

# **Hululais Geothermal Power Plant Project**

## **Land Acquisition Plan for Transmission Line (LAP)**

**September 2019**

**PT Perusahaan Listrik Negara (PLN)**

## ABBREVIATION AND ACRONYM

BPN	National Land Agency (Badan Pertanahan Nasional)
CSR	Corporate Social Responsibility
EIA	Environmental Impact Assessment
FGDs	Focus Group Discussions
HH	Household
JICA	Japan International Cooperation Agency
LAP	Land Acquisition Plan
PAP	Project Affected Persons
PLN	PT. PLN Persero ( <i>Perusahaan Listrik Negara</i> )
TOR	Terms of Reference
BLHD	Local Environmental Agency (Badan Lingkungan Hidup Daerah)

## DEFINITION OF TERMS

Project affected persons (PAPs): refers to any person or persons, household, firm, private or public institution that on account of changes resulting from the project. The PAPs will have its:

- i. Standard of living adversely affected;
- ii. Right, title or interest in any house, land (including residential, commercial, agricultural, forest and/or grazing land), water resources or any other moveable or fixed assets acquired, possessed, restricted or otherwise adversely affected, in full or in part, permanently or temporarily; and/or
- iii. Business, occupation, place of work or residence or habitat adversely affected, with or without displacement. In the case of affected household, it includes all members listing in the family card issued by village office, who affected by a project or any of its components.

Consultation is a process that:

- i. Begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle;
- ii. Provide timely disclosure of relevant and adequate information that is understandable and readily accessible to affected persons;
- 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. Enable the incorporation of all relevant views of affected persons and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.

Cutoff date: refers to the date prior to which the occupation or use of the project area makes residents/users of the same eligible categorized as PAPs. Persons not covered in the census are not eligible for compensation and other entitlements, unless they can show proof that:

- i. They have been inadvertently missed out during the census and the DMS (detailed measurement survey); or
- ii. They have lawfully acquired the affected assets following completion of the census and the inventory of losses.

Entitlements: refers to resettlement entitlements with respect to a particular eligibility category that covers sum total of compensation and other forms of assistance provided to affected persons in the respective eligibility category.

Income restoration: this is the re-establishment of sources of income and livelihood of the affected households to enable income generation equal to or, if possible, better than that earned by the affected households before the project operation.

Inventory of losses is the process where all fixed assets (i.e., lands used for residence, commerce, agriculture. It is including but not limited to ponds; dwelling units; stalls and shops; secondary structures; such as fences, tombs, wells; trees with commercial value; etc.) and sources of income and livelihood inside the Project corridor of impact are identified, measured, their owners identified, their exact location pinpointed, and their replacement costs calculated. Additionally, the severity of impact to the affected assets and the severity of impact to the livelihood and productive capacity of PAPs will be determined.

Land acquisition: refers to the process whereby an individual, household, firm or private institution compelled by a public agency to alienate all or part of the land it owns or possesses to the ownership and possession of that agency for public purposes in return for compensation at replacement costs.

Negotiated land acquisition: refers to land acquisition with principle that the persons involved are knowledgeable about a project and its implications and freely agree to participate. The persons also have the option to agree or disagree with the land acquisition, without adverse consequences imposed by the state.

(Source: Asian Development Bank)

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## **CHAPTER I**

### **BACKGROUND OF THE PREPARATION OF LAP**

In the Transmission Line 150 KV Hululais Geothermal Power Plant Project (2x55 Mw) project (the “Project”), land acquisition has been in process for the construction of the geothermal power plant. The procedures for land acquisition are required to be in conformity with JICA guidelines for environmental and social considerations (JICA guidelines) as the international standard, as well as in accordance with Indonesian law and regulations.

This land acquisition action plan (LAP) is prepared for the purpose to fill gaps between Indonesian laws and regulations and the international standards regarding land acquisition. JICA guidelines require sufficient compensation to be made for losses incurred by the land acquisitions and assistance to be provided for restoring livelihood and standard of living for all of the project affected persons (PAPs) not only the titleholders of land.

The main purpose of the preparation of LAP is to protect the affected persons from the effects of land acquisition mainly by providing appropriate compensation and supports based on the socio-economic study and a series of discussions, so that PAPs can improve or at least restore their former economic and social conditions. The plan includes, among others, grievance procedures, implementation system and schedule, cost and budget and monitoring system. It is essential that LAP is prepared through the participation of affected persons. The objectives of LAP include:

1. To mitigate negative effects of land acquisition. PAPs will not decrease the level of their life.
2. To provide PAPs opportunity to participate in the LAP preparation process.
3. To obtain accurate data about PAPs and other data through socio-economic study in accordance with the JICA guidelines.
4. To disseminate LAP to the public associated with the transfer of assets, with the aim to obtain the same perception and early feedback from PAPs.
5. To develop guidance of the compensation and or restoration assistance plan for PAPs, and
6. To provide grievance procedures and the monitoring and evaluation of LAP implementation.

## **CHAPTER II DESCRIPTION OF THE PROJECT**

The current basic principle for the Project land acquisition is the Presidential Decree No. 14 year 2017, as the revision of Presidential Decree No. 4 year 2016, subject to Acceleration of Electricity Infrastructure Development. In addition, the Energy and Mineral Resources Minister Decree No. 1567 K/21/MEM/2018 subject to the Approval of Long Term Planning of Electricity PT PLN (Persero) year 2018 up to 2027.

Currently, PT PLN (Persero) is in his best effort to realize the target in the RUPTL to develop the power plant. As well as the associated infrastructure, including the Project in Mubai District, Lebong Regency, Bengkulu Province with the estimated area required for Power plant is 15 Ha, Transmission Line is 4 Ha and Pekalongan Substation extension line by is less than 1 Ha (< 1 Ha).

According to RUPTL 2017–2026, as well as RUPTL 2019-2028, Hululais Geothermal Power Plant will be connected to Pekalongan Substation, which is 47 km southeast of the power plant and is located at Curup City in Rejang Lebong Regency, about 90 km Northeast from Bengkulu

The planning and required permits for the Project process has been carried out since December 2014. As per the issuance of Principle Permit from Lebong Regency Head (No. 379 year 2014), the compliance with Geospatial Planning (No. 050/362/BAPPEDA/2015), and under the submission letter of Draft TOR of AMDAL (No. 0029/KLH.01.01/UIP I/2016) to Lebong Regency Environmental Office; there is an unexpectedly natural disturbance (landslide) occurred on April 2016 at the planned Project location and the PGE well pad area. This situation leads the process of AMDAL to be re-examined since the proposed new location shall be determined by new feasibility study including additional site investigation as well as the revision for draft of Terms of Reference for the AMDAL.

As the Feasibility Study and AMDAL of the new location for the Project, including the associated Transmission Line, as well as the required permits for the land acquisition process has been complete; PLN started to carry out the land acquisition process for the Power plant and associated Transmission Line area.

The process for the land acquisition shall be complied the Law No. 2 year 2012 subject to Land Acquisition and the associated regulations under the Law, as the PLN will act as an entity to acquire the land for the public infrastructure.

## **2.1. OBJECTIVE OF THE PROJECT**

The objective of the Project is as follows:

- 2.1.1. Increasing the reliability of electricity system in Bengkulu Province.
- 2.1.2. Supporting the national energy policy of reducing fossil fuel consumption for electricity by developing the new non fossil fuel power plant.
- 2.1.3. To prevent the electricity deficit in Bengkulu Province

## **2.2. DESCRIPTION OF THE PROJECT & IDENTIFICATION OF THE PROJECT AREA**

The development Plan of The Project is includes two main activities, namely the 150 kV high voltage transmission line (SUTT) and substation (GI), while this LAP report will informed regarding the transmission Line. The Project is located in three administrative district area, there are Lebong District, Rejang Lebong District and Kepahiang District, with a route of transmission line  $\pm$  46,336 km consisting 131 towers, made the authority of Environmental Permit was in the Bengkulu Province Government.

The Project, has been comply with the Bengkulu Province Regional Regulation No. 02 of 2012 concerning Spatial Planning and territory of Bengkulu Province in 2012-2023, and comply with the Recommendation for Conformity of the Spatial Plan of Bengkulu Province number 503 / 13,614 / XI / B.11-DPU-TR / 2017 November 14 2017.

The transmission lines consists of pillars or towers in the form of towers / towers of steel and cable lines containing insulators for distribution of electric power. The number of towers to be erected is 131 points. To set up a tower at each predetermined point, land acquisition is needed for the tower site, with the size of the land according to the type of tower used. These towers can be classified into several types of towers, namely types AA, BB, CC, and DD. The land required for tower sites is 15m x 15m for straight type towers (Type A) and 15-20 m x 15-20 m for tower type angles (turns; tension), namely BB type, CC, and DD.

Based on SNI 04.6918.2002; the Minister of Energy and Mineral Resources Regulation No. 18 of 2015 concerning Minimum Free and Distance Spaces for SUTT, SUTET and SUTAS for Electric Power Distribution. In addition, Regulation of the Minister of Energy and Mineral Resources No. 27 of 2018, it is determined that a free space along the transmission line with a width of 10 m to the right and 10 m to the left of the vertical axis of the tower is ROW (Right of Way) of the transmission line. For plants, buildings and other objects that are in a free space and have a height up to the vertical minimum limit of a conductor, exemption will be carried out with compensation.

In general, the physical construction of a 150 kV transmission line consists of:

1. The conductive wire (phase wire), made of aluminium coil with a high quality steel core, the cross section diameter of the whole coil is 240 mm with a safety number of 1.3. The number of wires is three for a single circuit, six for a double circuit arranged from top to bottom.
2. Land wire, which functions as lightning and other induction hazards, will then channelled into the earth layer, installed directly in the uppermost tower body.
3. Insulator (isolator), as a separator between conductive wire and body tower. The amount / number of insulators has been calculated and guaranteed the danger of induction of wire conductors not to propagate to the body of the tower.
4. Tower / tower, made of high-quality steel frame functions as a hanging wire and ground wire (grounding), has three pairs of arms arranged from top to bottom for phase wire and a pair of upper arms for land wire. Tower steel frames are install at a distance of between 200 - 400 m, according to ground conditions or land topography. Normal tower height of  $\pm$  32 m, can be raised as needed to +3, +6, +9, +12, +15 even +22 meters

Table 1 Number of Tower per Villages from the Hululais Transmission Line - Pekalongan

No	Districts	Sub-district	Village	Number of towers		
I	Lebong	South Lebong	1. Taba Anyar	10		
			2. Mangkurajo	12		
			3. Sukasari	4		
		Rimbo Pengadang	4. Talang Ratau	10		
			5. Rimbo Pengadang	9		
			6. Tik Kuto	5		
			7. Air Dingin (Bioa Sengok)	6		
II	Rejang Lebong	Bermani Ulu Raya	8. Babakan Baru	3		
			9. Bangun Jaya	1		
			10. Air Bening	2		
			11. Tebat Tenong Luar	6		
			12. Pal VIII/Delapan	5		
			13. Pal Tujuh	4		
			14. Pal Seratus	3		
			15. Bandung Marga	7		
			16. Dataran Tapus	9		
			North Curup	17. Tabarenah	4	
				18. Pahlawan	2	
				19. Suka Datang	1	
				20. Lubuk Kembang	2	
				21. Batupanco	4	
			Curup	22. Talang Benih	2	
				23. Dwi Tunggal	2	
		South Curup	24. Punguk Lalang	4		
			25. Lubuk Ubar	2		
			26. Watas Marga	1		
		III	Kepahiang	.Merigi	27. Lubuk Penyamun	3
					28. Bukit Barisan	3
				Ujan Mas	29. Burnisari	3
					30. Pekalongan	2
		<b>Number of towers</b>				<b>131</b>

Source: EIA Hululais Transmission Line.

### 2.3. THE REQUIRED AREA

The approximate area of the land use of transmission Line listed as the tabulation of details land use / needs per type of tower in Table 1.3 below.

Table 2 Plan for land requirements for tower sites

No	Type of Tower	Function	Corner	Number of Tower	Land per tower (m x m)	Large of land (m <sup>2</sup> )
1.	AA	Suspension	0-5°C	83	15 x 15	18.675
2.	BB	Tension / Section	0-10°C	48	15-20 x 15-20	14.650
3.	CC	Tension	10-30°C	4	20 x 20	1.600
4.	DD	Tension	30-60°C	1	20 x 20	400
5.	DRD	Dead-End		2	20 x 20	800
Total				131		36.125

Source: EIA GPP Hululais.



The weight of the Gantry structure and the support of under crossing equipment estimated to be 50 tons, the weight of the Gantry (post and beam) structure and support of the equipment at the Switching Station estimated to be 250 Ton. The tower that has been build is provide with security equipment as Anti-Climbing Device and Plate Danger warning sign to climb high voltage towers

#### **2.4. LAND AND PATH SURVEY**

The construction of the transmission requires clear path information based on the plan and results of the data collection and field survey. The survey activity of the transmission line includes the activities of topographic and soil mechanics surveys, spatial planning and current land use planning. Topographic survey activities perform to determine which 150 kV transmission line path will traversed by the Hululais-Pekalongan GPP, which is the best path from a technical and economic perspective. Topographic survey activities include field and office activities, namely data processing and depiction of planned transmission lines. Mechanic survey activities are perform with the aim of knowing soil conditions. The activity divided into two: activities in the field and activities in the soil mechanics laboratory.

2.4.1. In this research / survey (topography) the activities carried out include :

- 1) Determination of location / transmission line configuration.  
This activity begins with a topographic survey to determine the location or path traversed in the best viewed from a technical and economic perspective.
- 2) Establish the type of pole and conductor
- 3) Draw elongated pieces and tower placement (profile map) in this work includes field and office activities.

2.4.2. Field work, covering:

- 1) Measurement of longitudinal profiles and lane situations, with several stages: measuring the main polygon, stacking out centreline, and measuring elongated situations and lane situations.
- 2) Tower location and measurement, after the tower location planning work. Measurements in the field using theodolite-measuring devices. Office work, covering:
- 3) Data processing and detailed map depiction of tower spotting
- 4) Depiction of the plan section of the tower location
- 5) Making survey reports then an investigation / soil mechanics survey performed. Done to find out the condition of the soil, with the following objectives:
- 6) Collect data on the condition of the surface of the ground and the inside of the site of the tower site.
- 7) Provide advice on tower construction that is in accordance with soil conditions from the results of soil mechanical surveys.
- 8) Provide technical data in budgeting at the planning stage
- 9) Sondir and boring are carried out to determine the carrying capacity of the soil because some are on land with topography > 25percentage.
- 10) In locations adjacent to settlements, it has attempted to use a well foundation so that the security of residents' houses is not disturbed due to the project.
- 11) Recording data on land, buildings and plants affected by the lane.

## CHAPTER III LEGAL FRAMEWORK

### 3.1. LEGAL FRAMEWORK FOR LAND ACQUISITION IN INDONESIA

The direct relevant legislation that underlie the implementation of the land acquisition plan of the Hululais Geothermal Power Plant Project, among others are:

#### 3.1.1. Law No.26/2007 concerning Spatial Arrangement

The law grants authority over spatial planning to provincial governments and district governments. Provision of this authority not stipulated within previous spatial planning laws. It also provides some new ways for enhancing development control including zoning, planning permits, implementation of incentives and disincentives, including administration and criminal sanction. Law No. 26/2007 also acknowledges the importance of public participation in spatial planning.

The elucidation of Article 33 Verse 3 states that the government has the rights to prioritize an area intended for the implementation of development in the public interest in accordance with spatial layout plan to smooth land acquisition process. The development in the public interest in the article includes power plants, transmission lines, and electric power distributions.

#### 3.1.2. Law No. 2/2012 concerning Land Acquisition for the Development of Public Interest; Based on the Law No. 2/2012, land acquisition should be perform by the government by the National Land Agency (BPN) involving all entitled holders and concerned stakeholders considering the interests of development and community.

The object land acquisition includes;

- (1) Land;
- (2) Over ground and underground space;
- (3) Plants;
- (4) Buildings;
- (5) Objects related to land; and
- (6) Other appraisable loss.

Land acquisition implemented by BPN should be perform by providing fair and adequate compensation. The Law also recognizes that a location determination will be required prior to land acquisition.

In terms of compensation for losses, the law covers other appraisable loss means non-physical loss equivalent to money value, for example, loss due to loss of business or job, cost of change of location, cost of change of profession, and loss of value of the remaining property. Furthermore, losses in terms of restriction/limitation or restriction to access to natural resources such as marine-fishery resources that can affect the economic activities of people are categorize as losses. The losses may be evaluates for compensation purposes and may be in any of the following forms:

- (1) money;
- (2) substitute land;
- (3) resettlements;
- (4) shareholding or
- (5) Other forms as agreed upon by both parties.

Land acquisition process under law No. 2 year 2012 Land acquisition under the current law and regulations separating into four stages, i.e., planning, preparation execution, and delivery.

(1) Planning

Land acquisition preparation is a stage where an agency of needing land is responsible for preparing the documents of land acquisition plan. That LAP shall submitted to relevant governor. The documents shall be prepared under feasibility study and are comprised of socio-economic survey, location feasibility, estimated land price, cost and benefit analysis, environmental and social impacts, and other study as necessary.

(2) Implementation

The implementation of land acquisition is in the authority of National Land Agency Head. He/she will head the land acquisition implementation and establish a land acquisition team as well as lead the negotiation with the affected landowners

(3) Delivery

The Head of Land Agency will carry out the delivery of the procured land to the needing agency.

3.1.3. Presidential Regulation No. 148/2015 concerning “Implementation of Land Acquisition for the Development of Public Interest

At the end of 2015, the President issued Presidential Regulation No. 148 of 2015. The regulation is an implementing regulation of the Land Acquisition Law and much changing the allocation of time at each stage of land acquisition to be faster, including time of handling objections of local community surrounding the project by the governor and time for location determination by Governor/District Head/Regent. The regulation also states that land acquisition below 5 hectares for the development of public interest can be perform directly by landowners and project developers.

Table 3 Land acquisition process

No	Land acquisition process	Presidential Regulation No.148/2015
1	Establishment of land acquisition preparation team by the governor	2 days
2	Notification of the development plan to communities	3 days
3	Handling of objections from affected communities by the governor	3 days
4	Location determination by governor	7 days
5	Announcement of location determination	7 days

Source: Presidential Regulation No. 148/2015

3.1.4. Presidential Regulation No.14/2017 on Acceleration of Power Infrastructure Development;

The regulation covers on a very broad range of issues affecting power project development in Indonesia. However, two main features of PR 14/2016 should accelerate development of power projects in Indonesia if the remaining regulatory mechanics to implement them put in place in short order. Those two features are:

- (1) Introduction of a new government guarantee for development of power projects, which would cover both projects developed by the state-owned utility company, PLN, and those projects developed by PLN in cooperation with independent power producers (IPPs) or their subsidiaries; and;

- (2) a shorter time period to obtain necessary permits for development of power generation projects
- 3.1.5. Presidential Regulation No.56/2017 on Community Social Impact Management in the Land Provision for National Strategic Project;  
The regulation stipulates compensation for the resettlement of non-titleholder residents of the state/government land for the implementation of National Strategic Project under certain conditions. Eligible residents are compensated for the rehabilitation of residence and loss incurred by relocation, including the costs of house demolition, mobilization and renting house, and allowance for income loss
- 3.1.6. Presidential Decree No. 34/2003 on National Policy on Land;  
The Presidential decree regulates authorities of national and local governments on land. PD 34/2003 stipulates that the authorities of local government on land include; i) undertake land acquisition for development; ii) provide compensation and allowance for land acquisition
- 3.1.7. Ministry of Finance Regulation No. 10/PMK 02/2016 concerning Operational and Supporting Cost for Implementation of Land Acquisition in Public Interest from National Budget;  
The regulation covers all issues related with costs associated with land acquisition. This includes during planning, preparation, implementation and delivery, administration and management and socialization expenses. However, compensation and appraiser expenses excluded.
- 3.1.8. Indonesia Valuation Standards year 2018 concerning the Assessment of Land Acquisition for Development for the Public Interest  
The valuation standards provide guidelines for assessment of land acquisition object for compensation in land acquisition for development in the public interest. Assessment includes adequate replacement value of property and land. Assessment standards are also associated with other standards, such as scope of assignment, land property and structures valuation, farmland property valuation, valuation of property with particular business, business valuation, and inspection of cases under consideration.
- 3.1.9. Minister of Energy and Mineral Resources of the Republic of Indonesia No. 27/2018 concerning Compensation for land, buildings, and/or plants that are under the free space of electric power transmission lines  
The regulation stipulates, among others, the coverage of the Compensation for land, buildings, and/or plants that are under the free space of electric power transmission lines

### **3.2. JICA GUIDELINES FOR LAND ACQUISITION**

The key principle of JICA policies on land acquisition summarized below.

- 3.2.1. Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.
- 3.2.2. When, population displacement is unavoidable, effective measures to minimize the impact and to compensate for losses should be taken.

- 3.2.3. People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.
- 3.2.4. Compensation must be based on the full replacement cost as much as possible.
- 3.2.5. Compensation and other kinds of assistance must be provided prior to displacement.
- 3.2.6. For projects that entail land acquisition and resettlement, LAP must be prepared and made available to the public. It is desirable that LAP include elements laid out in the World Bank Safeguard Policy, OP 4.12, Annex A.
- 3.2.7. In preparing LAP, consultations must be held with the PAPs and their communities based on sufficient information made available to them in advance. When consultations are held, explanations must be given in a form, manner, and language that are understandable to the PAPs.
- 3.2.8. Appropriate participation of the PAPs must be promoted in planning, implementation, and monitoring of LAP.
- 3.2.9. Appropriate and accessible grievance mechanisms must be established for the PAPs and their communities.

Above principles are complemented by World Bank OP 4.12, since it is stated in JICA Guidelines that “JICA confirms that projects do not deviate significantly from the World Bank’s Safeguard Policies”. Additional key principle based on World Bank OP 4.12 is as follows.

- 3.2.10. PAPs are to be identified and recorded as early as possible in order to establish their eligibility through an initial baseline survey (including population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers or others who wish to take advantage of such benefits.
- 3.2.11. Eligibility of benefits includes PAPs who have formal legal rights to land (including customary and traditional land rights recognized under law), PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and PAPs who have no recognizable legal right to the land they are occupying.
- 3.2.12. Land-for-land compensation is strongly recommended for PAPs whose livelihoods are land-based.
- 3.2.13. Provide support for the transition period (between displacement and livelihood restoration).
- 3.2.14. Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities etc.

In addition to the above core principles on the JICA policy, it also laid emphasis on a detailed land acquisition policy inclusive of all the above points; project specific land acquisition plan; institutional framework for implementation; monitoring and evaluation mechanism; time schedule for implementation; and, detailed financial plan etc.

### **3.3. COMPARISON OF THE JICA GUIDELINE AND THE INDONESIAN LAWS AND REGULATION**

Relevant law in Indonesia governing land acquisition compensates the landholders based on the valuation of related real estate. Under the JICA guideline, as well as the WB safeguard policy, includes non-titleholders for compensation and focuses on recovering the standard of living of affected persons; therefore, supplementary measures must be taken to compensate for the difference between these rules under LAP of the Project. Table 3-1 “Comparison of the JICA Guideline and the Indonesian Law” below compares the national law for land acquisition (Law No. 2/2012) and JICA guideline.

Table 4 Comparison of the JICA Guideline and the Indonesian Law

No.	JICA guidelines (for environmental and social considerations)	Law No. 2/2012 (concerning land acquisition for the development of public interest)	Difference between the two rules Policy	Policy of land acquisition for the Project
1.	Involuntary resettlement and loss of means of livelihood are to be avoided when feasible by exploring all viable alternatives.	N/A	No specific provision for this item is stipulated in the national law	Site selection for the Project was made for reasons of less negative effects of land acquisition and costs of construction, operation, and maintenance of incidental facilities.
2.	When population displacement is unavoidable, effective measures to minimize impact and to compensate for losses should be taken.	N/A	No specific provision for this item is stipulated in the national law	Resettlement measures will be taken to the residents who must be resettled involuntarily
3.	People who must be resettled involuntarily and people whose means of livelihood will be hindered or lost must be sufficiently compensated and supported, so that they can improve or at least restore their standard of living, income opportunities and production levels to pre-project levels.	No specific provisions except for the compensation for the land procurement objects such as land, building etc.	National law does not stipulate measures for restoration of livelihood and standard of living.	All eligible PAPs losing assets, livelihoods or resources will be fully compensated and assisted so that they can improve, or at least restore, their former economic and social conditions.
4.	Compensation must base on the full replacement cost as much as possible.	Land procurement for public interest is conducted by granting adequate and fair compensation determined based on the assessment by a licensed land appraiser.	National law does not stipulate valuation for the compensation based on the full replacement cost. In practice, appraisal of assets is made following technical guidelines SPI 306, which defines the basis of measurement for physical assets (at market value) and non-physical assets, respectively.	Payment for land and/or non-land assets will be based on the principle of replacement cost as much as possible
5.	Compensation and other kinds of assistance must be provided prior to displacement.	Deliberation is conducted between the land agency and the entitled party within 30 working days at latest since the assessment by the appraiser.	National law does not specify the timing of other kinds of assistance	Displacement does not occur before provision of competition of other assistance required for land acquisition. Acquisition of assets, payment of compensation and start of the activities for restoration of livelihood and standard of living of PAPs will be completed prior to any construction activities, except when a court of law orders so in expropriation cases. (Livelihood restoration measures must also be in place but not necessarily completed prior to construction activities, as these may be ongoing activities.)
6.	For projects that entail large-scale involuntary resettlement, resettlement action plans must be prepared and made available to the public.	N/A	No specific provision for this item is stipulated in the national law	No large-scale involuntary resettlement along with the Project.
7.	In preparing a resettlement action plan, consultations must be held with the affected persons and their communities based on sufficient information made available to them in advance.	N/A	No specific provision for this item is stipulated in the national law	No large-scale involuntary resettlement along with the Project.

