have primary education (53.33%) and junior high school (16.67%). Landowners with senior high school and university education levels work as farmers as well as other jobs, such as teachers, civil servants, retirees and entrepreneurs. This is the same for people who are affected by the road widening.
38. From this data it can be assumed that the level of education influences the type of landowner's work. The higher the level of education, the greater the opportunity to find a job other than farming. The long-term plantation system also allows them to be able to work in other fields to meet the daily needs of the household.

Table 4-6 Education and Occupation of the PAPs Affected by Well Pad and Main Facilities

No	Education Level	Occupation								Total	%
		Farmers	Private Employee/Labour	Government Official	Teacher	Retiree	Unemployed/Not Working	Carpenter	Entrepreneur		
1	Elementary school	31	1	0	0	0	0	0	0	32	53.33
2	Junior high school	10	0	0	0	0	0	0	0	10	16.67
3	Senior high school	7	1	2	0	0	0	1	0	11	18.33
4	University	0	0	1	2	2	0	0	0	5	8.33
5	Not graduating/ not going to school	1	0	0	0	0	1	0	0	2	3.33
Total		49	2	3	2	2	1	1	0	60	100.00

Source: LARAP Study, 2018

Table 4-7. Education and Occupation of the PAPs Affected by Access Road Widening

No	Education Level	Occupation								Total	%
		Farmers	Private Employee/Labour	Government Official	Teacher	Retiree	Unemployed/Not Working	Carpenter	Entrepreneur		
1	Elementary school	4	0	0	0	0	0	0	0	4	50
2	Junior high school	1	0	0	0	0	0	0	0	1	12.5
3	Senior high school	1	1	0	0	0	0	0	0	2	25
4	University	0	0	0	0	0	0	0	1	1	12.5
5	Not graduating/ not going to school	0	0	0	0	0	0	0	0	0	0
Total		6	1	0	0	0	0	0	1	8	100

Source: LARAP Study, 2018

39. In addition to landowners, other family members in the household also work to meet their daily needs. The majority are still dependent on farming. Other jobs include private employees, teachers and civil servants.

Table 4-8. Livelihood of the Affected Household

No	Livelihood of the Affected Household	PAPs			
		Well pads and main facilities	%	Road widening	%
1	Farmer	111	64.53	14	60.87
2	Housewife	20	11.63	3	13.04
3	Private Employees	18	10.47	1	4.35
4	Unemployed	9	5.23	3	13.04
5	Teacher	4	2.33	1	4.35

No	Livelihood of the Affected Household	PAPs			
		Well pads and main facilities	%	Road widening	%
6	Government Official (civil servants)	5	2.91	0	0.00
7	Retiree	2	1.16	0	0.00
8	Lawyer	1	0.58	0	0.00
9	Driver	1	0.58	0	0.00
10	Carpenter	1	0.58	0	0.00
11	Entrepreneur	0	0.00	1	4.35
Grand Total		172	100	23	100

Source: LARAP Study, 2018

4.4.2. Land Tenure and Land Use

4.4.2.1. Land Tenure

40. In general, the social systems of the Manggarai community or Mata Wae people are deeply tied to their cultural landscape. Land for Manggaraian, including the Mata Wae community, historically and culturally was very important and considered part of their individual and communal identity, as the mother of the community and source of life, and as a precondition for a village to exist. It is not only the land, but a cohesive system comprised of settlement, communities, the natural environment, and the values that support it.
41. The land tenure system of Waesano communities is summarized as follow, while further detailed has been provided in the Final ESIA Report (June, 2018) and Abbreviated (Preliminary) LARAP (March, 2018):
 - Land ownership in Manggarai is generally known as *Lodok*, where the land and cultivation system are integral to the neighborhood and settlement system called *Golo* (kampong), while each village has a tenure system named *Lingko*, which is a communal land management system of each *Golo*.
 - In the *Lingko* system, the land is divided equally by the *Tu'a Golo* (customary leader) to families who are deemed capable of managing and cultivating the land. The division of each plot of land to the families will form a spider web pattern.
 - The land inheritance system is carried out based on a patrilineal pattern (the lineage comes from the father) which is inherited by a son. But if there is only a single daughter, then the land is passed on to the girl.
42. However, this traditional land tenure system has faded, and land is now owned by households on an individual/private basis, particularly since the 1980s when national government encouraged land ownership to be divided on a permanent ownership and cultivated land use. Therefore, the land rights are now permanently owned by individuals. Formal land status is shown through a Village Head Reference Letter for Land Ownership (Surat Keterangan Tanah or SKT) or tax letter indicates the Sale Value of Taxation Object (Nilai Jual Obyek Pajak or NJOP) of the land.
43. The majority (65%) of affected landowners by well pad and main facilities have land area between 500 – 10,242 m² (average land area), while 87.5% of people who are affected by road widening have more than 10,454 m²(see table below). Only one landowner has land area under 500 m². Ownership of land under 500 m² is one of the poverty indicators issued by BPS (Central Bureau of Statistics).

Table 4-9. Average Land Ownership Area

No	Total area of agricultural and plantation land per household (m ²)	PAPs			
		Well pads and main facilities	%	Road widening	%
1	<500 m ²	1	1.67	0	0.00
2	500 m ² - < 10,454 m ² (average land area)	39	65.00	1	12.50
3	> 10,454 m ² (average land area)	20	33.33	7	87.50
Grand Total		60	100.00	8	100.00

Source: LARAP Study, 2018

4.4.2.2. Land Use

44. The general overview of land use within the proposed Project footprint for each facility has been detailed in the previous Abbreviated (Preliminary) LARAP (March 2018). This section will discuss land use information specific for each of the affected land parcels.
45. Of note, community land use is for plantations because land contours and water sources do not support rice farming. Most of the affected agricultural land uses within Waesano Village use rain fed systems; only a few rice fields use irrigation systems, such as in the village of Wae Lolos which will be traversed by the road widening. The average area of land ownership for each of these uses is presented in the following table.

Table 4-10. Average Land Ownership

No	Land Use	Average Area of Land Ownership per each household (m ²)	
		Well pads and main facilities	Road widening
1	Paddy Field and Wet Land	748.66	2,359.38
2	Plantation land	8,508.68	17,072
Total land area per household		9,257.35	19,431.38

Source: LARAP Study, 2018

46. The land use within the proposed Project AOIs is dominated by commercial crops such as candlenut, areca nut, coffee, as well as various food crops that are grown locally and used for domestic household consumption such as coconut, palm sugar, cacao, rice, corn, peanuts, soybean, and common vegetables such as chilli, tomatoes, sweet potato, bananas, and cassava.

4.4.3. Level of Welfare

47. According to BPS (Central Bureau of Statistics of Manggarai Barat Regency, 2017), poor people are those who have an average expenditure per capita per month below the poverty line. The level of welfare is assessed by identifying income and expense.
48. The personal consumption expenses are shown in Table 4-11. The ranges of expense are divided by the lowest, middle low, middle high and the highest expense. As identified by the Central Bureau of Statistics (BPS), the lowest expense level based on the 2017 poverty line in Manggarai Barat Regency is IDR 304,277 per capita, and the middle high range is IDR 1,481,772 per the 2014-2017 is the decent Standard of Living in Manggarai Barat Regency by BPS.
49. The 2018 LARAP census results found that 50% of PAP personal expenses were less than IDR 304,277 per capita per month; 75% of PAPs affected by road widening have expenses less than IDR 304,277 (Table 4-11). Their monthly expenses are more than the basic standard of living in Manggarai Barat Regency. The largest expenses are for education and social activities, such as traditional celebrations. Traditional wedding celebrations commonly take a large portion of expenses. If a family holds a wedding celebration, then the expenditure for the celebration is the obligation of their extended family (both rich and poor) and the amount of donation is determined to be the same for all families.

Table 4-11. Expenses per Capita

No	Personal Expenses	PAP			
	(IDR per months)	Well pads and main facilities	%	Road widening	%
1	< 304,277*	30	50	2	25
2	304,277 – 1,481,772**	30	50	6	75
3	>1,481,772	0	0	0	0
Grand Total		60	100	8	100

Source: LARAP Study, 2018

Notes:

* 2017 Poverty line of Manggarai Barat Regency

** 2014-2017 Decent Standard of Living (Kebutuhan Hidup Layak) of Manggarai Barat Regency

50. Income directly influences the allocation of family expenditure. Low income families will use most of their income for food as a basic necessity (Suhardjo, 1989). According to Table 4-12, the majority of PAPs (about 90%) have personal income of less than the 2018 Provincial Minimum Wage of Nusa Tenggara Timur, i.e. IDR 1,660,000. About 70% of PAP households have income less than the 2017 poverty line of The World Bank (about US\$1.9 per day or approximately IDR 28,324.9 per day based on a rate of 1 dollar equals IDR14,908 as per 26th September 2018).
51. For personal income, most household's income is less than IDR 849,747 per month per family member; thus, most personal income is below the poverty line of The World Bank. A small number of household members who are affected by the wellpads and/or main facilities (about 10%) have income that exceeds the 2018 Provincial Minimum Wage of East Nusa Tenggara (see Table 4-12).

Table 4-12. Income per Capita

No	Personal Income	PAPs			
	(IDR per months)	Well pads and main facilities	%	Road widening	%
1	< 849,747*	42	70	5	62.50
2	849,747 – 1,660,000**	12	20	3	37.50
3	> 1,660,000	6	10	0	0.00
Grand Total		60	100	8	100.00

Source: LARAP Study, 2018

Notes:

* World Bank Poverty Line US\$1.9/day in a month

** 2018 Provincial Minimum Wage of Nusa Tenggara Timur

52. In order to help the poor families, various social assistance programs have been implemented in the community. Social assistance programs that have been granted are described in the following table, per the results from interviews and census with landowners.

Table 4-13 Social Assistance Programs

No	Assistance Program	PAP				Average Assistance per Year (IDR) /per household	Total Assistance per Year (IDR)
		Well pads and main facilities	%	Road widening	%		
1	Program Keluarga Harapan (Family Hope Program)	23	30.67	2	20	1,716,000	42,900,000

2	Prosperous Rice Program (Rastra)	16	21.33	2	20	897.222	16,150,000
3	Personal Assistance/aid from their children	1	1.33	0	0	9,600,000	9,600,000
4	<i>Badan Penyelenggara Jaminan Sosial</i> (National Social Security Program)	1	1.33	0	0	1,728,000	1,728,000
5	<i>Kartu Indonesia Pintar</i> (Indonesia Smart Cards)	1	1.33	0	0	1,200,000	1,200,000
6	No Assistance	33	44.00	6	60	-	-
Grand Total		75	100.00	10	100	15,141,222	71,578,000

Source: LARAP Study, 2018

53. Of the 68 PAPs surveyed, some PAPs have some social assistance benefits; while about 44% of PAPs affected by the wellpads and 60% PAPs affected by road widening have no assistance. According to regulations, the PAPs who did not get any social assistance programs are categorized as prosperous because their household income is more than IDR 849,747 (poverty line of The World Bank), thus they do not need any social assistance programs from the government.

4.5. Housing Condition

54. Based on the 2018 LARAP census, land status is primarily SPPT PBB (Notification of Tax Liability for Land and Building Tax) for 85% PAPs affected by wellpads and 62% PAPs affected by road widening. However, SPPT PBB is not proof of tax ownership; it only determines the amount of debt that the subject needs to pay for the tax object. This can happen because the owner does not return the name of the SPPT PBB after the transfer of rights occurs or the name of the certificate is returned on land and buildings.
55. The proof of legitimate land and building rights is a freehold title. Only about 10% of landowners have freehold titles for their land. Table 4-14 presents the status of land in the project area.

Table 4-14. Land Status

No	Status of Land	PAP			
		Well pads and main facilities	%	Road widening	%
1	SPPT PBB (Notification of Tax Liability for Land and Building Tax)	51	85.00	5	62.50
2	Freehold Title	5	8.33	2	25.00
3	Right to Use Title	1	1.67	1	12.50
4	Deed of Sale and Purchase / Grant	1	1.67	0	0.00
5	Others	2	3.33	0	0.00
Grand Total		60	100.00	8	100.00

Source: LARAP Study, 2018

56. The most common type of roof used by PAPs affected by wellpads and/or main facilities for their homes is a zinc roof, while the most common type of wall is bamboo (46.67%) and cement (23.33%). The most common type of floor is cement at 68.33%, the rest have no floor/soil (18.33%), wooden (5%), ceramic (5%), and bamboo (2%). Table 4-15 presents the percentage of house building condition by building material from all PAPs, both those affected by the wellpads and the road widening.

Table 4-15 House Building Condition

No	Building Material	PAP			
		Well pads and main facilities	%	Road widening	%
1	Roof				
	Zinc	60	100	8	100
2	Floor				
	Cement	41	68.33	7	87.50
	No floor / soil	11	18.33	1	12.50
	Wooden	3	5.00	0	0.00
	Ceramic	3	5.00	0	0.00
	Bamboo	2	3.33	0	0.00
3	Wall				
	Bamboo	28	46.67	3	37.50
	Concrete brick	1	1.67	1	12.50
	Wooden	5	8.33	1	12.50
	Plywood	3	5.00	0	0.00
	Wooden Board	7	11.67	0	0.00
	Cement	14	23.33	2	25.00
	Zinc	2	3.33	1	12.50
	TOTAL	60	100	8	100

Source: LARAP Study, 2018

4.6. Community Perception

57. Attitudes and perceptions are largely determined by knowledge and understanding. In addition, cultural backgrounds and environmental conditions (both physical environment and social environment) of a community can also determine the attitude and perception towards a project. The following sub-sections discuss the dissemination of information and the community's perception of the project.

4.6.1. Participation in Socialization

58. Based on interviews and census, more than a half of PAPs were not involved in the project socialization (Table 4-16), thus only a small number of PAPs were aware of the land acquisition scheme, i.e. land lease. About 63% of PAPs affected by wellpad development stated that land acquisition information could be found from the land survey team, neighbours, relatives, *Tu'a Golo*, and the Village Head. This indicates that a series of community meetings (socialization) should be taken into account before the commencement of land acquisition to gain community consent to the land acquisition process and approval of the project.

