

1**Introduction**

1.1. Background of the LARAP

In order to increase the supply of electrical power in Java, the government (in this case PT. PLN Persero), plans to build the Upper Cisokan Pumped Storage Project HEPP (UCPS project) located in West Bandung and Cianjur District. The project has installed capacity of 1040 MW.

This UCPS HEPP Project plan is also supported by instructions from the Government of Indonesia as written in the President RI Regulation No 4/2010 concerning Assignment of PT Perusahaan Listrik Negara (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas and the Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.

The Upper Cisokan Pumped Storage Project consists of 3 sub-project components, namely 1) the construction of access road, 2) construction of upper and lower dams, and 3) construction of 500 KV transmission lines. Physical construction of these projects require land acquisition that will impact on people's lives, as a result of the loss or decrease in land assets, or require further removal of residents from the location currently occupied.

In order to minimize the negative impacts arising from land acquisition for the Project Upper Cisokan Pumped Storage, PLN conducts study and consultations with the project-affected people (PAP) to prepare a document of Land Acquisition and Resettlement Action Plan (LARAP). This LARAP document is part of the loan agreement requirement and subject to be approved by The World Bank.

This LARAP was prepared based on World Bank guidelines OP 4.12, however some of the framework policies may differ from Indonesia's Regulations. The differences between Indonesia regulations and World Bank policy is summarized in Appendix 9. The implementation of the framework subject to GOI's approval or payment due to the land acquisition in accordance with the World Bank guidelines to be done after the signing of loan agreement. Once the loan agreement of Upper Cisokan Pumped Storage HEPP project has been signed, the agreement between the GOI and the World Bank the Appendix 9 will have the legal force to be implemented as a legal basis for Land Acquisition and Resettlement for this project.

The disclosure of the LARAP of Access Road has been initiated since mid of November 2010, and the LARAP report will be published and made it possible for any comment. The comment will be reviewed and adjusted by PLN for further action.

The data presented in this LARAP document based on field inventory and according to the PAPs, that was conducted from November 2009 to January 2010 by LARAP Study Team from LPPM UNPAD. These data, can be used as a reference for asset acquisition (*ganti rugi*) which will be carried out by Land Acquisition Committee (LAC). The LAC in executing the asset inventory will coordinate with the following agencies: with the BPN – “Badan Pertanahan Nasional” (National Agrarian Agency) which responsible for land size data, the Public Work Agency which responsible for building assets, and Agricultural agency which responsible for plant assets. And, if necessary, The Joint Team of Local Government and PLN will also use the data presented in this LARAP document as a reference for assistance for Non Title Holders.

Land Acquisition procedures for public interest will be carried out by LAC and in determining value of asset acquisition will be assessed by Independent Appraisal Consultant. Aside from land acquisitions for the title holders, the Independent Appraisal Consultant also will assess the assistance eligibility for the non title holders. The Joint Team of Local Government and PLN will use Independent Appraisal Consultant’s assessment to conduct the assistance for non title holders.

Amendments or revisions to this LARAP will be conducted by PLN and submitted to World Bank for review. Any changes affecting peoples' entitlements will be made after consulting with PAPs and disclosing the proposed LARAP change in the project area for at least two weeks, for comment from PAPs.

1.2. Description of the Access Road and Quarry Site

One of the main functions the access road that is needed to be constructed is to transport the material in the form of stone from the quarry to the dam site. The construction of access road is divided into two segments, namely an existing road (hereafter referred to as Existing Road) and new access road (hereafter referred to as New Road).

Access road is located across some villages in the Sub-District of Cipongkor and the Sub-District of Rongga, Regency of West Bandung. While the location of Quarry is located in the Village of Karang Sari, Sub-District of Cipongkor, Regency of West Bandung (see Table 1.1; for Map see appendix 7).

1.2.1. Existing Road Segment

Existing Road segment of 6.7 km is a road which was widened from 4m to 8 m and its land has been owned by PT. PLN (Persero) since the Saguling Project (1982-1987) that was used to transport rock material from the Quarry site of Gunung Karang to the location of the dam construction of hydropower of Saguling (PLTA Saguling). The existing road can be divided into 3 segments:

- Segment 1, the quarry location which is the access road within the location Quarry (Gunung Karang). Current road has width of about 8 meters with the physical condition of the road as macadam / rock;
- Segment 2, from the river of Cireundeu until Ciangkrong the three road intersections;
- Segment 3, starting from the border of Sarinagen village and Cijambu until Junction of Cijambu (Cipari)

Plan design on the existing road will be reconditioned with specification as follows: New pavement of 2 m width will be added to the left and right to the 4 m existing pavement, so that the total pavement became 8 m. Then another 7 m width will be used for the road shoulder and channel drainage plan, so that the total construction width will be 15 m. The census was conducted for the existing alignment up to 20 m width.