No.	JICA guidelines (for environmental and social considerations)	Law No. 2/2012 (concerning land acquisition for the development of public interest)	Difference between the two rules Policy	Policy of land acquisition for the Project
8.	When consultations are held, explanations must be given in a form, manner, and language that are understandable to the affected persons.	N/A	No specific provision for this item is stipulated in the national law	LAP will be translated into local languages and disclosed for the reference of PAPs as well as other interested groups
9.	Appropriate participation of affected persons must be promoted in planning, implementation, and monitoring of resettlement action plans.	The implementation of land procurement for public services is based under the principles of humanity, justice, favourable, certainty, transparency, consensus, participation, prosperity, sustainability and harmony. The means of “participation principle” is the support for land procurement implementation through the society participation, whether directly or indirectly, since the planning process until the construction activity.	National law does not stipulate resettlement; therefore, there are no provisions for the participation of affected persons in planning, implementation and monitoring of the resettlement action plan.	PAP's will be involved in the process of developing and implementing LAP and monitoring of LAP implementation. PAPs and their communities will be consulted about the project, the rights and options available to them, and proposed mitigation measures for adverse effects, and to the extent possible be involved in the decisions that are made concerning the land acquisition.
10.	Appropriate and accessible grievance mechanisms must be established for the affected persons and their communities.	Objection can be made by related parties in the process of land procurement.	National law does not stipulate grievance mechanisms which must be established for the affected persons and their communities	Appropriate and accessible grievance mechanisms must be established for the PAPs and their communities
11.	Affected persons are to be identified and recorded as early as possible. This is in order to establish their eligibility through an initial baseline survey (This including: population census that serves as an eligibility cut-off date, asset inventory, and socioeconomic survey), preferably at the project identification stage, to prevent a subsequent influx of encroachers of others who wish to take advance of such benefits.	N/A	No specific provision for this item is stipulated in the national law	All PAPs residing, working, doing business and/or cultivating land within the project impacted areas as of the cut-off date are entitled to compensation and restoration assistance, irrespective of tenure status and other factors such as social or economic standing
12.	Eligibility of benefits includes, the PAPs who have formal legal rights to land. (This including customary and traditional land rights recognized under law), the PAPs who don't have formal legal rights to land at the time of census but have a claim to such land or assets and the PAPs who have no recognizable legal right to the land they are occupying.	The entitled party is means a party who owns or possesses land procurement object. The entitled party who receives compensation is responsible for the validity and legality of the evidence of possession and ownership, which delivered.	National law does not cover the affected persons without the land ownership who occupy and/or having livelihood in the land acquisition area.	<p>PAPs are person or household or business which on account of project implementation would have his, her or their:</p> <ul style="list-style-type: none"> <li>- Standard of living adversely affected;</li> <li>- Right, title or interest in any house, interest in, or right to use, any land (including premises, agricultural and grazing land, commercial properties, tenancy, or right in annual or perennial crops and trees or any other fixed or moveable assets, acquired or possessed, temporarily or permanently);</li> <li>- Income earning opportunities, business, occupation, work or place of residence or habitat adversely affected temporarily or permanently; or</li> <li>- Social and cultural activities and relationships affected or any other losses that</li> </ul>



No.	JICA guidelines (for environmental and social considerations)	Law No. 2/2012 (concerning land acquisition for the development of public interest)	Difference between the two rules Policy	Policy of land acquisition for the Project
13.	Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based.	N/A	No specific provision for this item is stipulated in the national law	may be identified during the process of land acquisition planning. Compensation for the PAPs dependent on agricultural activities will be land-based wherever possible. Land-based strategies may include provision of replacement land, ensuring greater security of tenure, and upgrading livelihoods of people without legal land titles. If replacement land is not available, other strategies may be built around opportunities for re-training, skill development, wage employment, or self-employment, including access to credit. Solely cash compensation will be avoided as an option if possible, as this may not address losses that are not easily quantified, such as access to services and traditional rights, and may eventually lead to those populations being worse off than without the project.
14.	Provide support for the transition period (between displacement and livelihood restoration).	N/A	No specific provision for this item is stipulated in the national law	Organization and administrative arrangements for the effective preparation and implementation of LAP will be identified and in place prior to the commencement of the process; this will include the provision of adequate human resources for supervision, consultation, and monitoring of land acquisition and restoration activities
15.	Particular attention must be paid to the needs of the vulnerable groups among those displaced, especially those below the poverty line, landless, elderly, women and children, ethnic minorities et	The implementation of land procurement for public services is based under the principles of humanity, justice, favourable, certainty, transparency, consensus, participation, prosperity, sustainability and harmony. The means of "humanity principle" is that the Land Procurement shall provide protection and honour to the human rights, dignity, and prestige of each citizen and resident of Indonesia proportionally.	No specific provisions are stipulated in the national law regarding particular attention to be paid to the needs of the vulnerable groups	LAP must consider the needs of those most vulnerable to the adverse impacts of the land acquisition (including the poor, those without legal title to land, ethnic minorities, women, children, elderly and disabled) and ensure they are considered in LAP planning and mitigation measures identified. Assistance should be provided to help them improve their socio-economic status
16.	For projects that entail land acquisition or involuntary resettlement of fewer than 200 people, abbreviated resettlement plan is to be prepared.	N/A	No specific provision for this item is stipulated in the national law	An abbreviated resettlement plan is prepared and included in LAP
17.	In addition to the above core principles on the JICA policy, it also laid emphasis on a detailed resettlement policy inclusive of all the above points; project specific resettlement plan; institutional framework for implementation;	N/A	No specific provision for this item is stipulated in the national law	A detailed resettlement policy is included in LAP

No.	JICA guidelines (for environmental and social considerations)	Law No. 2/2012 (concerning land acquisition for the development of public interest)	Difference between the two rules Policy	Policy of land acquisition for the Project
	monitoring and evaluation mechanism; time schedule for implementation; and, detailed Financial Plan etc.			

## **CHAPTER IV**

### **POLICY OF LAND ACQUISITION FOR THE PROJECT**

PLN will use the Land Acquisition Policy for the Project specifically because existing national laws and regulations have not been design to address land acquisition according to international practice, including JICA's policy. The Project Policy aimed at filling-in any gaps in what local laws and regulations cannot provide in order to help ensure that PAPs are able to rehabilitate themselves to at least their pre-project condition. This section discusses the principles of the Project Policy and the entitlements of the PAPs based on the type and degree of their losses. Where there are gaps between the Indonesian legal framework and JICA's Policy regarding land acquisition, practicable mutually agreeable approaches will designed consistent with Government practices and JICA's Policy

#### **4.1. DETAILS OF THE LAND ACQUISITON POLICY**

##### **4.1.1. Eligible people for compensation and restoration assistance**

All PAPs residing, working, doing business and/or cultivating land within the project impacted areas as of the cut-off date are entitled to compensation and restoration assistance, irrespective of tenure status and other factors such as social or economic standing. PAPs are person, household, or business which accounting of project implementation would have his, her or their:

- 1) Standard of living adversely affected;
- 2) Right, title or interest in any house, interest in, or right to use, any land (including premises, agricultural and grazing land, commercial properties, tenancy, or right in annual or perennial crops and trees or any other fixed or moveable assets, acquired or possessed, temporarily or permanently;
- 3) Income earning opportunities, business, occupation, work or place of residence or habitat adversely affected temporarily or permanently; or
- 4) Social and cultural activities and relationships affected or any other losses that might identified during the process of land acquisition planning.

##### **4.1.2. Cut-off date**

The World Bank OP 4.12 states, "Normally, this 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".

Based on this idea, the cut-off dates for the Transmission line was 30 August 2019, as the end of date of survey. The cut off dates for transmission line are different from the power plant cut-off date, because the procedures for land acquisition under 5 ha is different under Indonesian Law.

##### **4.1.3. Participation of affected persons**

PAPs will be involved in the process of developing and implementing LAP and monitoring of LAP implementation. PAPs and their communities will consulted about the project, the

rights and options available to them, and proposed mitigation measures for adverse effects, and to the extent possible be involved in the decisions that are made concerning the land acquisition.

#### 4.1.4. Compensation and restoration assistance

All eligible PAPs of losing assets; livelihoods; or resources; will fully compensated and assisted. Therefore, they can improve, or at least restore, their former economic and social conditions. Specific guides for compensation and assistance described as below:

- 1) Payment for land and/or non-land assets will based on the principle of replacement cost as much as possible.
- 2) Compensation for the PAPs dependent on agricultural activities will be land-based wherever possible. Land-based strategies may include provision of replacement land, ensuring greater security of tenure, and upgrading livelihoods of people without legal land titles.
- 3) If replacement land is not available, other strategies may built around opportunities for re-training, skill development, wage employment, or self-employment, including access to credit. Solely cash compensation will avoided as an option if possible, as this may not address losses that not easily quantified, such as access to services and traditional rights, and may eventually lead to those populations being worse off than without the project.
- 4) The Project planned not to have any replacement of PAP's. However, the replacement lands, if the preferred option of PAPs should be within the immediate vicinity of the affected lands wherever possible and be of comparable productive capacity and potential. As a second option, sites should be identified that minimize the social disruption of those affected; such lands should also have access to services and facilities similar to those available in the lands affected.
- 5) Displacement does not occur before provision of compensation and of other assistance required for land acquisition. Acquisition of assets, payment of compensation and start of the activities for restoration of livelihood and standard of living of PAPs will completed prior to any construction activities, except when a court of law orders so in expropriation cases. (Livelihood restoration measures must also be in place but not necessarily completed prior to construction activities, as these may be ongoing activities.)

#### 4.1.5. Vulnerable in society

The LAP report is consider the needs of those most vulnerable to the adverse impacts of the land acquisition (including the poor, those without legal title to land, ethnic minorities, and women, children, elderly and disabled) and ensure they are considered in LAP planning and mitigation measures identified. Assistance should provide to help them improve their socio-economic status.

#### 4.1.6. Grievance procedures.

Appropriate and accessible grievance mechanisms must established for the PAPs and their communities.

#### 4.1.7. Implementation system and schedule

Organization and administrative arrangements for the effective preparation and implementation of LAP will be identified and in place prior to the commencement of the process; this will include the provision of adequate human resources for supervision, consultation, and monitoring of land acquisition and restoration activities.

#### 4.1.8. Cost and budget

Adequate budgetary support will be fully committed and made available to cover the costs of land acquisition (including compensation and income restoration measures) within the agreed implementation period. The funds for all activities stated in LAP will come from the Government

#### 4.1.9. Monitoring and evaluation

Appropriate reporting (including auditing and redress functions), monitoring and evaluation mechanisms, will be identified and set in place as part of the land acquisition management system. An external monitoring group will be hired by the Project and will evaluate the implementation process of LAP and outcome. Such groups may include qualified NGOs, research institutions or universities. The monitoring and evaluation activities are comprised of key monitoring indicators derived from baseline survey formulation, reporting and content for internal monitoring designing, the methodology for external monitoring outlining, key indicators for external monitoring formulation, reporting and content for external monitoring, and final external evaluation arrangements.

## **4.2. PARTICIPATION OF PAPs**

#### 4.2.1. Public Consultation under law No.2, of /2012

There have been socializations to the community people in the preparation stage of the land acquisition under the law No.2/2012 (see 3.1.3 for the land acquisition process under law No.2/2012).

#### 4.2.2. LAP Committees

Participation of PAPs in the LAP process realized through a LAP Committee, an organization of representatives from PAPs, together with other various interest groups in the community, which promote decision making of the community people and communication with the related agencies of the Project, namely PLN and local government. The main roles that are expected of the LAP Committee are leading the community people in the designing of support for restoration of livelihood and standard of living, and functioning in the grievance procedures and monitoring in relation to the land acquisition. Members of the LAP Committees are selected from the viewpoints of:

- 1) Representatives of PAPs and/or the community people who have willingness to render service to the community;
- 2) Having leadership and/or capacity to negotiate with the related agency of the Project during the process of LAP (from preparation through implementation and monitoring).

Recognizing the general characteristics of the community (especially the comparatively low level of income and education), it is considered that leadership/capacity is an important element to be a LAP Committee member who is required to deal with the related agencies of the Project on equal terms;

- 3) Representatives from farmers group, community development organizations, NGOs, religious assembly, among others, have become the committee members, who expressed their willingness to be a member of the committee during the survey and FGDs and at preliminary meetings inviting other interest groups in the community.

#### 4.2.3. Participation of PAPs in the planning of the Plan

Participation of PAPs in the planning phase consists of two stages: information exchange and decision-making. In this land acquisition plan, communication with PAPs has made mainly through socio-economic study (information exchange) and focus group discussions (FGDs).

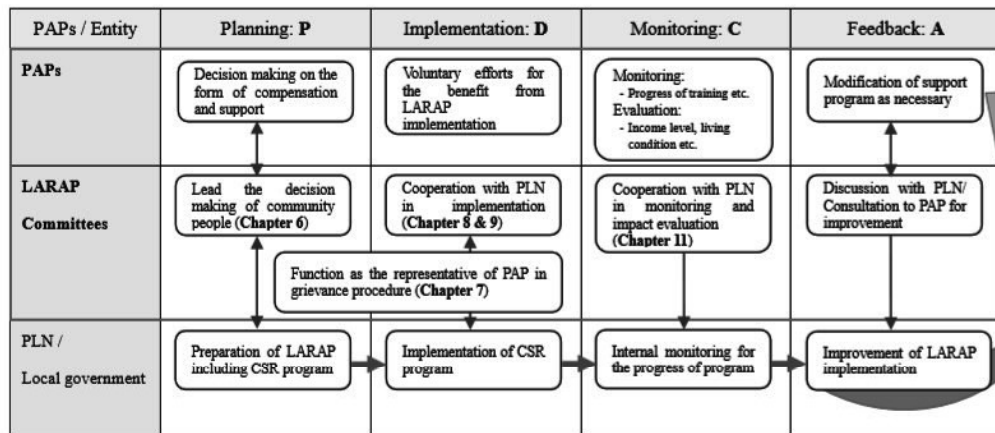
Table 5 Strategy of PAPs participation in the planning phase

Stage	Step	Strategy in LAP preparation
Information exchange	Dissemination	Information of the Project and land acquisition is disseminated through socio-economic study
	Consultation	Demand of PAPs on compensation and/or restoration assistance identified through socio-economic study.
Decision-making	Extension of choice	PAPs choose the form of one's compensation and/or restoration assistance from the alternatives determined through discussions. Brochures are distributed to PAPs to help their choice

#### 4.2.4. Participation of PAPs in the implementation and monitoring of the Plan

After the planning of LAP, PAPs receive the CSR program of PLN as beneficiaries, and participation into the implementation and monitoring will made through their representatives, LAP Committees. The LAP Committees thereby participate in the whole process of LAP, which commonly expressed as PDCA (Plan, Do, Check and Action) cycle of a project.

In the planning process, members of the LAP Committees have already participated in FGDs as the representative of PAPs and other interest groups. LAP Committees are planned also to participate in discussion for the finalization of draft LAP after the public announcement of draft LAP and the detail planning of livelihood restoration program (refer to below figure "Conceptual diagram of the implementation of support for livelihood restoration" for the detail planning).



□ Participation of PAPs through the function of LARAP Committee

**Figure 1 Conceptual Diagram of the LAP Participation**

## CHAPTER V SOCIO-ECONOMIC STUDY

### 5.1. OUTLINE OF THE STUDY

The project development of Hululais Geothermal Transmission Line is currently under pre-construction stage, in which the Bidding Document preparation and land acquisition for the project necessity is being prepared. The project is under discussion will financed by ODA Loan of JICA. As one of the requirement for Social and Environmental Guideline, the land acquisition for the Project should done in compliance to JICA’s regulation for Social and Environmental.

The socio-economic census/survey study applies a qualitative method for data gathering. Socio economic census with door-to-door approach has used to collect data from the PAPs to collect data at village level such as the socio-economic, participation in other project related social issues.

### 5.2. SOCIO ECONOMIC CENSUS RESULT

From the total 131 of PAPs nominative list of Hululais – GI Pekalongan, there are total 97 PAPs has identified during socio economic survey. It is consists of 91 PAP’s as Land owner, 5 PAP’s as the tenant (Land owner family) and 1 PAP as the worker of land owner; with details as above table. This survey was conduct by door-to-door interview to all of PAPs, and identified the PAPs household members as well.

Table 6 Summary of Socio Economic Survey

No	Information	Description	Total	Unit
1	Number of PAPs	Total PAPs	97	Person
		Land Owner	91	Person
		Land Owner Family (without formal agreement)	5	Person
		Work for Land Owner	1	Person
2	Total ha of Affected area	Agricultural	3,4	Ha
3.	Recapitulation of ROW inventory (estimated)	As per appendix 3		
4.	Nominative List of the Project Affected Persons	As per appendix 4		

Source: Transmission Line Socio-economic Survey Result

Note: the “Total PAPs” in Table 6 (which is 97) differs from the one reported in Appendix 4 because Table 6 is the socio economic survey respondents, while the list in Appendix 4 is the Nominative List of Titleholders of the Acquired Land. The Socio economic survey should accommodate the nominative as listed in appendix 4. However, presently not all the nominative was still surveyed. The gap between the nominative list and the socio economic survey will be further explained in table 9.



Table 7-1 Summary of Land Acquisition PAPs

No	Information	Unit (Person)
1	Number of PAPs	158

Table 8-2 Summary of ROW Height Restriction

No	Information	Total area (m2)	Unit (Pcs)
1	Number of Plants	33,542	60,026
2	Number of House	225.0	65
3	Number of Wooden Hut	4257.8	23
4	Number of Fish Pond	1338.1	5
5	Number of School	349.1	1
No	Information	Unit (Person)	
6	Number of people affected in ROW for their land use.		485

Source: Transmission Line Socio-economic Survey Result

### 5.2.1. Person Affected Information

All of respondent distributed from eight different Sub districts; there are from Sub districts of Bermani Ulu Raya (34 PAP's), Curup Selatan (3 PAP's), Curup Utara (11 PAP's), Curup (2 PAP's), Lebong Selatan (23 PAP's), Merigi (5 PAP's), Rimbo Pengadang (14 PAP's), and Ujan Mas (5 PAP's).

Compared to the Hululais nominative list data provided by PLN, there are gaps between nominative list and respondent of socio economic survey, or in detail as below:

Table 9 Summary of PAP's between GI nominative and survey comparison

Sub Districts	Hululais Nominative List	Socio Economic Survey Respondent	% coverage (nominative list vs survey)
Bermani Ulu Raya	29	34	117.24 %
Curup Selatan	30	3	10.00%
Curup Utara	39	22	56.41%
Curup	12	2	16.67%
Lebong Selatan	4	23	575.00%
Merigi	7	5	71.43%
Rimbo Pengadang	6	14	233.33%
Ujan Mas	4	5	125.00%
Total	131	97	74.05%

In addition, there are 93.8% of PAP's were identified as the Land owner, following the 5.2% were a cultivator which have a family relationship with land owner, therefore he didn't have any agreement in cultivating the land. While the other 1% is a worker of the landowner.

### 5.2.2. The other land ownership status

There are 95 respondents (97, 9%) confirmed the ownership status for the other land despite in the project affected area.

Table 10 Summary of PAP's Status of Land Ownership

Sub Districts		Status of Land ownership			Total
		Land Owner	Family of land owner	Work for land owner	
Bermani Ulu Raya	∑	34	0	0	34
	%	100.0%	0.0%	0.0%	100.0%
Curup Selatan	∑	3	0	0	3
	%	100.0%	0.0%	0.0%	100.0%
Curup Utara	∑	9	2	0	11
	%	81.8%	18.2%	0.0%	100.0%
Curup	∑	2	0	0	2
	%	100.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	21	2	0	23
	%	91.3%	8.7%	0.0%	100.0%
Merigi	∑	5	0	0	5
	%	100.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	12	1	1	14
	%	85.7%	7.1%	7.1%	100.0%
Ujan Mas	∑	5	0	0	5
	%	100.0%	0.0%	0.0%	100.0%
Total	∑	91	5	1	97
	%	93.8%	5.2%	1.0%	100.0%

Source: Transmission Line Socio-economic Survey Result

While for the ownership of the other properties, there are 88 respondents (90, 7%) confirmed the status of ownership for the other land despite in the project affected area. The type of other properties owned by PAPs dominated with house (58, 9%), following by land and house (30, 9%), land & under construction house (2, 1%), land & shop (1%), and Land and refuelling station (1%).

Table 11 Summary of PAP's Other Properties Ownership

Sub Districts		PAP's Other Properties Ownership		Total
		Yes	No	
Bermani Ulu Raya	∑	31	3	34
	%	91.2%	8.8%	100.0%
Curup Selatan	∑	2	1	3
	%	66.7%	33.3%	100.0%
Curup Utara	∑	11	0	11
	%	100.0%	0.0%	100.0%
Curup	∑	1	1	2
	%	50.0%	50.0%	100.0%
Lebong Selatan	∑	22	1	23
	%	95.7%	4.3%	100.0%
Merigi	∑	5	0	5
	%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	12	2	14
	%	85.7%	14.3%	100.0%

Sub Districts		PAP's Other Properties Ownership		Total
		Yes	No	
Ujan Mas	∑	4	1	5
	%	80.0%	20.0%	100.0%
Total	∑	88	9	97
	%	90.7%	9.3%	100.0%

Source: Transmission Line Socio-economic Survey Result

Table 12 Summary of PAP's Type of Other Properties Ownership

Sub Districts		Type properties							Total
		House	House & Refueling station	Land	Land & House	Land & House under const.	Land, House & Shop	N/A	
Bermani Ulu Raya	∑	12	0	1	18	2	1	0	34
	%	35.3%	0.0%	2.9%	52.9%	5.9%	2.9%	0.0%	100.0%
Curup Selatan	∑	3	0	0	0	0	0	0	3
	%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Curup Utara	∑	10	0	0	1	0	0	0	11
	%	90.9%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	100.0%
Curup	∑	1	1	0	0	0	0	0	2
	%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	21	0	0	1	0	0	1	23
	%	91.3%	0.0%	0.0%	4.3%	0.0%	0.0%	4.3%	100.0%
Merigi	∑	3	0	0	2	0	0	0	5
	%	60.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	5	0	2	6	0	0	1	14
	%	35.7%	0.0%	14.3%	42.9%	0.0%	0.0%	7.1%	100.0%
Ujan Mas	∑	3	0	0	2	0	0	0	5
	%	60.0%	0.0%	0.0%	40.0%	0.0%	0.0%	0.0%	100.0%
Total	∑	58	1	3	30	2	1	2	97
	%	59.8%	1.0%	3.1%	30.9%	2.1%	1.0%	2.1%	100.0%

Source: Transmission Line Socio-economic Survey Result

### 5.2.3. Residential status

There is only 1 PAP's who have the status as a permanent residential in the affected area, while the other was not permanent. Therefore, the other 96 PAPs registered as a permanent resident in other area outside of affected project.