Table 4-16 PAPs Participation in Project Socialization

No	Participation	PAPs			
		Well pads and main facilities	%	Road widening	%
1	Presence in the project socialization				
	Yes	29	48.33	1	12.50
	No	31	51.67	7	87.50

2	How is the land acquisition scheme?				
	Land lease	13	21.67	4	50
	Other	1	1.67	0	0
	Don't have the knowledge	46	76.67	4	50
3	In addition to socialization, how to find out the land acquisition information?				
	Through the survey team	22	36.67	4	50.00
	Through neighbors	5	8.33	3	37.50
	Through relatives	5	8.33	0	0.00
	Through <i>Tu'a golo</i>	6	10.00	0	0.00
	Through Village Head	1	1.67	0	0.00
	No answer	21	35.00	1	12.50
		60	100	8	100

Source: LARAP Study, 2018

4.6.2. Knowledge of the Project

59. Most of the PAPs are already known within the planned Project land acquisition area. However, many still do not understand the scheme and details of land acquisition that will be carried out; thus, the Project should provide more detailed information about the land acquisition to the PAPs.

Table 4-17PAPs Knowledge of Planned Project and Land Acquisition Plan

No	Knowledge	PAP			
		Yes		No	
		Well pads and main facilities	Road widening	Well pads and main facilities	Road widening
1	Know about the planned Waesano Project	95.00	62.50	5.00	37.50
2	Know about the land acquisition plan	86.67	87.50	13.33	12.50

Source: LARAP Study, 2018

4.6.3. Concern toward the Project Land Acquisition

60. Of note, about 63.33% of PAPs affected by wellpadshave concerns about the land acquisition plan. Many concerns (26.47%) are regarding clarity around the land acquisition mechanism, as most PAPs were not involved in previous project socialization. Other concerns are about determining the selling / lease price (2.94%), some worry about the project impacts to their livelihoods (10.29%), there are concerns about whether the project will reduce their income, concerns with the project affecting ancestral history, and concerns about the project not being implemented. Meanwhile for PAPs who are affected by road widening, half of them have concerns about land acquisition plan. Many concerns (33.33%) are related to selling/ lease price of affected land.
61. The Project should conduct further community meetings and socialization in order to ensure that all stakeholders are given sufficient opportunity to voice their opinions and concerns as well as to garner a resolution on their concerns. These opinions and concerns have been addressed in the LARAP document, including on the worry of the project impacts, mechanism of land compensation and lease, impacts to ancestral history and others.

Table 4-18 PAPs Concerns toward the Land Acquisition Plan

No	Concern	PAP	
		Well pads and main facilities	Road widening
1	Are there concerns?		
	Yes	63.33	50.00
	No	36.67	50.00
2	What are the concerns?		
	Clarity of the land acquisition mechanism	26.47	11.11
	Do not have other land for farming	5.88	0.00
	Related to selling / lease price	2.94	33.33
	Worry on the project impacts	10.29	0.00
	Reduced income	5.88	0.00
	Project affecting ancestral history	1.47	0.00
	If the project will not be implemented	1.47	0.00
	Others	7.35	11.11
	No concern	38.24	44.44
	Total	100	100

Source: LARAP Study, 2018

4.6.4. Willingness for Land Acquisition

62. Almost all PAPs are willing to be involved in the land acquisition process and want to attend the negotiation process with the LAT. Table 4-19 shows the willingness of PAPs to adhere to the land acquisition process.

Table 4-19. PAPs Willingness for Land Acquisition

No	PAPs Willingness	PAP	
		Well pads and main facilities	Road widening
1	PAPs willingness for the land to be used for the Project		
	Yes	91.67	87.50
	No	6.67	12.50
	Abstain	1.67	0
	Not answer	0.00	0
2	Willing to attend negotiations		
	Yes	100	87.50
	No	0	12.50

Source: LARAP Study, 2018

63. In summary, the following concerns toward the Project resettlement plan may increase the community sensitivity to potential disputes with the Project:

- Although about 87% have received some information regarding the Project land acquisition plan, approximately 56% of the censuses affected people stated that they haven't been fully socialized with regards to the detailed of the plan, and 74% are not yet aware of the land acquisition scheme;

- 62% have some concerns with regards to the land acquisition process – among the most prominent concern was related to clarity of the land acquisition mechanism;
- Over 50% of the surveyed affected people are not aware of where to file a complaint or share their concerns. Those who have raised concerns have filed complaints with the village government; and
- Among those who have limited/ no knowledge on the Project land acquisition plan, are those who will be affected by the road widening plan. Socialization with the directly affected people had not yet been conducted at the time this LARAP study was conducted.

64. However, of note, majority of the censuses PAPs (i.e. about 92%) have stated their willingness to comply with land acquisition.

4.6.5. Knowledge of the Project Grievance Process

65. No PAPs who are affected by road widening have knowledge of the grievance mechanism. Most of the PAPs affected by wellpad construction also do not have knowledge of the grievance mechanism, and most of them do not know how to file a complaint to the Project (78.33%). Some of them stated that they will go to the government if they have a complaint, and a few of them will see the *Tu'a Golo*, the Project Team, or other local community figures (i.e. youth leader) if they have any complaints. This indicates that the Project still needs socialization on the project grievance mechanism process to the PAPs.

Table 4-20. Knowledge of Project Grievance Mechanism

No	Grievance Mechanism	PAP	
		Well pads and main facilities	Road widening
1	Have Knowledge about Grievance Mechanism		
	Yes	21.67	0
	No	78.33	100
2	Where to file a complaint		
	Government	13.33	0
	<i>Tu'a Golo</i>	3.33	0
	Community figure (i.e. youth leader)	1.67	0
	Project Team	1.67	0
	Written agreement at the project location	1.67	0
	No answer	78.33	0

Source: LARAP Study, 2018

5. Legal Analysis

5.1. Indonesia Law and Regulations

66. Geothermal exploration is important for energy infrastructure development, and under the national system it is categorized as a public interest development. Land acquisition for development of public interest in Indonesia is regulated under a number of laws and regulations.

67. The following are applicable for the Project.

5.1.1. Land Acquisition

68. Law Number 5 of 1960 is a basic Agrarian Law in Indonesia can be referred for land lease and rentals. The land lease agreements must comply with the standard legal drafting according to the terms and conditions which each party has agreed upon.

69. Law number 2 of 2012 on Land Acquisition for Development in the Public Interest (Land Acquisition Law) for acquiring land for public use activities, with the implementing regulations, including (a) Presidential Regulation number 71 of 2012, which has been amended by Presidential Regulation number 40 of 2014, Presidential Regulation number 99 of 2014, Presidential Regulation number 30 of 2015 and the most updated one, Presidential Regulation number 148 of 2015; and (b) Head of Land Agency Regulation 5 of 2012 and its amendment number 6 of 2015.

70. The Law 2 of 2012 Article 10 (e) clearly states that geothermal energy infrastructure is included as activities for public interest. Meanwhile the Article 7 (2) states: "Where Acquisition of Land is made for geothermal energy infrastructure, the acquisition shall be performed with reference to the Strategic Plan and the Working Plan of the Agencies needing land as intended by section (1) point (c) – the Strategic Plan and point (d) – the Working Plan of each agency needing land.

The Presidential Regulation number 71 of 2012 has been amended few times. The key changes are:

- Presidential Regulation number 40 of 2014 (...Land acquisition up to 5 hectares can be directly conducted by the agency needing land with holders of land right through a business transaction or other way agreed by both parties...), changed the threshold of small-scale land acquisition from 1 to 5 hectares, the small-scale land acquisition can be done directly by the institution requiring land through normal land purchase, land exchange or other scheme agreed by both parties (article 121);
- Presidential Regulation number 99 of 2014 (...Head of Land Acquisition Implementation issues compensation value resulted from appraiser or public appraiser);
- Presidential Regulation number 30 of 2015 (...Finance for land acquisition can be sourced from a business entity as Agency acquiring the land has been given the right to act on behalf of the state, ministerial, non-ministerial government agency, or provincial or district government), it allows private company assigned by the government to develop public infrastructures to use the Law; and
- Presidential Regulation number 148 of 2015 includes revisions of the process for handling objections and few additional clauses on the requirement for land acquisition for public interest up to 5 ha, as follow:
 - Land acquisition for public interest development purpose up to 5 hectares has to be suitable with the regional spatial planning (RTRW);
 - The process does not require location determination letter; and
 - The agency that requires land must use a public land appraiser for land valuation appraisal.
 - Land acquisition for public interest with size not less than 5 hectares can be implemented directly by the agency requiring land with the land rights holders, by way of sale or exchange or other means agreed upon by both parties.

71. Government Mechanism for Objections to Land Acquisition and Project Development.

As in accordance to the Presidential Regulation 71/2012 (and minor amendment in the Presidential Regulation 148/2015, objections from the public and PAPs against land acquisition for public interest will be channelled through a formal mechanism. Objections can be proposed in different stages of the government land acquisition process. Summary of the process is presented as follow (these can be exempted for land acquisition of public interest requires land up to 5 ha):

- During the public consultation, if any objections raised of the proposed location for project development, public consultation should be redone, at the latest 30 working days since the minutes of consultation meeting has been signed. Should objections be still raised after the second round of public consultation, the Project proponent could then propose objections to the local administrative leader (i.e. Nusa Tenggara Timur Province).
- Grievance will be assessed by an Appraisal Team (who will be formed by the Governor) to undertake further assessment on the objections, record the objections, conduct clarification meeting with objected party, and propose recommendation to receive or reject the grievances. Should it confirm that objection is received; the Governor has no later than 3 working days to resolve the issue. Depend on the Governor decision, the Project might be asked to relocate the planned development to other area, or to decide the Location Permit latest 7 working days from the decision making/ agreement with the objected party.
- Post disclosure of the land appraisal result, should any objection on the inventory and identification of affected land and assets, community can file for an objection within 14 working days since the announcement of the result. The land acquisition team would then undertake verification and revision of the land inventory and inform the verification result, at the latest 14 working days since the received on the grievance.
- Objection of compensation, if no agreement is reached on the form and/or amount of compensation, the PAPs can file a complaint with the Province National Administrative Court no later than 14 working days after the appraisal; the court will decide the form and/or the amount of compensation within a period of 30 working days after the submission of objections. If the complainants object to the decision of the Court, he/ she may then appeal to the Supreme Court within a period of 14 working days after the decision of the District Court is issued. The Supreme Court will issue a decision within 30 working days after the appeal is received. The court decision will be the basis of payment of compensation to the complainants.

72. Presidential Regulation No. 62 Year 2018 regarding the management of social impact in the procurement of land for national development (both national and non-national strategic project) was recently issued. It regulates the provision of compensation in the form of money or relocation to non-titled land users. This regulation requires that compensation should consider the cost of mobilization, cost for moving, house rent during the transition period, and loss of income. It also requires the proponent to produce documents on the Social Impact Management Plan in the event that affected government land has been physically used/ controlled by the community consecutively for a minimum of 10 years. The Social Impact Management Plan shall be proposed to the Governor, which subsequently forms an Integrated Team to undertake inventory data, compensation appraisal, and facilitate the grievance management.

73. The Minister for Agrarian and the Head of the National Land Agency Regulation 3 of 1997 specifies the implementation procedures for Government Regulation number 24 of 1997 on the Registration of Land. It specifies all the procedures and requirements for the land registration and acquisition process. The initial part/step(s) of the process includes scaling and other requirements for maps, plotting coordinate projections; regulations pertaining to boundary markets; legitimate census procedures; prescriptions for necessary documentation; official publication of claim and title processes; objection processes; land title verification and administrative procedures; and the issuance of land certificates.

74. The transfer of land title is also specified in the Degree of the Minister for Agrarian and the Head of the National Land Agency Number 21 of 1999 regarding procedure for obtaining land by capital investment companies, which include:

- The agreement for sale and transfer of control over land;

- Applications for change of land status or right over land;
 - Application forms for particular land use permits; and
 - The appropriate forms registering transfer of right over land.
75. Ministry of Home Affairs Regulation Number 1 of 2016 regarding Village Asset Management defines different types of village asset, and mechanism to lease or borrow and use village asset as alternative of its management. Head of village is appointed as the authorised right holder of village asset, responsible for its management. The regulation also requires evidence of ownership status of the asset. For leasing the asset, maximum length of lease period is three (3) years with optional extension. This regulation will be used to lease some of the potentially affected government land.
76. Referring to the Law 2 of 2012 and its implementing regulations, the valuation of asset loss is to be done by certified public land appraisal. The valuation will be carried out based on the MAPPI4 Standards as specified in the MAPPI Guidelines on Land Acquisition Assessment for Development of Land for Public Interest, defined in the Indonesia Valuation Standards (SPI) 204 (MAPPI, 2018). The Standard follows the same principles as the Law number 2 of 2012, in which the determination of the compensation amount is based on the “fair replacement value” which consider the principles of humanity, fairness, usefulness, certainty, transparency, agreement, participation, welfare, harmony and sustainability. Approach for appraisal will be conducted for physical and non-physical objects.

5.1.2. Forestry Land Use

77. The Environmental and Forestry Minister (MoEF) Regulation Number P.27/Menlhk/Setjen/Kum.1/7/2018 provides guidance in the borrow use of forestry area and regulates the application of borrow and use permit of forestry area (IPPKH/*Ijin Pinjam Pakai Kawasan Hutan*) required for any activities in the forest area. Geothermal activities in the forest area will need to obtain the permit before the geothermal license is granted.
78. Few key points of the regulation in association with the Project:
- a. The main objective of this regulation is to manage the utilization of forest land for other or non-forestry purposes (Article 2).
 - b. The IPPKH is only applicable for the utilization of Production Forest and Protected Forest (Article 3 Verse 1). The forest land utilization should not change the main purposes of the forest land (Article 3 Verse 2).
 - c. The utilization of forest land for other or non-forestry purposes is allowed to address the strategic activity with the main objective that could not be avoided (Article 4 Verse 1) where geothermal is one of them (Article 4 Verse 2 Point “d”).
 - d. MoEF Regulation No. 27 Year 2018 clause 5 (2c) regarding Guideline on Borrow and Use Permit of Forestry Area, it is stated that Borrow-Use Permit of Forestry Area for Exploration Activity has no obligation for land compensation nor revegetation and watershed rehabilitation. But related to this exploration activity, the project has commitment to rehabilitate the land as per condition before use for project or better.
 - e. Procedures for IPPKH application (Section II):
 - Application for geothermal will be processed in ministry office (Article 14 Verse 3);
 - Application process as per Article 14 Verse 3 (non-commercial purposes) will be transferred to Governor if: (1) Site location as applied for permitting is maximum 5 ha – this is case for Wellpad WS-D with total area is approximately 2.4 ha; (2) Pertambangan rakyat (local people’s mining);
 - Application for geothermal will be processed in ministry office when the permitting is applied by the ministry – Directorate General of EBTKE for Waesano case;

⁴Indonesian Society of Appraisers or ISA

- Application letter for geothermal exploration send to Ministry via drop box officer (Petugas Locket) at ministry office attached with technical requirements including: (1) Base map scale 1:50,000 in Shape File using UTM Datum WGS-84; (2) AMDAL or UKL/UPL document; (3) Recommendation letter from Governor; (4) Environmental Permit; and (5) Commitment Letter (to fulfil all requirements for IPPKH application process);
 - Application letter and its attachments will be reviewed and verified by Director of Forestry Planning (Direktur Planologi) within 24 working days in maximum;
 - Results of review and verification will be submitting the application letter to Dirjen Bina Usaha Kehutanan (for Production Forest) or Dirjen Pelindungan Hutan dan Konservasi Alam (for Protected Forest) for his/her review – if the application comply with the requirement (if no the application will be returned to the applicant);
 - Relevant Dirjen will do technical review. The results will be submitted to Secretary General – if the application comply with the requirement (if no the application will be returned to the applicant);
 - Secretary General will do legal aspect review and prepare draft IPPKH including relevant maps prior to submitting the documents to Minister within 7 working days;
 - Minister will issue IPPKH including relevant maps within 3 working days; and
 - The designated timeline is not applicable in case of any technical or legal issues need to verification on site (site visit).
- f. The applicant could not do any activity within the proposed forest land before obtaining the IPPKH, except for site preparation.