At this time segment of the Existing Road has been used as a public road, which is the economic artery that connects the village of Karangsari, village of Sarinagen, and village of Cijambu (Sub-District of Cipongkor) with Sub-District of Cililin and Sub-District of Rajamandala as an economic center. Meanwhile the left and right along the road, the community has constructed buildings, in the form: houses, shops, small shops, traditional markets, schools, workshops, mosques, maternity clinics, and others, completed by a letter of agreement between the community and PT. Indonesia Power (the subsidiary company of PLN). Sample letter of agreement is attached (see appendix 8)

1.2.2. Quarry Site

Land for Quarry area which totals 73.94 Ha has been compensated by the PT.PLN (Persero) in the Saguling Project. Andesite stone material from the Quarry was used for a dam construction of Saguling in the year 1982-1987. This quarry will be used again for the construction of the Upper Cisokan Pumped Storage HEPP Project. At this time quarry land has been used by local residents as a stone quarry, agricultural land and home garden.

Table 1-1. Location of Access Road and Quarry Site

Regency/District	Sub-District	Village	Planning Road
(1)	(2)	(3)	(4)
West Bandung	Cipongkor	Cijambu	Existing and New Road
		Sirnagalih	New Road
		Sarinagen	Existing Road
		Karangsari	Existing Road and Quarry
	Rongga	Cibitung	New Road
		Sukaresmi	New Road

Source: PT PLN (Persero)

1.2.3. Land Requirements

The land is needed for the road access plan (based on ROW pre-planning of 20 m width) and the quarry as follows:

1. Segment of existing road area of 17.16 ha
2. Segment of new road is of 68.28 ha
3. Quarry area of 73.94 ha

Detail of land is needed to plan access road and quarry of each village is shown in Table 1-2.

In this document, camps and temporary land that will be used by the contractor are not included. The contractor will arrange their camp by themselves. They may use available PLN owned land at Ciangkong or just rent the land to the villagers at their preference. Temporary land used for construction activities will be within the ROW alignment, no special land will be required.

Table 1-2. Land Requirements for Access Road and Quarry

Regency	Sub-District	Village	Access Road Planning and Quarry (Ha)		
			Existing Road	New Road	Quarry
West Bandung	Cipongkor	Cijambu	11.55	4.94	-
		Sirnagalih	-	5.21	-
		Sarinagen	5.61	-	-
		Karangsari	-	-	73.94
	Rongga	Cibitung	-	14.37	-
		Sukaresmi	-	43.76	-
Total			17.16	68.28	73.94

Source: Based on ROW pre-planning of 20m width)

1.3. Purpose and Aim of LARAP Preparation

The purpose of the preparation of the Land Acquisition and Resettlement Action Plan (LARAP) of the Upper Cisokan Pumped Storage HEPP is to prepare a report relating to land acquisition and resettlement for people who their land will be used by PLN (Persero) in the project planning and decision-making as a tool for the prospective donor. The objective as follows:

1. To mitigate negative impacts of land acquisition activities, as a result the Project Affected People (PAP) will not decrease the level of their life.
2. To give opportunity to the PAP to participate in the development process.
3. To obtain accurate data about the PAP and other data in accordance with the guidelines applied in Indonesia and guidance of the prospective donors (World Bank), as consideration for the implementation of LARAP.

4. To disseminate LARAP to the public associated with the transfer of assets, with the aim to obtain the same perceptions and early get feedback from the PAP.
5. To develop guidance / general propose of the resettlement plan for displaced PAP.
6. To provide grievance redress mechanism and monitoring and evaluation procedure of the LARAP implementation.
7. To formulate policies on complying the needs between GOI's regulation and the World Bank.

1.4. Data Collection Method

Method of data collection in this project is divided into two, namely the secondary data collection that includes technical and non-technical data, and the primary data to inventory the people who are affected by the project.

1.4.1. Secondary Data Collection

Secondary data collection includes technical and non-technical data:

1.4.1.1. Technical Data

- Project design made by PT. PLN (Persero) which described the project development plan (detailed design, 2000-2001).
- Supplementary study (2006-2007) and additional supplementary study (2007).
- Environmental Impact Analysis document (EIA/ANDAL) of the Upper Cisokan Pumped Storage HEPP.
- Data and map of land/plot measurements (persil) carried out by PT. PLN.