Table 13 Summary of PAP's Residential Status

Sub Districts		PAP's Residential Status			Total
		Permanent	Non-Permanent	N/A	
Bermani Ulu Raya	∑	1	20	13	34
	%	2.9%	58.8%	38.2%	100.0%
Curup Selatan	∑	0	3	0	3

Sub Districts		PAP's Residential Status			Total
		Permanent	Non-Permanent	N/A	
	%	0.0%	100.0%	0.0%	100.0%
Curup Utara	∑	0	11	0	11
	%	0.0%	100.0%	0.0%	100.0%
Curup	∑	0	2	0	2
	%	0.0%	100.0%	0.0%	100.0%
Lebong Selatan	∑	0	23	0	23
	%	0.0%	100.0%	0.0%	100.0%
Merigi	∑	0	5	0	5
	%	0.0%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	0	11	3	14
	%	0.0%	78.6%	21.4%	100.0%
Ujan Mas	∑	0	5	0	5
	%	0.0%	100.0%	0.0%	100.0%
Total	∑	1	80	16	97
	%	1.0%	82.5%	16.5%	100.0%

Source: Transmission Line Socio-economic Survey Result

#### 5.2.4. General information of PAP's

From the survey result informed that 88.7% of survey respondent or PAPs were a Household as a spouse (9.3%) and as a Household children (2.1%). While by gender, there are Male (85.6%); and female (14, 4%).

Table 14 Summary of PAP's relation with Household

Sub Districts		PAP's relation with Household			Total
		Household	Spouse	Children	
Bermani Ulu Raya	∑	28	4	2	34
	%	82.4%	11.8%	5.9%	100.0%
Curup Selatan	∑	2	1	0	3
	%	66.7%	33.3%	0.0%	100.0%
Curup Utara	∑	11	0	0	11
	%	100.0%	0.0%	0.0%	100.0%
Curup	∑	2	0	0	2
	%	100.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	19	4	0	23
	%	82.6%	17.4%	0.0%	100.0%
Merigi	∑	5	0	0	5
	%	100.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	0	14
	%	100.0%	0.0%	0.0%	100.0%
Ujan Mas	∑	5	0	0	5
	%	100.0%	0.0%	0.0%	100.0%
Total	∑	86	9	2	97
	%	88.7%	9.3%	2.1%	100.0%

Source: Transmission Line Socio-economic Survey Result

Table 15 Summary of PAP's by gender

Sub Districts		Gender		Total
		Male	Female	
Bermani Ulu Raya	∑	30	4	34
	%	88.2%	11.8%	100.0%
Curup Selatan	∑	2	1	3
	%	66.7%	33.3%	100.0%
Curup Utara	∑	10	1	11
	%	90.9%	9.1%	100.0%
Curup	∑	2	0	2
	%	100.0%	0.0%	100.0%
Lebong Selatan	∑	17	6	23
	%	73.9%	26.1%	100.0%
Merigi	∑	5	0	5
	%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	13	1	14
	%	92.9%	7.1%	100.0%
Ujan Mas	∑	4	1	5
	%	80.0%	20.0%	100.0%
Total	∑	83	14	97
	%	85.6%	14.4%	100.0%

Source: Transmission Line Socio-economic Survey Result

In addition, based on educational level, the survey result informed that the majority of PAPs as 36, 1% are graduates from Primary School; following by High School (25.8%); Junior high school (11.3%); Bachelor degree (7.2%); Diploma degree (4.1%); and Master Degree (3.1%). While the other 12, 4% was N/A means that might be they did not answer during the survey, or do not taken any formal education previously.

Table 16 Summary of PAPs by Educational Level

Sub Districts		Educational Level						Total	
		Primary School	Elementary School	High School	Diploma	Bachelor	Master		N/A
Bermani Ulu Raya	∑	12	2	10	4	1	0	5	34
	%	35.3%	5.9%	29.4%	11.8%	2.9%	0.0%	14.7%	100.0%
Curup Selatan	∑	0	0	2	0	0	0	1	3
	%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	33.3%	100.0%
Curup Utara	∑	2	4	3	0	2	0	0	11
	%	18.2%	36.4%	27.3%	0.0%	18.2%	0.0%	0.0%	100.0%
Curup	∑	1	0	0	0	0	1	0	2
	%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	100.0%
Lebong Selatan	∑	12	0	6	0	1	0	4	23
	%	52.2%	0.0%	26.1%	0.0%	4.3%	0.0%	17.4%	100.0%
Merigi	∑	1	1	2	0	0	0	1	5
	%	20.0%	20.0%	40.0%	0.0%	0.0%	0.0%	20.0%	100.0%
Rimbo Pengadang	∑	3	3	2	0	3	2	1	14
	%	21.4%	21.4%	14.3%	0.0%	21.4%	14.3%	7.1%	100.0%
Ujan Mas	∑	4	1	0	0	0	0	0	5
	%	80.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total	∑	35	11	25	4	7	3	12	97
	%	36.1%	11.3%	25.8%	4.1%	7.2%	3.1%	12.4%	100.0%

Source: Transmission Line Socio-economic Survey Result

Based on religion, majority of respondent were Muslim (95.9%); and based on marital status, majority of respondents were married (90.7%).

Table 17 Summary of PAPs by Religion

Sub Districts		Religion				Total
		Muslim	Catholic	Christian	N/A	
Bermani Ulu Raya	∑	31	1	2	0	34
	%	91.2%	2.9%	5.9%	0.0%	100.0%
Curup Selatan	∑	2	0	0	1	3
	%	66.7%	0.0%	0.0%	33.3%	100.0%
Curup Utara	∑	11	0	0	0	11
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Curup	∑	2	0	0	0	2
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	23	0	0	0	23
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Merigi	∑	5	0	0	0	5
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	0	0	14
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Ujan Mas	∑	5	0	0	0	5
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Total	∑	93	1	2	1	97
	%	95.9%	1.0%	2.1%	1.0%	100.0%

Source: Transmission Line Socio-economic Survey Result

Table 18 Summary of PAPs by Marital Status

Sub Districts		Marital Status				Total
		Married	Not Married	Widower	N/A	
Bermani Ulu Raya	∑	31	2	0	1	34
	%	91.2%	5.9%	0.0%	2.9%	100.0%
Curup Selatan	∑	2	0	0	1	3
	%	66.7%	0.0%	0.0%	33.3%	100.0%
Curup Utara	∑	11	0	0	0	11
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Curup	∑	2	0	0	0	2
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	20	1	2	0	23
	%	87.0%	4.3%	8.7%	0.0%	100.0%
Merigi	∑	4	0	1	0	5
	%	80.0%	0.0%	20.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	0	0	14
	%	100.0%	0.0%	0.0%	0.0%	100.0%
Ujan Mas	∑	4	0	1	0	5
	%	80.0%	0.0%	20.0%	0.0%	100.0%
Total	∑	88	3	4	2	97
	%	90.7%	3.1%	4.1%	2.1%	100.0%

Source: Transmission Line Socio-economic Survey Result

#### 5.2.5. Health status

Health status collected from the survey questionnaire intended to collect the information of the existence of family member who have a disability and/or chronic diseases and the availability of social welfare. This information were useful to adjust the expenditure of the family due to, mostly, the family who have family member with disability and/or chronic diseases tend to have the potential for the greater expenditure. Based on socio economic survey, it can be concluded that majority of respondent have a good condition

of health due to its 86.6% of PAPs were does not have disability; and in a total there are 13 PAPs (13.4%) who have a disability on their household family members.

Table 19 Summary of PAPs by health status

Sub Districts		Disability		Total
		Yes	No	
Bermani Ulu Raya	∑	6	28	34
	%	17.6%	82.4%	100.0%
Curup Selatan	∑	1	2	3
	%	33.3%	66.7%	100.0%
Curup Utara	∑	1	10	11
	%	9.1%	90.9%	100.0%
Curup	∑	0	2	2
	%	0.0%	100.0%	100.0%
Lebong Selatan	∑	3	20	23
	%	13.0%	87.0%	100.0%
Merigi	∑	1	4	5
	%	20.0%	80.0%	100.0%
Rimbo Pengadang	∑	1	13	14
	%	7.1%	92.9%	100.0%
Ujan Mas	∑	0	5	5
	%	0.0%	100.0%	100.0%
Total	∑	13	84	97
	%	13.4%	86.6%	100.0%

Source: Transmission Line Socio-economic Survey Result

Based on the participation of PAPs on the social welfare, the majority of PAPs did not join to the social welfare (91.8%). While for the participation to the medical insurance, the majority of PAPs join in medical insurance (61.9%).

Social welfare is intended as medical insurance (BPJS) paid personally. Hence, the community may not pay the medical insurance on routine basis, causing very low medical insurance rate.

Table 20 Summary of PAPs by Social Welfare

Sub Districts		Social welfare		Total
		Yes	No	
Bermani Ulu Raya	∑	4	30	34
	%	11.8%	88.2%	100.0%
Curup Selatan	∑	0	3	3
	%	0.0%	100.0%	100.0%
Curup Utara	∑	0	11	11
	%	0.0%	100.0%	100.0%
Curup	∑	0	2	2
	%	0.0%	100.0%	100.0%
Lebong Selatan	∑	2	21	23
	%	8.7%	91.3%	100.0%
Merigi	∑	1	4	5
	%	20.0%	80.0%	100.0%
Rimbo Pengadang	∑	1	13	14
	%	7.1%	92.9%	100.0%
Ujan Mas	∑	0	5	5
	%	0.0%	100.0%	100.0%
Total	∑	8	89	97
	%	8.2%	91.8%	100.0%

Source: Transmission Line Socio-economic Survey Result

Table 21 Summary of PAPs by Medical Insurance

Sub Districts		Medical Insurance		Total
		Yes	No	
Bermani Ulu Raya	∑	23	11	34
	%	67.6%	32.4%	100.0%
Curup Selatan	∑	1	2	3
	%	33.3%	66.7%	100.0%
Curup Utara	∑	5	6	11
	%	45.5%	54.5%	100.0%
Curup	∑	1	1	2
	%	50.0%	50.0%	100.0%
Lebong Selatan	∑	12	11	23
	%	52.2%	47.8%	100.0%
Merigi	∑	4	1	5
	%	80.0%	20.0%	100.0%
Rimbo Pengadang	∑	13	1	14
	%	92.9%	7.1%	100.0%
Ujan Mas	∑	1	4	5
	%	20.0%	80.0%	100.0%
Total	∑	60	37	97
	%	61.9%	38.1%	100.0%

Source: Transmission Line Socio-economic Survey Result

#### 5.2.6. Employment status

The working status of PAPs shown in below table; the majority of PAPs was identified as not-working PAPs (85.6%). The not working of PAPs is suspect as the elderly population, and informal worker (farmer, etc.). Practically, they do not work at the farm by themselves, but their farmlands leased or rented.

Table 22 Summary of PAPs by working status

Sub Districts		Employment Status		Total
		Yes	No	
Bermani Ulu Raya	∑	7	27	34
	%	20.6%	79.4%	100.0%
Curup Selatan	∑	0	3	3
	%	0.0%	100.0%	100.0%
Curup Utara	∑	1	10	11
	%	9.1%	90.9%	100.0%
Curup	∑	0	2	2
	%	0.0%	100.0%	100.0%
Lebong Selatan	∑	2	21	23
	%	8.7%	91.3%	100.0%
Merigi	∑	0	5	5
	%	0.0%	100.0%	100.0%
Rimbo Pengadang	∑	4	10	14
	%	28.6%	71.4%	100.0%
Ujan Mas	∑	0	5	5
	%	0.0%	100.0%	100.0%
Total	∑	14	83	97
	%	14.4%	85.6%	100.0%

Source: Transmission Line Socio-economic Survey Result

Based on the type of employment, from the total 14.4% working PAPs classified as Civil servant (11.3%), employed by Company (2.1 %), and in a private sector (1%).



Table 23 Summary of PAPs by Type of Employment

Sub Districts		Type of Employment				Total
		Civil Servant	Company	Private Sector	N/A	
Bermani Ulu Raya	∑	5	1	1	27	34
	%	14.7%	2.9%	2.9%	79.4%	100.0%
Curup Selatan	∑	0	0	0	3	3
	%	0.0%	0.0%	0.0%	100.0%	100.0%
Curup Utara	∑	1	0	0	10	11
	%	9.1%	0.0%	0.0%	90.9%	100.0%
Curup	∑	0	0	0	2	2
	%	0.0%	0.0%	0.0%	100.0%	100.0%
Lebong Selatan	∑	2	0	0	21	23
	%	8.7%	0.0%	0.0%	91.3%	100.0%
Merigi	∑	0	0	0	5	5
	%	0.0%	0.0%	0.0%	100.0%	100.0%
Rimbo Pengadang	∑	3	1	0	10	14
	%	21.4%	7.1%	0.0%	71.4%	100.0%
Ujan Mas	∑	0	0	0	5	5
	%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	∑	11	2	1	83	97
	%	11.3%	2.1%	1.0%	85.6%	100.0%

Source: Transmission Line Socio-economic Survey Result

The word "Company" is used when the respondent is regular employee of a company, whereas "private sector" is used when the respondent has a not regular occupation (e.g. small trader, farmer or any other informal occupation with unstable monthly income).

#### 5.2.7. House Hold Expenditure

In this socio economic survey, we collected simple information about the most five of respondents' expenditure. This expenditure is important data to know the capability of household living standard. The below table shown that there are 10 types of expenditures (Food, Rent, Health, Education, Transportation, Clothes, Electricity & water, Communication, smoking & drinking and other expenditures) chosen from the 10 choices provides to the respondent, to be ranked as their 5 top of most expenditure in each sub districts.

The 10 expenditure (other expenditure) are not report in below due to there are no PAPs measured the "other expenditure". Ranked as number one priority of the respondent expenditure as the indication that this expenditure was a primary need of the family.

Table 24 Summary of House Hold Expenditure I – Food

Sub Districts		Food Expenditure					Total
		Priority 1	Priority 2	Priority 3	Priority 4	N/A	
Bermani Ulu Raya	∑	14	19	0	0	1	34
	%	41.2%	55.9%	0.0%	0.0%	2.9%	100.0%
Curup Selatan	∑	1	0	0	1	1	3

Sub Districts		Food Expenditure					Total
		Priority 1	Priority 2	Priority 3	Priority 4	N/A	
	%	33.3%	0.0%	0.0%	33.3%	33.3%	100.0%
Curup Utara	∑	4	7	0	0	0	11
	%	36.4%	63.6%	0.0%	0.0%	0.0%	100.0%
Curup	∑	2	0	0	0	0	2
	%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	13	7	0	0	3	23
	%	56.5%	30.4%	0.0%	0.0%	13.0%	100.0%
Merigi	∑	4	1	0	0	0	5
	%	80.0%	20.0%	0.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	8	5	1	0	0	14
	%	57.1%	35.7%	7.1%	0.0%	0.0%	100.0%
Ujan Mas	∑	5	0	0	0	0	5
	%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total	∑	51	39	1	1	5	97
	%	52.6%	40.2%	1.0%	1.0%	5.2%	100.0%

Source: Transmission Line Socio-economic Survey Result

Majority of PAPs (94.8%) chose food expenditure as their expenditure priority; even it is vary as the Priority 1, 2, 3 and 4. The majority of the PAPs are did not measure the pas rent as their expenditure priority, and there are only three PAPs (3.1%) who has to pay rent as their priority expenditure.

Table 25 Summary of House Hold Expenditure 2 – Pay Rent

Sub Districts		Rent Expenditure			Total
		Priority 1	Priority 5	N/A	
Bermani Ulu Raya	∑	0	0	34	34
	%	0.0%	0.0%	100.0%	100.0%
Curup Selatan	∑	0	1	2	3
	%	0.0%	33.3%	66.7%	100.0%
Curup Utara	∑	1	0	10	11
	%	9.1%	0.0%	90.9%	100.0%
Curup	∑	0	0	2	2
	%	0.0%	0.0%	100.0%	100.0%
Lebong Selatan	∑	0	0	23	23
	%	0.0%	0.0%	100.0%	100.0%
Merigi	∑	0	0	5	5
	%	0.0%	0.0%	100.0%	100.0%
Rimbo Pengadang	∑	1	0	13	14
	%	7.1%	0.0%	92.9%	100.0%
Ujan Mas	∑	0	0	5	5
	%	0.0%	0.0%	100.0%	100.0%
Total	∑	2	1	94	97
	%	2.1%	1.0%	96.9%	100.0%

Source: Transmission Line Socio-economic Survey Result

The third expenditure was health expenditure, which is also various priority in most of all PAPs. Majority of PAPs (72.2%) did not take health expenditure as their expenditure priority and in total only 27.8% of PAPs take a health expenditure as their priority.

Table 26 Summary of House Hold Expenditure 3 – Health

Sub Districts		Health Expenditure							Total
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Priority 6	N/A	
Bermani Ulu Raya	∑	2	1	3	1	1	1	25	34
	%	5.9%	2.9%	8.8%	2.9%	2.9%	2.9%	73.5%	100.0%
Curup Selatan	∑	0	1	0	0	0	2	0	3
	%	0.0%	33.3%	0.0%	0.0%	0.0%	66.7%	0.0%	100.0%
Curup Utara	∑	1	0	1	0	0	0	9	11
	%	9.1%	0.0%	9.1%	0.0%	0.0%	0.0%	81.8%	100.0%
Curup	∑	0	0	0	0	0	2	0	2
	%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
Lebong Selatan	∑	0	2	0	1	0	0	20	23
	%	0.0%	8.7%	0.0%	4.3%	0.0%	0.0%	87.0%	100.0%
Merigi	∑	0	1	0	1	0	1	2	5
	%	0.0%	20.0%	0.0%	20.0%	0.0%	20.0%	40.0%	100.0%
Rimbo Pengadang	∑	0	1	1	0	0	1	11	14
	%	0.0%	7.1%	7.1%	0.0%	0.0%	7.1%	78.6%	100.0%
Ujan Mas	∑	0	1	0	0	1	0	3	5
	%	0.0%	20.0%	0.0%	0.0%	20.0%	0.0%	60.0%	100.0%
Total	∑	3	7	5	3	2	7	70	97
	%	3.1%	7.2%	5.2%	3.1%	2.1%	7.2%	72.2%	100.0%

Source: Transmission Line Socio-economic Survey Result

The Fourth expenditure measured was the needs of education. Majority of PAPs did not take Education as their expenditure priority (45.5%), however, there are 33% PAPs identified Education as their expenditure first priority; following 12.4% PAPs identified Education as their expenditure second priority; 7.2% PAPs identified Education as their expenditure third priority, and for each 1% PAPs identified Education as their expenditure Fourth and fifth priority.

Table 27 Summary of House Hold Expenditure 4 – Education

Sub Districts		Education Expenditure						Total
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	N/A	
Bermani Ulu Raya	∑	15	4	0	0	0	15	34
	%	44.1%	11.8%	0.0%	0.0%	0.0%	44.1%	100.0%
Curup Selatan	∑	0	0	1	0	0	2	3
	%	0.0%	0.0%	33.3%	0.0%	0.0%	66.7%	100.0%
Curup Utara	∑	5	1	1	0	0	4	11
	%	45.5%	9.1%	9.1%	0.0%	0.0%	36.4%	100.0%
Curup	∑	0	1	1	0	0	0	2
	%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	7	2	2	0	0	12	23
	%	30.4%	8.7%	8.7%	0.0%	0.0%	52.2%	100.0%
Merigi	∑	0	2	0	0	1	2	5
	%	0.0%	40.0%	0.0%	0.0%	20.0%	40.0%	100.0%
Rimbo Pengadang	∑	5	1	1	1	0	6	14
	%	35.7%	7.1%	7.1%	7.1%	0.0%	42.9%	100.0%
Ujan Mas	∑	0	1	1	0	0	3	5
	%	0.0%	20.0%	20.0%	0.0%	0.0%	60.0%	100.0%
Total	∑	32	12	7	1	1	44	97
	%	33.0%	12.4%	7.2%	1.0%	1.0%	45.4%	100.0%

Source: Transmission Line Socio-economic Survey Result

The next expenditure measured was transportation. Majority of PAPs did not take transportation as their expenditure priority (37.1%). However, there are 28.9% of PAPs identified transportation as their expenditure third priority; following as second priority (24.4%); Fourth priority (11.3%); Fifth priority (7.2%) and first priority (1%).

Table 28 Summary of House Hold Expenditure 5 – Transportation

Sub Districts		Transportation Expenditure						Total
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	N/A	
Bermani Ulu Raya	∑	0	4	9	5	2	14	34
	%	0.0%	11.8%	26.5%	14.7%	5.9%	41.2%	100.0%
Curup Selatan	∑	0	0	0	1	0	2	3
	%	0.0%	0.0%	0.0%	33.3%	0.0%	66.7%	100.0%
Curup Utara	∑	0	2	7	1	1	0	11
	%	0.0%	18.2%	63.6%	9.1%	9.1%	0.0%	100.0%
Curup	∑	0	0	1	0	0	1	2
	%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	100.0%
Lebong Selatan	∑	0	3	3	4	1	12	23
	%	0.0%	13.0%	13.0%	17.4%	4.3%	52.2%	100.0%
Merigi	∑	1	1	0	0	1	2	5
	%	20.0%	20.0%	0.0%	0.0%	20.0%	40.0%	100.0%
Rimbo Pengadang	∑	0	3	8	0	0	3	14
	%	0.0%	21.4%	57.1%	0.0%	0.0%	21.4%	100.0%
Ujan Mas	∑	0	1	0	0	2	2	5
	%	0.0%	20.0%	0.0%	0.0%	40.0%	40.0%	100.0%
Total	∑	1	14	28	11	7	36	97
	%	1.0%	14.4%	28.9%	11.3%	7.2%	37.1%	100.0%

Source: Transmission Line Socio-economic Survey Result

The sixth expenditure measured was expenditure for clothes. Majority of PAPs did not take the needs of clothes as their expenditure priority (97.9%); and only 1% for each PAPs who measured the needs of clothes as their expenditure first and second priority.

Table 29 Summary of House Hold Expenditure 6 – Clothes

Sub Districts		Clothes Expenditure			Total
		Priority 3	Priority 6	N/A	
Bermani Ulu Raya	∑	0	0	34	34
	%	0.0%	0.0%	100.0%	100.0%
Curup Selatan	∑	0	0	3	3
	%	0.0%	0.0%	100.0%	100.0%
Curup Utara	∑	0	0	11	11
	%	0.0%	0.0%	100.0%	100.0%
Curup	∑	0	0	2	2
	%	0.0%	0.0%	100.0%	100.0%
Lebong Selatan	∑	0	0	23	23
	%	0.0%	0.0%	100.0%	100.0%
Merigi	∑	0	1	4	5
	%	0.0%	20.0%	80.0%	100.0%
Rimbo Pengadang	∑	1	0	13	14
	%	7.1%	0.0%	92.9%	100.0%
Ujan Mas	∑	0	0	5	5
	%	0.0%	0.0%	100.0%	100.0%

Sub Districts		Clothes Expenditure			Total
		Priority 3	Priority 6	N/A	
Total	∑	1	1	95	97
	%	1.0%	1.0%	97.9%	100.0%

Source: Transmission Line Socio-economic Survey Result

The eighth expenditure measured was expenditure for water / electricity. Majority of PAPs measured the needs of water / electricity as their expenditure priority as follows: as expenditure third priority (41.7%); fourth priority (28.1%); second priority (17.7%); each 5.2% as PAPs fourth and fifth priority; and the last was 2.1% as the first priority.

Table 30 Summary of House Hold Expenditure 7 – Water/Electricity

Sub Districts		Electricity & water Expenditure						Total
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	N/A	
Bermani Ulu Raya	∑	1	5	19	8	0	1	34
	%	2.9%	14.7%	55.9%	23.5%	0.0%	2.9%	100.0%
Curup Selatan	∑	1	1	0	0	0	1	3
	%	33.3%	33.3%	0.0%	0.0%	0.0%	33.3%	100.0%
Curup Utara	∑	0	1	2	7	1	0	11
	%	0.0%	9.1%	18.2%	63.6%	9.1%	0.0%	100.0%
Curup	∑	0	1	0	1	0	0	2
	%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	0	3	11	4	2	3	23
	%	0.0%	13.0%	47.8%	17.4%	8.7%	13.0%	100.0%
Merigi	∑	0	0	4	1	0	0	5
	%	0.0%	0.0%	80.0%	20.0%	0.0%	0.0%	100.0%
Rimbo Pengadang	∑	0	4	1	6	2	0	13
	%	0.0%	30.8%	7.7%	46.2%	15.4%	0.0%	100.0%
Ujan Mas	∑	0	2	3	0	0	0	5
	%	0.0%	40.0%	60.0%	0.0%	0.0%	0.0%	100.0%
Total	∑	2	17	40	27	5	5	96
	%	2.1%	17.7%	41.7%	28.1%	5.2%	5.2%	100.0%

Source: Transmission Line Socio-economic Survey Result

The eighth expenditure measured was expenditure for communication. Majority of PAPs did not measured the needs of communication as their expenditure priority (44.3%); and the rest of PAPs identified to take communication as their expenditure fourth priority (29.9%); fifth priority (15.5%); sixth priority (4.1%); and as their second priority (1%).