5.1.3. Other Related Regulations

79. Severely affected people are identified as early as possible through the social impact assessment of AMDAL as referred to in the Environmental Law no. 32/2009 on Environmental Protection and Management, which includes impacts from the Project land acquisition process.
80. Act No 39 Year 1999 concerning Human Rights identifies and protects a range of human rights. The Act includes specific protection for the rights of the elderly, children, the poor, pregnant women, and people with disabilities. These groups are considered as vulnerable people. It also recognizes the differences in and the needs of, *adat* law communities that have to be observed and protected by the law of society and Government” as well as the “Cultural identity of *adat* law communities, including rights to *ulayat* land that need protection.” It espouses that the acquisition of *ulayat* land by government must be done through due process of law following the free, prior and informed consent of *adat* communities.
81. Law No. 11/2009 on Social Welfare and its implementing regulation Ministry of Social Welfare Decree No. 39/2012 on Delivery of Welfare indicates the poor or those in poverty as part of vulnerable group.
82. Law No. 40 Year 2007 Concerning Limited Company Article 74 (1) observed all companies having its business activities in the field of and/or related to natural resources, shall be obliged to perform its Social and Environmental Responsibility. Implementing regulation is provided in the Presidential Regulation Number 47 of 2012, which include the following components:
 - Social and environmental responsibilities to be implemented based on the company annual work plan;
 - Budget allocation will be accounted as the company’s cost, and to be determined in an appropriate amount;
 - Program implementation should be included in the annual company report to shareholders;
 - Sanction will apply for negligence of implementation of the responsibility; and

- Appreciation may be provided by relevant institution for companies manage to implement the responsibility according to the regulation.
83. President Instruction No. 9/2000 regarding Gender Mainstreaming in the National Development which give instruction to apply gender mainstreaming in all of development phases, since planning, implementation, monitoring and evaluation .
84. Ministry of Home Affairs Regulation No **15/2008** about Guideline in Implementing Gender Mainstreaming. This regulation issued to give guideline for all government institution in implementing gender mainstreaming.

5.2. World Bank Safeguards Policy on Land Acquisition

85. The World Bank safeguard policies and procedures triggered for the proposed Waesano Project with respect to land acquisition include OP 4.12 on Involuntary Resettlement. While the land acquisition process will prioritize and prefers a willing buyer – willing seller basis, there may be some involuntary land purchases for road alignments, or future restrictions on access to forest resources, in the exploitation phase.
86. The “involuntary resettlement” refers both to physical displacement (relocation or loss of shelter) and economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of the project activities. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use that result in physical or economic displacement. This occurs in cases of: (i) lawful expropriation, or temporary or permanent restrictions on land use, and (ii) negotiated settlements in which the buyer can resort to expropriation or impose legal restrictions on land use if negotiations with the seller failed.
87. The World Bank’s policies on involuntary resettlement are:
- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs;
 - Where it is not feasible to avoid resettlement, resettlement activities should be designed and executed as part of a sustainable development program, e.g., providing sufficient resources to enable the persons displaced by the project to share in project benefits. Persons displaced by the project should be meaningfully consulted and be given the opportunity to participate in the planning and implementation of resettlement programs; and
 - Displaced persons should receive assistance in their efforts to improve their livelihoods and living standards, or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the project commencement, whichever is higher.
88. The policy aims to avoid involuntary resettlement if possible, as well as the requirements for participation in resettlement planning, compensation provision that improves, or at least restores, incomes and living standards if an involuntary resettlement could not be avoided. The Bank’s experience with geothermal projects in Indonesia with regard to involuntary resettlement indicates that land is acquired through commercial transactions rather than expropriation, and involuntary resettlement does not occur.
89. The eligibility to compensation includes (i) those who have formal legal rights to land (including customary and traditional right recognized under the laws of the country) (ii) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets-provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan, and; (iii) those who have no recognizable legal right or claim to the land that they are occupying (entitled to compensation not for the land, but for assets owned on the affected land). Persons who encroach on the area after cut off date
90. As a condition of appraisal of project involving resettlement, the borrower provides the Bank with the relevant draft resettlement instrument which conforms to this policy, and makes it available at a places accessible to displaced person and local NGOs, in a form, manner and language that are understandable to them. Once the Bank accepts this instrument as providing and adequate basis for project appraisal, the Bank makes it available to the public through its Info Shop. After the Bank has approved the final resettlement instrument, the Bank

and the borrower disclose it again in the same manner.

91. The World Bank OP 4.12 does not apply to resettlement resulting from voluntary land transactions (i.e., market transactions in which the seller is not obliged to sell, and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the host country if negotiations fail). It also does not apply to impacts on livelihoods where the project is not changing the land use of the affected groups or communities.
92. Land acquisition for the Waesano Geothermal Exploration Project's drilling activities will be conducted through voluntary land transaction mechanisms of land lease or willing seller-willing buyer⁵. In cases of any adverse economic, social, or environmental impacts from the project activities (exploration drilling) other than land acquisition (e.g., loss of access to assets or resources or restrictions on land use), the Project aims to avoid, minimize, mitigate or compensate. However, if significant impacts from voluntary land acquisition are occurred, the project will apply the requirements of the World Bank OP 4.12 on Involuntary Resettlement to avoid, remedy or mitigate the impacts.
93. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. The GRM should be appropriate and accessible for PAPs.
94. Prior to implementation of land acquisition and resettlement activities of the Project, the following processes are required by World Bank OP 4.12 requirements (detailed applicability for the Project is discussed in Section 6):
 - Avoid involuntary resettlement and, if unavoidable, minimize its potential impacts;
 - Assess the potential economic and social impacts of involuntary land acquisition and resettlement on the project affected peoples (PAPs) and their livelihoods;
 - Identify categories of affected persons and their respective entitlements;
 - Set out clear process of consultation with and participation of PAPs in the preparation and planning of involuntary land acquisition and resettlement, if any, as well as information dissemination to the PAPs;
 - Compensate for lost assets at full replacement cost;
 - Compensate informal/illegal land users for lost assets and provide assistance in relocating, if needed;
 - Compensate and obtain legal access to expropriated land before starting construction;
 - Provide information and prepare special assistance programs for vulnerable groups including the persons without any immovable property; and
 - Provide and prepare plans for grievance redress and monitoring.

5.3. World Bank Policy on Gender

- OP 4.20 Gender and Development

The objectives is to assist members countries to reduce poverty and enhance economic growth, human well being, and development effectiveness by addressing the gender disparities and inequalities that are barriers to development, and by assisting member countries in formulating and implementing their gender development goals.

- WB Group Gender Strategy (FY 16-23) Gender Equality, Poverty Reduction, and Inclusive Growth

Within this framework, the World Bank Group Gender Strategy focuses on four objectives

- a. Improving human endowments (health, education and social protection). Closing that remaining sticky "first generation" gaps, while starting to tackle emerging issues, is fundamental to poverty reduction and shared

⁵ This means market transactions in which the seller is not obliged to sell, and the buyer cannot resort to expropriation or other compulsory procedures if negotiations fail

prosperity. First generation issues include further decreasing maternal mortality, improving women's access to health services, closing the remaining gender gaps in education, and expanding social safety nets. Among emerging, or "second generation" issues are ensuring health care for an aging population and for noncommunicable diseases; improving early childhood development; breaking down gender stereotypes in teacher training and curriculum development; increasing girls enrolments in science, technology, engineering, and mathematics (STEM); facilitating school to work transitions; and developing innovations to promote women's economic empowerment in social safety net interventions.

- b. Removing constraints for more and better jobs. Increasing women participation in the labor force, their income earning opportunities and their access to productive assets are central to the achievement of the World Bank Group's goals, yet remain a frontier area. Partnership with the private sector are critical to advancing economic opportunities for women—one such partnership. The strategy will focus on the determinants for women to access more and better jobs, including developing policy frameworks for care services, reducing deficits in infrastructure that prevent women's participation in paid employment, promoting the conditions for women entrepreneurship and reducing segregation.
- c. Removing barriers to women's ownership of control over assets. The strategy will focus on key productive assets such as land (individual ownership and female access to community owned land); housing, and technology. Access to financial and insurance services are key enablers of asset ownership, and the WB Group has committed to push Universal Financial Inclusion to help close the persistent gap between men and women, notably in access to account. Another important prerequisite is access to identification, which still eludes the role. The WB Group will assist clients in analyzing data on gender gaps in these areas, and using evidence to inform policy making, improve business practices, promote universal identification, and prioritize financial inclusion in ways that close gender gaps.
- d. Enhancing women's voice and agency and engaging men and boys. The WB Group will promote and enhance women's participation and decision making in service delivery and support the reduction of gender based violence and mitigate its impact in conflict situations. The WB Group will continue to support the collection of evidence about legal gender differences building the base for changing adverse masculinity norms and promoting positive behaviours and the effective representations, participation and decision making of women in local service delivery governance structures, notably water, energy, school, health centre management committees and local development committees.

5.4. SMI GEUDP ESMF on Resettlement Policy

95. SMI has developed a high-level Environmental and Social Management Framework (ESMF) which provide guidance and principles to avoid, minimize, and mitigate any adverse environmental or social impacts of all of its geothermal energy upstream development projects, including resettlement process for the Waesano Geothermal Exploration Project.
96. The ESMF policy framework for resettlement observes the following process as in accordance to the World Bank OP/BP 4.12 on Involuntary Resettlement, applicable for the Project:
 - Preparation and approval of LARAP, which include:
 - Provision of documentation regarding land acquisition needs (including the land that will be needed for the project in the future, where, and what the existing land ownership and land uses);
 - Determine cut-off date and eligibility criteria for all affected persons;
 - Collection of evidence as proof of eligibility; and
 - Development of an entitlement matrix to ensure that compensation will be paid at replacement value in addition to transitional assistance; that land is replaced with that of equal value and amenities; that livelihood assets are replaced with those of equal value; and that benefit sharing is assured through additional support mechanisms where possible.
 - Application of negotiated land compensation which includes meaningful consultations, offer of a fair price, and transparency in negotiation.
97. The activities in the Project need to comply with both Indonesian laws and regulations and the World Bank policies. Table 5.1 below presents the comparison of key features between the GOI's Laws and Regulations pertaining Land Acquisition and Resettlement, and how they are addressed. Specifically, for the Waesano Geothermal Exploration Project, land acquisition processes will be conducted to comply with Indonesian law and regulation, as well as the GEUDP ESMF.

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
OP 4.12 Involuntary Resettlement				
Direct Impacts.	Covers provision of benefits to address direct social and economic impacts caused by loss of land, assets and income.	Relates to compensation for loss of land and assets also other losses that can be accounted caused by taking of land for a project.	No gaps identified.	Covered by the valuation methods as specified in the MAPPI Standards
Indirect impacts.	States that indirect social and economic impacts caused by project should be addressed under OP 4.01	Not covered, however indirect impact regulated in Ministry of Environment Regulation No. 16 of 2012 on Compilation of Environmental Document (AMDAL)	Indirect impacts are not covered in the land acquisition law.	It will be covered in the ESIA, ESMP and UKL/UPL
Related activities.	Covers impacts that result from other activities is if they are (i) directly and significantly related to the proposed project; (ii) necessary to achieve its objectives; and (iii) carried out or planned to be carried out contemporaneously with the project	Not covered	Related activities are not covered.	It is addressed in the RPF and will be considered in the LARAP process for each subproject.
Host Communities.	Impacts on host communities need to be considered, and host communities need to be consulted.	Not covered since option of resettlement/relocation is not sufficiently elaborated.	Host communities are not explicitly covered in the GOI regulations.	This will be addressed in the LARAP for each subproject
Resettlement as Sustainable Development Program.	Resettlement activities should be conceived as sustainable development programs, providing sufficient resources to enable persons displaced to share in project benefits.	Resettlement (relocation) is an option of compensation but not sufficiently elaborated; focuses more on cash compensation.	Lack of non-cash support	RPF provides options for compensation consistent with OP4.12

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
Vulnerable Groups.	Pay particular attention to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, Indigenous Peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.	Project Affected People are not differentiated by vulnerability or gender.	No specific separation by vulnerability or by gender.	The LARAP will include information on the vulnerable groups (women, very poor, disable, etc.), particularly during the census survey.
Resettlement Planning Instruments.	Different planning instruments must be prepared to achieve the objectives of the policy (resettlement plan, resettlement policy framework or process framework) and must cover all aspects of the proposed resettlement.	Land acquisition plan ⁶ based on a feasibility study, the project suitability ⁷ to the spatial plan	Not equivalent with the development plan in LARAP	Requirement to prepare a LARAP when subprojects involves involuntary land acquisition and resettlement
Eligibility for No Formal Legal Rights.	For those without formal legal rights to lands or claims to such land that could be recognized under the laws of the country, provide resettlement assistance in lieu of compensation for land to help improve or at least restore their livelihoods. Will covers squatters and encroachers	Does not cover squatters (unless in good faith on public land), encroachers and renters on private land. <ul style="list-style-type: none"> Landless and laborers are not expected to be compensated and provided rehabilitation measured; it is the responsibility of the landowner to compensate them. 	Does not cover squatters	The RPF specifies that licensed appraisers compensation criteria include among others, assistance and livelihood

⁶Not the same as World Bank LARAP/RP, here is more implementation procedure than development plan.