1.4.1.2. Non-technical data

- Regulations related to the implementation of land acquisition and resettlement of project affected people (PAP).
- Letter from Kantor Pelayanan Pajak Bumi dan Bangunan (Land and Building Tax Office) which indicates estimated value of the land and building (Nilai Jual Objek Pajak) in the project area.
- Decree of the head of District where the project site is located on the price/value of crop compensation.
- The documents from PLN concerning the activities that have been conducted in order to socialize the project, and the process of agreement on compensation/compensation with landowners who might be affected by the project.

1.4.2. Primary Data Collection

Two methods were used to collect primary data, namely Census, and Focus Group Discussion (FGD).

1.4.2.1. Census

Census was carried out to inventory the Project-Affected People (PAP). Data collection in this census activity was conducted from house to house by interviewing the

households/families. Data collected in this activity includes, among others, data on general information of the household, ownership of land, building and crop stands (questionnaire is attached in appendix 1.3).

1.4.2.2. Focus Group Discussion

Focus Group Discussion (FGD) was also carried out to disseminate idea/plan of the proposed project and to gather information that could not be obtained through census from the community. The FGD was conducted in each village along the access road, with participants consisting of community leaders and residents in the villages affected by the project.

2

Inventory of the Project Affected Asset

This chapter will be divided into 3 parts, the first part (section 2.1) will discuss the potentially project affected assets, especially land and building assets, the second part (section 2.2) deals with the project affected assets which is related with asset acquisition status of land and buildings which are affected by the project, and the third part (section 2.3) deals with plants which are potentially affected by the project.

2. 1. Potentially project affected Assets

2.1.1. Potentially project affected Land Assets

Construction of access road along the 34 km (consisting of 27.3 km new road and 6.7 km existing road) connect quarry (source material) to the location of the upper and lower construction of dam. The project requires a number of land plots currently occupied/used by the potentially project affected people (PAP).

At existing road, the asphalt pavement will be 8 m width, the road shoulder and road drainage system plan to the left/right side will be added of 7m width, so that the total construction width will be 15 m. Construction of New Road normally require 20 to 30 m road width. And for this study, the census was conducted up to minimum 50 m width. However all this width is not necessary so the impacts (households, land, buildings, and trees) were estimated based on a 20 m width, to minimize the resettlement impacts. This scheme is in compliance with the World Bank guidelines op 4-12.

Of the total 159.38 ha of lands which is affected by the project for three locations (Quarry, Existing Road and New Road) only 113.7 ha (1260 land plots) are owned, claimed or occupied by project affected people (Table 2-1 column 7). Chapter 1 gives estimated land required based on engineering estimates, but Chapter 2 only includes land if it is owned, occupied or used by PAPs, Local government or Forest Department. Land to be compensated in Chapter 2 does not include land already owned by PLN, and it only includes State or Forest lands when clearly controlled by the owners or else occupied and used by PAPs.

Overall Total Land Required for Upper Cisokan Pumped Storage Project is 759.75 ha (Chapter 1: 159.38 ha road & quarry, 495.11 ha reservoirs & dams, and 105.26 ha T-lines & pads), but PLN owns 65.43 ha (road & quarry), PAPs are using or own 402.98 ha that will be required (27.54 ha new road, 363.46 ha reservoirs & dams, 11.98 ha pads) and an

estimated 300 ha is expected to be required from Forest Land. However these three categories overlap, and the extent of the overlap is uncertain, and can only be resolved by legal survey. The LARAPs have only estimated about 235 ha of Forest land (66.41 ha road & quarry, 131.65 ha reservoirs & dams, 37.26 ha T-lines & pads), so one gap (300 ha expected Forest Land to be acquired minus 235 ha estimated Forest Land required in LARAP = 65 ha gap) is either encroached Forest land or else unowned streams, paths etc. And the overlaps between all the ownership categories can only be resolved during the legal survey.

Therefore, the total of land affected by the project on Table 2-1 is lesser than the actual total required land for the project of the access road and quarry as described in Chapter 1 (Table 1-2).

In the Quarry, the project-affected land is consist of stone hill, road, river and slopes that can't be planted, with all total 52.03 ha. In the existing road, the affected land is a state land (PLN) which has been used for road. In the new road the affected land are partially owned by local people, the others lands are owned or controlled by Perum Perhutani and rural authorities, covering around 45 ha. These lands will be affected by the project but not related to the asset of the potentially project affected people (PAP). As a result, these lands are excluded from the category of land asset data in Table 2-1.