Table 31 Summary of House Hold Expenditure 8 – Communication

Sub Districts		Communication Expenditure						Total
		Priority 2	Priority 3	Priority 4	Priority 5	Priority 6	N/A	
Bermani Ulu Raya	∑	0	0	9	3	0	22	34
	%	0.0%	0.0%	26.5%	8.8%	0.0%	64.7%	100.0%
Curup Selatan	∑	0	1	0	0	0	2	3
	%	0.0%	33.3%	0.0%	0.0%	0.0%	66.7%	100.0%
Curup Utara	∑	0	0	2	5	0	4	11
	%	0.0%	0.0%	18.2%	45.5%	0.0%	36.4%	100.0%
Curup	∑	0	0	0	2	0	0	2
	%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
Lebong Selatan	∑	1	2	9	3	1	7	23
	%	4.3%	8.7%	39.1%	13.0%	4.3%	30.4%	100.0%
Merigi	∑	0	0	3	1	1	0	5

Sub Districts		Communication Expenditure						Total
		Priority 2	Priority 3	Priority 4	Priority 5	Priority 6	N/A	
	%	0.0%	0.0%	60.0%	20.0%	20.0%	0.0%	100.0%
Rimbo Pengadang	∑	0	1	4	1	2	6	14
	%	0.0%	7.1%	28.6%	7.1%	14.3%	42.9%	100.0%
Ujan Mas	∑	0	1	2	0	0	2	5
	%	0.0%	20.0%	40.0%	0.0%	0.0%	40.0%	100.0%
Total	∑	1	5	29	15	4	43	97
	%	1.0%	5.2%	29.9%	15.5%	4.1%	44.3%	100.0%

Source: Transmission Line Socio-economic Survey Result

The ninth expenditure measured was expenditure for smoking/drinking. Majority of PAPs did not measured this as their expenditure priority (79. 4%); and the rest of PAPs identified to take this as their expenditure fourth priority (8. 2%); fifth priority (4. 1%); third priority (5. 2%); second priority (2. 1%) and first priority (1%).

Table 32 Summary of House Hold Expenditure 9 – Smoking/Drinking

Sub Districts		Smoking & drinking Expenditure						Total
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	N/A	
Bermani Ulu Raya	∑	1	0	2	2	2	27	34
	%	2.9%	0.0%	5.9%	5.9%	5.9%	79.4%	100.0%
Curup Selatan	∑	0	0	0	0	0	3	3
	%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Curup Utara	∑	0	0	0	1	1	9	11
	%	0.0%	0.0%	0.0%	9.1%	9.1%	81.8%	100.0%
Curup	∑	0	0	0	1	0	1	2
	%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	100.0%
Lebong Selatan	∑	0	2	2	1	0	18	23
	%	0.0%	8.7%	8.7%	4.3%	0.0%	78.3%	100.0%
Merigi	∑	0	0	1	0	0	4	5
	%	0.0%	0.0%	20.0%	0.0%	0.0%	80.0%	100.0%
Rimbo Pengadang	∑	0	0	0	1	1	12	14
	%	0.0%	0.0%	0.0%	7.1%	7.1%	85.7%	100.0%
Ujan Mas	∑	0	0	0	2	0	3	5
	%	0.0%	0.0%	0.0%	40.0%	0.0%	60.0%	100.0%
Total	∑	1	2	5	8	4	77	97
	%	1.0%	2.1%	5.2%	8.2%	4.1%	79.4%	100.0%

Source: Transmission Line Socio-economic Survey Result

#### 5.2.8. The awareness of the project

Based on the survey, majority of the PAPs are aware about the development of Geothermal Power Plant Project (94. 8%), and there are 5 PAPs (5. 2%) who did not aware regarding the project.

Table 33 Summary of the awareness of the project

Sub Districts		Awareness of the project		Total
		Yes	No	
Bermani Ulu Raya	∑	29	5	34
	%	85.3%	14.7%	100.0%
Curup Selatan	∑	3	0	3
	%	100.0%	0.0%	100.0%

Sub Districts		Awareness of the project		Total
		Yes	No	
Curup Utara	∑	11	0	11
	%	100.0%	0.0%	100.0%
Curup	∑	2	0	2
	%	100.0%	0.0%	100.0%
Lebong Selatan	∑	23	0	23
	%	100.0%	0.0%	100.0%
Merigi	∑	5	0	5
	%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	14
	%	100.0%	0.0%	100.0%
Ujan Mas	∑	5	0	5
	%	100.0%	0.0%	100.0%
Total	∑	92	5	97
	%	94.8%	5.2%	100.0%

Source: Transmission Line Socio-economic Survey Result

Note: If the 5 villagers from Bermani Ulu Raya were not aware of the project, they become aware about the development of this project and understand about it after the consultation with PLN.

In relation with Public meeting implementation, the majority of PAPs (80.4%) was join the public consultation meeting or socialization regarding the project development, and there are 19 of PAPs (19.6%) whose did not join the Public meeting.

Table 34 Summary of Public Meeting

Sub Districts		Public meeting		Total
		Yes	No	
Bermani Ulu Raya	∑	23	11	34
	%	67.6%	32.4%	100.0%
Curup Selatan	∑	3	0	3
	%	100.0%	0.0%	100.0%
Curup Utara	∑	11	0	11
	%	100.0%	0.0%	100.0%
Curup	∑	2	0	2
	%	100.0%	0.0%	100.0%
Lebong Selatan	∑	15	8	23
	%	65.2%	34.8%	100.0%
Merigi	∑	5	0	5
	%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	14
	%	100.0%	0.0%	100.0%
Ujan Mas	∑	5	0	5
	%	100.0%	0.0%	100.0%
Total	∑	78	19	97
	%	80.4%	19.6%	100.0%

Source: Transmission Line Socio-economic Survey Result

In addition, with the result of public meeting regarding the compensation scheme, majority of PAPs (99%) was agree with compensation scheme offered by PLN, and there is one PAP (1%) who did not agree with the compensation.

Table 35 Summary of Public Meeting

Sub Districts		Agree with compensation		Total
		Yes	No	
Bermani Ulu Raya	∑	34	0	34
	%	100.0%	0.0%	100.0%
Curup Selatan	∑	2	1	3
	%	66.7%	33.3%	100.0%
Curup Utara	∑	11	0	11
	%	100.0%	0.0%	100.0%
Curup	∑	2	0	2
	%	100.0%	0.0%	100.0%
Lebong Selatan	∑	23	0	23
	%	100.0%	0.0%	100.0%
Merigi	∑	5	0	5
	%	100.0%	0.0%	100.0%
Rimbo Pengadang	∑	14	0	14
	%	100.0%	0.0%	100.0%
Ujan Mas	∑	5	0	5
	%	100.0%	0.0%	100.0%
Total	∑	96	1	97
	%	99.0%	1.0%	100.0%

Source: Transmission Line Socio-economic Survey Result

### 5.3. STUDY OF LAND AND PROPERTY

#### 5.3.1. Reproductive Land

Refer to Transmission Line EIA Study, the composition existing land use at the 131 tower site are dominated by coffee plantations (33.33% or 40 tower sites); followed by shrubs (31.16% or 42 towers); and the lowest is brick workshop (0.27% or 1 tower location respectively), while the rice field location is 15.22% (21 towers).



<b>A. Location T.048, land use of shrubs</b>	<b>B. Location T.013, land use of chilli field</b>	<b>C. Location T.008, land use of cornfield</b>	<b>Location T.062, land use of cabbage field</b>
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<b>E. Location T.100, land use of rubber tree plantation</b>	<b>F. Location T.038, land use of coffe plantation</b>	<b>G. Location T.023, land use of field</b>	<b>Location T.015, land use of rice field</b>
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Figure 2 Land use around the tower site plan and pal / Bench Mark (BM) Monument (at the midpoint of the tower tread)

An overview of the situation of land use and pal BM (tower point centre) below:

Table 36 Percentage of land use distribution in the tower site plan

No.	Land Use	Number of Towers	Percentage
1.	Cogon grass	1	0,72
2.	Shrubs	43	31,16
3.	Shrubs/Secondary forest	2	1,45
4.	Horticulture fields	12	8,70
5.	Rubber tree plantation	6	4,35
6.	Coffee Plantation	46	33,33
7.	Non-horticulture fields	6	4,35
8.	Bricks Workshop	1	0,72
9.	Rice field	21	15,22
	<b>Total</b>	<b>131</b>	<b>100,00</b>

Source: EIA Transmission Line

### 5.3.2. Vegetation

The collected vegetation data is in the form of primary data derived from field observations. Observation of vegetation and wildlife was carry out at several locations representing the overall condition of the project site for the planned construction of a 150 kV transmission lines for the Hululais-Pekalongan GPP and its related substations. The vegetation data components taken are plant species at the observation location.

#### 1) Vegetation of Secondary Forests and Shrubs

Plant ecosystem types found around / along the location of the 150 kV transmission lines The Hululais-Pekalongan GPP are secondary forest and mixed plantation owned by residents and / or cultivated by residents. Mixed field vegetation dominated by coffee, cinnamon, cocoa, rubber tree plantations and there are rice fields.

Field observations shows that canopy cover is quite tight, therefore at the bottom of the forest tends to be moist and found many types of ferns and lianas. Whereas in shrubs or mixed fields, there are still many types of trees found at the level of trees, shrubs and herbs. Herbaceous plants (understorey) found are many types of ferns. In

vegetation types or mixed fields ecosystems, there are many palm trees, durian, cinnamon, and mango trees.

In general, the composition of plant species that comprise secondary forest ecosystems around the site has a high diversity of plant species, especially tree species. This is because this secondary forest is a conservation forest area, although the forest is also inseparable from the pressure of timber exploitation and land opening to use as plantation by the community.

For tree-level plants (i.e. plants with a stem diameter at chest height (DBH)  $\geq$  10 cm), dadap trees (*Erythrina variegata*) and rubber (*Hevea brasiliensis*) have the highest Important Value Index (INP) compared to other species. The high important index values of the two types, and also followed by types of Cassia (juwar), Durio (durian), *Hibiscus tiliaceus* (waru), *Aleuritas moluccana* (pecan), and *Cinnamomum burmanni* (cinnamon), are due to many of these plant species are planted as shade plants, protectors or intercropping in coffee plantation belonging to the community. These types are usually planted when new fields/plantation are opened and subsequently will be used as a source of firewood, fruits or bark that can be of economic value.

The high value index of *Macaranga* sp (mahang) is because it is a pioneer type, a type that is tolerant to sunlight, indicating that the fields observed are mixed secondary vegetation types. The types of vegetation that make up the community types of secondary forest plants and shrubs as below

Table 37 Types of vegetation composing secondary forest community

No	Local Name	Binomial Name	INP (%)		
			Tree	Stake	Seedling
1	2	3	4	5	6
1	Dadap	<i>Erythrina variegata</i>	37,42	9,24	
2	Karet	<i>Hevea brasiliensis</i>	33,11		11,65
3	Mahang	<i>Macaranga sp</i>	29,04	28,81	5,97
4	Juwar	<i>Cassia sp</i>	26,35	11,36	11,85
5	Durian	<i>Durio zibethinus</i>	24,41		
6	Waru	<i>Hibiscus tiliaceus</i>	22,26	9,19	
7	Kemiri	<i>Aleuritas moluccana</i>	21,13	3,17	
8	Kayu Manis	<i>Cinnamomum burmanni</i>	16,42		
9	Angsana	<i>Pterocarpus indicus</i>	14,91		
10	Awar-awar	<i>Ficus Septica</i>	14,32	9,46	
11	Kepayang	<i>Pangium edule</i>	13,24	10,26	
12	--	<i>Ficus sinuata</i>	12,38		
13	Pokat	<i>Persea americana</i>	9,42		
14	--	<i>Ficus fulva</i>	9,42	11,98	
15	--	<i>Draxylum indicum</i>	7,24		
16	Nangka	<i>Arthocarpus heterophyllus</i>	6,51		
17	Jambu biji	<i>Psidium guajava</i>	2,42		
18	Kopi	<i>Coffea arabica</i>		47,61	43,39
19	Kerinyu	<i>Eupatorium adoratum</i>		23,01	
20	Bambu Kuning	<i>Bambusa vulgaris</i>		19,10	
21	Bambu Biasa	<i>Bambusa sp</i>		17,18	
22	Rotan duduk	<i>Calamus sp</i>		17,22	
23	Harendong bulu	<i>Clidemia hirta</i>		16,10	15,64

Source: EIA Transmission Line

For the stake / shrubs level (ie plants with a chest height diameter of <10 cm and less than 5 m in height), the highest index of importance is owned by coffee plants (Coffee Arabica), mahang (Macaranga sp) and kerinyu (Eupatorium odoratum). While for seedling/understorey levels, it has dominated by coffee tillers and types of ferns.



Figure 3 Types of rubber plantation. Vegetation:  
 (a) Coffee plantation type with shade plants Cassia; (b) Coffee tillers intercrop between fruit trees; (c) Secondary forest vegetation's type and (d) scrubs

## 2) Vegetation of the Cultivation

The types of cultivated plants that are widely planted by the community look diverse but the abundance of individuals of each type is low. In general, the types of plants planted are fruit trees and vegetables that used for family consumption purposes. In addition, it has found often a decorative plants and protective plants that are plant in the front yard of the house.

The high diversity of cultivated plants is because most villagers are farmers who like to grow crops. The condition of fertile soil and land strongly supports plant growth so that various types of plants can grow well. The types of plants that are widely planted as cultivated plants (plantations) and as garden plants include coffee, cocoa, bananas, coconut and rambutan, and durian.



Figure 4 Types of rice ecosystems (a) several types of yard corps (b)

### 3) Fauna (Wildlife)

The types of wildlife often found around the location of planned activities are classified as diverse, especially the types of Reptiles, Aves and Mammals. The high diversity of wildlife in this location is due to the fact that not far from this location is Danau Tes Nature Park (TWA) area which is an old secondary forest, some of which are still dominated by tree species that have relatively dense canopy cover. Despite this, the area has also undergone many changes, which have become coffee plantations and mixed fields/plantation by local residents.

This secondary forest is a habitat for wildlife for some species interaction and population. In addition, the local people do not perform hunting (exploitation) of wild animals found in the protected forest, which is also one of the factors that there are still many types of wildlife in the study area. Some types of wildlife in the primary forest including species that belongs in endangered species category and protected by the Law of the Republic of Indonesia, among others: deer (*Tragulus javanicus*), Deer (*Cervus* sp), Sumatran Tiger (*Panthera tigris sumatrensis*), bear honey (*Helarctos malayanus*) and so on. The existence of various types of wildlife at the study site indicates that the area is still able to support various types of animals.

However, it should note that there is a possibility that various types of animals still need space and habitat that supports their roaming range. The types of wildlife in the study location, whether records through interviews or based on information from local residents, as below

Table 38 Types of wild life at the study site

No	Class	Local Name	Binomial Name	Estimation of the population	Source	Conserv Status	IUCN Redlist
1	2	3	4	5	6	7	8
1	Amphibian	Kodok	<i>Leptophryne borbonica</i>	+	Observation	TDL	LC
2	Aves	Ayam Hutan	<i>Gallus gallus</i>	+	Interview	TDL	LC
3	Aves	Beo/Ketiong	<i>Gracula religiosa</i>	+	Interview	TDL	LC
4	Aves	Bubut Alang-Alang	<i>Centropus bengalensis</i>	+++	Observation	TDL	LC
5	Aves	Burung Madu	<i>Anthreptes cf. simplex</i>	++	Observation	DL	LC
6	Aves	Cekakak	<i>Halcyon</i> sp	++	Observation	DL	LC
7	Aves	Cucak Kuning	<i>Pycnonotus melanicterus</i>	+	Observation	TDL	LC
8	Aves	Cucak Kutilang	<i>Pycnonotus aurigaster</i>	++	Observation	TDL	LC
9	Aves	Delimukan Zamrud	<i>Chalcophaps indica</i>	+	Observation	TDL	LC
10	Aves	Elang	<i>Haliastur</i> sp	+	Interview	DL	LC
11	Aves	Julang Emas/Rangkong	<i>Aceros undulatus</i>	+	Observation	DL	VU
12	Aves	Kacer	<i>Copsychus</i> sp	++	Observation	TDL	LC
13	Aves	Kepodang	<i>Oriolus</i> sp	+	Interview	TDL	LC
14	Aves	Kipasan	<i>Rhipidura</i> sp	+	Observation	DL	LC
15	Aves	Merbah	<i>Pycnonotus</i> sp	+++	Observation	TDL	LC
16	Aves	Pipit	<i>Lonchura malacca</i>	++	Observation	TDL	LC

No	Class	Local Name	Binomial Name	Estimation of the population	Source	Conserv Status	IUCN Redlist
17	Aves	Tekukur Biasa	<i>Streptopelia chinensis</i>	++	Observation	TDL	LC
18	Aves	Walet	<i>Collocalia</i> sp	+++	Observation	TDL	LC
19	Mammalia	Babi Hutan	<i>Sus</i> sp	+++	Interview	TDL	LC
20	Mammalia	Bajing	<i>Callosciurus</i> sp	+++	Observation	TDL	LC
21	Mammalia	Berang-Berang	<i>Lutra</i> sp	+	Interview	DL	VU
22	Mammalia	Beruang Madu	<i>Helarctos malayanus</i>	+	Claw Mark	DL	VU
23	Mammalia	Beruk	<i>Macaca nemestrina</i>	++	Observation	TDL	VU
24	Mammalia	Cingkek	<i>Presbytis</i> sp	++	Observation	TDL	VU
25	Mammalia	Codot	<i>Rousettus</i> sp	++	Capturing	TDL	LC
26	Mammalia	Harimau sumatra	<i>Panthera tigris sumatrensis</i>	+	Observation	DL	CE
27	Mammalia	Kancil	<i>Tragulus</i> sp	+	Interview	DL	LC
28	Mammalia	Kelelawar	<i>Rhinolophus</i> sp	+++	Capturing	TDL	LC
29	Mammalia	Kera Ekor Panjang	<i>Macaca fascicularis</i>	++	Interview	TDL	LC
30	Mammalia	Kukang	<i>Nycticebus coucang</i>	+	Interview	DL	VU
31	Mammalia	Musang	<i>Paradoxurus</i> sp	++	Interview	TDL	LC
32	Mammalia	Rusa	<i>Cervus</i> sp	+	Interview	DL	LC
33	Mammalia	Siamang	<i>Hylobates syndactylus</i>	+	Interview	DL	EN
34	Mammalia	Simpai	<i>Presbytis</i> sp	+++	Interview	TDL	EN
35	Mammalia	Tikus	<i>Rattus</i> sp	+++	Interview	TDL	LC
36	Mammalia	Tikus Hutan	<i>Maxomys surifer</i>	++	Observation	TDL	LC
37	Mammalia	Trenggiling	<i>Manis javanica</i>	+	Interview	DL	CE
38	Reptil	Biawak	<i>Varanus salvator</i>	++	Interview	TDL	LC
39	Reptil	Kadal	<i>Mabouya</i> sp	++	Observation	TDL	LC
40	Reptil	Ular welang	Cf. <i>Natrix</i>	+	Observation	TDL	LC
41	Reptil	Ular Sawo	<i>Phyton</i> sp	+	Interview	TDL	LC
42	Reptil	Ular Sendok	<i>Naja</i> sp	++	Interview	TDL	LC

Source: EIA Transmission Line

Description:      +++ = Many;  
                          ++ = Medium;  
                          + = Little;

TDL = Not protected by Republic of Indonesia Law;  
 DL = Protected

## 5.4. STUDY OF LIVELIHOOD AND STANDARD LIVING

### 5.4.1. Characteristics of the community

The following is an overview of the condition of the environmental conditions at the location of the project site based AMDAL report

Table 39 General Condition of Community Livelihood in the Study Area

No	District	Sub district	Village	Main Livelihood
1	Kepahiang	Ujan Mas	Bumisari	Rice and Vegetable Farmers
2		Merigi	Lubuk Penyamun	Rice Farmers
3	Rejang Lebong	South Curup	Pungguk Lalang	Rice and Coffee Farmers
4		Curup	Dwi Tunggal	Civil Servants (75%) and Rice Farmers
5		North Curup	Batupanco	Rice Farmers
6		Bermani Ulu Raya	Dataran Tapus	Coffee Farmers
7			Tebat Tenong Luar	Rice and Coffee Farmers
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	Rice and Coffee Farmers
9		South Lebong	Sukasari	Coffee Farmers

Source: EIA Transmission Line

The crop of ricefields is usually used by the community in the study area for private consumption. Meanwhile, the crop of farms such as vegetables, fruits, and coffee are usually sold to the collector or to village-owned business entity.

### 5.4.2. Status and Condition of Houses

There are 92,0% of respondents who live in their own houses. The rest of 2,0% respondents rent the houses. The respondents who generally live in the study location are the native inhabitants of each village. Only a few of them are migrants who originally from the same district of city. However, most natives and migrants have been living for more than 20 years in the village. This creates the deep sense of belonging towards the environment of the inhabitants. Consequently, a good socialization and communication to the community and government are needed regarding to the project site.

The building houses of the respondents have many various area. There are 48,0% of respondents whose area of houses are 29 m<sup>2</sup> to 70 m<sup>2</sup>. The house area of 14 m<sup>2</sup> to 28 m<sup>2</sup> are settled by 12,0% respondents. Then the last 40,0% respondents live in the houses with the area of more than 70 m<sup>2</sup>.

The typology of respondent houses is also various. There are 20,0% of respondents live in permanent houses. A permanent type of house refers to the house that is built of brick or wall. Then, the highest percentage of respondents, 60,0%, live in semi permanent houses. The last 20,0% respondents live in houses built of wood and cement floor. The detail information of typology of respondents houses can be seen in the following table. In this study site, not all respondents have their own bathroom in their houses. 80,0% respondents use their own bathrooms inside their houses, and the rest 20,0% of respondents live in the houses which do not provide bathrooms, which means that the

bathroom is separated from the main building of house. This condition forces them to use the separate bathrooms outside their houses.

Meanwhile, for the need of drinking or cooking water, there are 52,0% of respondents utilize the water from water supply company. Then the rest of the respondents utilize the water from the well. All respondents admit that the water quality is clean and tasteless.

Regarding to the waste management, the respondents react variously. There are 44,0% of community throw the garbage away in the empty land around the settlement, 4,0% of the community throw the garbage away in the gutter near houses, 44,0% community burn the garbage, 4,0% of the community buried it, and the last 4,0% respondents said that the garbage is taken by the garbage officer.

Meanwhile, the responds regarding feces waste management split the respondents into 2 groups; 92,0% of respondents use septic tank, and the last 8,0% use gutter/river.

### 5.4.3. Population

#### 1) Population Amount and Density

The high-voltage Transmission line activity plans to be constructed in three regions of district. They are Kepahiang, Rejang Lebong, and Lebong District. In 2016, there are 133.703 inhabitants live in Kepahiang District with the area of 665,0 km<sup>2</sup>, with the population density is 187,8 inhabitant/km<sup>2</sup>.

The area of Rejang Lebong District is 1.638,98 km<sup>2</sup>. With the population amount of 257.498 inhabitants, and the population density is 162,8 inhabitant/km<sup>2</sup>. The population amount in Lebong District is 111.063 inhabitants. They settle in the area of 1.921,82 km<sup>2</sup>. With the population density is 36, 3 inhabitants/km<sup>2</sup>.

One of the objectives of the construction is to improve the equity of population distribution. By improving the equity of population distribution generally can help improving the population welfare. Hence, in order to achieve the ideal equity of population, the composition of population amount has to be balanced with the area of the region.