⁷At present the spatial-planning zoning could accommodate the function that proposed by the project. If not the project has to move to other place or revision of zoning should be issued by the local parliament proposed by the relevant government institution

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
Eligibility for Indigenous Peoples.	IPs are covered when screening identifies the presence of IPs as per characteristics in OP4.10 policy (which does not require any legal recognition).	Indigenous Peoples are covered by the land acquisition and resettlement legislation once they have been legally recognized ⁸	Different ways to identify Indigenous People.	IPPF specifies that if a subproject needs to acquire land, RPF applies.
Land for Land (Resettlement).	Preference given to land based resettlement strategies for displaced people whose livelihoods are land based.	No time allocation and detail procedures to implement this resettlement scheme	The compensation does not prioritize land to land mechanism	RPF provides options for compensation
Benefits Package.	Provide technically and economically feasible resettlement alternatives and needed assistance, including (a) prompt compensation at full replacement cost for loss of assets attributable to the project; (b) if there is relocation, assistance during relocation, and residential housing, or housing sites, or agricultural sites of equivalent productive potential, as required; (c) transitional support and development assistance, such as land preparation, credit facilities, training or job opportunities as required, in addition to compensation measures; (d) cash compensation for	<p>Mainly cash; in MAPPI guideline compensation is market price plus transaction and other costs, plus premium (to cover beyond valuation cost such as emotional lost).</p> <ul style="list-style-type: none"> • Real Property (Physical Assets) <ul style="list-style-type: none"> ✓ Land ✓ Buildings & Facilities ✓ Plants ✓ Other things related to the land required to restore to the owner a property of at least the same quality as that owned prior to the land acquisition. • Cost & Loss (Non-Physical Losses) <ul style="list-style-type: none"> ✓ Transaction costs 	No gaps identified	RPF provides requirements for compensation options, and licensed appraisers assess physical assets, cost and loss of non-physical assets and premium

⁸In BPN and Forestry Regulations IP institution should be recognized by local government, while institutions that in favor of IPs prefer that the recognition comes from independent IPs Committee.

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
	land when the impact of land acquisition on livelihoods is minor; and (e) provision of civic infrastructure and community services as required.	<ul style="list-style-type: none"> ✓ Moving costs ✓ Loss of on-going business (business interruption) ✓ Other losses of special nature, subjective and difficult to calculate • Premium 		
Full Replacement Cost.	Requirement for compensation for land and asset to be at full replacement cost	"Fair and reasonable", based on value assessment made by the licensed appraisers.	No gaps identified	Criteria used by licensed appraisers as specified in the RPF included compensation for physical, non-physical and premium.
Livelihood Restoration.	The resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are: (i) Offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements; and (ii) Provided with development assistance in addition to compensation measures described in paragraph 6 (a) (iii), such as land	Once fair compensation given further consideration and impact mitigation are not elaborated.	Impact mitigation not elaborated.	RPF included resettlement assistance and livelihood

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
	preparation, credit facilities, training, or job opportunities.			
Indigenous Peoples.	Land of indigenous people is addressed in both OP 4.12 and OP 4.10. If land of IPs is to be taken, requires broad community support and free, prior and informed consultation.	Land of indigenous people is treated in the same way as other, if land rights are recognized by relevant local government	WB policy requires specific engagement and broad community support by Indigenous Peoples.	RPF applies of a subproject involve land acquisition and/or resettlement, regardless of who own the land. Consultation as specified in the RPF and LARAP should be consistent with the IPPF (free, prior and informed consultation, broad community support), specifically tailored to the local context and the characteristics of the affected persons. ⁹
Resettlement Cost.	The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project. [20]	Budget plan is part of land acquisition plan but tend not considering the resettlement cost.	Budget plan does not prioritize resettlement cost.	RPF and LARAP require that costs for land acquisition and resettlement is budgeted
Consultation and Complaint Procedure.	Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs (2.b) Grievance mechanism should take into account availability of judicial recourses and community and traditional dispute settlement mechanism (17)	Consultation to the Project Affected People needed to get permit for the proposed location of the project. There is no prior consultation before negotiation on option of compensation. The grievance redress mechanism is clearly described and within the court it will follows the court procedure. Understanding the limitation and	Consultation is limited and grievance redress mechanism is limited to the court system.	RPF and LARAP require consultation and implementation of GRM.

⁹Refer to the definition of Indigenous Peoples, the legal framework and to the consultation methods, in the IPPF, Section 7.

Table 5.1. Gap Analysis

Scope/Topic	Bank Policy	Government of Indonesia Regulation	Gaps Identified	Addressed in the ESMF
		over burden of the court system, the effectiveness of the implementation still in question		
Monitoring of outcomes.	Requirement to carry out adequate monitoring and evaluation of all activities set out in the resettlement plan Assess whether the objectives of the resettlement instrument have been achieved, upon completion of the project, taking account of the baseline conditions and the results of resettlement monitoring	Monitoring and evaluation covers the occupation, ownership, utilization and benefit of the result of land acquisition without clear on when, how and what correction measure could be enforced.	No mechanism for enforcing corrective measures.	LARAP specify the requirement of monitoring of land acquisition and resettlement activities. Overall, the project is required to monitor and report the preparation and implementation of LARAP (and EMPs and IPPs as well)

6. Project Entitlement, Assistance and Beneficial Measures

6.1. General Approach

98. Land acquisition process for development of public interest is based upon Law Number 2/2012 and it's implementing regulations (see Section 5.1.1) and WB Policy on Involuntary Resettlement which have been adopted in the Resettlement Policy Framework (RPF) of the ESMF GEUDP. The RPF will be used as guidance for planning and implementation of land acquisition. Implementation of land acquisition will follow the stages/steps in GoI regulations, but still adhere to the principles of the WB policy.
99. For land acquisition of land above 5 ha, planning stage will be followed by three stages, to be conducted by the Government agency that needs the land (Ministry of Energy and Mineral Resource / MEMR), i.e. the Preparation Stage, Implementing Stage and Submission stage. Preparation stage will be initiated once the Land Acquisition Plan document (prepared in the planning stage) is handed over and approved by the Governor. However, since the Project will only acquire less than 5 ha land area for each of the road widening locations, while land for well pads and main facilities will not be purchased, referring to the Presidential Regulation number 148 of 2015, the process can be directly conducted with holders of land right through a business transaction or other way agreed by both parties.
100. The following key points are observed in the GEUDP ESMF to be implemented in undertaking voluntary negotiation:
 - Negotiations as to which site is selected based on land-owners' willingness to sell or lease land;
 - Negotiations process will apply the following principles:
 - Meaningful consultations with PAP, including those without legal title to land (i.e. those will be affected by road widening);
 - Offer of fair price for land and other assets at replacement cost, as per result of land appraisal to be conducted by the public land appraisal; and
 - Transparency in negotiation with Project Affected People to reduce risks of asymmetry of information and bargaining power of the parties. An independent external party will be engaged to document and validate the negotiation and settlement process. Verification (for example, notarized or witnessed statements) of the voluntary nature of land donations must be obtained from each person selling or leasing land.
101. Consultation with the entitled parties will be conducted by providing clear, factual and accurate information in a transparent manner on an on-going basis with no coercion. Providing opportunities for entitled parties to raise issues, make suggestions and voice their concerns and expectations with regard to the Project.

6.2. Land Acquisition and Resettlement Schemes

102. The Project will procure the proposed land areas for: (a) well pads and main facilities; and (b) road widening, in different scheme. Well pads area will only be used temporarily during exploration of the Project, while road widening will be permanent.
103. The following sections discuss the planned schemes for acquiring the land for the Project exploration stage. For all these schemes, the Project will apply voluntarily negotiations, as in accordance with the GEUDP ESMF.
104. Descriptions of these potential schemes are provided in the following Section 6.2.1 – 6.2.3, while for the next Project exploitation phase, a separate LARAP will be prepared for the required land, subject to completion of exploration phase of the Project.
105. Of note, a land acquisition implementation report will be developed at the end of the whole land acquisition

process to be submitted to the Ministry of Finance and World Bank.

6.2.1. Resettlement of Individually-Owned Land and Assets

106. At the current phase of exploration, the Project will use a land lease to acquire most of the proposed land required for development of well pads and main supporting facilities (e.g. water treatment, drilling camp). The agreement will adhere to the local customs for leasing land and based on voluntary negotiations with the affected people.

107. The Land Lease Agreement must also comply with the terms and conditions that each party has agreed on and have it in writing; this shall also be acknowledged by the customary leaders. Land lease scheme can refer to the Basic Agrarian Law Number 5 of 1960, Government Regulation Number 40 of 1996 on Land Use Rights, and Law Number 2 of 2012 regarding Land Acquisition for Development in the Public Interest. Mainly will involve the following steps:

- Socialization of the land acquisition plan and proposed scheme to all affected people;
- Preparation of map for each land parcel and confirming boundary with the adjacent land owners;
- Independent appraisal of compensation value refers to SPI 204 for the affected asset, including plants and structures on land;
- Verification of PAPs data gathered during the current LARAP census and confirm the level of losses for each PAP, including those that could not be met during the current survey;
- Disclosure of the result of land appraisal and inventory, as well as verification report of PAPs data in the Village Board;
- Negotiation to get agreement on the amount of land leasing cost and compensation of affected land and plant;
- Preparation of land lease agreement and documentation for compensation, and verification of legal status of land to ensure the land not subject to any other claims; and
- Compensation payment and documentation of leasing agreement.

108. Although the Project will only temporary use the proposed land area, and therefore land lease scheme is preferred, however as part of mitigation measures to manage the potential temporary livelihood loss from the affected agricultural land, as has been included in the ESIA and also identified in the current LARAP study, compensation for plants on the land is required. This is aligned with the GEUDP ESMF which observes adequate compensation of loss of income sources and livelihoods from the Project land acquisition and resettlement process.

109. Steps for compensation for plants on the affected land will refer to the Law number 2 of 2012 on Land Acquisition for Development in the Public Interest (Land Acquisition Law) for acquiring land for public use activities, and its implementing regulations (see Section 5.1) which observed that the appraisal of plants to be conducted by a public appraisal.

6.2.2. Land Acquisition of Access Road Widening Area

110. Access road use to the project area are district road along approximately 23 km, with the 10 m of existing ROW. Of note, SMI has obtained a confirmation letter from District LG about the ROW was 10m wide and their support to the land acquisition process, dated June 2018.

111. Along those 23 km, of access road, road widening is needed at 23 spots for material and equipment mobilization. SMI will give compensation to the land owners for affected land and other assets at replacement cost, while land owners will release the land to the local government.

6.2.3. Non-Individually Owned Asset

112. For the forestry land, mechanism to procure forestry land will refer to the Environmental and Forestry Minister Regulation Number P.27/Menlhk/Setjen/Kum.1/7/2018 (see Section 5.1.2).

113. In summary, the following steps will be undertaken for the application of IPPKH:

- Submission of permit application to Minister of Environmental and Forestry;
- Evaluation of administrative and technical requirements by the General Director of Forest Planning;
- Coordination with the General Director of Forest Protection and Natural Conservation for application of permit on Protected Forest area;
- Issuance of permit recommendation, with the permit location map;
- Assessment by the General Secretary and submission of a concept document of the IPPKH permitting approval, with the permit location map, to the Minister; and
- Issuance of the IPPKH.

114. For village government assets (including land), the transfer process of land assets belonging to the village (government assets) will follow the procedure set up in the Ministry of Home Affairs Regulation No. 1/2016, which states that to release the assets have to get approval from the governor. To obtain the approval of the governor, the village head must file a letter to the bupati (head of district) who will then forward it to the governor. Leasing procedure also regulated in that regulation. Village land can be leased for a period of three (3) years, with optional extension. Lease agreement should include (i) Clarity of leased objects (type, large area or unit number and period of lease); (ii). Responsibility over operational and maintenance cost throughout the lease period, (iii). Right and responsibility of each party, and (iv) Force majeure conditions.

115. Meanwhile for the affected communal land in Dusun Nunang, the Project will initially undertake consultation to get agreement of compensation form or leasing cost that will be conducted with all community members and customary leader witnessed by village government and/or district official. Ceremonial rites of land transfer will be conducted as per requested.

6.3. Eligibility, Cut-off Date, and Entitlement of Compensation

116. The PAPs eligible for compensation consisted of the following types:

- Persons with formal legal rights to the loss land in its entirety or in part;
- Persons who lose the land they occupy in its entirety or in part who have no formal ownership rights to such land, but who have claims to such lands that are recognized or recognizable under national laws e.g. through tax payment;
- Persons cultivated the lands of over 10 years and planted the loss land; however, do not have claims to the land; and
- Institutions have rights over the loss land under Indonesia Law.

117. The cut-off-date of eligibility refers to date when cadastral measurement is completed, which was 31 August 2018. The date has been disseminated to PAPs and that all PAPs have been aware of it. The cut-off date sets the time limits to determine eligibility of persons living and/or with assets or interests inside the project areas. Should they be adversely affected, they will be entitled to compensation for their affected assets, including rehabilitation measures, as needed, sufficient to assist them to improve or at least maintain their pre-project living standards, income-earning capacity and production levels. After the cut-off date, those who encroach into the project area will not be entitled to compensation or any other assistance.

118. Essentially, adherence to World Bank Safeguard policy and GEUDP ESMF require the inclusion of more informal owners in the corridor in some form of compensation or resettlement plan. It requires that the project can clearly demonstrate that the lifestyles and livelihoods of all affected parties are maintained or enhanced.

Adoption of the World Bank and GEUDP ESMF process are expected to reduce or mitigate the social impacts of the project and are likely to derive tangible longer-term benefits in community acceptance of the project.

119. Entitlements matrix¹⁰ (Table 6-1) has been prepared to define the Project strategy to ensure adequate compensation for all affected people. This Entitlements Matrix is developed based on the types of loss that a PAP may suffer from, the criteria for eligibility (who will be entitled to value compensation, rehabilitation, and resettlement support), and a range of entitlements (forms of compensation for each different impact which are not always financial). In principle, the compensation value will be assessed by an independent and certified public appraisal referring to the SPI 204, as well as additional consideration of entitlement based upon international standards as defined by the World Bank Safeguard and GEUDP ESMF on Resettlement.