Table 2-1. Total of the household and potentially project affected land

No	Project Location	Sub-District	Village	Land plots affected by project ¹			Land to be compensated	
				House hold	Plots number	Size (ha)	Size (ha)	(% of size) ²
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Cipongkor:	Karangsari	386	627	49.03	0	0
			Sarinagen	19	33	3.00	0	0
Sub total				405	660	52.03	0	0
2	Existing Road within 20 m width	Cipongkor	Cijambu	5	5	0	0	0
			Karangsari	2	2	0	0	0
			Sarinagen	22	22	0	0	0
Sub total ³				29	29	0	0	0
3	New Road	Cipongkor	Cijambu	105	106	15.38	3.65	24%
			Sirnalih	66	86	10.18	3.60	35%
		Rongga	Cibitung	81	226	11.78	10.73	91%
			Sukaresmi	173	153	24.33	9.56	39%
Sub total				425	571	61.67	27.54	
Total 20 m width				859	1260	113.70	27.54	

Source: Census Data, 2010.

Note:

¹ the potentially project affected land which are owned/used by the local community, outside of site¹ and for body of road, hill of stone, forest, river, and slope land.

² per cent of area is ratio between column (8) and column (7).

³ In particular, based on spatial data there is no data for land size owned by the 29 PAPs in existing road, all of the affected land plots are controlled by PLN.

The amount of affected HHs are counted based on buildings affected by the project instead of the amount of plots of land. Based on the total lands used by the PAP, the land to be potentially acquired by the project covering 27.54 ha (Table 2-1 column 8). These lands are needed for new road only as connecting route the existing road to the upper and lower location of the dam area. At quarry site and existing road, there is no PAPs land to be acquired because the project will only use land that is entirely controlled by PLN.

a. Potentially project affected land use

In general, the area around the project is the dry land of agroecosystem. The lands that are affected by the project consist of 1,260 plots of land, most of these plots of land are agricultural land. These are consisting of wet rice fields 17.44 ha (21.9%), dry rice fields 14.66ha (18.4%), and gardens 25.15ha (31.6%) (Table 2-2 column (7), (8) and (9)).

The land that is not managed productively (such as unused land) is in the form of dry land and shrubs is 20.51 ha, 25.8% of the total land (column 10).

Land use of the existing road, specifically where most of the potentially project affected land is not used for agriculture, the land in this location entirely controlled by PLN. The land that will be used as a shoulder of the road is currently used by people for construction of building and some used for planting crops. Those land plots are too small economically to be a dry land rice field or garden for commercial purposes.

Table 2-2. Potentially project affected land use

No	Project Location	Village	Unit	Total Land	Land use				
					Home garden	Wet Rice field	Dry land rice field	Garden	Dry land and others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Quarry	Karangsari	land plots	627	30	176	173	192	56
			Size (ha)	49.03	0.37	8.18	12.24	10.15	18.09
		Sarinagen	land plots	33	1	18	4	8	2
			Size (ha)	3	0	1.17	0.26	0.33	1.24
Sub Total			land plots	660	31	194	177	200	58
			Size (ha)	52.03	0.37	9.35	12.5	10.48	19.33
2	Existing Road	Cijambu	land plots	5	5	0	0	0	0
			Size (ha)	0	0	0	0	0	0
		Karangsari	land plots	2	2	0	0	0	0
			Size (ha)	0	0	0	0	0	0

No	Project Location	Village	Unit	Total Land	Land use				
					Home garden	Wet Rice field	Dry land rice field	Garden	Dry land and others
		Sarinagen	land plots	22	22	0	0	0	0
			Size (ha)	0	0	0	0	0	0
Sub total			land plots	29	29	0	0	0	0
			Size (ha)	0	0	0	0	0	0
3	New Road	Sukaresmi	land plots	153	33	53	17	36	14
			Size (ha)	9.56	1.10	4.46	0.60	2.87	0.52
		Sirnagalih	land plots	86	11	24	12	28	11
			Size (ha)	3.58	0.07	0.95	0.37	1.75	0.44
		Cijambu	land plots	106	9	12	15	64	6
			Size (ha)	3.65	0.21	0.23	0.53	2.58	0.10
		Cibitung	land plots	226	4	51	15	143	13
			Size (ha)	10.73	0.06	2.44	0.62	7.47	0.13
Sub total			land plots	571	57	140	59	271	44
			Size (ha)	27.51	1.45	8.09	2.12	14.67	1.18
Total			land plots	1,260	117	334	236	471	102
			Size (ha)	79.54	1.82	17.44	14.62	25.15	20.51
			(%)	100%	2.3%	21.9%	18.4%	31.6%	25.8%