Table 40 Population Profile of Each Village in Affected Area

District	Sub district	No	Village	Σ HH	Σ Population			Area of Village (Ha)	Pop Density (inhabitant / km <sup>2</sup> )	Σ Ave. Of Pop inhabitant / HH)
					M	F	Total			
1	2	3	4	5	6	7	8	9	10	11
Kepahiang (4 villages)	Ujan Mas	1	Pekalongan	400	723	695	1418	-	-	3,5
		2	Bumisari	490	827	809	1636	-	-	3,3
	Merigi	3	Bukit Barisan	229	395	348	743	-	-	3,2
		4	Lubuk Penyamun	223	453	431	884	-	-	4,0
Rejang Lebong (19 villages)	South Curup	5	Watas Marga	-	243	238	481	308	156,2	-
		6	Lubuk Ubar	-	439	401	840	338	248,5	-
		7	Pungguk Lalang	-	844	818	1662	410	405,4	-
	Curup	8	Dwi Tunggal	-	1409	1495	2904	1713	169,5	-
		9	Talang Benih	-	3279	3240	6519	9781	66,6	-
	North Curup	10	Batu Panco	236	508	492	1000	248	403,2	4,2
		11	Lubuk Kembang	271	567	568	1135	1128	100,6	4,2

District	Sub district	No	Village	Σ HH	Σ Population			Area of Village (Ha)	Pop Density (inhabitant / km <sup>2</sup> )	Σ Ave. Of Pop inhabitant / HH)
					M	F	Total			
1	2	3	4	5	6	7	8	9	10	11
		12	Suka Datang	164	361	366	727	338	215,1	4,4
		13	Pahlawan	176	381	345	726	253	287,0	4,1
		14	Taba Renah	280	488	479	967	122	792,6	3,5
	Bermani Ulu Raya	15	Dataran Tapus	-	202	178	380	779	48,8	-
		16	Bandung Marga	-	499	444	943	1309	72,0	-
		17	Pal Seratus	-	228	208	436	649	67,2	-
		18	Pal VII /Tujuh	-	408	372	780	695	112,2	-
		19	Pal VIII /Delapan	-	792	734	1526	329	463,8	-
		20	Tebat Tenong Luar	-	331	326	657	260	252,7	-
		21	Air Bening	-	907	814	1721	7174	24,0	-
		22	Bangun Jaya	-	424	410	834	1948	42,8	-
		23	Babakan Baru	-	792	809	1601	779	205,5	-
		24	Air Dingin *)	-	575	621	1196	-	-	-
		25	Tik Kuto	-	397	287	684	-	-	-
		26	Rimbo Pengadang	-	649	609	1258	-	-	-
		27	Talang Ratau	-	405	400	805	-	-	-
		28	Kutai Donok	284	491	509	1000	-	-	3,5
		29	Sukasari	221	409	414	823	-	-	3,7
		30	Taba Anyar	628	1241	1274	2515	-	-	4,0

Source: EIA Transmission Line

Notes: \*) = Name of Air Dingin Villages = Bioa Sengok Villages (it has same meaning in Rejang language);  
- Several data is empty because there is no source.

## 2) Population Growth Rate

Bengkulu Province has a quite big amount of human resource. As seen from the amount of population, there is always an increasing rate of population growth each year. From 2013 to 2016, the increasing rate of population growth is relatively stabil. However, in 2013 there is an increasing rate (obtained from population census which is a factual data).

In 2013, the amount of population in Bengkulu Province is 1.814.357 inhabitants. Meanwhile, there is an increasing rate in 2014 so that the amount of population reaches 1.844.788 inhabitants. The population growth rate also increases in 2015 with the amount of population is 1.874.944 inhabitants. In 2016, the amount of population increases until 1.904.793 inhabitants. This huge amount of population indicates that there is also a huge potency of human resource. The population growth amount is a number which shows the level of increasing population in a certain periode. It is stated from the basic amount of population. From 2013 to 2014, Bengkulu Province has a stabil population growth rate of 1,56-1,52%. Meanwhile in 2016, the population growth rate increases to 2.92% compared to the previous years.



#### 5.4.4. Social Economy

##### 1) Livelihood

There are various business fields of the population in Bengkulu Province. However, in the study area, most of them are dominated by food and secondary farmers. In the last three years, the highest average of livelihood are food and secondary crops of 30,17%, then followed by farm of 14,51%, and the last are electricity and drinking water of 0,11%. The detail of business field percentage is as shown in the table below.

Table 41 Percentage of Business Field in Bengkulu Province in 2014-2016

No.	Business field	2014	2015	2016	Average
1	Food & Secondary Crop	30,30	30,29	29,93	30,17
2	Farm	16,18	14,60	12,76	14,51
3	Husbandry	5,42	5,87	5,28	5,53
4	Forest	2,74	2,72	2,20	2,55
5	Fishery	10,62	9,79	7,88	9,43
6	Mine	0,91	1,24	1,08	1,08
7	Industry	2,66	3,46	2,52	2,88
8	Electricity and drinking water	0,09	0,1	0,15	0,11
9	Construction	4,48	3,75	4,34	4,19
10	Trade	12,52	12,6	15,45	13,52
11	Transportation & Communication	3,62	3,9	3,01	3,51
12	Bank and Finance	0,31	0,77	0,86	0,65
13	Services/Others	10,16	10,91	14,53	11,87
	<b>Amount (%)</b>	<b>100,00</b>	<b>100,00</b>	<b>100,00</b>	<b>100,00</b>

Source: EIA Transmission Line

##### 2) Income Level of Respondents' Family

Income level of community is one of many important aspects in economy aspects. Based on the survey, there are 56,0% of respondents have total income of Rp1.000.000,00-Rp2.000.000,00 per capita. The rest of 48,0% respondents have the income under of the minimum wage of Bengkulu Province.

The minimum wage of Bengkulu Province is Rp1.730.000,00. This occurs because most of the community in the study area work in agricultural sector which makes the income is fluctuative and cannot be determined by the province minimum wage.

Table 42 Respondents' Income Level

No	Sub District	Sub district	Village	Average income per month						Σ	
				A	B	C	D	E	F		N/A
1	Kepahiang	Ujan Mas	Bumisari	0	0	5	0	0	0	0	5
2		Merigi	Lubuk Penyamun	0	0	0	0	0	0	0	0
3	Rejang Lebong	South Curup	Pungguk Lalang	0	0	0	0	0	0	0	0
4		Curup	Dwi Tunggul	0	0	0	0	0	0	0	0
5		North Curup	Batupanco	0	0	1	0	0	0	0	1
6		Bermani Ulu	Dataran Tapus	0	0	0	0	0	2	1	3
7		Raya	Tebat Tenong Luar	0	2	3	0	0	1	0	6

No	Sub District	Sub district	Village	Average income per month							Σ
				A	B	C	D	E	F	N/A	
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	0	0	1	1	2	0	0	4
9		South Lebong	Kutai Donok	0	0	0	0	0	0	0	0
10			Sukasari		1	0	4	1	0	0	0
<b>Total Amount of Respondent</b>				<b>1</b>	<b>2</b>	<b>14</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>25</b>
<b>%</b>				<b>4,0</b>	<b>8,0</b>	<b>56,0</b>	<b>8,0</b>	<b>8,0</b>	<b>12,0%</b>	<b>4,0</b>	<b>100</b>

Source: EIA Transmission Line

Remark: A: No Income B: <1.000.0  
C: 1.000.000 -2.000.00000 D: 2.001.000 -3.000.000  
E: 4.001.000 -5.000.000 F: >5.000.000

## 5.4.5. Social Culture

### 1) Education and Religion

One effective effort to improve the education condition in one region is related to the construction of education infrastructure and facility. In addition, by increasing the amount of school and teacher directly opens the wider opportunity for the community to obtain the education easily.

Data obtained from Central Bureau of Statistic in Bengkulu Province in 2016, Bengkulu Province has 2.340 public and private schools. They are divided into: 481 Kindergartens, 1.310 Elementary Schools, 368 Junior High Schools, and 181 Senior and Vocational Schools. During the school year of 2015/2016 in Bengkulu Province, there are 18.613 Kindergarten students, 222.998 Elementary School students, 83.763 Junior High School students, and 42.773 students of Senior and Vocational Schools. The amount of teacher who teaches in each school during the school year of 2015/2016 are 31.453 Elementary School teachers, 3.750 Junior High School teachers, and 5.316 Senior and Vocational School teachers. Meanwhile, the comparison of total amount of teacher to total amount of student is shown in the ratio of teacher and student. The ratio of teacher and student during the school year of 2015/2016 in Bengkulu Province are 7 for Elementary School, 22 for Junior High School, and 8 for Senior High School.

Table 43 Educations Infrastructure, Amount of Student and Teacher

No.	Status Per District	Elementary School / Ibtidaiyah			Junior High School/ Tsanawiyah			Senior/Vocational High School/Aliyah		
		Unit	Σ of Teacher	Σ of Student	Unit	Σ of Teacher	Σ of Student	Unit	Σ of Teacher	Σ of Student
<b>A.</b>	<b>Kepahiang</b>									
1.	Public	97	1169	15648	33	765	5957	13	553	1447
2.	Private/MI, MTS,MA	8	108	1159	6	166	1259	3	100	971
<b>Amount A</b>		<b>105</b>	<b>1.277</b>	<b>16.807</b>	<b>39</b>	<b>931</b>	<b>7.216</b>	<b>16</b>	<b>653</b>	<b>2.418</b>
<b>B.</b>	<b>Rejang Lebong</b>									
1	Public	170	2046	31548	41	622	11493	17	654	7417
2	Private	12	175	1767	8	84	552	10	184	1382
<b>Amount B</b>		<b>182</b>	<b>2.221</b>	<b>33.315</b>	<b>49</b>	<b>706</b>	<b>12.045</b>	<b>27</b>	<b>838</b>	<b>8.799</b>
<b>C.</b>	<b>Lebong</b>									
1	Public	93	774	1255	23	332	1271	6	151	1859
2	Private	1	9	11	1	5	72	1	4	80
<b>Amount C</b>		<b>94</b>	<b>783</b>	<b>1.266</b>	<b>24</b>	<b>337</b>	<b>1.343</b>	<b>7</b>	<b>155</b>	<b>1.939</b>

Source: EIA Transmission Line

There are some education infrastructures which are affected due to the high-voltage wires activity plans. Most of the students have been accommodated in some several Schools in the location site or in the capital city of the affected districts.

Only a few of them who continue to the Senior High School to the capital city of the affected district. In 2017, there are 94,77% of population in Bengkulu Province are Moslems, 3,06% of population are Christians, 0,83% of populations are Catholics, 0,8% of population embrace Hindu, and the last 0,54% of embrace Budha. (Central Bureau of Statistic in Bengkulu Province, 2017)

## 2) General Characteristic of Community around the Project Site

Study of social, economy, and cultural components in a location site activity is always based on the secondary and primary data as its supportive data. The activity plan covers 3 districts, 8 subdistricts, and 28 villages. However, there are only several villages taken as study area to represent each subdistrict. Those regions are:

Table 44 Amount of Respondent in Each Region

No.	District	Sub district	Village	∑ of Respondent
1	Kepahiang	Ujan Mas	Bumisari	6
2		Merigi	Lubuk Penyamun	1
3	Rejang Lebong	South Curup	Pungguk Lalang	1
4		Curup	Dwi Tunggal	1
5		North Curup	Batupanco	2
6		Bermani Ulu	Dataran Tapus	4
7		Raya	Tebat Tenong Luar	6
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	5
9		South Lebong	Sukasari	7
<b>Total Amount of Respondent</b>				<b>33</b>

Source: EIA Transmission Line

Consequently, the study of social, economy, and cultural components is conducted only in those regions above. The study involves area observation and interview to the respondents which is conducted in April 2018. There are total 33 of respondents with the detail of 8 respondents from the representative of village government, and other 25 respondents are the affected population. The effects of the study are land acquisition and the settlements that are located in the transmission project.

## 3) Groups of Age and Education

According to the data, most respondents are the affected inhabitants who are in the productive age (25 to 64 years old). The rest of 16% of total respondents are more than 64 years old.

Table 45 Community Identity Based on Ages

No	District	Sub district	Village	Groups of Age (Years Old)					∑ Resp.
				25-34	35-44	45-54	55-64	> 64	
1	Kepahiang	Ujan Mas	Bumisari	1	0	0	3	1	5
2		Merigi	Lubuk Penyamun	0	0	0	0	0	0

No	District	Sub district	Village	Groups of Age (Years Old)					Σ Resp.
				25-34	35-44	45-54	55 -64	> 64	
3	Rejang Lebong	South Curup	Pungguk Lalang	0	0	0	0	0	0
4		Curup	Dwi Tunggal	0	0	0	0	0	0
5		North Curup	Batupanco	0	0	1	0	0	1
6		Bermani Ulu	Dataran Tapus	1	0	1	0	1	3
7		Raya	Tebat Tenong Luar	0	3	2	0	1	6
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	1	0	3	0	0	4
9		South Lebong	Sukasari	4	0	1	0	1	6
<b>Total Amount of Respondent</b>				<b>7</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>4</b>	<b>25</b>
<b>%</b>				<b>28,0</b>	<b>12,0</b>	<b>32,0</b>	<b>12,0</b>	<b>16,0</b>	<b>100</b>

Source: EIA Transmission Line

Table 46 Community Identity Based on Last Level of Education

No	District	Sub district	Village	Last Level of Education				Σ Resp.
				ES/ MI	JHS/ MTs	SHS/ MA	None	
1	Kepahiang	Ujan Mas	Bumisari	3	1	0	1	5
2		Merigi	Lubuk Penyamun	0	0	0	0	0
3	Rejang Lebong	South Curup	Pungguk Lalang	0	0	0	0	0
4		Curup	Dwi Tunggal	0	0	0	0	0
5		North Curup	Batupanco	0	1	0	0	1
6		Bermani Ulu	Dataran Tapus	3	0	0	0	3
7		Raya	Tebat Tenong Luar	3	1	2	0	6
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	1	2	1	0	4
9		South Lebong	Sukasari	1	1	4	0	6
<b>Total Amount of Respondent</b>				<b>11</b>	<b>6</b>	<b>7</b>	<b>1</b>	<b>25</b>
<b>%</b>				<b>44,0</b>	<b>24,0%</b>	<b>28,0</b>	<b>4,0</b>	<b>100</b>

Source: EIA Transmission Line

Education is one of many important factors that influences human resource development index in one region. Based on the following table, there are 44,0% of the householders graduated from elementary school. Referring to the program of 9 years study compulsory, there are 52,0% of respondents who belong to the government program. Then it can be concluded that the last level of education from the householders in the location site is quite good.

#### 4) Type of employment

One important information in social aspect study of Environmental Impact Analysis is the aspect of population livelihood or job kinds which is predicted to be affected by the activity plan. Based on the result of questionnaire, most respondents (92,0%) are farmers, 4% respondents are sellers, and the last 4% respondents are houswives. This result is affected by the condition of the location site.

The location site is surrounded by ricefields and coffee farms that the community utilizes as their source of living. The detail information is shown in the following table.

Table 47 Employment Type

No	District	Sub district	Village	Main Job			Σ Resp.
				Seller	Farmer	House wives	
1	Kepahiang	Ujan Mas	Bumisari	0	5	0	5
2		Merigi	Lubuk Penyamun	0	0	0	0
3	Rejang Lebong	South Curup	Pungguk Lalang	0	0	0	0
4		Curup	Dwi Tunggal	0	0	0	0
5		North Curup	Batupanco	0	1	0	1
6		Bermani Ulu	Dataran Tapus	1	2	0	3
7		Raya	Tebat Tenong Luar	0	6	0	6
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	0	4	0	4
9		South Lebong	Sukasari	0	5	1	6
<b>Total Amount of Respondent</b>				<b>1</b>	<b>23</b>	<b>1</b>	<b>25</b>
<b>%</b>				<b>4,0%</b>	<b>92,0%</b>	<b>4,0%</b>	<b>100%</b>

Source: EIA Transmission Line

## 5.5. COMMUNITY PERCEPTION AND ATTITUDE REGARDING THE PROJECT SITE

### 5.5.1. Information about the project plan

Table 48 Stages of Project Activities has conducted

No	District	Sub district	Village	Stages of the Project
1	Kepahiang	Ujan Mas	Bumisari	Data collection of land & house due to the project
2		Merigi	Lubuk Penyamun	No activity and further information from the initiator
3	Rejang Lebong	South Curup	Pungguk Lalang	No activity and further information from the initiator
4		Curup	Dwi Tunggal	Land survey permit from the initiator
5		North Curup	Batupanco	Data collection of land & house due to the project
6		Bermani Ulu	Dataran Tapus	Data collection of land & house due to the project
7		Raya	Tebat Tenong Luar	Data collection of land & house due to the project
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	Data collection of land & house due to the project
9		South Lebong	Kutai Donok	No activity and further information from the initiator
10			Sukasari	Data collection of land & house due to the project

Source: EIA Transmission Line

Many inhabitants do not know about the planning of the project construction. However, several inhabitants are already involved in the land survey conducted by the previous initiator. The following table shows the stages of project activities that have been conducting in study area until the survey of environmental impact analysis conducted.

### 5.5.2. Attitude of Community Regarding the Project Plan

Total all of respondents of EIA who consist of affected inhabitants and the representative of government generally agree with the project plan. However, a landowner in Batupanco Village disagrees with the project plan. The landowner also refuses to be surveyed. The following table shows the reasons from the respondents towards the project plan.

### 5.5.3. Community Expectation towards the Project Plan

Community who lives around the affected area expects that the construction of 150 kV High-voltage wires Hululais-Pekalongan GPP will bring many positive effects for them. Their expectations are various. Most inhabitants expect that the project construction can absorb and optimize the natives' potency in working in the construction site or when the 150 kV high-voltage wires Hululais-Pekalongan GPP starts the operational activity. The detail information shown in the following table.

Table 49 Expectations from the project plan

No	District	Sub district	Village	Expectations from the Project Plan								Σ Resp.
				A	B	C	D	E	F	G	H	
1	Kepahiang	Ujan Mas	Bumisari	2	0	0	5	0	1	0	0	8
2		Merigi	Lubuk Penyamun	1	0	0	0	0	0	0	0	2
3	Rejang Lebong	South Curup	Pungguk Lalang	1	0	0	0	0	0	0	0	1
4		Curup	Dwi Tunggal	0	0	0	0	1	0	1	0	2
5		North Curup	Batupanco	1	0	0	1	1	0	0	0	3
6		Bermani Ulu Raya	Dataran Tapus	4	0	1	0	0	3	0	0	8
7			Tebat Tenong Luar	2	1	2	0	2	1	0	0	8
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	5	0	0	1	1	1	0	0	8
9		South Lebong	Kutai Donok	0	0	0	1	0	0	0	0	1
10		Sukasari	Sukasari	1	0	0	6	0	0	0	7	14
<b>Total Amount of Respondent</b>				<b>17</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>55</b>
<b>%</b>				<b>30.9</b>	<b>1.8</b>	<b>5.5</b>	<b>27.3</b>	<b>9.1</b>	<b>10.9</b>	<b>1.8</b>	<b>12.7</b>	<b>100</b>

Source: EIA Transmission Line

### 5.5.4. Community Concern due to Project Plan

The community in the location site concerns on the risks and loses due to the project plan. The biggest concern of the community are the disruption of business field and limited supply of water. The detail information of community concerns as below.

Table 50 Risks / Loses due to Project Plan

No	District	Sub district	Village	Concerns				Σ Resp.
				Disruption of the place of business	None	Decreasing agricultural land	People from outside	
1	Kepahiang	Ujan Mas	Bumisari	0	6	0	0	6
2		Merigi	Lubuk Penyamun	0	1	0	0	1
3	Rejang Lebong	South Curup	Pungguk Lalang	0	1	0	0	1
4		Curup	Dwi Tunggal	0	1	0	0	1
5		North Curup	Batupanco	1	0	1	0	2
6		Bermani Ulu Raya	Dataran Tapus	4	0	0	0	4
7			Tebat Tenong Luar	1	5	0	0	6
8	Lebong	Rimbo Pengadang	Rimbo Pengadang	0	5	0	0	5
9		South Lebong	Kutai Donok	0	0	0	1	1
10		Sukasari	Sukasari	0	7	0	0	7
<b>Total Amount of Respondent</b>				<b>6</b>	<b>26</b>	<b>1</b>	<b>1</b>	<b>34</b>
<b>%</b>				<b>17.6</b>	<b>76.5</b>	<b>2.9</b>	<b>2.9</b>	<b>100</b>

Source: EIA Transmission Line

## 5.6. STUDY OF VULNERABLE GROUPS IN SOCIETY

The indicators used to define vulnerable groups in society in this study refers to elderly (over 60 years old); living in poverty or poor condition, widow/widower, disabilities, or having more than one of the indicators. Vulnerability indicators is considering below criteria: Poor; Elderly; Female Elderly widow; Male elderly widow; Female Elderly widow and poor; Male elderly widow and poor; Elderly and poor; Disabled and elderly; Female widow and poor.

Table 51 Summary of vulnerable groups

Sub Districts	Vulnerability criteria				Total	
	Group age	Poverty	Disability	Marital Status	Σ	% of Total
Bermani Ulu Raya	10	1	6	0	17	17.53%
Curup Selatan	1	0	1	0	2	2.06%
Curup Utara	1	0	1	0	2	2.06%
Curup	1	0	0	0	1	1.03%
Lebong Selatan	4	0	3	2	9	9.28%
Merigi	2	0	1	1	4	4.12%
Rimbo Pengadang	1	0	1	0	2	2.06%
Ujan Mas	2	0	0	1	3	3.09%
Total	22	1	13	4	40	41.24%

Source: Transmission Line Socio-economic Survey Result

Above table was the summary of identified vulnerable PAPs during socio economic survey. In total, there are 41, 24% of total PAPs identified as vulnerable groups, with criteria consist of: Group age (> 60 years old), Poverty (defined by the PAPs house condition), Disability, and marital status (widower).

There are 22 (55% of total vulnerable group or 22,7% of total PAPs) PAPs identified as elderly (> 60 years old), followed by 13 PAPs (32,5% of total vulnerable group or 13,4% of total PAPs) with disability, continued with 4 widower PAPs (10% of total vulnerable group or 4,1% of total PAPs), and the last there is 1 PAPs (2,5% of total vulnerable group or 1,0% of total PAPs) identified as poor with house condition identified as bad.

Below table is the analysis of vulnerability group based on per its criteria. Based on group age, there are 22, 7% of PAPs identified as elderly (group age > 60 years old), with majority of PAPs (77,3%) were on the productive group age (young and adult < 60 years old).

Table 52 Vulnerability groups based on age

Sub Districts	Group age				Total	
	> 60 years old		< 60 years old		Σ	% of Total
	Σ	% of Total	Σ	% of Total		
Bermani Ulu Raya	10	29.4%	24	70.6%	34	35.1%
Curup Selatan	1	33.3%	2	66.7%	3	3.1%
Curup Utara	1	9.1%	10	90.9%	11	11.3%
Curup	1	50.0%	1	50.0%	2	2.1%
Lebong Selatan	4	17.4%	19	82.6%	23	23.7%
Merigi	2	40.0%	3	60.0%	5	5.2%

Sub Districts	Group age				Total	
	> 60 years old		< 60 years old			
	Σ	% of Total	Σ	% of Total	Σ	% of Total
Rimbo Pengadang	1	7.1%	13	92.9%	14	14.4%
Ujan Mas	2	40.0%	3	60.0%	5	5.2%
Total	22	22.7%	75	77.3%	97	100%

Source: Transmission Line Socio-economic Survey Result

Based on poverty level, that identified as per PAPs condition (bad house condition) there is 1 PAPs (1,0%) with bad house condition, with majority of PAPs have a moderate house condition (55,7%).

Table 53 Vulnerability based on poverty – house condition

Sub Districts	Rate House								Total	
	Good		Moderate		Bad		N/A			
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
Bermani Ulu Raya	10	29.4%	20	58.8%	1	2.9%	3	8.8%	34	35.1%
Curup Selatan	3	100.0%	0	0.0%	0	0.0%	0	0.0%	3	3.1%
Curup Utara	3	27.3%	8	72.7%	0	0.0%	0	0.0%	11	11.3%
Curup	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	2.1%
Lebong Selatan	8	34.8%	12	52.2%	0	0.0%	3	13.0%	23	23.7%
Merigi	3	60.0%	2	40.0%	0	0.0%	0	0.0%	5	5.2%
Rimbo Pengadang	6	42.9%	8	57.1%	0	0.0%	0	0.0%	14	14.4%
Ujan Mas	1	20.0%	4	80.0%	0	0.0%	0	0.0%	5	5.2%
Total	36	37.1%	54	55.7%	1	1.0%	6	6.2%	97	100%

Source: Transmission Line Socio-economic Survey Result

Based on disability status, there are 13 PAPs (13, 4%) identified as PAPs with disability, with majority of PAPs have no disability (86, 6%).

Table 54 Vulnerability based on disability

Sub Districts	Disability				Total	
	Yes		No			
	Σ	%	Σ	%	Σ	%
Bermani Ulu Raya	6	17.6%	28	82.4%	34	35.1%
Curup Selatan	1	33.3%	2	66.7%	3	3.1%
Curup Utara	1	9.1%	10	90.9%	11	11.3%
Curup	0	0.0%	2	100.0%	2	2.1%
Lebong Selatan	3	13.0%	20	87.0%	23	23.7%
Merigi	1	20.0%	4	80.0%	5	5.2%
Rimbo Pengadang	1	7.1%	13	92.9%	14	14.4%
Ujan Mas	0	0.0%	5	100.0%	5	5.2%
Total	13	13.4%	84	86.6%	97	100%

Source: Transmission Line Socio-economic Survey Result



Based on marital status, there are 4 PAPs (18, 2%) identified as widower PAPs, with majority of PAPs were identified as married (90, 7%).