Table 6-1 Entitlement for the Project PAPs

No	Type of Losses	Entitled Person	Project entitlement	Implementation Issues
A. Land Loss				
1	Permanent agricultural land loss (for access road)	Person / group with legal title/registration of land ownership	<ul style="list-style-type: none"> • Compensation at replacement cost as per valuation of independent appraisal result; • Certification of the remaining land will not use for road improvement. 	<ul style="list-style-type: none"> • Valuation of replacement cost will be conducted by independent public appraisal • Negotiation for leasing cost will be conducted in transparent manner with no coercion.
		Village government land	<ul style="list-style-type: none"> • Transfer of village land mechanism referring to Ministry of Home Affairs Regulation No. 1 Year 2016 	<ul style="list-style-type: none"> • Valuation of replacement cost will be conducted by independent public appraisal;
		Sharecroppers	<ul style="list-style-type: none"> • Annual crops: cash compensation will be paid based on prevailing market rates; • Perennial crops: compensation at replacement cost taking into account their productivity and age; • Timbers/trees: compensation at current market rate based on age, type of trees and diameter of trunk at breast height; • Secondary structure will be compensated at replacement cost 	<ul style="list-style-type: none"> • Valuation of affected plant and secondary structure will be conducted by independent appraisal; • Advance notice to harvest tree /crops products.
2	Temporary land losses (for well pads and project facilities)	Person / group with legal title/registration of land ownership	<ul style="list-style-type: none"> • Leasing land compensation for 5 to 7 years; • Certification of all land areas affected by the Project facilities (including the well pads, its main and supporting facilities); • Land will be restored to pre-Project condition or even better. 	<ul style="list-style-type: none"> • Valuation of leasing cost will be conducted by independent public appraisal; • Negotiation for leasing cost will be conducted in transparent manner with no coercion.

¹⁰ This entitlements matrix is based on the current understanding of the project, it will be updated with more specific information as more research is undertaken on the specific land affected by the project, and the parties affected by its change of use.

No	Type of Losses	Entitled Person	Project entitlement	Implementation Issues
		Village government land	<ul style="list-style-type: none"> Leasing mechanism refer to referring to Ministry of Home Affairs Regulation No. 1 Year 2016 	<ul style="list-style-type: none"> Valuation of leasing cost will be conducted by independent public appraisal;
		Sharecroppers	<ul style="list-style-type: none"> Annual crops: cash compensation will be paid based on prevailing market rates; Perennial crops: compensation at replacement cost taking into account their productivity and age; Timbers/trees: compensation at current market rate based on age, type of trees and diameter of trunk at breast height 	
3	Loss of communal land	Member of communal	Cash compensation at replacement cost or other types all owners of communal land as per provisions compensation for loss of land above and ceremonial rites of land transfer;	<ul style="list-style-type: none"> For communal land, consultation to get agreement of compensation or leasing cost will be conducted with all community member and customary leader witnessed by Village Government and/or Sub District Official. Observe ceremonial rites prior to construction if upheld by customary communities.
4	Plant or trees		<ul style="list-style-type: none"> Annual crops: cash compensation will be paid based on prevailing market rates; Perennial crops: compensation at replacement cost taking into account their productivity and age; Timbers/trees: compensation at current market rate based on age, type of trees and diameter of trunk at breast height 	<ul style="list-style-type: none"> Valuation of affected plant will be conducted by independent appraisal; Advance notice to harvest tree /crops products
5	Secondary structure	Owner of the assets with registration or who is identified in census	Cash compensation for structure at replacement value based on market price free of depreciation/transaction costs and salvaged materials .	Valuation of affected asset will be conducted by independent appraisal.
6	Community structures or public Infrastructure losses (such as: PAMSIMAS water treatment)	Owner of public or community infrastructure	<ul style="list-style-type: none"> Reconstruction of lost structure in consultation with community. They will be fully replaced or rehabilitated so as to satisfy their pre-project functions taking into account any recognised new needs 	

No	Type of Losses	Entitled Person	Project entitlement	Implementation Issues
			that could increase use or service levels	
8	Loss of resource bases	Vulnerable and severely PAPs	<ul style="list-style-type: none"> • Certification of all land areas that affected/leased by the Project facilities (including the well pads, its main and supporting facilities), and the remaining land; • For the land affected by road widening, certification for the remaining land; • Provision and prioritize of employment opportunities for the affected people or its household members in project-related job opportunities (list of PAPs will be informed to contractor); and/or • Participate in community development program (for vulnerable and severely PAPs of project area) which are already initiated as part of the PT. SMI's CSR/CDP program 	

Source: PT SMI (Persero), December 2018

7. Valuation of Assets and Calculation of Compensation for Losses

7.1. Valuation of Assets

120. Valuation of asset will be based on replacement cost principles as regulated in the OP 4.12 and adopted in the ESMF GEUDP. To ensure compensation fulfill that principles, the valuation / appraisal of affected land and other assets will be conducted by accredited independent evaluators following standards established by the Indonesian Association of Professional Evaluators (*Masyarakat Profesi Penilai Indonesia, MAPPI*)¹¹.

121. The basis of assessment are: (i) Fair Replacement Value - This value can be understood as a value based on the interests of the owner (the value to the owner)¹²; (ii) market value equivalence¹³; (iii) non-physical losses caused by the compulsory right relinquishment of property owner¹⁴; (iv) property ownership is not limited to ownership rights, but can be interpreted as control, management and use of property in accordance with applicable laws and regulations or according to the agreed scope of assignment; (v) valuation date is the announcement date, and the date of site determination for development for public interest in accordance with the applicable legislations; (vi) value adding should be calculated based on the risks incurred from owner's potential losses. The adequate replacement value must be higher than Property Market Value or at least equal to the compensation transaction value of similar property (if the comparator is similar property from a compensation transaction).

122. Compensation assessment in this standard includes but not limited to: i) the construction of resettlement; ii) education and motivation programs; iii) provision of working facilities; and iv) business facilities compensation. Assessment approach is specified in the detailed SPI 204 (Table 7.1).

Table 7.1 Replacement Cost Assessment Using Indonesia's Valuation Approaches

Valuation object	Calculation basis	Approach	Remark
Physical: Land or land & structures	Market and Non-Market	Market & Income	
Structure &/or Complementary Facility	New replacement cost with adjustments	Cost	In principle, valuation standard set by Independent appraisers' association does not apply depreciation for physical condition of the affected building.
Crops	Markets & reasonable cultivation calculation norms	Income	With the Discounted Cash Flow method for one cycle
		Market	For non-commercial plant, using references from relevant agencies.
		Cost	Immature crops
Non-Physical: Adequate replacement of the loss on right relinquishment from landowners who will be given a premium	Market and non-market	Income	Based on applicable laws and regulations
		Cost	Losses due to termination or closure of business premises.

¹¹See Indonesia Valuation Standards (SPI) 204, Land Acquisition Assessment for Development of Land for the Public Interest, Code of Ethics Indonesia Appraisers and Indonesia Standard, 2018

¹²Value to the owner is defined as the economic benefits derived from the possession or ownership of a property.

¹³The market value is one of the basis for value determination by taking into account limited or entirely absent data market. This market value can be compared with the value based on the potential use (without looking at the benefit of land acquisition plan for the public interest).

¹⁴Non-physical loss is other losses, as referred to in Law No. 2/2012, Article 33 f and its elucidation, applicable or according to the agreed scope of Tenure.

Valuation object	Calculation basis	Approach	Remark
Loss of job or loss of business, including profession shift.	Additional compensation calculated based on: - potential income ¹⁵ - income for the last month ¹⁶ -		e.g.: fish farmers, small restaurant - if no other provisions, can be considered for an average 3 months for business & 6 months for the professional shift.
Emotional losses (<i>solatium</i>)			e.g.: 5% - 30% from the market value of homes (land & building) as stipulated in these guidelines with the agreement of the assignor.
Transaction cost	Based on socio-economic study conducted by expert consultant or applicable laws & regulations	Cost	<ul style="list-style-type: none"> • Cost of moving • Cost of clearing • Tax associated costs • Cost of Certificate of Land Deed Official (PPAT)
Waiting period Compensation (interest)	Based on the risk-free rate, or the government bank deposits interest		Based on applicable laws and regulations
Loss of residual land	Market	Market data	
Other physical losses	Reparation cost	Cost	

7.1.1. Compensation for Land Lease

123. Compensation for land lease will be based on voluntary negotiations with the holders of land rights. The followings will be considered in the determination of the value of land lease:

- Result of public appraisal (*Kantor Jasa Penilai Publik* or KJPP) on the value of affected land and plants;
- Historical income value generated or potentially generated by the affected land in the future (as identified from this LARAP study); and
- Market value for land lease in other adjacent area e.g. in other sub-districts in Manggarai Barat (land lease is uncommon scheme for locals therefore no benchmark value at local level was found during the study period).

7.1.2. Compensation of Non-Individually Owned Asset

124. As discussed in earlier Section 6, for village government asset (including land), lease of asset and transfer of assets mechanism referring to Ministry Home Affairs Regulation No.1 Year 2016. It should include operational and maintenance cost of the land.

7.1.3. Entitlement to Vulnerable and Severely PAPs

125. In addition to government requirements, GEUDP ESM requires full compensation to be paid at replacement value. Livelihood assets are to be replaced with those of equal value. Benefit sharing is assured through additional support mechanisms where possible.

126. The provision of compensation for both government valuation and loss of income sources from the affected assets for each affected people category, as specified in an entitlements matrix (see Section 6.4) that includes the range of measures for compensation that includes cash or in kind compensation, income rehabilitation assistance, income substitution/business restoration. The type of compensation depends upon the affected peoples' losses, including the type; extent and nature of their losses, and which will suffice to restore their social and economic base. As per socio-economic baseline of the PAPs and impacts significance identified in

¹⁵ For business - net income plus the liabilities of business costs need to be paid for the transfer, such as the cost of permanent employees

¹⁶ For shift in profession

this LARAP report, the following will be provided for the severely and vulnerable PAPs:

- Entitle to participate in the livelihood restoration program as part of PT SMI CDP program
- Priority for a household family member in project-related jobs; and
- Certification of land which will be leased for the well pads and main facilities. This will be included as part of lease agreement, to be provided at the end of lease term.

127. **Gender Strategy** . Based on the section under WB Gender Policy, the following specific actions seek to address gender issues as well as for other vulnerable sectors in the Project:

- Women, the elderly, and disabled will be invited to/represented in consultations LARAP implementation;
- In conducting the Detailed Measurement Survey and consultations on resettlement activities, both women and men will participate in the discussions – to include the elderly and disabled (maybe by representation);
- Both husband and wife will be invited to be present to receive the compensation and other allowances due to the household for affected assets.
- Women will be given equal chance in getting hired for unskilled works and receive equal remuneration for the same work by the men.
- Women, the elderly, and disabled will be prioritized in Livelihood Restoration Program to be provided during LARAP implementation specifically as vulnerable/ severely AH heads.
- Disaggregated monitoring indicators by sex, ethnicity, and vulnerable groups will be developed for monitoring social benefits, economic opportunities, livelihood, and resettlement activities.

7.2. Calculation of Compensation

128. Calculation of land price and other compensation for crops, trees, structure, and other affected assets shall be provided based on the land census through the independent and certified public appraisal office (KJPP). The estimated budget is presented in Section 11.1.

8. Consultation, Participation and Information Disclosure

129. With regard to WB's disclosure policy, it is a requirement that key information on LARAP will be disclosed. Consultations and discussions will be continued with the affected people, SMI, Land Acquisition Committee and other stakeholders to inform various stakeholders about the land acquisition preparation and implementation to identify concerns and to seek feedback from the affected people and concerned groups. Methods to be used during the consultations will include: public meetings, individual interviews, group interviews, and field level observations. All minutes of meetings, photos, attendance sheets will be prepared and recorded.

8.1. Consultation Prior to Preparation of LARAP Document

130. A Stakeholder Engagement Plan (SEP) has been developed specifically for the Waesano Geothermal Exploration Project consisting of stakeholder engagement programs and a proposed grievance mechanism (see Final SEP Report, June 2018). The SEP has included a stakeholder analysis and proposed planning for on-going stakeholder engagement; which will be a supporting activity in line with the implementation of environmental and social management plan (ESMP), UKL-UPL monitoring, as well as continued engagement during the land acquisition process. The SEP will function as a living document which will need to be revised along with the Project development or changes. Moreover, the implementation of SEP will require a coordinated program for community engagement. It has included record of consultation associated with the Project plan for land acquisition.

131. Detailed descriptions of engagement and consultation undertaken for the Project prior to the recent study for this LARAP and key issues identified associated with land acquisition issues have been reported in the Final ESIA and SEP Report (June 2018) and Preliminary LARAP (March 2018). With respect to historical land acquisition activities, the following stakeholder engagement has occurred:

Table 8.1. Consultation Prior to Preparation of LARAP Document

Time and Location	Stakeholders	Approach and Methodology	Issue Raised
March 2017 at Waesano Village	Head of Village, Community Leader (Tua Golo), Communities	<ul style="list-style-type: none"> Participatory mapping 	Identification of some sacred area and potentially cultural heritage in the propose project location
March 2018 (preparation of Preliminary LARAP).at Waesano Village and Villages affected by road access widening	Customary head (<i>Tu'a Golo</i>), Head of Village, Head of Sub-district, and landowners	<ul style="list-style-type: none"> Key informant interview Interview to land owners 	There were several key issues raised during these community engagement activities, including concerns on land acquisition and expectations for local community involvement during the Project development;
November 2016 (during ESIA Study) at Waesano Village	Head of Subdistrict, Head of Village, Community Leader (Tua Golo), Communities	<ul style="list-style-type: none"> Public Consultation 	<ul style="list-style-type: none"> Expectation for local employment and provision of business partnership opportunities to support project operation e.g. for food and lodging;
May 2018 (finalization of ESIA document) at Waesano Village	Head of Village, Community Leader (Tua Golo), Communities	<ul style="list-style-type: none"> Consultation Walkthrough 	<ul style="list-style-type: none"> Expectation for community development program in the form of socio-economic empowerment for local people and infrastructure development such as road repairs to support tourism development in the village;

Time and Location	Stakeholders	Approach and Methodology	Issue Raised
			<ul style="list-style-type: none"> Fears of mud flow (as occurred in the 'Lapindo case'); Concern toward potential impacts on natural preserve and physical cultural resources e.g. Sano Nggoang Lake, spring water, old historical villages; and Worried about the unclear scheme of land acquisition and compensation plan.

8.2. Consultation/Socialization during Preparation of LARAP Document

132. To address potential issues associated with the project land acquisition, series of socialization regarding land acquisition process was conducted on 6-7 December 2018 in Waesano Village and sub-district office. Information delivered during the socialization were about description of project and impact to the community assets, estimation number of PAPs and their losses, mechanism and scheme of compensation, grievance redress mechanism dan tentative schedule for land acquisition and project implementation. Unfortunately socialization on 6 December 2018 was taken by object community to express their objection, so the material about land acquisition has not been conveyed properly. Additional consultation was conducted on 19 and 20 December 2018 regarding project planning as requested by LG and some community leader. Summary of the said consultation and socialization are as follow.