Source: Census Data, 2010.

b. Project affected land use that to be acquired

Quarry which is a rocky hill area (named by local community as *Gunung Karang*) where in several locations, particularly in the area is relatively flat surface, has been used by local communities for cultivating crops. Based on inventory, it has been recorded 660 plots of land, covering 52.03 ha. Crops are predominantly found in the dry land rice field, namely cassava (*Manihot esculenta*), corn (*Zea mays*), and dry land rice (*Oryza sativa*).

In both the quarry and existing road there is no plots of land to be acquired, All of land plots in the existing road and quarry is controlled by PLN

Table 2-3. Project affected land use that to be acquired

No	Project	Village	Land use will be compensated (hectare)					Total (ha)
			Home garden	Wet Rice field ¹	Dry land rice field	Garden	Dry land/ others	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Karangsari	0	0	0	0	0	0
		Sarinagen	0	0	0	0	0	0
		Subtotal	0	0	0	0	0	0
2	Existing Road	Cijambu	0	0	0	0	0	0
		Karangsari	0	0	0	0	0	0
		Sarinagen	0	0	0	0	0	0
Subtotal			0	0	0	0	0	0
3	New Road	Sukaresmi	1.10	4.46	0.60	2.87	0.52	9.56
		Sirnagalih	0.07	0.95	0.37	1.75	0.46	3.60
		Cijambu	0.21	0.23	0.53	2.58	0.10	3.65
		Cibitung	0.06	2.44	0.62	7.47	0.14	10.73
Subtotal			1.45	8.08	2.12	14.67	1.22	27.54
Total		(hectare)	1.45	8.08	2.12	14.67	1.22	27.54
		(%)	5.3%	29.4%	7.7%	53.3%	4.3%	100.0%

Source : Data of Census, 2010

c. The project affected remaining lands

Land to be acquired is based on the result of determination of boundary line roads projects made by PLN. The road boundary line will divide the two land areas, part of an area must be compensated because such land will be used for the projects, but some of the remaining or residual land area remains the property of the resident (and be use would not be compensated).

However, the remaining or residual land area may be purchased by the project if the land owner considers it is not economical to use. Thus some areas of land will be exempted entirely, so that the total land to be potentially compensated, (which was originally estimated area of 27.54ha Table 2-3) at the time of the compensation later on should become broader if the remaining affected land is less than 72 m² is no longer effectively utilized for construction a house (in accordance with Kepmenpraswil¹ 2002), then the remaining land may be compensated at the request of the owner.

¹ The Decree of Minister of Settlement and Regional Infrastructure (Public Work)

Table 2-4. The project affected remaining lands

No	Project Location	Village	Unit	Average of potentially project affected land (m ² /Plots)							
				Home garden	Wet rice field	Dry land rice field	Garden	Dry land/ other	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
1	Quarry	Karangsari	Plots	0	0	0	0	0	0		
			Initial size (ha)	0	0	0	0	0	0		
			Later size (ha)	0	0	0	0	0	0		
		Sarinagen	Plots	0	0	0	0	0	0		
			Initial size	0	0	0	0	0	0		
			Later size	0	0	0	0	0	0		
Sub total			Plots	0	0	0	0	0			
			Initial size	0	0	0	0	0			
			Later size	0	0	0	0	0			
2	Existing Road	Cijambu	Plots	0	0	0	0	0	0		
			Initial size	0	0	0	0	0	0		
			Later size	0	0	0	0	0	0		
		Karangsari	Plots	0	0	0	0	0	0		
			Initial size	0	0	0	0	0	0		
			Later size	0	0	0	0	0	0		
		Sarinagen	Plots	0	0	0	0	0	0		
			Later size	0	0	0	0	0	0		
			Latter Size	0	0	0	0	0	0		
		Sub total			Plots	0	0	0	0	0	
					Initial size	0	0	0	0	0	
					Later size	0	0	0	0	0	
3	New Road	Sukaresmi	Plots	33	53	36	17	14	153		
			Initial size	2.13	7.42	5.41	1.74	1.42	18.12		
			Later size	1.03	2.96	2.54	1.14	0.90	8.57		
		Sirnagalih	Plots	11	24	28	12	11	86		
			Initial size	0.77	3.42	6.35	0.72	5.37	16.63		
			Latter Size	0.70	2.47	4.60	0.35	4.91	13.03		
		Cijambu	Plots	9	12	64	15	6	106		
			Initial size	1.39	1.13	13.14	1.61	1.19	18.46		
			Later size	1.18	0.90	10.56	1.08	1.09	14.81		
		Cibitung	Plots	4	51	143	15	13	226		
			Initial Size	0.19	6.61	22.49	2.76	1.15	33.2		
			Later size	0.13	4.17	15.02	2.14	1.02	22.48		
		Sub total			Plots	57	140	271	59	44	571
					Initial size	4.48	18.58	47.39	6.83	9.13	86.41
					Later size	3.04	10.49	32.73	4.71	7.93	58.90
		Total			Plots	57	140	271	59	44	571
					Initial size (ha)	4.48	18.58	47.39	6.83	9.13	86.41
					Later size (ha)	3.04	10.49	32.73	4.71	7.93	58.90
Average			Initial size (m ²)	786	3,260	8,314	1,198	1,602	15,160		
			Later size (m ²)	533	1,840	5,742	826	1,391	10,333		