Table 55 Vulnerability based on marital status

Sub Districts	Marital status								Total	
	Married		Not married		Widower		N/A			
	Σ	%	Σ	%	Σ	%	Σ	%	Σ	%
Bermani Ulu Raya	31	91.2%	2	5.9%	0	0.0%	1	1.3%	34	35.1%
Curup Selatan	2	66.7%	0	0.0%	0	0.0%	1	1.3%	3	3.1%
Curup Utara	11	100.0%	0	0.0%	0	0.0%	0	0.0%	11	11.3%
Curup	2	100.0%	0	0.0%	0	0.0%	0	0.0%	2	2.1%
Lebong Selatan	20	87.0%	1	4.3%	2	9.1%	0	0.0%	23	23.7%
Merigi	4	80.0%	0	0.0%	1	4.5%	0	0.0%	5	5.2%
Rimbo Pengadang	14	100.0%	0	0.0%	0	0.0%	0	0.0%	14	14.4%
Ujan Mas	4	80.0%	0	0.0%	1	4.5%	0	0.0%	5	5.2%
Total	88	90.7%	3	3.1%	4	18.2%	2	2.7%	97	100%

## 5.7. PRELIMINARY ROW (RIGHT ON WAY) CENSUS

PLN has perform the preliminary ROW (Right on way) census of 150kV T/L Pekalongan-Hululais based on satellite imaginary to provide preliminary data of ROW, with the detail report in separate documents.

Table 56 Recapitulation of Right of Way (RoW) Inventory (estimated)

No	Type	Assets	Unit	Grand Total
1	PLANTS	Kopi / Coffea	pcs	52563
2	PLANTS	Nangka / Artocarpus heterophyllus	pcs	167
3	PLANTS	Sawah / Oryza Sativa	Ha	14.42
4	PLANTS	Jagung / Zea mays	Ha	0.06
5	PLANTS	Terong, Tomat, Cabe / Solanum melongena, Solanum lycopersicu, Capsicum frutescens	Ha	4.48
6	PLANTS	Kelapa / Cocos nucifera	pcs	285
7	PLANTS	Petai / Parkia speciosa	pcs	13
8	PLANTS	Pohon Ceri / Muntingia calabura	pcs	2
9	PLANTS	Pohon Jambu / Psidium guajava	pcs	174
10	PLANTS	Pohon Mangga / Mangifera indica	pcs	7
11	PLANTS	Pohon Medang / Phoebe	pcs	49
12	PLANTS	Pohon Surian / Toona	pcs	5
13	PLANTS	Pohon Pisang / Musa	group	228
14	PLANTS	Kayu Res / Shorea pinanga, Shorea multiflora	pcs	15
15	PLANTS	Pohon Sengon / Paraserianthes falcataria	pcs	399
16	PLANTS	Pohon Durian / Durio zibethinus	pcs	61
17	PLANTS	Pohon Jengkol / Archidendron pauciflorum	pcs	191
18	PLANTS	Pohon Beringin / Ficus benjamina	pcs	1
19	PLANTS	Kayu Hutan	pcs	1832
20	PLANTS	Pohon Bambu / Bambusa vulgaris	group	101

No	Type	Assets	Unit	Grand Total
21	PLANTS	Pohon Juar / kassod tree	pcs	665
22	PLANTS	Pohon Jeruk / Citrus	pcs	694
23	PLANTS	Tanaman Kayu	pcs	10
24	PLANTS	Pohon Pinang / Areca catechu	pcs	18
25	PLANTS	Pohon Aren / Arenga pinnata	pcs	13
26	PLANTS	Pohon Pokat / Persea americana	pcs	2
27	PLANTS	Pohon Cengkeh / Syzygium aromaticum	pcs	4
28	PLANTS	Petai Cina / Leucaena leucocephala	pcs	302
29	PLANTS	Pohon Kapuk / Ceiba pentandra	pcs	17
30	PLANTS	Meranti Afrika	pcs	6
31	PLANTS	Kayu Alam	pcs	265
32	PLANTS	Kalindra / Calliandra Calothyrsus	pcs	149
33	PLANTS	Kulit Manis / Cinnamomum verum	pcs	42
34	PLANTS	Kayu Brangin	pcs	11
35	PLANTS	Pohon Duri / Acacia	pcs	207
36	PLANTS	Kayu Bawang / Scorodocarpus borneensis	pcs	18
37	PLANTS	Sawit / Elaeis	pcs	77
38	PLANTS	Pala / Myristica fragrans	pcs	3
39	PLANTS	Karet / Hevea brasiliensis	pcs	1178
40	PLANTS	Tembakau / Nicotiana	pcs	156
41	PLANTS	Pepaya / Carica papaya	pcs	15
42	PLANTS	Kayu Manis / Cinnamomum verum	pcs	42
43	PLANTS	Kakao / Theobroma cacao L	pcs	25
1	BUILDING	Rumah / House	pcs	65
2	BUILDING	Gubuk / Wooden Hut	pcs	23
3	BUILDING	Kolam Ikan / Fish Pond	pcs	5
4	BUILDING	Sekolah / School	pcs	1

**CHAPTER VI**  
**MEASURES FOR COMPENSATION AND RESTORATION ASSISTANCE**

**6.1. ELIGIBLE PEOPLE FOR COMPENSATION AND RESTORATION ASSISTANCE**

6.1.1. Eligibility requirement

As described in four. “Policy of Land Acquisition for the Project”, all PAPs residing, working, doing business and/or cultivating land within the project impacted areas as of the cut-off date are entitled to compensation and restoration assistance, irrespective of tenure status and other factors such as social or economic standing.

PAPs are person, household, or business, which because of project implementation would have his, her or their:

- 1) Standard of living adversely affected;
- 2) Right, title or interest in any house, interest in, or right to use, any land (including premises, agricultural and grazing land), commercial properties, tenancy, or right in annual or perennial crops and trees or any other fixed or moveable assets, acquired or possessed, temporarily or permanently;
- 3) Income earning opportunities, business, occupation, work or place of residence or habitat adversely affected temporarily or permanently; or
- 4) Social and cultural activities and relationships affected or any other losses that might be identify during the process of land acquisition planning.

All affected people will be eligible for compensation and rehabilitation/resettlement assistance irrespective of tenure status, social or economic standing, or any such factors. All PAPs residing, working, doing business within the project-impacted areas as of the detailed socio-economic survey are entitled to compensation for their lost assets (land and/or non-land assets). At replacement cost, and restoration of incomes and business, and will be provided with rehabilitation measures sufficient to assist them to improve or at least maintain their pre-project living standards, income-earning capacity and production levels.

6.1.2. Identifying the eligible people

- 1) Summary of the eligible people

Compensation for the loss of acquired land is eligible to titleholders. The CSR program will provide supports for community development, such as infrastructure development and so on.

- 2) Needs of support for livelihood restoration of each PAPs classification

In the preparation of LAP for the Project, preliminary analysis of the needs of PAPs for livelihood restoration has made based on the understanding of the characteristic of the community. Then, further analysis was made with the information gathered through the socio-economic study including the main source of income, the percentage of household income from the acquired land, willingness to continue farming/support for other source of income, PAPs’ skill etc.

- 3) Vulnerable in society: There are people in the community who are vulnerable to the changes in the living environment due to the Project. Therefore, it is necessary that special treatment is made for livelihood restoration and support for healthcare, education etc.

## 6.2. RESULTS OF FOCUS GROUP DISCUSSION (FGDs)

The mechanism of grievance procedures for the Project designed from the viewpoint that all the related parties to the Project need to understand the purpose and support effective practice. Therefore, discussions on its designing has made with PAPs through FGDs or Public consultations and has taken over by the LAP Committees. The villages' officials and the representatives of PLN attended all FGDs sessions to ensure ideas and requests of PAPs. As a result, affected communities are aware of and understand the grievance mechanism's benefits to them.

### 6.2.1. Public Consultation

Public consultation held for each Sub-District with mom compiled as an appendix 2 and data of Public Consultation as below

Table 57 Public Consultation

No	Sub District	Date of Public Consultation	Time
1.	Rimbo Pangadang	13 August 2019	09.00 - 12.30 WIB
2.	Bermani Ulu Raya	14 August 2019	09.00 - 12.30 WIB
3.	Lebong Selatan	15 August 2019	09.00 - 13.00 WIB
4.	Merigi	20 August 2019	09.00 - 12.30 WIB
5.	Curup Utara	20 August 2019	14.00 - 16.30 WIB
6.	Curup Selatan	21 August 2019	09.00 - 12.30 WIB
7.	Ujan Mas	22 August 2019	09.00 - 12.30 WIB
8.	Curup	23 August 2019	09.00 - 12.30 WIB

## 6.3. ESTIMATION OF THE LAND VALUE

Rationally, someone will release only if the compensation received deemed feasible. In an effort to acquire land, it is undeniable that sometimes the compensation or compensation requested by the community is too high, of course with a decent selling price agreed upon. Several things that need to be consider regarding how to compensate properly and fairly so that PAPs are willing to give up their rights are as follows:

### 6.3.1. What can be compensated for

- 1) Provisions in Law No. 2 of 2012: Compensation is a WORTH and FAIR substitute to those who are entitled in the process of land acquisition (Law No. 2/2012 Article 1 point 10)
- 2) Who gets compensation (Law No. 2/2012 Article 1 point 3): The entitled party is the party that controls or has the object of land acquisition
- 3) The evaluation object: Evaluation of the amount of compensation by the appraiser is carried out in the field of land, including: (Law No. 2/2012 Article 33)
  - Soil
  - Upper ground and underground space
  - Building
  - Plants
  - Objects related to land; and / or
  - Other losses that can be assessed

### 6.3.2. The principles of the calculation

The assessment of compensation in the context of land acquisition for the public interest has specificity compared to valuation in the context of ordinary buying and selling transactions.

Market Value based on Indonesian Valuation Standard (SPI): Is an "Estimated amount of money at the valuation date, which can be obtained from buying and selling transactions or the exchange of property. Those transactions between buyers who are interested in buying and sellers who sell, in a bond-free transaction, whose offer is feasible, where both parties each knows the use of the property, acts cautiously and without coercion. "

6.3.3. The application of the valuation method

In this Land Acquisition Plan, PLN will have used the Market approach application method in conducting the land acquisition. While in general, the application of the valuation approach in the context of compensation assessment needs special treatment as follows:

Table 58 the Application of the Valuation Approach

Assessment approach	Treatment
Market approach application, special for compensation	1) The use of comparative data must be ensuring not to be affected by land acquisition efforts 2) There needs to be a price trend for locations that are not affected by liberation but have the same characteristics as "data control"
Cost approach application, special for compensation	1) Economic / external decreasing due to land acquisition should not be taken into account 2) Functional decreasing caused by HBU need to be carefully considered especially if the existence of the building is still utilized
income approach application, special for compensation	1) Cash flow is projected without considering land acquisition 2) The basic year of projection must be believed to be free from the influence of liberation

6.3.4. Land Assessment

The application of the valuation method will be different according to the object of assessment. In detail, the object of assessment in question is:

1) Real Property (Physical)

a. Soil

Please note that land values are specific to each land parcel. So that the problem would be too simplistic if the assessment was conducted with a pattern of mass assessment based on zones. Mass appraisal based on public zones indeed applied in the assessment of the Tax Object Selling Value (NJOP), but the assessment in the context of the acquisition of resilience must done individually.

In order for an individual assessment to be perform properly, then the inventory and data collection of land to be acquired must have been carried out in detail and able to provide sufficient information as a basis for analysis of aspects considered to affect land value. The aspects that need to be consider in land valuation are:

Table 59 Aspects in Land Valuation consideration

Consideration aspects	Detail consideration
Geographical conditions of the object of assessment	<ol style="list-style-type: none"> <li>1. Geographic characteristics</li> <li>2. Rural, Urban areas</li> <li>3. Population, Social, Cultural Community</li> <li>4. Level of population density and building</li> <li>5. Spatial Planning</li> </ol>
Economic factor	<ol style="list-style-type: none"> <li>1. Economic support area</li> <li>2. The main characteristic of the areas / environment</li> <li>3. Industrial and construction development</li> <li>4. Purchasing power of the community</li> </ol>
Market conditions for property valuation	<ol style="list-style-type: none"> <li>1. Quantity</li> <li>2. Price</li> <li>3. Competition Condition</li> <li>4. Supply and demand</li> </ol>
Assessment object	<ol style="list-style-type: none"> <li>1. Location</li> <li>2. Legality</li> <li>3. The physical characteristics of the site and the building of the object of evaluation</li> <li>4. Accessibility</li> <li>5. Existing designations and related policies</li> <li>6. Utilities and environmental facilities</li> </ol>

Therefore, based on the specificity of land valuation in the context of land acquisition for the public interest, there is special treatment, namely:

- Use of sales and / or bid data from regions not affected by the release plan can result in the value affected by this release plan
- Need to use comparative data from areas not affected by the release plan, but have characteristics of geographic, economic and property markets that are similar to assessment projects
- Although historical transaction or offer data is rarely available, assessors need to make maximum efforts to obtain the data in order to obtain a picture of the value before affected by the release plan, which then can compared with the trend of land prices both nearby and in other regions.
- Analysis of the highest and best use needs to be done by assuming that the land is empty (as though vacant), and needs to consider the possibility of combining land parcels with other parcels (amalgamation) in this analysis

b. Building and Infrastructure

The base value used is the value of rebuilding (compensation value) which is the rebuilding cost of a building or infrastructure. The new compensation cost is an estimate of the amount of money spent to procure construction / replacement of new property. This includes the costs / material prices, labour costs, supervision fees, contractor fixed costs, including profits, costs of technical experts including all related expenses such as transportation costs, a insurance, installation fees, entry fees, Value Added Tax (VAT) if any, but not including overtime pay and premiums / bonuses.

c. Plant

For the assessment of plants, it is necessary to distinguish between annual plants and seasonal plants. For annual crops can applied with an income approach. This income considers income projections up to the economic age

of the plant after reduced by non-plant elements (land, buildings, etc.) that been calculated separately.

2) Costs and Losses (Non-physical)

- Types of costs and losses (non-physical) are including Losses due to loss of ongoing business; Losses for taxes and fees required to acquire land; Loss of bag relocation / relocation; and Losses for decreasing environmental quality.
- Loss assessment are including The losses referred due to transaction costs; The losses referred due to transfer costs; the losses of ongoing business (business interruption) and other losses that are specific, subjective and difficult to identify

In assessing this loss, other losses are not taken into account, but are included in the application of premiums.

3) Premium

Premium calculation does not have a definite method used, but it needs has to be determined by the government

6.3.5. Assessment Conditions in accordance with Indonesian Valuation Standards (SPI 306)

The Assessment of land acquisition for development in the public interest:

- 1) Land acquisition for the implementation of development for public interest is carried out by releasing or surrendering land rights, while still providing protection and implementing the principle of respect for parties affected by land acquisition
- 2) Determination of the amount of compensation based on the principle of humanity; make it useful, certainty, openness, agreement, participation, welfare, sustainability, and harmony.
- 3) Determination of the amount of compensation carried out by the public appraiser as a professional independent appraiser and has obtained a license from the land agency, whose determination is made by the land agency in accordance with the provisions of the legislation
- 4) Assessment for compensation needs includes
  - a. Replace physical (material) loss of land and / or buildings and / or plants and / or other objects related to land
  - b. Immaterial compensation consists of replacing the loss of land rights that will be given in the form of money (premium), as well as other losses that can be calculated including transaction costs, interest (compensation for waiting periods), loss of remaining land, and type other losses stated by the assignor in the employment agreement
- 5) The valuation basis used is the Fair replacement value. This value can be understood as a value based on:
  - a. The interests of the owner (value to the owner), which is defined as economic benefits derived from the control or ownership of a property;
  - b. Equality with market value, is one of the bases in forming value by utilizing limited market data or absolutely no market data, then the intended market value can be compared with the value based on its potential use (regardless of the interests of the plan for land acquisition for the public interest)
  - c. The extraordinary element related to non-physical losses; due to the compulsion for property owners to give up their rights.

- d. Property ownership; not only limited to the ownership of rights, but can be interpreted as the mastery, management and utilization of property in accordance with the rules and regulations applicable or in accordance with the scope of the agreed assignment.
- e. The principle of value to the owner is a certain market value on the basis that the landowner is considered as one of the prospective hypothetical buyers.

#### 6.4. COMPENSATION FOR LOSS ASSETS

Under the JICA guidelines, compensation for land and/or non-land assets will be based on the principle of replacement cost as much as possible. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law supplemented by additional measures necessary to meet the replacement cost standard.

##### 6.4.1. Appraisal of compensation value under the law No.2/, 2012

The value of compensation for loss of assets assessed by a licensed independent land appraiser. This agency has obtained the appraisal practices given by Minister of Finance and licensed by Land Agency. Type of the loss of assets to be covered by the appraisal are defined as follows: Land; Right of space above and under the ground; Building; Plants; Objects related to land; and Other non-physical losses that can be assessed

##### (1) Technical guidelines (SPI 306)

The independent land appraiser conducts valuation mainly based on the technical guidelines for the valuation of the land acquisition for public utilities construction.

##### a. Physical assets

Physical assets are valued at the market value, considering the highest and best use (HBU) of the assets. Following criteria were used in analysing HBU:

- Legally permissible
- Physically possible
- Financially profitable
- Generate the highest value (maximum productivity) of the property

Table 60 Basis of the Calculation on Appraising Physical

NO	Valuation object	Market	Income	Cost	Information
1	Land	Vacant land	Land areas which have commercial potential	-	HBU
2	Land & building	Calculated as a single unit by using similar and comparable data	Commercial properties such as offices, hotels and so on	Indication of Market Value of land in an empty state added New Replacement Cost (RCN) of building adjusted with depreciation	HBU
3	Building & SPL	-	-	-	-
4	Land & plant	Calculated as a single unit by using similar and comparable data, such as palm oil, etc.	Used on crops that produce commercially, such as oil palm, rubber, corn, horticultural crops, etc.	Indication of Market Value of land in an empty state added RCN of plants adjusted with depreciation	HBU
5	Plant	Calculated as standing plants	Used in plants (without land)	RCN of plant which has not yet	-



NO	Valuation object	Market	Income	Cost	Information
		using similar and comparable data, like mango, durian, etc.	that produce commercially such as coffee, corn, horticulture and so on	productive adjusted with depreciation	
6	Personal property attached to the land / building	Calculated using similar and comparable data, such as installation of plumbing, electrical installations, elevators, etc.	-	RCN of tailored to personal property adjusted with depreciation	-

b. Non-physical assets

The technical guidelines define the non-physical losses as follows and set calculation for the value of each item:

- Premium (potential loss of job or loss of business, emotional loss (solatium))
- Transaction cost (moving expense, taxes etc.)
- Compensation on waiting period • Losses on the reduction of value of land

Table 61 Basis of the calculation on appraising non-physical assets

No	Valuation object	Premium	Transaction Cost	Waiting Period Interest	Information
1	Land	-	✓	✓	Moving expenses and solatium are not taken into calculation
2	Land & building	✓	✓	✓	Solatium is only for residential buildings
3	Building & SPL	✓	✓	✓	Solatium is only for residential buildings
4	Land & plant	-	✓	✓	Solatium and moving expenses are not taken into calculation
5	Plant	-	✓	✓	Solatium and moving expenses are not taken into calculation
6	Personal property attached to the land / building	-	-	✓	Solatium PPAT fees and taxes are not taken into calculation
7.	Other loses	-	✓	✓	Solatium and moving expenses are not taking into calculation

6.4.2. Compensation under the Presidential Regulation No.56/2017

This regulation applies to the implementation of National Strategic Project. The government owns non-titleholder residents of the state land or land with right above land, regional government, state-owned enterprises, or regional owned enterprises compensated for their relocation under certain conditions:

Table 62 Compensation under the Presidential Regulation No.56/2017

Conditions under the Presidential Regulation No.56/2017	Criteria
1. Residents subject to this regulation shall comply with the following criteria:	- Owned residential identity legalized by local sub-district office; and - Does not owned the right of land mastered
2. Conditions for the eligibility of compensation are as follows:	- Having been a resident of the current place for more than 10 years consecutively; and

Conditions under the Presidential Regulation No.56/2017	Criteria
	<ul style="list-style-type: none"> <li>- To be a resident with good intention openly, no dispute, admitted and approved by the right owner of the land and/or local village head</li> </ul>
3. Compensation is made for the rehabilitation of residence and loss incurred by relocation as follows:	<ul style="list-style-type: none"> <li>- House demolition cost</li> <li>- Mobilization cost</li> <li>- Cost of renting a house</li> <li>- Allowance for income loss</li> </ul>

**6.5. RESETTLEMENT MEASURES**

The land acquisition prepared for the project development of 150 kV Transmission Line Hululais GPP is plan not to have any resettlement.

**6.6. ENTITLEMENT MATRIX**

The entitlement matrix are integrated in the form of PLN program.