Table 8.2. Consultation/Socialization During Preparation of LARAP Document

Time and Location	Stakeholders	Approach and Methodology	Issue Raised
August 2018 at Village of Waesano, Wae Lolos, Golo Mbu and Golo	Customary head (<i>Tu'a Golo</i>), Head of Village, Head of Sub-district, and landowners	<ul style="list-style-type: none"> Interview of land owners 	Get further information about land ownership status and basic information of land owners and their perception to the project plan
6 December 2018 at WaeSano Village Office	<ul style="list-style-type: none"> Owners of land and non-land assets of project area Manggarai Barat LG (Vice Bupati, Secretary of Bupati, Assistant II of the Bupati, Head of Sano Nggoang Sub District, Head of Waesano Village <i>Tu'a Golo</i> (customary leader) and religious leader <p>The attended participants were not only affected land owners, but also Nunang Villagers who expressed their rejection to the project plan, with some following reasons:</p>	<ul style="list-style-type: none"> Socialization /consultation meeting 	<ul style="list-style-type: none"> Object people said their reason of objection was because they worries about negative impacts due to exploration activities to their livelihood and farming activities. Objection specifically raised by some people from Nunang sub village who live close to the drilling point. Further dialog with the Nunang villagers who still reject the project will be conducted by PT SMI. Manggarai Barat LG will facilitate the dialog;

Time and Location	Stakeholders	Approach and Methodology	Issue Raised
7 December 2018 at Sano Nggoang Sub District Office	<ul style="list-style-type: none"> PAPs who owned land and non land assets affected by exploration area. Land Acquisition Committee (Vice Bupati, Assistant of Bupati, other related Institutions, Head of Subdistrict, Head of Vilages and <i>Tu'a Golo</i>. PT SMI 	<ul style="list-style-type: none"> Socialization /consultation meeting 	<ul style="list-style-type: none"> Some affected land owners from Nunang and Lempe attended socialization because they want to get more information about land acquisition; PAPs agreed their land use for road improvement; they aware about the mechanism of land acquisition, entitlement and tentative scheduled; Customary leader from Nunang requested PT SMI to conduct specific consultation invited rejected peoples in order to have further dicussion on the reason of rejection and provided clarification regarding negative impacts geothermal project.
19 December 2018 at Sanonggiang Subdistrict Office	<ul style="list-style-type: none"> Nunangs Sub Village people who object to project Land Acquisition Team from the District Head of Subdistrict Head of Community (Tua Golo) Central Government (National Geological Agency, MoF, MEMR) PT SMI 	<ul style="list-style-type: none"> Socialisation/ Consultation meeting 	<ul style="list-style-type: none"> The agenda initially was to disseminate information regarding geothermal and benefit, potential enviromental impact and mitigation and dialogue with object people.Unfortunately no body was came, eventough the LAT, Central Government and SMI then came to Nunang Sub Village
20 December 2018 at Sanonggiang Subdistrict Office	<ul style="list-style-type: none"> Communities surrounding project area Land Acquisition Team from the District Head of Subdistrict Head of Community (Tua Golo) Central Government (National Geological Agency, MoF, MEMR) PT SMI 	<ul style="list-style-type: none"> Consultation meeting 	<ul style="list-style-type: none"> Keynote speaker from National Geological Agency disseminated information regarding geothermal and the benefit, potential enviromental impact and mitigation. Some participants said that the objection indicated information have not properly understand by community.Their missed undertanding become worse due to distribution of video about negative impact of Mataloko geothermal exploration activities. Requested transparency for all phases of project activity process Suggest material for socialization include information regarding impact of geothermal to community farm, since farming is main communitysource of income

133. Future and on-going stakeholder engagement and consultations are proposed for each stage of the land acquisition process. The following approaches will be used throughout the land acquisition process as part of the project stakeholder engagement program:

- Inform, consult, and involve all PAPs in the decision-making process of the land acquisition and compensation;
- Collaboration and empowerment/development with the PAPs, vulnerable and significantly affected people in particular, including consideration of gender strategy to ensure appropriate consultation strategy with women holders of land rights;
- Consultation with stakeholders involved in the Project land acquisition process and significant figures/leaders that have a strategic role in the community. Further consultation with each of the customary leader/family clan as the owners of the proposed land will be conducted to enable the land release, along with appropriate disclosure and consultation to all affected persons regarding the Project land acquisition process.

8.3. Disclosure

134. Upon approval of from the World Bank, LARAP document will be generated and produced in a timely manner, and posted in both World Bank and PT SMI websites, and at any locally accessible place in a form and language understandable to the affected communities and other stakeholders. The project information will be made available to affected communities as leaflets or brochure in Bahasa Indonesia.

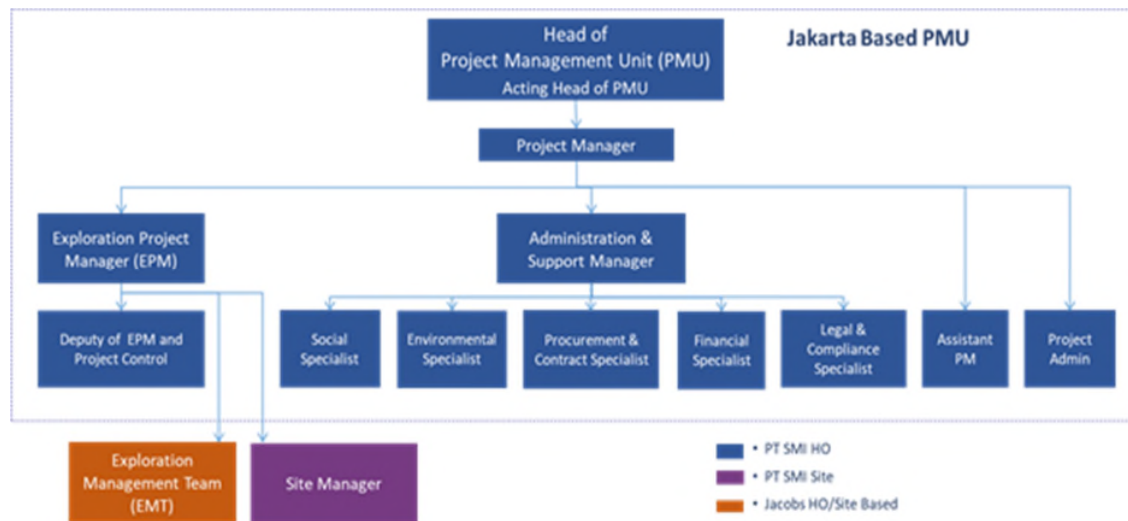
9. Organisational Arrangement and Responsibilities

135. In the general organizational structure of the Project Management Unit (PMU) and Exploration Site Team (EST), the responsibilities related to the implementation of this LARAP fall under the Social Specialist and Community Relations (see the following Figure 9-1 and Figure 9-2).

136. Main personnel will be responsible or involved in the implementation of land acquisition and resettlement for the Project as well as of this LARAP:

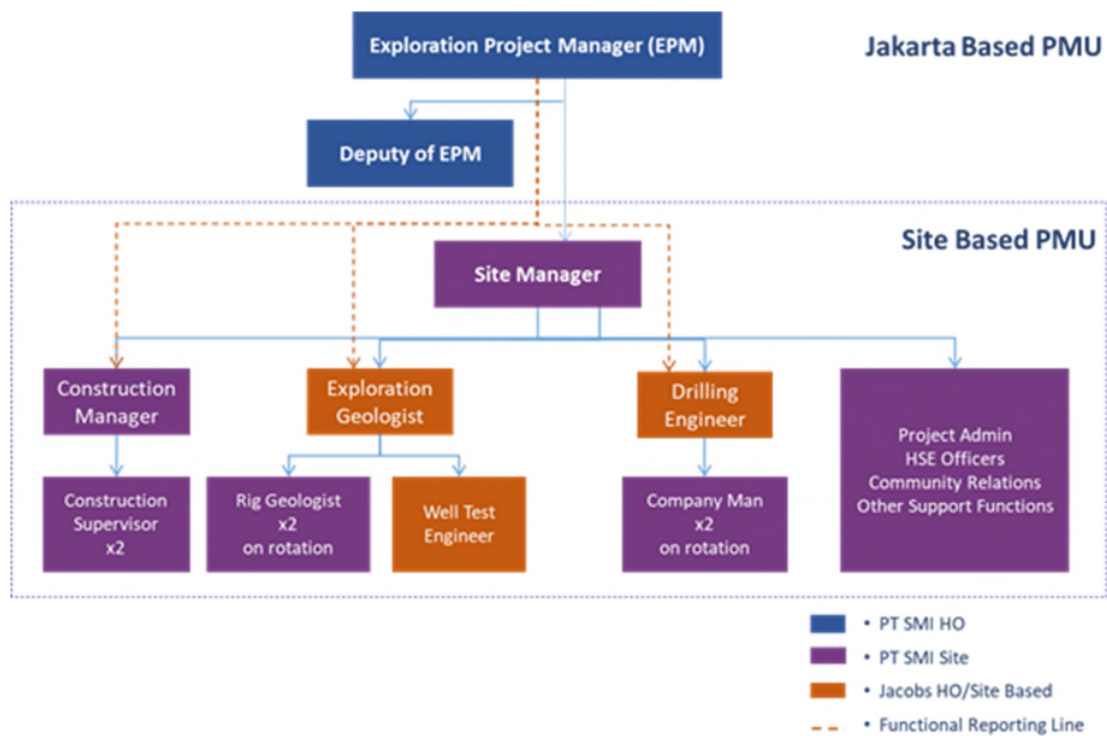
Table 9-1 Roles and Responsibility of the Project Land Acquisition Process

No	Unit/ Personnel	Key Roles and Responsibility
1	PMU Safeguard Team	<ul style="list-style-type: none"> Responsible for the whole land acquisition and resettlement process and ensure full compensation/ replacement value Leading engagement and liaison with government team and other related parties (e.g. the Public Appraisal Office/ KJPP) during the land acquisition and resettlement process Ensure proper GRM in place and accessible by PAPs and communities in project area Conduct internal monitoring of the land acquisition process, including evaluation toward the livelihood restoration of the Project affected people/ households
2	EST – Site Manager and team	<ul style="list-style-type: none"> In coordination with PMU Safeguard Team support Land Acquisition Team (established by LG) in the implementation of land acquisition process, includes socialization, negotiation and handling complaints.
3.	Land Acquisition Team (Ad Hoc Team consist of several institutions within Manggarai Barat LG, established by Bupati Decree)	<ul style="list-style-type: none"> In collaboration of SMI PMU Safeguard Team and the EST (including Site Manager) liaise with the government of Manggarai Barat Regency throughout the whole land acquisition and resettlement process Socialization of the proposed land acquisition and resettlement scheme as well as disclosure/ negotiation of the compensation and payment process. During socialization process, explains the process of land acquisition and resettlement, framework to determine the value of the change of profit, the form of loss and the rights and obligations of the party entitled, also to inventory any problems or objections and to classify the objection (type and reason for objections, objections and suggestions of the opposing parties). Assist the independent appraisal during inventory and identification of affected land Assist in handling any complaints related to project impact and land acquisition process



Source: PT SMI (Persero), September 2018

Figure 9-1 Project Management Unit (Jakarta Based)



Source: PT SMI (Persero), September 2018

Figure 9-2 Exploration Site Team

10.Implementation Schedule

137. The schedule for land acquisition is in accordance with the updated schedule of Waesano Exploration Project as shown in the following table.

Table 10-1 Land Acquisition Schedule

No	Activities	Timeframe	2018					2019												2020
			Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan to March
1	Preparation of LARAP																			
a	Cadastral Measurement and Socio Economic Households Survey	August to November 2018																		
b	LARAP finalization	August to December 2018, March 2019																		
c	World Bank review and approval on LARAP	April 2019																		
d	LARAP disclosure	April 2019																		
2	LARAP Implementation																			
a	Socialization of detailed land acquisition plan	December 2018, April to May 2019																		
b	Independent appraisal of compensation value for all affected asset, and report completion	June 2019																		
c	Measurement of project boundary by BPN	December 2018 to January 2019, and May 2019																		

No	Activities	Timeframe	2018					2019												2020
			Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan to March
d	Disclosure of the result of land appraisal and inventory, as well as verification report of PAPs data in the Village Board	June 2019																		
e	Negotiation to get agreement on the amount of land leasing cost and compensation of affected land and plant	July tp Aug 2019																		
g	Compensation/Lease Payment																			
	➤ Compensation payment	September to October 2019																		
	➤ Implementation of Livelihood Restoration Program to 63 vulnerable and severely PAPs. LRP will be part of PT SMI Community Development Program, in the form of improving of fabric crafts, processing of honey and cashew nuts (non timber forest product) and carbonizing of candlenut waste	October 2019 to March 2020																		
	➤ Land certification	Dec 2019																		

No	Activities	Timeframe	2018					2019												2020
			Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan to March
h	Monitoring																			
	➤ Internal monitoring (submission of quarterly reports)	On going during implementation																		
	➤ External monitoring (if needed)	6 month after compensation completed																		

11. Cost and Budget

11.1. Compensation Cost

138. The appraisal of land and other affected assets have not been conducted by the time this report is developed. Therefore, confirmed budget could not be obtained. The following estimation using general market and NJOP rate is based on information obtained during the development of Preliminary LARAP study (June, 2018). Information only from land owners might be bias to be used in estimating actual budget. The estimated budget here isto be updated once the land appraisal survey by a certified public land appraisal is completed. However, PT. SMI has allocated the budget for land acquisition implementation using the highest estimation.

139. Summary of budget for compensation of affected asset is provided in the **Error! Reference source not found..**

11.1.1. Estimated Compensation for Land

140. Based on interviews with stakeholders during the Abbreviated (Preliminary) LARAP study, it was identified that the range of land price based on NJOP and market price is IDR 10,000 to 15,000 per m² or IDR 100 million to 150 million per Ha. Differences in land price will depend on the location of land. For this LARAP purposes estimation unit rate for purchase land will refer to maximum marketrate, while for leasing will refer to Bupati Manggarai Barat Decree No.16/2015 on the Amount of Rent Use for Land and Building belong to Manggarai Barat District LG, which stated leasing cost for land was 15% of land purchased per year. Following are estimation budget for lease and compensate the land for project

- Estimation budget for land leasing for 5 years is = $15\% \times (170,872.88 \text{ m}^2 \times 15,000 \times 5 \text{ years}) = \text{IDR } 1,922,319,900$
- Estimation budget for replacement cost of land (for widening road access) is = $6,685.55 \times 15,000 = \text{IDR } 100,283,250$

11.1.2. Estimated Compensation for Affected Secondary Structure

141. A total of 38 m² of as resting place in the area - made of temporary materials that serve as resting place while working on the farm owned by 5 PAPs will be affected by the project. Estimation unit rate for affected secondary structure will be base on the valuation by licensed appraisal. For estimation budget in the LARAP was refer to highest rate of affected secondary structure appraised by licensed appraisal for one of PLN Project in West Kupang District, i.e IDR 600,000 per m² or IDR. $600,000 \times 38 = \text{IDR } 22,800,000$.