Source : Data of census, 2010

Note: ¹ including the fish pond. ² the dry land field with open field, shrub.

Due to the land acquisition, the total size of the remaining affected land will be reduced. For home garden, the initial size at about 4.88 ha will be reduced to 3.04 ha, the rice fields from 18.58 ha will be reduced to 10.49 ha, the upland rice field will be reduced from 47.39 ha to 32.73 ha, and the garden of 9.13 ha will reduce to 7.93 ha (Table 2-4).

It has been noted that most of the project affected people (PAP) will have the remaining land affected by the project, which means that only part of PAPs land would be acquired for the project. The remaining lands can still be used by PAP particularly in the location of new road.

d. Land Tenure/Land Ownership

State-own lands which is affected by the project, especially those that have been owned by PLN, formerly was used as a source of material (rock) and the access road to construct the Saguling in the year 1982-1987. At this time most roads have become the path of traffic and is the main access road connecting the Sub-District of Rajamandala, Cipongkor, and Cililin. Some of lands on the roadside along the Existing Road, and in the Quarry site have been used by the local communities for various purposes, mainly for residential buildings and businesses some of these lands are cultivated for dry rice fields, gardens, and various public facilities. Their land acquisition was initially not permitted by the PLN, but in 2002, some residents had a formal agreement with PLN that if these lands are needed by the PLN, they have to move voluntarily.

Based on census results, out of 1260 plots of land, it was recorded 667 plots of land owned by the other parties (not owned by residents), most of such land (660 plots of land) is the land owned by PLN. Proof of land tenure by the majority of residents (435 land plots) is in the *SPPT*² form but 43 plots of land are without any proof of land ownership documents (Table 2-5).

² Tax received

Table 2-5. Status of land property of the potentially project affected people (PAP)

No	Project	Village	Number of land	Various Land Properties											
				Owning Land property (kind of document)						Other land properties					
				Certificate	Purchase Deed	Leter C	SPPT/ Tax letter	Kikitir	Non-document ¹	Personal	PLN	Perhutani	State	Village	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
1	Quarry	Karangsari	627	0	0	0	0	0	0	0	0	627	0	0	0
		Sarinagen	33	0	0	0	0	0	0	0	0	33	0	0	0
Sub Total			660	0	0	0	0	0	0	0	0	660	0	0	0
2	Existing Road	Karangsari	5									5			
		Sarinagen	2	All the affected land is operated by PLN as road sides								2			
		Cijambu	22									22			
Sub total			29									29			
3	New Road	Sukaresmi	106	55	12	3	72	3	8	0	0	0	0	0	3
		Sirnagalih	86	5	0	0	69	1	10	0	0	0	0	0	1
		Cijambu	226	3	0	2	175	1	14	0	0	0	0	0	0
		Cibitung	153	2	0	5	119	1	11	0	0	0	0	0	3
Sub total			571	60	12	10	435	6	43	0	0	0	0	0	7
Total			1260	60	12	10	435	6	43	0	689	0	0	0	7

Source : Data of Census, 2010

e. Condition of Infrastructure and Environment

There are several kinds of public assets which will be affected by the project, including mosque and mushola. Public facilities that are affected by project, as can be seen in Table 2-6.