Table 63 Entitlement matrix

No	Type of loss/negative effects, Purpose of CSR	Entitled persons Beneficiaries	Entitlement (Compensation and supports)	
			Category	Description
Compensation for the acquisition of land for transmission line				
1	Loss of land	Titleholders of land	Replacement cost of land by PLN UIP KITSUM & UPP Kitsum	Monetary compensation based on appraised value of the acquired land To be identified
2	Loss of building on the acquired land	Titleholders of building	Replacement cost of building by PLN UIP KITSUM & UPP Kitsum	Monetary compensation based on appraised value of the building To be identified
3	Loss of farm products	Farmers: Titleholder	Replacement cost of farm products by PLN UIP KITSUM & UPP Kitsum	Monetary compensation based on appraised value of the farm products To be identified
Transmission line ROW compensation				
4	Land	Titleholders of land	$15\% \times Lt \times NP$	Monetary compensation based on appraised compensation formula To be identified
5	Building	Titleholders of building	$15\% \times Lb \times NPb$	Monetary compensation based on appraised compensation formula To be identified
6	Plants	Titleholders of plants	NPt	Monetary compensation based on appraised compensation formula To be identified

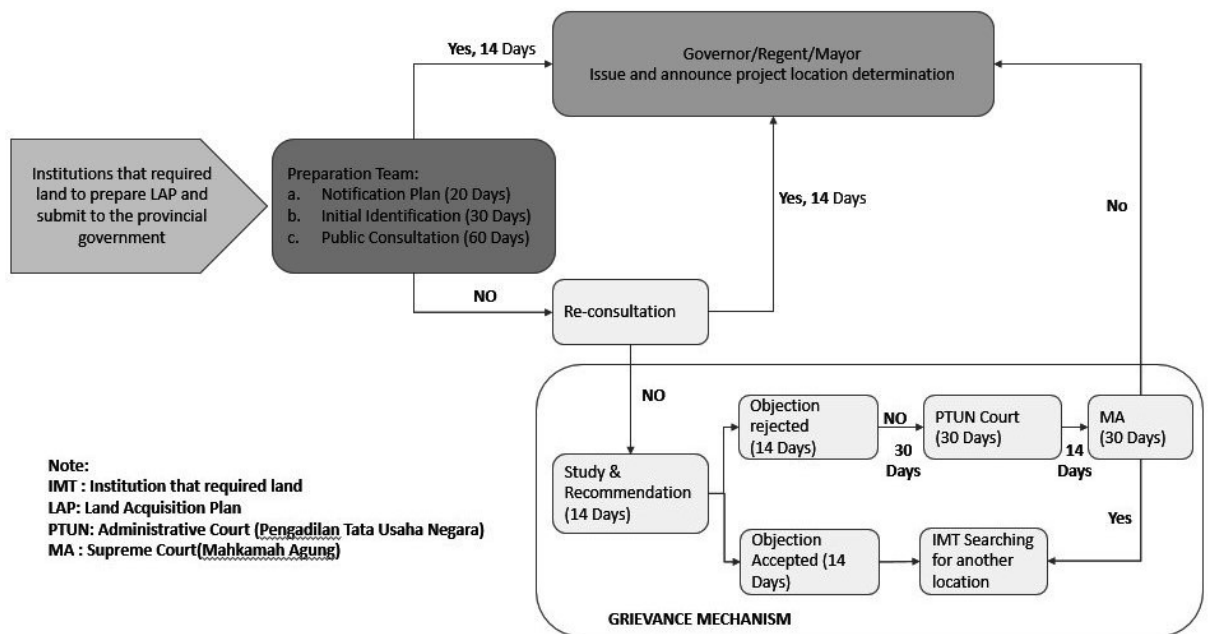
Notes:

- The actual assessment of the sole building in the acquired was at cost adjusted with depreciation considering its unused status (see "Compensation for the titleholders of the land" for explanation).
- The number of beneficiaries of each support program item will be identified through the detail planning and scheduling, which will be carried out following the agreement on LAP by the related parties.
- Lt : Area of land under free space
- NP : Land Market Value from Appraisal Institutions
- Lb : Building area under free space
- NPb : Building Market Value from Appraisal Institutions
- NPt : Plant Market Value from Appraisal Institutions.
- Value of compensation = Optimization of land x function index x status hold x NIOP

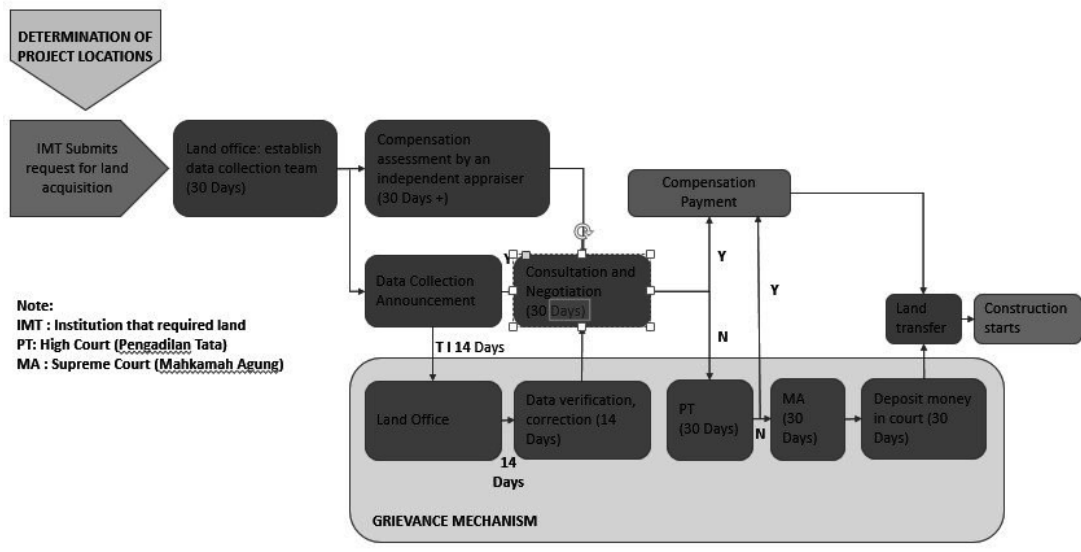
## CHAPTER VII GRIEVANCE REDRESS PROCEDURES

Grievance Redress Mechanism is an arrangement for receiving, evaluating and facilitating the resolution of objections submitted by the PAPs, as well as the objections to the performance of project implementers. In this context, the complaints mechanism will be more focused on social aspects or land acquisition and compensation. Grievance procedure for the LAP Implementation is as below

**7.1. GRIEVANCE ON THE COMPENSATION OF LOSS UNDER THE LAW No. 2 of 2012**  
Land Procurement Law Number 2 of 2012 and its implementing regulations; The Presidential Regulation Number 71 of 2012 regulates in detail the mechanism for submitting and resolving objections, both at the preparation stage and at the implementation stage of land acquisition, as follows:

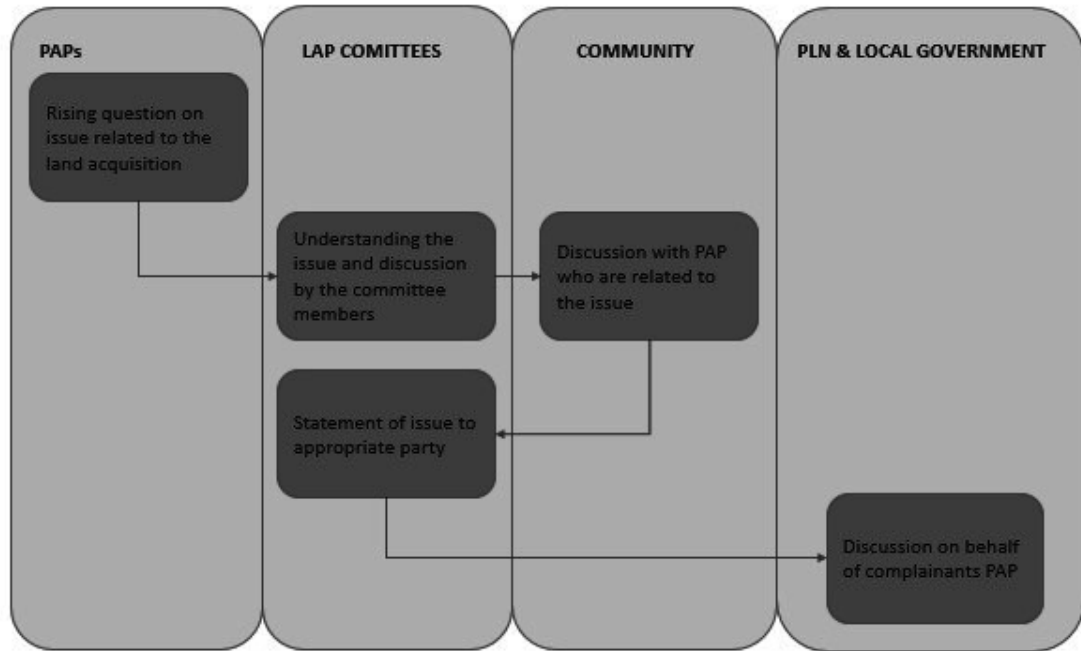


**Figure 5** Grievance Redress Mechanism (Law No.2/2012)



**Figure 6 Grievance Redress Mechanism (Law No.2/2012)**

PLN and the local government developed a community-basis grievance mechanism for the Project, which enables addressing concerns effectively and in a manner that beneficial mutually to the community people and the project related agencies. The implementation of this community-basis grievance mechanism was communicated by PLN during socialization to PAPs related to rising any question to the local government (Lurah, Kepala Desa), and the question shall be answered by PLN.



**Figure 7 Basic idea of the community-basis grievance procedure**

Table 64 Criteria to be consider in handling objections / grievance

No	Criteria	Sub Criteria
1	Establish a focal point	<ol style="list-style-type: none"> <li>1) Appointed person who is responsible for handling the resolution of objections</li> <li>2) Handling objections is handled under the division or a team, depending on the mandate and scope of work</li> </ol>
2	Receive and register objections.	<p>Registration of objections will include some information, namely:</p> <ol style="list-style-type: none"> <li>1) Reference numbers</li> <li>2) Date of submission of objections</li> <li>3) Name that complains (complainant)</li> <li>4) Gender</li> <li>5) KTP / other identity cards</li> <li>6) Address that expresses objection</li> <li>7) Summary of complaints / objections</li> <li>8) Submission of objection</li> </ol>
3	Filter objections	<p>Not all complaints are followed up. Some things are considered to determine compliance with objection requirements:</p> <ol style="list-style-type: none"> <li>1) The person submitting the objection can be identified, giving the name and address / contact clearly</li> <li>2) People who submit objections have a direct relationship with the project</li> <li>3) Issues that are related to issues of land acquisition / resettlement and projects</li> </ol> <p>If the party expresses the objection of the other party, then there must be a written power of attorney from the party who has objections</p> <p>If it does not meet the requirements, the complainant is given an explanation of why the objection was not accepted</p>
4	Coordination	<p>Coordinating with other teams handling complaints is very important. The following is a coordination function:</p> <ol style="list-style-type: none"> <li>1) Facilitating the delivery of cases to the parties concerned</li> <li>2) Monitoring the process of resolving objections and results</li> <li>3) Update the database of objections received, status, and progress reports on the resolution of objections and proposed follow-up actions</li> <li>4) Identify the capacity building of MPK members</li> <li>5) Identify awareness needs among related institutions and communities</li> <li>6) Connect with the media and monitor media reports</li> <li>7) Provide feedback on project management</li> </ol>
5	Assessing objections	<ol style="list-style-type: none"> <li>1) If at the initial assessment and screening stage, complaints meet the requirements, further studies are made on objections</li> <li>2) Determine the classification of objection seriousness, whether categorized as high, medium or low</li> <li>3) Determine study criteria to determine seriousness: <ol style="list-style-type: none"> <li>a. Seriousness / severity of problems and case profiles</li> <li>b. Potential impacts of cases that are reported on the lives of individuals or groups and projects</li> </ol> </li> </ol>

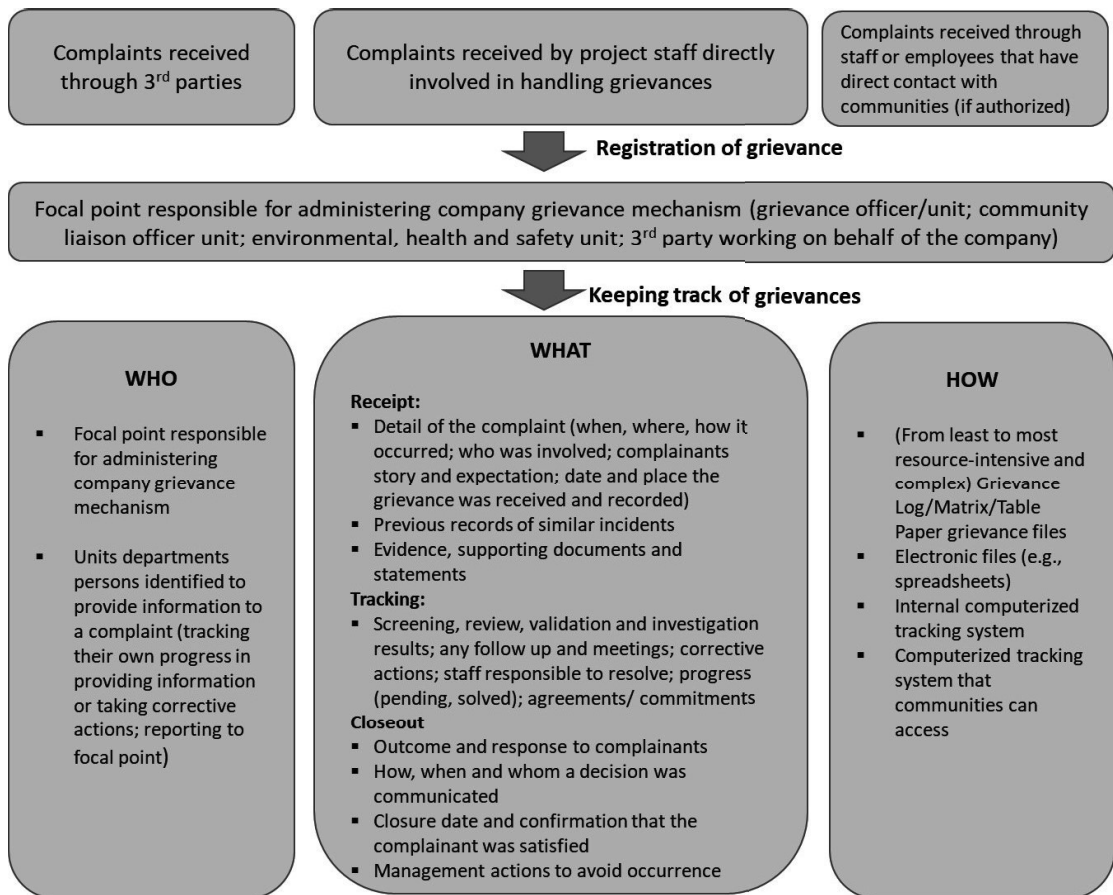
No	Criteria	Sub Criteria
		c. Data collection and field visits, discussions and interviews with complainants and other relevant parties
6	Formulate a response	Response to objections must conveyed to the complainant. The response must include: 1) Acceptance or rejection of objections and reasons 2) The next step; where are the objections submitted to be resolved 3) Framework for resolving objections 4) If accepted, documents or further evidence required for investigation in resolving objections
7	Select the handling approach	Possible approaches to resolving objections are as follows: 1) Mediation 2) Direct negotiations or dialogues between parties who express objections to the relevant institutions 3) Facilitation of negotiations by third parties 4) Objective investigation through document review, investigation, interviews with various parties 5) Refers to court proceedings  Affected residents or parties who object must be informed about: 1) Who handles the handling of objections? 2) Where is the complaint handling location? 3) How objections are reported and submitted 4) Who / who can accompany the objection? 5) What steps are taken in the investigation or settlement process? 6) What documents and evidence are needed to support the complaint? 7) How much time does it take to start and complete the objection resolution process?
8	Implement an objection handling approach	Important aspects that need to be considered in handling complaints are: 1) Creating a conducive environment for affected people to express objections without fear and intimidation 2) Allow affected people (if necessary) to be accompanied by third parties, such as family members or neighbours in expressing objections 3) Conduct a field review (if necessary) to review and verify objections 4) Validating objections by checking with relevant parties, research / survey results and others 5) Avoid delays 6) Referring to laws, regulations or rules related to the basis of the decision making process 7) Invite institutions / related parties to provide additional information needed 8) Creating opportunities for negotiations 9) Establish criteria for clear objectives for making decisions

No	Criteria	Sub Criteria
		10) Ensure that citizens are affected that the decision-making process is independent and fair 11) Documenting the completion process of the results and then communicating the results to the complainants and other related parties
9.	Resolving complaints / objections	Strategies for resolving objections include: 1) Requesting the relevant institution responsible for land acquisition or project activities take appropriate action to eliminate the cause of objection. For example the contractor transports dredged material at night, and others 2) Providing compensation for affected assets with value of compensation to carry out monitoring to assess further impacts, both in relation to the project of the land acquisition process, compensation and project impacts on the livelihoods of affected people.
10.	Documenting objections and evaluating processes and results	Some important questions in evaluation: 1) How many complaints has submitted? 2) What type of objection has submitted? 3) What is the status of the objection (rejected or fulfilled the conditions to be resolved, in the review, resolution of the objection, or the objection has been resolved)? 4) How long does it take to resolve objections? 5) How many affected people have used objection resolution procedures? What are the results? 6) Is the handling of the complaint effective? Are the approaches use varied and appropriate? 7) Has the complaints handling mechanism increased the resolution efforts, such as capacity building with experts, etc.? 8) Has the objection settlement mechanism has integrated in the management of the entire project?

## 7.2. GUIDELINES FOR THE GRIEVANCE PROCEDURES OF LAP

In the implementation of LAP of the Project, a grievance management guidance of International Finance Corporation (IFC) will referred to, which addresses grievances from project-affected communities. It adopts local/traditional customs or local needs, and follows current national law and regulations as well as other international standards/practices, wherever available.





**Figure 8 Grievance Management Guidance of Internal Finance Corporation**

## CHAPTER VIII IMPLEMENTATION SYSTEM

### 8.1. INSTITUTIONAL FRAMEWORK FOR LAP

#### 8.1.1. Institutional framework for land acquisition based on Law No.2/,2012

As described in 3.1.2 “Law No. 2/2012 concerning Land procurement for Public Utilities Construction”, land acquisition shall led by BPN (National Land Agency) of Provincial Level / Bengkulu Province. In a particular case, the BPN Provincial Level may take over the obligation to District level of Bengkulu by considering the location of the required land. The BPN Provincial or District then may organize team to set up the land acquisition process comprising of other District Local Governments offices. PLN UIP Pembangkit Sumatera would be the member of the team.

An independent land appraiser who has obtained the license of appraisal practices given by Minister of Finance and licensed by Land Agency assesses the value of compensation for loss of assets

#### 8.1.2. Institutional framework for the compensation and support under the JICA guidelines

LAP is prepared to protect PAPs from possible negative effects of the land acquisition as described in 3.3 “Comparison of the JICA guideline and the Indonesian laws and regulations”, mainly by providing appropriate compensation and supports for the restoration of livelihood and standard of living. LAP consultant provides technical supports to PLN on preparation of a draft LAP of the Project, appropriate implementation of land acquisition in conformity with the JICA guidelines.

### 8.2. RESPONSIBLE AGENCIES FOR LAP

#### 8.2.1. Compensation for loss of assets

Agencies responsible for compensation for the loss of acquired land to titleholders stipulated in the law No.2/2012 as follows:

Table 65 Responsible Agencies for the loss of compensation

Implementation Process	Responsible Agencies
Preparation	
1. Logistic	PLN, BPN
2. Collecting data	PLN, BPN
3. Socialization	PLN, BPN
4. Invitation	PLN, BPN
Inventory and identification of tenure, ownership and land use	
1. Measuring and mapping of land	BPN
2. Collecting and examination of evidence of land ownership	BPN
3. Announcement of the results	BPN
4. Filling objection	BPN
5. Completing objection	BPN

Agencies responsible:

- 1) BPN is responsible for administration of the lands (identification, inventory, and legalization), ensuring uniformity of procedures of registration, as well as land-related services such as measurement.
- 2) Independent Appraisal Agency (licensed by BPN) the appraiser values land and building together with their facilities, as well as other development on the land; installation and equipment that assembled and/or standalone used.
- 3) PLN will responsible for compensation of the resettled resident households to ensure that their rights are protected by both Indonesian national regulations as well as JICA guidelines

## **CHAPTER IX**

### **IMPLEMENTATION SCHEDULE OF LAND ACQUISITION ACTIVITY**

The activity of Land acquisition was on Pre-Construction Stages, that dividing into several activities namely:

#### **9.1. MANAGEMENT OF PERMITS**

Licensing is a fundamental aspect of implementing an activity, including the construction of transmission lines. The construction of the 150 kV transmission lines Hululais - Pekalongan GPP and the related substation requires permission from both the central government and the regional government as well as from related institutions or ministries. Some of the permits needed for the project activities include: principle permits, location permits, information including or outside the forest area, and others.

##### **9.1.1. Principle Permit**

In a development activity, the permit that is first administer is a principle permit. Principle permit related to electricity and activities with company capital above 200 M centralized online via BKPM Central.

##### **9.1.2. Location Permit / Location Determination**

In any development that requires the use of land / land, the requirements for location permits or location determination are needed. Based on this location permit will be a reference and basis for the process of applying for land rights to the land agency (local National Land Agency), but in accordance with PP No.148 of 2015 that land area less than five hectares does not require a permit to determine the location due to land acquisition turret tower.

##### **9.1.3. Other Permit**

In general, the permits needed in carrying out transmission development activities are as described above. Other permits needed include permits to fell trees, permits to transport goods, and other. PT PLN will full filled other permits required in accordance with the applicable laws and regulations for the legality of the implementation of this SUTT development.

#### **9.2. LAND AND LANE SURVEY**

The construction of the transmission requires clear path information based on the plan and results of the data collection and field survey. The survey activity of the transmission line includes the activities of topographic and soil mechanics surveys, spatial planning and current land use planning.

Topographic survey activities are perform to determine which the project of 150 kV transmission lines path will be traversed by the Hululais-Pekalongan GPP, which is the best path from a technical and economic perspective. Topographic survey activities include field and office activities, namely data processing and depiction of planned transmission lines. Mechanic survey activities are perform with the aim of knowing soil conditions. The activity divided into two activities they are the field and Soil mechanics Laboratory activities.

In this research / survey (topography), the activities carried out include:

- i. Determination of location / transmission line configuration. This activity begins with a topographic survey to determine the location or path to be traversed which is best viewed from a technical and economic perspective

- ii. Establish the type of pole and conductor
- iii. Draw elongated pieces and tower placement (profile map) In this work includes field and office activities.

Implementation of tower site land acquisition activities is adjusted to Law No. 2 of 2012 concerning Land Procurement for Public Interest, which begins with an inventory of land covering the land area, land status, land class, land ownership, type of plant affected by the lane. The initial land data needed for the process of land acquisition of tower sites was obtained during this initial survey, before the activities of inventory of land, buildings and plants which were specifically carried out then a price assessment study was carried out by independent consultants who already had certification recognized as guidelines for stipulation compensation and compensation prices. PT PLN (Persero) carried out the inventory together with landowners, local government, and representatives of the district National Defense Agency (BPN), which was then legalized by the village head and the local sub-district head.

### **9.3. DISSEMINATE THE ACTIVITY PLAN**

The socialization of the 150 kV Transmission Line construction project Hululais-Pekalongan GPP and related substations was carried out to provide clear information about the planned implementation of these activities to the community.

This socialization is a notification regarding the 150 kV Transmission Line Construction project of the Hululais-Pekalongan GPP and related substations by the Proponent and the Study Team aimed at the community directly affected by the implementation of the activity, namely to the community below or around the transmission line. So that later it can be known how much the community's response and expectations towards this project.

Regular consultation / socialization for progress of the AMDAL study conducted in accordance with Minister of Environment Regulation No. LH. 17 of 2012 concerning Guidelines for Community Engagement in the AMDAL Process and Environmental Permits. This public consultation conducted with a question and answer system involving the initiator, the AMDAL study team, representatives / leaders of the local community and the local village / sub-district apparatus. The right and directed system, time and method of socialization will be very effective for the dissemination of this SUTT development activity.

This socialization aims to find input and response as an ingredient in the scoping process of the significant impact of the planned 150 kV Transmission Line Construction project activities of the Hululais-Pekalongan GPP and related substations in the EIA study process.

### **9.4. LAND ACQUISITION AND VEGETATION**

The legal basis used by PT PLN in conducting land acquisition is Law No. 2 of 2012 concerning Land Procurement for Development in the Public Interest, Presidential Regulation Number 71 of 2012 concerning the Implementation of Land Procurement for Development in the Public Interest. In addition, at the operational level, the ESDM Ministry specifically regulates the implementation of technical land acquisition and compensation for land, buildings and plants, namely Minister of Energy and Mineral Resources Regulation No. 27 of 2018.

Land under the transmission lines is only compensates if there are buildings or trees that need to cut. For perennials that are more than 4.5 meters high and at a distance of less than 10 meters left and right from the center line, the plants will be released and compensated land, plants and buildings that are under the Transmission Line are not exempted, but for activities below it will be compensated.

#### 9.4.1. Land and building compensation Formula

Based on the Minister of Energy and Mineral Resources Regulation No. 27 of 2018 the formula for calculating land and building compensation by taking into account the elements of land and building compensation is: Calculation formula Compensation for land, buildings and plants that are under transmission line free space is determined as follows:

- 1) The formula for calculating compensation for land:

$$\text{Compensation} = 15\% \times Lt \times NP$$

Information:

- Lt : Area of land under free space
- NP : Land Market Value from Appraisal Institutions

- 2) Formula for Compensation calculation for buildings:

$$\text{Compensation} = 15\% \times Lb \times NPb$$

Information:

- Lb : Building area under free space
- NPb : Building Market Value from Appraisal Institutions

- 3) Formula for calculating compensation for plants:

$$\text{Compensation} = NPt$$

Compensation:

- NPt : Plant Market Value from Appraisal Institutions.
- Value of compensation = Optimization of land x function index x status hold x NJOP

(Ref. regulation of Minister of Energy and Mineral Resources Regulation No. 27 of 2018).

#### 9.4.2. Land Optimization

The choice of pattern of this approach based on the consideration that the land has social functions without overriding the interests of the individual / the people at large. With this in mind, it means that there is no transfer of land rights and it is hoped that landowners can still work on their land and obtain the expertise. Based on the optimization concept of this land, compensation calculated at 10%.

Utilization Index of Land and Building Functions the index of utilization of land and building functions is determined by considering the object and designation of land and buildings associated with the optimization of land, the magnitude of which is:

- 1) Building = 1
- 2) Land for building = 1
- 3) Yard = 0,5
- 4) Lading / garden = 0,3
- 5) Paddy field = 0,1

#### 9.4.3. Land Status

The compensation for land considers the status of the land in question, with the following assessment:

- 1) Land owned (certified) = 100%
- 2) Customary land = 90%
- 3) Land use rights building = 80%
- 4) Land of business use rights = 80%
- 5) Land of use rights = 70%
- 6) Waqf land = 100%

For building use rights, business use rights, also consider the percentage of the remaining period of utilization of the land in question.

#### 9.4.4. The Land Price

In order to obtain the legal basis for land and building prices, the price of land and buildings can be based on the Tax Object Selling Value (NJOP) of the current year as determined by the Tax Office.

Also carried out is the release of plants and buildings that enter and have the potential to enter free space with blackheads with applicable laws and regulations; buildings and plants that have been liberated / compensated for must be unloaded and completely cut by the owner. Free space is a space bounded by vertical and horizontal fields around and along the SUTT conductor where there cannot be objects in it for the safety of humans, living things and other objects as well as the safety of SUTT operations.

Free space for 150 kV transmission line in accordance with SNI 04.6918.2002 and ESDM Kpem above. Land, plant, building acquisition and compensation activities will be carried out by the initiator (PT PLN (Persero)) in accordance with an agreement with residents or landowners.