11.1.3. Estimated Compensation for Affected Plants/Trees

142. The following assumptions are used to estimate budget for compensation of affected plants above the land – it is calculated based on average harvest value of different type of plants, obtained during the household census:

- Timbers e.g. Mahoni, local wood – approximately IDR 600,000 to 1,000,000;
- Fruit trees e.g. Mango, Avocado, Coconut – range quite broad from 25,000 to 500,000;
- Annual harvested plantation e.g. Coffee, Clove, Candlenut – about IDR 15,000 to 90,000; and
- Crops e.g. paddy chilli, vegetables) – IDR 10,000 to 15,000.

11.1.4. Estimated Compensation for Forestry Land

143. Potentially forestry land affected area for well pad WS-D, disposal area and access road to well pad WS-D will not be any compensation such as non-tax government payment (PNPB) and compensating land according to MoEF number P.27/Menlhk/Setjen/Kum.1/7/2018 regarding IPPKH.

11.1.5. Livelihood Restoration Budget

144. GEUDP ESMF requires compensation to consider the livelihood restoration of the affected people. Should this not cover the calculation of the rental or purchase value by the government team, additional measures may be applied such as through the provision of a livelihood restoration program as part of PT SMI CDP program¹⁷. The implementation of the program can be implemented as aligned with the social and environmental responsibility program of the Project. This is observed by Indonesia Law 40 or 2007 for all companies having its business activities in the field of and/or related to natural resources shall be obliged to perform its Social and Environmental Responsibility.

145. Estimation budget for the LRP program refer to PT SMI CDP Program was IDR 1,761,800,000.

11.1.6. Budget for Land Certification

146. Budget for land certification was refer to the Government Regulation No. 128 year 2015 on the Type and Tariff on Non-Tax Revenue Applicable to the Ministry of Agricultural and Spatial Planning / National Land Agency . Estimation cost for certification of land per parcel was IDR 750,000

11.2 Total Budget for Implementation of LARAP

147. The following cost will be applied for the implementation of land acquisition and resettlement for the whole Project facilities, with approximate total budget of **IDR 10, 615,584,753,- or USD 758,256¹⁸**

Table 11-1 Total Budget for Implementation of LARAP

No	Activities	Large Area/Unit	Budget Estimation (IDR)
1	Compensation		
	a. Land Leasing		1,922,319,900
	b. Replacement cost for land affected by road access		100,283,250
	c. Non-individually owned asset/ land		
	o Forestry land (IPPKH application and approval)	26,315.21	N/A
	o Village government land	768.97	11,534,550
	o Communal Land (lease)	909.76	2,046,960
	c. Compensation for Affected Trees		6,155,040,000
	o Trees/Timbers	4,499	4,499,000,000
	o Fruit Trees	1,334	667,000,000
	o Annual harvested plantation	9,658	869,220,000
	o Crops	7,988	119,820,000
	e. Compensation for affected secondary structure		22,800,000

¹⁷A community development program called Desa Bakti untuk Negeri II (DBUN II) was developed by PT SMI in order to manage environmental and social impact due to Waesano geothermal exploration activities. According to assessment conducted by Yayasan Dian Desa (YDD – and NGO assigned by PT SMI in implementing the program), DBUN II divided to two program, which are Category A which will provided in the form of improvement of education facilities and revitalizing of water supply facilities which have been started in 2 October 2018.

Category B was consist of four component, i.e improving of fabric crafts, processing of honey and cashew nuts (non timber forest product) and carbonizing of candlenut waste. Program improving of fabric craft just started in early of October 2018, while other components will be start next year.

¹⁸exchange rate 1 USD = IDR 14,000

No	Activities	Large Area/Unit	Budget Estimation (IDR)
	f. Livelihood Restoration Program	63 vulnerble AHs	1,761,800,000.
	e Land certification (for all land areas affected by the Project facilities (including the well pads,its main and supporting facilities, and access road widening)*)	82 parcel of land	61,500,000
	Sub-Total Compensation		9,311,916,450
2	Operational Cost (4% x total compensation)		372,476,658
	Overall Total		9,684,393,108
	Contingensies (10 of total compensation)		931,191, 645
	TOTAL Budget		10,615,584,753

12. Grievance Redress Mechanism

148. Management of grievances has been proposed in the SEP (see Final SEP Report, June 2018); it has an important role in managing social issues and risks. The grievance redress mechanism (GRM) is a way for the community to be able to provide hopes/goals, feedback or submit a grievance related to all project activities, both orally and in writing, in order to garner support for the implementation of project activities, including land acquisition activities. Generally, the Project grievance mechanism will be in line with GEUDP ESMF, which states that "the grievance mechanism establishes a procedure to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance".

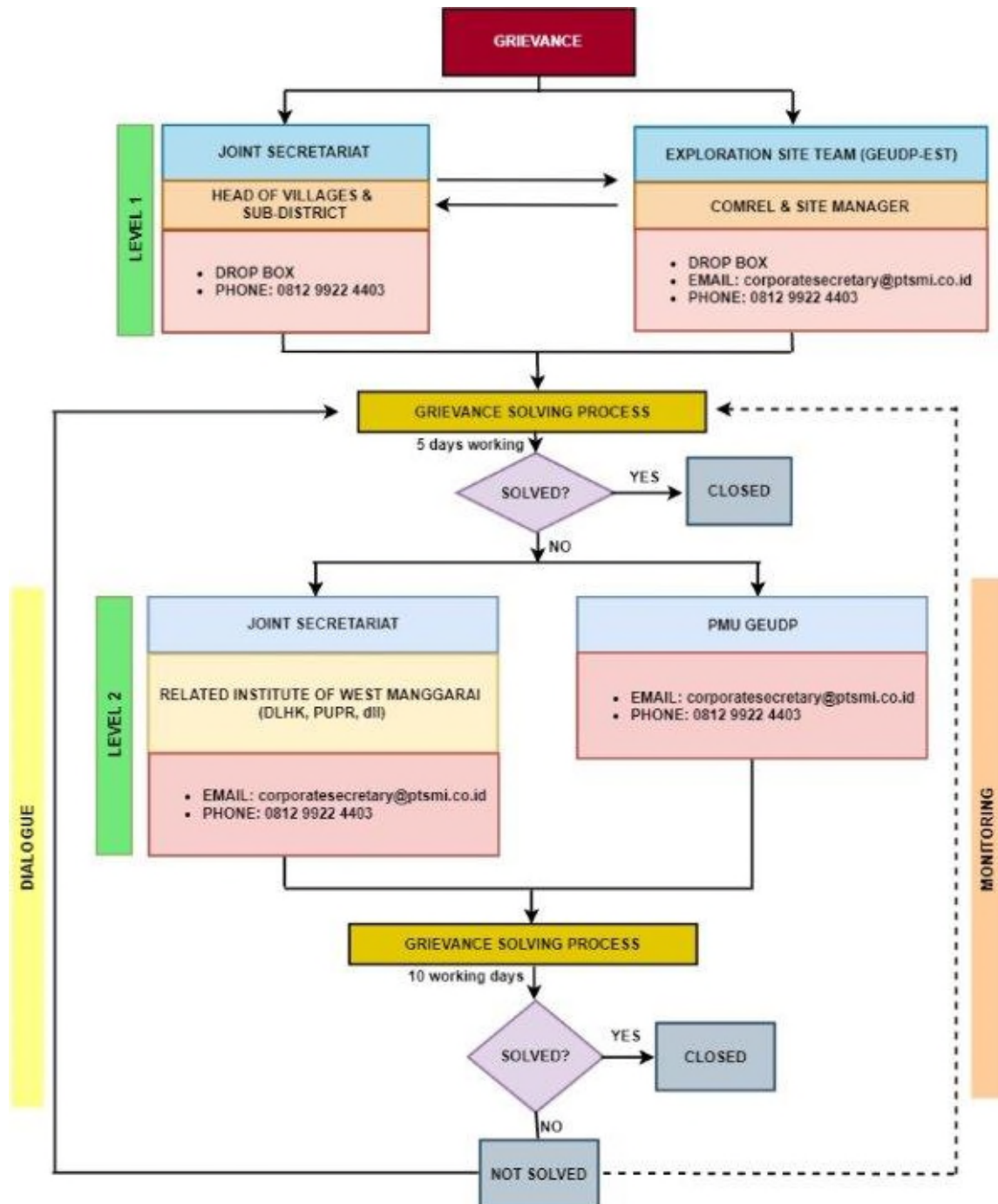
149. Specifically, for land acquisition matters, the Project will adopt the government process for handling objections (see Section 5), along with the general grievance mechanism for all Project activities. The following principles will be applied in the implementation of the Project GRM:

- No cost shall be borne to the APs in relation with the grievance redress mechanism;
- GRM will be disclosed in accessible location e.g. head of village office or church; and
- Community leaders (e.g. Head of village, *Tu'a Golo*, and Head of Sub-district will be consulted (e.g. through workshop or group discussion) to better understand the Project GRM and could support and facilitate placement of complaints. In addition, it will help the Project to ensure the GRM is well communicated to the rest of community members.
- The type of grievances to be entertained under the LARAP was related to inventory of affected assets, land ownership disputes, compensation, additional affected assets impacted during exploration activities.

150. Grievance Redress Mechanism principle is accessible by local communities. "Sekretariat Bersama" will be established by LG in order to assist PT SMI/project in handling any environmental and social complaints raised during land acquisition and exploration phase. Following are detailed of the mechanism :

- i. An aggrieved PAP may bring any complaint either directly to PT SMI project office (Site Manager and Comrel) or to the customary leader in the village/sub-village level or to head of village or head subdistrict level who will facilitate/bring the grievance to PT SMI project office, in the first instance to seek resolution. The Project office/customary leaders/head of village/head of subdistrict have 5 working days from receipt of grievance to settle the complaints. In this level aggrieved PAP could be put their complaints to the "drop box" which will put in each sub village and head of subdistrict office ; or send to mobile phone or PT SMI email.
- ii. If the grievance cannot be resolved, the PAP may convey the grievance to the PMU or to the district Related institutional agencies such as Environmental Agency (BLH Kabupaten) and public works agency who will bring to the PMU for resolution. The Project has 10 working days to settle the complaint. In this level aggrieved PAP could send their complaint to mobile phone or PT SMI email. The mechanism shown in the Figure 12-1.
- iii. Should the grievances be in larger scale could not be directly resolved by the local community relations Team, it will go the division of environment, social and advisory service or related divisions in PT. SMI;
 - Grievance resolution action plan will include:
 - Statement letter of clarification;
 - Engagement with complainants and relevant stakeholders;
 - Responses via phone; and
 - Establishment of memo of approval regarding the proposed grievance mechanism action plan.
 - Community Relations Team with the Corporate Secretary will responsible to monitor the way in which grievances are being handled and ensure they are properly addressed, as well as proper documentation of the process; and

- Regular grievance management reports will be produced and included in the periodic environmental and social management and monitoring implementation report of PMU GEUDP.



NOTE:
Joint Secretariat consists of related institutions within regional government of West Manggarai, stated by Regent's Decree which one of its task is to assist in solving grievances of Wae Sano Geothermal Exploration Project.

Figure 12-1 Grievance Redress Mechanism

13. Monitoring and Reporting

151. The extent of monitoring activities will be commensurate with the project's risks and impacts. The purpose of monitoring and reporting is to: (a) Comply with national regulation and World Bank's OP 4.12 which has been adopted in the GEUDP ESMF; (b) Determine effectiveness of institutional arrangements; (c) Identify problems and remedial actions if any; (d) Identify methods of responding immediately to resolve or mitigate problems; (e) Verify if the standard of living of displaced persons are restored or improved; (f) Assess sustainability of income restoration program; and (g) Determine if human and financial resources allocated are adequate and effective.

152. In addition to recording the progress in compensation payment and other resettlement activities, the Project will be required to prepare monitoring reports to ensure that the implementation of the resettlement plan has produced the desired outcomes. The following process will be implemented for monitoring and reporting of this LARAP:

- PMU Safeguards Team will undertake periodic monitoring of the implementation of the LARAP implementation components. It will be part of an overall project monitoring and reporting system outlined in the GEUDP Project Implementation Manual. This will look into the following concerns:
 - The number of entitled parties by category of impact per component, progress of land acquisition implementation including the status of compensation payment, income restoration program and status of provision of other entitlements. The amount of funds allocated for operations, time frame, compensation and other entitlements
 - Levels of affected person's satisfaction toward the livelihood restoration program, particularly the vulnerable and severely PAPs;
 - Consultations through various meetings and special meetings with vulnerable groups and women, level of participation.
 - Complaints/grievances that may include consultations organized for LARAP activities, knowledge of LARAP and entitlements by the PAPs, information and use of grievance redress mechanism, and any outstanding issues requiring action from the management.
 - Affected public facilities and infrastructure are restored promptly; and
 - Implementation problems encountered and solutions.
- As deemed necessary by the World Bank and PT. SMI, PMU safeguards team will engage an independent monitoring agency to review and evaluate the involuntary land acquisition, and livelihood restoration processes.
- Development of a land acquisition implementation report at the end of the whole land acquisition process to be submitted to the Ministry of Finance and World Bank.

14. Bibliography

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- Suhardjo. (1989). *Socio-Cultural Nutrition*. Bogor: Bogor Agricultural University.

Appendix A Questionnaire Form

No. PAP (Project Affected People)

LAND ACQUISITIONSURVEY QUESTIONNAIRE
Wae Sano Geothermal Exploration Project
PT Sarana Multi Infrastruktur
2018

Terima kasih telah menyetujui untuk wawancara dengan saya hari ini tentang klaim lahan Anda dan situasi rumah tangga Anda. Untuk lebih memahami bagaimana pembebasan lahan Proyek akan memengaruhi Anda dan rumah tangga Anda, kami telah menyiapkan sejumlah pertanyaan tentang keanggotaan rumah tangga Anda, pendapatan dan pengeluaran rumah tangga Anda, dan kondisi sosial ekonomi Anda.

Semua jawaban dan informasi akan kami rahasiakan dan tidak dibagikan secara publik. Ini akan digunakan untuk memungkinkan Proyek agar lebih memahami situasi Anda sehingga langkah-langkah yang tepat dapat dibuat sesuai kebutuhan bagi masyarakat untuk menyesuaikan dengan perubahan yang diakibatkan oleh Proyek. Setelah selesai wawancara, kami akan meminta Anda untuk menandatangani Form Survei untuk menunjukkan bahwa Anda telah secara sukarela berpartisipasi dalam Survei ini dan menyatakan bahwa semua informasi yang Anda berikan akurat, sejauh yang dapat Anda sampaikan.