Tabel 2-6. Project affected public facilities

No	Project	Village	Public Facility (unit)					Total
			School Mosque/ mushola	Small Bridge	Toilet and bathroom/ water sink	Cemetery ¹	Yard	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Karangsari	0	0	1	0	1	2
		Sarinagen	1	1	0	0	0	2
Subtotal			1	1	1	0	1	0
2	Existing Road	Cijambu	0	0	0	0	0	0
		Karangsari	0	0	0	0	0	0
		Sarinagen	0	0	0	0	0	0
Sub total			0	0	0	0	0	0
3	New Road	Sukaesmi	2	2	0	0	0	5
		Sirnagalih	1	1	0	0	1	3
		Cijambu	0	0	0	1	0	1
		Cibitung	1	1	0	0	0	3
Sub total			4	4	0	1	1	10
Total			5	5	1	1	2	14

Note: ¹Public cemetery on personal ownership

Although only a few of the affected buildings must be acquired/removed, there will be an impact caused to the is public service function (learning convenience, to serve religion), so that the rest of the complexes need to be properly mitigated.

Environmental conditions and Infrastructure in the Existing Road location

Conditions on along the existing road, especially at the joint between the three intersections of Ciangkrong until Cipari (along 4.2 km) at present is used by various vehicles, the roads is in good condition, and traffic connects villages of the Sub-District of Cipongkor and Sub-District of Cililin, and Sub-District of Rajamandala. Since 1998, many visitors occupied the lands along this road to build a place of business and residential.

Along existing road (road width at 20m), 29 households reside along the road which potentially could be removed. In addition to residential buildings are also places of business such as shops, garages and small industries.

Administratively, the PAP are located in three rural villages of Cijambu, Sarinagen, and Karang Sari. All these three villages are located in the Sub-District of Cipongkor. The land that are used by them is basically the shoulder of road, thus the typical land area is elongated shape to follow the road, and most of the land is used as a home garden. Based on the inventory, all of the affected building in the existing road are build on the lands belong to PLN.

Land Asset Condition and Infrastructure in the New Road location.

In these locations, the unproductive or abandoned land, such as dry lands, shrubs, are dominant. More than half of affected lands is unused land that is located on undulating topography and hills, but in some locations go through a village roads segment and hamlets. The access road to be built will connect *Gunung Karang* (quarry site) with the upper and lower development dam project along 34 km (6.7 km of existing road and 27.3 km of new road).

Based on space data analysis and result of measurement of the latest road planned by PLN, there were approximately 37,22 ha of state forests are managed by Perum Perhutani and 0,24 ha village lands (carik) that will be affected by the road projects. The forested land is located in the Village of Sukaresmi.

Land Asset Condition and Infrastructure in the Quarry.

Quarry site is an area of 73.73 ha (Table 1-2), some of which (52.03 ha) is cultivated/used by the affected people (Table 2-2). Administratively, this area is located in Village of Sarinagen Sub-District of Cipongkor. At this time, the stone mining is still active, managed by Indonesia Power (PLN subsidiary company). Based on the local community information, stones are normally carried out by an average of 40 trucks (around 6 m³) every day from the quarry.

As mentioned earlier, the land on flat area are used by some residents for various purposes, such as the rain fed fields, houses and home gardens, small factory (cassava flour processing), while most the steep land is still shrubs. At this location is found some water resources that are used by people from outside this area as clean water to use in the household. Based on the information of the local residents, at least there are many people of 4 villages utilizing water that comes from these springs. The increasing of the intensity of rock exploitation at the quarry for constructing dam, predicted it can influence availabilities and distribution of existing of clean water for the surrounding communities.

2.1.2. Potentially project affected Building Assets

Buildings that are affected by the project in three locations of the existing road, new road, and quarry as many as 288 units. There are 30 buildings in the existing road which could be removed (Table 2-10) from lands owned by PLN.

a. Size of the project affected Building

The total buildings that are affected by the project are 288 units, with a total area of about 18,657 m², thus the average area is around 65.5 m² per unit. Building area is classified into eight classes, ranging from the smallest size, which is a building with floor-area of 21 m² to class of building with a floor-area of more than 70 m². Based on the broad classification of the building (Table 2-7), most of the buildings in the study area, (111 units) have a floor-area of greater than 70m², and 77 units are lesser than 21 m².