Land acquisition for the construction of 131 150 kV transmission lines towers Hululais - Pekalongan GPP and related substations along  $\pm 46,337$  km with an area of  $\pm 3,6125$  hectares ( $= 36,125$  m<sup>2</sup>); (the area for Substations covering an area of 2.0 ha is in the GPP area) will be provided by the GPP management, which will be on land owned by the community. Land and plant acquisition will be carried out in accordance with the agreement with the landowners based on consensus agreement. The land required for tower sites is 15m x 15m for straight type towers (Type A) and 15-20m x 15-20m for tower type angles, namely BB type, CC, and DD as per below

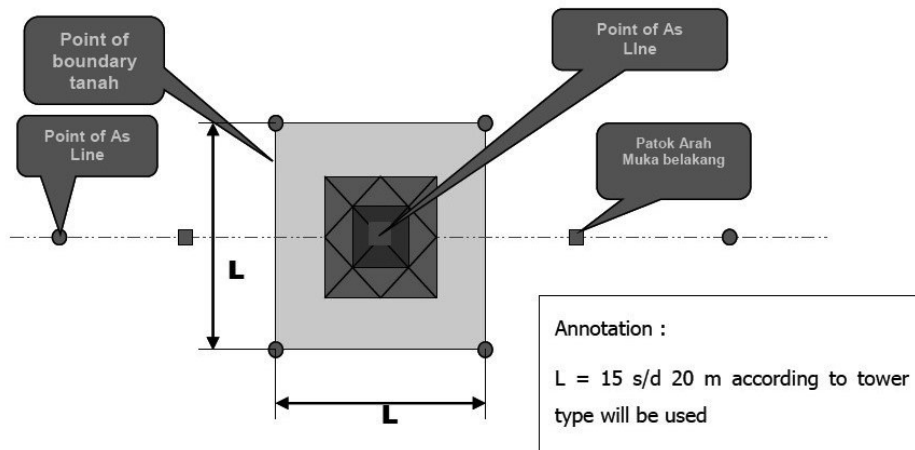


Figure 9 Land needed for a 150 kV SUTT tower site

### 9.5. LAND ACQUISITION ACTIVITIES

The stages of land acquisition activities guided by Law Number 2 Year 2012 and Presidential Regulation Number 71 of 2012, and some accelerated efforts to be immediately carried out by PT PLN include the following:

- 9.5.1. Hold socialization / counseling to the community whose land affected by tower sites.
- 9.5.2. Make a list of results of land inventory that includes land area, land status, class of land and ownership of land and stands / plants and buildings that are above it.

- 9.5.3. Identify the status of land ownership from the landowner, and check the village, sub-district and authorized institutions.
- 9.5.4. Negotiating land prices. Negotiations are performed through the following stages: negotiations witnessed by local officials at the village head's office, and then negotiations and approaches are carried out directly with the landowners so that an agreement is reached on the prices of both parties.
- 9.5.5. The standard used as a benchmark in the land acquisition process is the NJOP and the price of land surrounding it. It also taking into account for land purchase transactions that have occurred in the last two years.
- 9.5.6. The release of stands and buildings that are located above the ground is carried out based on the regulations of the Governor and the local Regent (if any), on the presence of the Public Works Service for the release of buildings and the Agriculture or Plantation Service of Bengkulu Province and Lebong, Rejang Lebong and Kepahiang.
- 9.5.7. Make payments directly to the landowner if an agreement has obtained from the community.
- 9.5.8. Conduct documentation and make minutes of payment that will later use as evidence of the release of rights from the community, hereinafter used as tower sites and substations.
- 9.5.9. Before land acquisition, the data obtained from the community confirmed to the local Regency Land Agency Office to obtain information and clarification of the status of the land. Land acquisition performed by taking into account the utilization of the remaining land owned by the community. The remaining land intended is the remaining land left over from the land area for the tower site, so that the remaining land released and the community can utilize the land.
  - 1) Apart from the land used for tower sites, the stands / plants and buildings that enter the free space are also carried out. Free space is a space that is limited by vertical and horizontal fields around and along the transmission conductor where there must be no objects in it for the safety of humans, living things and other objects as well as the security of transmission operations.

Free space for 150 kV transmission based on SNI 04-6918-2002 as in Figure below. In accordance with the applicable provisions in the free space of 150 kV transmission, no stands or anything permitted, for the reason the stands that estimated to be in the free space must be released. Free space acquisition activities from stands called as lane liberation activities

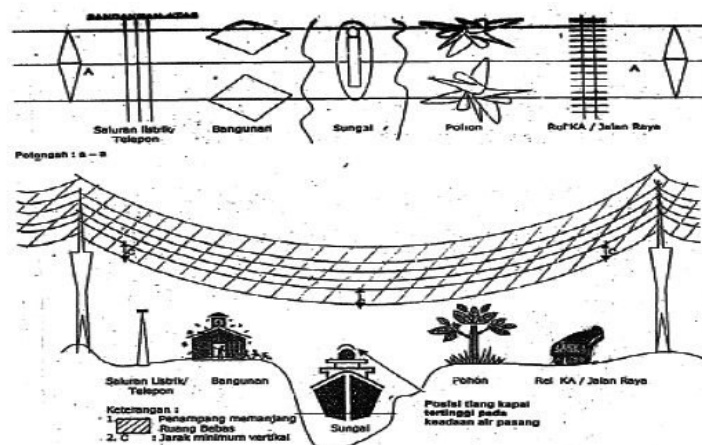
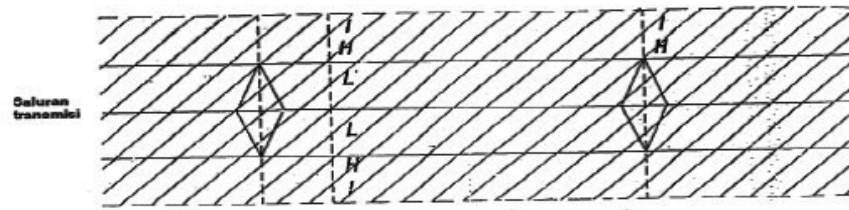


Figure 10 The longitudinal section of the SUTT 150 Kv free space

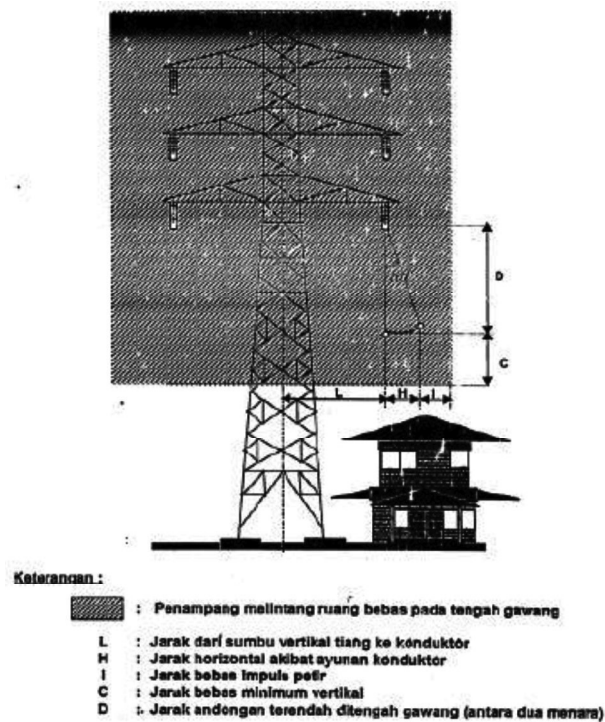




Information:

1.  = Cross section free space;
2. L = Lightning impulse free distance (for SUTT) or switching impulse free distance (for

Figure 11 Top view of free space



Keterangan :


-  : Penampang melintang ruang bebas pada tengah gawang
- L : Jarak dari sumbu vertikal tiang ke konduktor
- H : Jarak horizontal akibat ayunan konduktor
- I : Jarak bebas impuls petir
- C : Jarak bebas minimum vertikal
- D : Jarak andongan terendah ditengah gawang (antara dua menara)

Figure 12 Cross section of free space in the center of the goal

## 9.6. LANE LIBERATION

Stages of lane liberation activities include:

- 9.6.1. Identify stands and ownership that expected to enter into free space. Make a list of types and numbers of stands that expected to enter into free space.
- 9.6.2. Disseminating free space to stand owners, this socialization performed in stages starting from the district, sub-district to village.
- 9.6.3. Approach and negotiate directly with the owner of the stand until a price agreement is obtain.
- 9.6.4. Make payments directly to the landowner if an agreement has obtained from the community.
- 9.6.5. Conduct documentation and make minutes of payment that will later been used as evidence of the release of rights from the community.

The area under the lane for transmission of 150 kV horizontal minimum clearances from the vertical axis of the tower / tower / pole for a 150 kV transmission lines is 5-10 meters to the left and right of the transmission point's midpoint with details:

Table 66 The minimum horizontal free distance from the vertical axis

No	150 kV Transmission line	Steel Pole	Concrete Pole	Tower
1.	Distance from the vertical axis of the tower to the conductor (L); (m)	2,25	2,25	4,20
2.	Distance from the horizontal axis of the tower to the conductor (H); (m)	2,05	0,86	3,76
3.	Lightning impulse clearance (I); (m)	1,5	1,5	1,5
4.	Total L+H+I (m)	5,80	4,61	9,46
5.	Total in integration (m)	6,00	5,00	10,00

Source: SNI 04-6918-2002 and Regulation of the Minister of Energy and Mineral Resources No.27/2018

## 9.7. COMPENSATION MECHANISM

The mechanism for giving compensation is as follows:

- 9.7.1. Make a land and building inventory list that is entered into the free space of transmission area of 10 m left and right from the midpoint, which includes land area, land status, land class and landowner.
- 9.7.2. Identifying the status of land ownership from the landowner and checking the village, sub-district and authorized institutions.
- 9.7.3. Make payments directly to land and building owners.
- 9.7.4. Document and make payment minutes.

The minimum clearance of a vertical field from a conductor is the limit at which buildings or stands that allowed may not exceed the minimum limits specified in WHO and SNI standards. The minimum vertical clearance for transmission between conductors and other objects below seen in the following table.

Table 67 The minimum Vertical clearance between the delivery of 150 Transmission Line with the ground and other objects

No	Location	T/L 150 kV
1	Open field or open area	7,5 m
2	Regions with certain circumstances	
2.1	Building Not Fireproof	13,5 m
2.2	Fire Resistant Building	4,5 m
2.3	Road / highway traffic	9 m
2.4	Trees in general, forests, plantations	4,5 m
2.5	Sports field	13,5 m
2.6	Other SUTTs, low voltage air conductor, telecommunications networks, radio antennas, televisions antennas and cable cars	4 m
2.7	Regular railroad tracks	9 m
2.8	Iron bridge, anchor iron frame, nearest electric train, etc	4 m
2.9	The highest point of the mast on the tide / highest position in water traffic	4 m

Source: SNI 04-6918-2002 and Regulation of the Minister of Energy and Mineral Resources No.27/2018

## 9.8. LAND ACQUISITION TIMELINE SCHEDULE

The law No.2/2012 stipulates a period for each implementation process of land acquisition. In this land acquisition, each step of for the implementation process scheduled as follows:

Table 68 Schedule of the implementation process of land acquisition

No	Implementation process	Duration (working days)
	Stages of Land Acquisition Implementation	155
1.	Agencies that require land apply for land acquisition	0
2.	Determination of the implementation of land acquisition since receipt of the submission of the implementation of the land acquisition	2
3.	Formation of the Land Acquisition Implementation Team (P2T) since from the assignment / delegation	2
4.	The Chairperson of P2T has formed Task Force A and Task Force B since the P2T was formed	2
	Inventory and identification	
5.	Conducting Socialization, Inventory and Identification of ownership, ownership, use and utilization of land	30
6.	Announcement of the results of inventory and identification in the form of maps of parcels and nominative lists containing objects and subjects of procurement	14
	Determination of Assessment and Amount of compensation	
7.	Implementation of appraisal services procurement	30
8.	Assessment of compensation	30
9.	Submission of consultation to the landowner prior to the date of consultation	2
10.	Deliberations on determining compensation and submitting compensation amounts	30
11.	Validation by the chairman of the implementation of land acquisition since the minutes of the agreement on the form of compensation	3
12.	Giving compensation	7
13.	Release of land acquisition object	
14.	Delivery of Land Acquisition Documents to PLN	3

## 9.9. SCHEDULE OF THE RESETTLEMENT MEASURES

The land acquisition prepared for the project 150 Kv Transmission Line development of Hululais GPP planned not to have any resettlement; therefore, the schedule of the resettlement measures was not developed.

## CHAPTER X COST AND BUDGET

### 10.1 SUMMARY

Development activities for the public interest need to prepare the costs for the implementation of land acquisition for development in the public interest. The cost of implementing land acquisition for general development must be prepared from the planning stage by referring to the applicable rules and regulations.

Related regulations that must be referred to in the financing and implementation of the implementation of land acquisition for development in the public interest are as follows:

- 10.1.1. Regulation of the Minister of Finance of the Republic of Indonesia, Number 13 / PMK.02 / 2013 concerning Operational Costs and Supporting Costs for the Implementation of Land Procurement for Development in the Public Interest sourced from the State Revenue and Expenditure Budget;
- 10.1.2. Republic of Indonesia Minister of Home Affairs Regulation Number 72 of 2012 concerning Operational Costs and Supporting Costs for the Implementation of Land Procurement for Development in the Public Interest sourced from the Regional Revenue and Expenditure Budget and,
- 10.1.3. Minister of Finance Regulation Number 37 / PMK.02 / 2012 Regarding 2013 Standard Costs (or current year)

A summary of the financing of the implementation of land acquisition for development for public interest includes items in the following table:

Table 69 Summary of the financing of the implementation

Category	Cost items include:	
1. Planning	1.1	Survey social-economic
	1.2	Location Feasibility
	1.3	Analysis of the costs and benefits of development for the region and the community
	1.4	Land value estimation
	1.5	Environmental impacts and social impacts that may arise from land acquisition and construction
	1.6	Other studies required
2. Preparation	2.1	Notification of development plans
	2.2	Carry out initial data collection on the location of the development plan
	2.3	Conduct public consultation on development plans
3. Implementation	3.1	Inventory and identification of ownership, ownership, use and utilization of land
	3.2	Compensation assessment
	3.3	Compensation determination negotiations
	3.4	Compensation
	3.5	Relocation
	3.6	Transfer of land to agencies that required the land
	3.7	Livelihood recovery program
4. Administration and Management	4.1	Physical facilities (office space, staff housing, etc.)
	4.2	Transportation / vehicles, materials
	4.3	Operations (managerial, technical) and support staff
	4.4	Staff training for capacity building and monitoring

Category	Cost items include:	
	4.5	Information disclosure, consultation and complaint compensation mechanisms
	4.6	NGO services for the implementation of land acquisition and resettlement
5. Socialization	5.1	Prepare and multiply public information booklets
	5.2	Training related to the orientation of land acquisition and capacity building
	5.3	Information disclosure, consultation and complaint handling
6. Monitoring and evaluation	6.1	Monitoring cost of the LAP implementation
	6.2	Monitoring verification by reliable and experienced external experts or NGOs who fulfil the requirements for the project with the impact of voluntary transfer of books
	6.3	Evaluation of LAP implementation and reporting
7. Contingency	7.1	About 10% of the total estimated cost

## 10.2 COST AND BUDGET OF COMPENSATION FOR LOSS OF ASSETS

The financing of land acquisition activities for the construction of the 150 kV transmission line Hululais GPP - Pekalongan substation, including the additional area of the Pekalongan substation., it is planned to use the Budget of PT PLN (Persero) or APLN.

The total budget for Transmission Line land acquisition (Excluding the ROW), according to the Land Acquisition Planning document is Rp. 7,500,000,000 (Seven point Five Billion Rupiah). The average value of land to be released will use the Public Appraisal Service Office, which has an assessment license from the Ministry of Finance and the National Land Agency.

## **CHAPTER XI MONITORING AND EVALUATION**

Presidential Regulation No. 71 of 2012 Article 115 states that the National Land Agency (BPN) monitors and evaluates the control, ownership, use and utilization of the proceeds of land acquisition for development in the public interest.

The objective of monitoring and evaluation is to identify problems and feedback to improve implementation of LAP based on the idea of PDCA cycle. Throughout this cycle, PLN and LAP Committees corroborate in determining and reviewing the items, indicators and targets of monitoring and evaluation. The LAP implementation units in PLN review the monitoring and evaluation reports to ensure that the findings and recommendations are being incorporated in project implementation.

### **11.1. INTERNAL MONITORING BY THE EXECUTING AGENCY**

#### **11.1.1. Internal monitoring system**

Internal monitoring assesses the effective implementation of LAP by examining inputs, implementation process and outputs of the plan. An internal monitoring unit explicitly designated within PLN, which may include representatives from the government agencies, NGOs, and other agencies. The implementing agency of internal monitoring is usually fully responsible for internal monitoring. Monitoring is performed for the rights granted to parties who are entitled. The recording system is supported by periodic surveys designed to measure changes that occur in basic data recorded at the beginning of the census and survey. Periodic surveys rely on entitled receipts for the rightful party and received benefit indicators

#### **11.1.2. Internal monitoring form**

Monitoring items, indicators and targets will be determined based on the detail planning and scheduling to be prepared by related parties after the agreement on this LAP. The summary monitoring form will be utilized as a tool to organize the progress and achievements of the support programs chronologically.

During the implementation, detail monitoring forms will be prepared by appropriate categories (on-farm and non-farm supports, job opportunities and training courses, by village, etc.), for the purpose to gather data necessary to analyse the status of achievement such as the number and % of achieved HHs, qualitative analysis of the achievement, measures to be taken for the findings, etc.

### **11.2. EXTERNAL MONITORING AND IMPACT EVALUATION BY THIRD PARTY**

#### **11.2.1. Monitoring and evaluation by a third party**

The implementing agency usually appoints independent institutions to carry out monitoring and evaluation to provide complete and objective information. Evaluation after implementation of compensation is an integral part of the project cycle. Independent evaluations can be carried out by outside research institutions or consultants, universities or development NGOs. The tasks of these external institutions are to:

- 1) Check the results of internal monitoring
- 2) Assess whether compensation objectives are achieved, specifically, whether livelihoods and living standards have been restored or improved

- 3) Assess the efficiency, effectiveness, impact and sustainability of compensation, the results of which will be a reference for future compensation policy making and planning
- 4) Ensure whether the compensation entitlement has fulfilled the objectives, and whether the objectives are in accordance with the circumstances of the rightful party

The external monitoring/evaluation agency may be a university, research institute, or NGO for example, which will be identify by Governor of Bengkulu Province based on permit location.

- 1) Monitoring of implementation process and outcome  
External monitoring verifies internal reporting and monitoring, and assesses the implementation process and outcome of LAP periodically.
- 2) Evaluation of impact  
Impact evaluation assesses both expected positive impact and unexpected negative impacts of LAP, at the timing after the outcome of LAP is plan to achieve.

11.2.2. Form of the external monitoring and impact evaluation

Items of monitoring and evaluation, indicators and targets will be determined based on the detail planning and schedule to be prepare by related parties after the agreement on this LAP. Detail monitoring/evaluation forms will be prepared by appropriate categories at the implementation of each external monitoring and impact evaluation.

11.2.3. TOR of external monitoring and impact evaluation

Draft TOR of external monitoring and impact evaluation is presented at appendix 1





**Appendix 1 – Draft TOR of external monitoring**

No	Type of Monitoring	Basic for indicators
1.	Budget and time frame	1.1. Have all of the land acquisition and compensation staff been appointed and mobilized to the field and office according to schedule? 1.2. Have the capacity building and training activities been completed according to schedule? 1.3. Are compensation implementation activities achieved in accordance with the agreed implementation plan? 1.4. Are compensation funds allocated to compensation agencies on time? 1.5. Has the compensation office received funds according to schedule? 1.6. Have all funds been spent according to RPL & PK? 1.7. Has all land been released and occupied in time for project implementation?
2.	Submission / implementation of entitlement of the entitled party	2.1. Have all entitled parties received entitlement in accordance with the amount and category of losses listed in the entitlement matrix? 2.2. Has the right party received the payment on time? 2.3. Have the rightful parties who rented land temporarily been paid compensation? 2.4. Have all eligible parties received the agreed transportation fees, relocation fees, life allowances and assistance, according to the schedule? 2.5. Have all areas of replacement land or contracts been provided? Is the maturation of the land as determined? What are the steps in giving legal rights to the land for the rightful party being carried out? 2.6. How many households have the right to receive legal things on the land? 2.7. How many eligible parties have received housing as a relocation option in RPL & PK? 2.8. Does the quality of the house meet the agreed standards? 2.9. Has the relocation site been selected and built according to agreed standards? 2.10. Is the party entitled to inhabit the new house? 2.11. Are aid measures being implemented as planned for local residents? 2.12. Is the recovery preceded by the provision of infrastructure and social facilities?

No	Type of Monitoring	Basic for indicators
		2.13. Are income and livelihood recovery activities carried out as stated in the income recovery plan, for example, using replacement land, running production output, a number of people who are trained and given jobs, credit provision, a number of activities to obtain assisted income?
		2.14. Has the affected business / business received compensation rights including the transfer and payment of all losses due to loss of business and production stopped?
3.	Consultation, complaints and special issues	3.1. Does the consultation run as scheduled including meetings, group meetings and other related community activities?
		3.2. Have residential circulars been prepared and shared?
		3.3. How many eligible parties know what to accept? How many have received compensation according to their rights?
		3.4. Are there eligible parties using the complaints procedure? What are the results?
		3.5. Has the dispute been settled?
		3.6. Has the social preparation phase been carried out?
		3.7. Have the steps for the tribal population been carried out?
4.	Benefit Monitoring	4.1. What changes have taken place in terms of work patterns? Production and use of resources compared to the situation before the project?
		4.2. What changes have occurred in terms of patterns of income and expenditure compared to the situation before the project? What changes in living costs have there been compared to the situation before the project? Is the income of the entitled party in line with this change?
		4.3. Changes that occur in social and cultural parameters related to living standards?
		4.4. What changes have occurred for vulnerable groups?
5.	Basic information about affected households	5.1. Location
		5.2. Composition and structure of age, level of education and skills
		5.3. Gender (sex) of the head of the household
		5.4. Ethnic group
		5.5. Ease in health services, education, public utilities and other social facilities
		5.6. Type of house

No	Type of Monitoring	Basic for indicators
		5.7. Pattern of land ownership and use and other resources
		5.8. Types of livelihoods and work patterns
		5.9. Source and level of income
		5.10. Data on agricultural production (for rural households)
		5.11. Participation in RT groups or in the community
		5.12. Ease to place cultural heritage and place for holding traditional events
6	Living standard recovery	6.1. Is home compensation payment exempt from depreciation, retribution or transfer fees of the rightful party?
		6.2. Have the rightful parties accepted the house that was built?
		6.3. Has the perception of "society" been restored?
		6.4. Are the parties entitled to succeed in restoring the main social and cultural conditions?
7	Restoration of livelihoods	7.1. Is the compensation payment free from depreciation, retribution or the cost of transferring the rightful party?
		7.2. Can compensation payments replace lost wealth?
		7.3. Is the replacement land sufficient to meet the standards?
		7.4. Has the transfer and relocation payments been able to cover the costs incurred?
		7.5. Does the income allowance make it possible to develop business and production as before?
		7.6. Has the business of the affected entrepreneur received adequate assistance to rebuild his business?
		7.7. Are vulnerable groups given the opportunity to earn income? Is this effective and sustainable?
		7.8. Can the work provided be able to restore income and living standards as before the project?
8	Satisfaction level of the entitled party	8.1. How many eligible parties are aware of the compensation procedures and compensation that are their rights? Are the parties entitled to know that the compensation is their right?
		8.2. Do they know if they have obtained their rights?
		8.3. How have those who have the right to measure their standard / standard of living and livelihood been restored?
		8.4. How many parties have the right to know about complaints procedures and dispute resolution procedures?
9.	Effectiveness of compensation planning	9.1. Is the number of entitled parties and their assets calculated correctly?
		9.2. Are there any land speculators who get help?
		9.3. Is the time and funding framework sufficient to meet the objectives?

No	Type of Monitoring	Basic for indicators
		9.4. Is the compensation was too much?
		9.5. Are vulnerable groups identified and assisted?
		9.6. How do resettles handle unexpected problems?
10.	Other impacts	10.1. Are there unwanted environmental impacts?
		10.2. Are there unwanted environmental impacts on work or income?