I	Nama Responden	
II	Alamat (Dusun/RT/RW)	
III	No KTP dan/ atau KK (foto)	
IV	Pewawancara	
V	Hari/Tanggal wawancara	
VI	Tanda tangan Responden	

VII Pewawancara
 Nama:
 Tanda tangan:

VIII Supervisor
 Name:
 Tanda tangan:

IX Data Entry
 Name:
 Tanda tangan:

A KARAKTERISTIK RESPONDEN			
1.	Nama Responden:		
2.	Jenis kelamin responden:		
3.	Status responden di rumah tangga tersebut:	a) suami d) menantu b) istri e) saudara c) anak f) lainnya, sebutkan:	
4.	Nama Kepala Keluarga:		
5.	Jumlah Anggota Keluarga (satu rumah):		
6.	Umur Tahun	
7.	No Telp Seluler	
	Alamat (Dusun/RT/RW)	
	Desa.....	Kecamatan	
	Kabupaten		
9.	Agama /Kepercayaan		
	a. Islam	b. Kristen Protestan	c. Hindu
	d. Budha	d. Kristen Katolik	e. Lainnya, sebutkan
10.	Status Perkawinan		
	a. Menikah	b. Tidak Menikah	c. Janda/Duda
11.	Pendidikan Terakhir		
	a.SD	b. SMP/ sederajat	c. SMU/ sederajat
	d. PT/ sederajat / Akademi	e. Lainnya, sebutkan	
13.	Lama Tinggal di wilayah ini tahun	
14.	Kesukuan:	

B. ANGGOTA KELUARGA (sesuai KK)							
No	Nama	Jenis Kelamin	Umur	Hubungan Keluarga	Status Pernikahan	Pendidikan	Pekerjaan
1							
2							
3							
4							
5							
6							
7							
8							

C. KEPEMILIKAN ASET

1. Aset Bergerak

No	Aset Bergerak	Kepemilikan Sejak Tahun	Jumlah	Nilai (Rp)
a	Motor			
b	Mobil			
c	Generator Listrik			
d	Lainnya, sebutkan: -----			

2. Aset Tidak Bergerak

No	BANGUNAN	Total Area(m2)	Status Kepemilikan*	Material Atap Rumah	Material Lantai Rumah	Material Dinding Rumah
a	Rumah					
b	Gudang/ tempat penyimpanan hasil pertanian dan sejenisnya					
c	Kios/Warung					
d	Tempat Usaha lain, sebutkan** -----					
e	Bangunan lain, sebutkan** -----					

*Status Kepemilikan:

- Sertifikat hak milik
- Keterangan kepala desa
- Sertifikat HGB
- Hak Pinjam Pakai
- Akta Jual Beli/Hibah
- Tanpa surat-surat
- Lainnya, sebutkan

**Misalnya penginapan untuk turis, apabila memiliki rumah kedua, dsb

D. INVENTARIS ASET LAHAN

No (a)	Persil (Sebutkan lokasi persil tanah: Desa dan Dusun) (b)	Apakah lahan berada di rencana lokasi proyek/ sudah disurvei proyek (Y/T)* (c)	Pertanian (sawah atau ladang)		Perkebunan (buah-buahan atau tanaman keras lain)		Total Luas Pertanian dan Perkebunan (m ²) (h)	Nilai NJOP Lahan atau Harga Beli Lahan (Rp/m ²) (i)	Sejak tahun berapa memiliki lahan (j)
			Luas Lahan (m ²) (d)	Sebutkan tanaman di atas sawah/ladang yang masih produktif (menghasilkan pendapatan dalam 1-5 tahun terakhir)** (e)	Luas Lahan (m ²) (f)	Sebutkan tanaman di atas kebun yang masih produktif (menghasilkan pendapatan dalam 1-5 tahun terakhir)*** (g)			
1	Lokasi 1								
2	Lokasi 2								
3	Lokasi 3								
4	Lokasi 4								
5	Lokasi 5								
6	Lokasi 6								
7	Lokasi 7								
8	Lokasi 8								
Total Luasan									

*Tanyakan dan didata terlebih dahulu lokasi persil tanah yang sudah disurvei proyek

**a. padi; b. jagung; c. lainnya (sebutkan)

***a. kopi; b. pinang; c. kemiri; d. nangka; e. alpukat; f. vanili; g. bambu; h. lainnya (sebutkan)

** , *** Jawaban bisa lebih dari 1

E. PENDAPATAN

1. Sumber penghidupan rumah tangga*

(termasuk sumber pendapatan/ pekerjaan dari kepala rumah tangga, ibu rumah tangga, dan anggota rumah tangga lainnya)

- Pertanian sawah atau ladang
- Perkebunan
- Peternakan
- Pedagang (termasuk toko)
- Usaha sektor wisata
- Buruh atau tukang (termasuk buruh lepas perkebunan/pertanian)
- Pegawai (termasuk pegawai pemerintah, karyawan lain)
- Pengambilan hasil hutan
- Bantuan dari pihak lain (misalnya bantuan untuk KK miskin dari pemerintah atau bantuan keluarga di luar KK)
- Lainnya, sebutkan: _____

*Jawaban bisa lebih dari 1

2. Apabila ada pendapatan di sektor pertanian sawah/ladang dan perkebunan (Pilihan a – b pada No 1 di atas)

No	Sebutkan nama tanaman yang masih produktif dalam 1-5 tahun terakhir*		Tanaman _____	Tanaman _____	Tanaman _____	Tanaman _____	Tanaman _____
a	Lokasi tanaman di atas Lokasi Tanah Persil ke**						
b	Area tanam(m ²) /Jumlah tanaman(batang)						
c	Frekuensi panen(dalam 1 tahun)						
d	Produksi	Per sekali panen					
e	hasil panen (unit/kg)	Per tahun					
f	Perkiraan rata-rata pendapatan kotor sekali musim panen (Rp)						
g	Perkiraan biaya produksi untuk sekali musim tanam/musim panen (Rp)						
h	Total pendapatan bersih per musim panen***						
i	Total pendapatan bersih per tahun						

*Rincian tanaman, baik itu tanaman pertanian sawah/ladang dan perkebunan harus sesuai dengan isian di Tabel D: tanaman di atas tanah yang masih produktif (menghasilkan pendapatan dalam 1 tahun terakhir)

**Sesuai urutan lokasi persil tanah pada Tabel D

*** $h = f - g$

Catatan: rata-rata pendapatan dan biaya produksi, berdasarkan 1-5 tahun terakhir

No	Sebutkan nama tanaman yang masih produktif dalam 1-5 tahun terakhir*		Tanaman	Tanaman	Tanaman	Tanaman	Tanaman
a	Lokasi tanaman di atas Lokasi Tanah Persil ke**						
b	Area tanam(m ²) /Jumlah tanaman(batang)						
c	Frekuensi panen(dalam 1 tahun)						
d	Produksi	Per sekali panen					
e	hasil panen (unit/kg)	Per tahun					
f	Perkiraan rata-rata pendapatan kotor sekali musim panen (Rp)						
g	Perkiraan biaya produksi untuk sekali musim tanam/musim panen (Rp)						
h	Total pendapatan bersih per musim panen***						
i	Total pendapatan bersih per tahun						

No	Sebutkan nama tanaman yang masih produktif dalam 1-5 tahun terakhir*		Tanaman	Tanaman	Tanaman	Tanaman	Tanaman
a	Lokasi tanaman di atas Lokasi Tanah Persil ke**						
b	Area tanam(m ²) /Jumlah tanaman(batang)						
c	Frekuensi panen(dalam 1 tahun)						
d	Produksi	Per sekali panen					
e	hasil panen (unit/kg)	Per tahun					
f	Perkiraan rata-rata pendapatan kotor sekali musim panen (Rp)						
g	Perkiraan biaya produksi untuk sekali musim tanam/musim panen (Rp)						
h	Total pendapatan bersih per musim panen***						
i	Total pendapatan bersih per tahun						

3. Apabila ada lahan yang tidak dikerjakan sendiri: disewakan atau digarap orang lain
(Sesuai jawaban pada Tabel D Kolom (k))

- a. Bagaimana mekanisme sewa/ bagi hasil dengan pemilik lahan? Jelaskan
- a.1 pembagian hasil panen
- a.2 dengan pembayaran sewa tanah per tahun
- a.3 sebutkan lainnya: _____

- b. Berapa pendapatan dari lahan yang disewakan atau digarap orang lain, dalam 1-5 tahun terakhir?

Lokasi Persil*	Pendapatan per Musim Panen (Rp)	Pendapatan per Tahun (Rp)
1		
2		
3		
4		
5		
TOTAL (Rp)		

*sesuai urutan pada Tabel D

4. Apabila ada pendapatan dari peternakan(Pilihan c pada No 1 di atas)

	Kerbau	Babi	Ayam	Bebek	Lainnya _____	Lainnya _____
Jumlah ternak						
Ternak untuk: (a). Jual; atau (b) Konsumsi RT						
Sudah berapa lama dipelihara (berapa bulan)						
Harga jual/ beli (Rp/hewan)						

5. Apabila ada pendapatan di luar pertanian(Pilihan d – g pada No 1 di atas)

No	Sumber Pendapatan*	Pendapatan per Bulan (Rp)	Pendapatan per Tahun (Rp)
a			
b			
c			
d			
e			
TOTAL (Rp)			

*Sesuai jawaban No 1 di atas

6. Apabila ada sumber penghidupan rumah tangga dari pengambilan hasil hutan (Pilihan h pada No 1 di atas)

No	Hasil Hutan*	Kebiasaan pengambilan hasil hutan**	Mengambil hasil hutan untuk***	Rata-rata pendapatan dari menjual hasil hutan – sekali pergi (Rp)	Rata-rata pendapatan dari menjual hasil hutan dalam 1 tahun (Rp)
a					
b					
c					
d					
e					

*Sebutkan, bisa berupa tanaman hewan

**Pengambilan: (a) setiap hari; (b) setiap bulan; (c) berapa kali dalam 1 bulan, sebutkan: ____; (d) berapa kali dalam 1 tahun, sebutkan

***Tujuan: (a) dijual; (b) konsumsi, misalnya berburu hewan; (c) untuk kebutuhan rumah tangga, misalnya memasak; (d) ambil kayu untuk buat rumah; (e) untuk obat-obatan

7. Apabila mendapat bantuan dari pihak lain (Pilihan i pada No 1 di atas)

a. Jelaskan bantuan apa saja dari pihak lain yang menjadi sumber penghidupan rumah tangga

a.1 Bantuan untuk KK miskin atau sejenisnya dari pemerintah

a.2 Bantuan dari anggota rumah tangga yang tinggal di lokasi lain (sudah tidak lagi 1 rumah/ 1 KK)

a.3 sebutkan lainnya: _____

b. Besar bantuan yang didapat

No	Jenis Bantuan dari Pihak Lain (seperti di Point 7.a di atas)	Frekuensi mendapatkan bantuan*	Rata-rata besar bantuan sekali dapat (berdasarkan -5 tahun terakhir) (Rp)	Rata-rata besar bantuan sekali dapat dalam 1 tahun (Rp)
1				
2				
3				
4				
5				

*Frekuensi: (a) setiap bulan; (b) setahun sekali; (c) setahun lebih dari satu kali; (d) hanya pernah mendapatkan 1 kali; (e) sebutkan lainnya

F. PENGELUARAN RUMAH TANGGA

No	Komponen Pengeluaran	Pengeluaran	
		Per bulan (Rp)	Per tahun (Rp)
1	Pengeluaran utama		
a	Belanja untuk konsumsi bulanan		
b	Biaya sekolah		
c	Lainnya		
2	Pengeluaran khusus		
a	Sebutkan:		
b	Sebutkan:		
	Total Pengeluaran		

G. PENGETAHUAN DAN PERSEPSI MENGENAI PENGADAAN LAHAN PROYEK

- Apakah Anda mengetahui tentang rencana pembangunan proyek?
(a) Ya(b) Tidak
- Apakah anda mengetahui rencana pengadaan lahan untuk pembangunan proyek?
(a) Ya(b) Tidak
- Apakah Anda menghadiri sosialisasi/konsultasi proyek yang dilakukan proyek terkait rencana pengadaan lahan?
(a) Ya, berapa kali? _____ (b) Tidak
- Jika tidak hadir sosialisasi, darimana Anda mengetahui tentang rencana pengadaan lahan untuk proyek?
(a) Tetangga/ obrolan masyarakat di desa
(b) Kepala Desa
(c) Dari Tim Survey yang mendata lahan
(d) Sebutkan lainnya: _____
- Apabila mengetahui tentang rencana pengadaan lahan (Menjawab Ya pada pertanyaan No.2), apakah Anda mengetahui skema pengadaan lahan untuk proyek?
(a) Ya, sebutkan: (i) Jual Beli (ii) Sewa (iii) Sebutkan lainnya _____
(b) Tidak
- Apakah anda memiliki kekhawatiran dengan adanya rencana pengadaan lahan?
(a) Ya(b) Tidak
- Jika Ya (pada pertanyaan No.6), sebutkan satu-satu pilihan di bawah untuk dijawab: (i) Ya atau (ii) Tidak
(a) Terkait kejelasan mekanisme pengadaan lahan
(b) Kesesuaian dengan mekanisme pengadaan lahan yang diinginkan
(c) Terkait harga jual/sewa
(d) Apabila sewa, berapa lama waktu sewa
(e) Tidak memiliki lahan lain untuk bertani/ berusaha
(f) Khawatir dampak proyek, sebutkan _____
(g) Sebutkan apa bila ada kekhawatiran lainnya: _____
- Jika Ya (pada pertanyaan No.6), Apakah anda bersedia lahan digunakan untuk pembangunan proyek?

(a) Ya(b) Tidak

9. ~~Jika Ya (pada pertanyaan No.8 di atas),~~ Apakah anda bersedia menghadiri pertemuan negosiasi dengan Tim Proyek?

(a) Ya(b) Tidak

10. ~~Apabila ada kekhawatiran (ada jawaban Ya pada No.7),~~ Apakah Anda mengetahui kemana harus menyampaikan kekhawatiran kepada Tim Proyek?

(a) Ya, sebutkan ke mana jalur menyampaikan keluhan menurut masyarakat _____

(b) Tidak

H. CLOSING

1. Apakah ada hal lain yang ingin Anda sampaikan sekarang?