Table 2-7. Number and size of project affected building based on size of the buildings

No	Project	Village	Total Size (m ²)	Number of potentially project affected building (unit)							Total (unit)
				<21m ²	21-34m ²	35-44m ²	45-54m ²	55-64m ²	65-70m ²	>70m ²	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Quarry	Karang Sari	3,623	19	11	5	9	3	3	14	64
		Sarinagen	254	5	0	0	0	0	0	1	6
		Sub Total	3,877	24	11	5	9	3	3	15	70
2	Existing Road	Cijambu	180.5	1		3		1			5
		Karang Sari	252		1					2	3
		Sarinagen	1430.5	4	1	4	3	2		8	22
Sub total			1,863	5	2	7	3	3	0	10	30
3	New Road	Sukaresmi	6,132	25	5	9	9	7	5	42	102
		Sir nagalih	2,539	5	1			3	1	18	28
		Cijambu	2,543	6	3	1	3		1	12	28
		Cibitung	1,704	13	1		1		1	14	30
Sub total			12,917	49	10	10	13	10	8	86	188
Total			18,657	77	23	22	25	16	11	111	288

Source: Data of Census, 2010.

Note: the buildings on Table 2-7 excludes graves

b. Building Use

The use of the building is grouped into six forms of use, consisting of: (1) residential or house building, (2) home and place of business, (3) place of business, (4) home industry (processing of agricultural products), (5) social and public facilities, and (6) others. There are 288 buildings which will be affected by the project, mostly (64.9%) are house building, and 43 units (15%) of the total are used for commercial uses such as small shop (Table 2-8 column 5 and 6).

Table 2-8. Building used in the project affected area

No	Project Location	Village	Building Use						Total
			House	House & Business Place	Business Place ¹	Home industry ²	Public Facilities owned by PAP	Other s ³	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Quarry	Karangsari	40	0	11	4	1	8	64
		Sarinagen	0	0	0	0	0	6	6
Subtotal			40	0	11	4	1	14	70
2	Existing Road	Cijambu	0	1	4	0	0	0	5
		Karangsari	1	1	0	0	0	0	2
		Sarinagen	5	11	5	0	1	1	23
Sub total			6	13	9	0	1	1	30
3	New Road	Sukaresmi	79	0	0	0	2	21	102
		Sirnalih	23	1	2	0	1	1	28
		Cijambu	14	0	7	0	0	7	28
		Cibitung	25	0	0	0	2	3	30
Sub total			141	1	9	0	5	32	188
Total		unit	187	14	29	4	7	47	288
		(%)	64.9%	4.9%	10.1%	1.4%	2.4%	16.3%	100.0%

Note:¹ Business Places (small shops).

²Agricultural Production Process, storehouse, garage.

³empty building with majority as residential area

c. Status of Building and Land Ownership

Buildings around the location of existing road and quarry are mostly on the land owned by PLN, while buildings that are located in the location of new road are entirely owned by residents.

In the existing road and quarry, most of the building were built on other land dwellers/owners. Mostly were built on land owned by the PLN (Table 2-9). In the new road there are 7 buildings which affected by the project is built on the Perum Perhutani's land.

Table 2-9. Land status which is used by the PAPs

No	Project	Village	Number of Building	Building constructed on PAP land	Building constructed on non PAP land
			(unit)	(unit)	(unit)
(1)	(2)	(3)	(4)	(5)	(6)
1	Quarry	Karangsari	64	0	64
		Sarinagen	6	0	6
Sub total			70	0	70
2	Existing Road	Cijambu	5	0	5
		Karang Sari	2	0	2
		Sarinagen	23	0	23
Sub total			30	0	30
3	New Road	Sukaresmi	102	95	7
		Sirnagalih	28	28	0
		Cijambu	28	28	0
		Cibitung	30	30	0
Sub total			188	181	7
Total			288	181	107

Source : Data of Census, 2010

d. Buildings that need to be compensated

Most of the buildings that are affected by the project will be entirely displaced, particularly buildings located in the existing road and quarry built on land owned by PLN. However, in the project location of new road, some buildings are only partially affected by the project, so that the remaining buildings may still be inhabited. There is also the case where the buildings will be affected by the project, but the buildings are

no longer suitable for housing, so the entire building must be displaced, and the occupants must also be relocated.

Total buildings to be compensated are 288 units. Mostly (176 buildings) are residential houses or houses that currently used for both residence and business. Buildings which are used only for business are 26 units, and those used for small agro industry are 4 units (Table 2-10).

In particular, out of 188 permanent buildings in new road, 159 buildings should be removed and the rest- in case the project only affect on a little part of permanent building meanwhile the large part of the building still could be used- may not be removed. There are 29 permanent building facing the choice of partial or total removal. These decision will depend on the results of further negotiation between the building owners and the Committee of Land Acquisition

Table 2-10. Number of building which to be removed

No.	Project	Village	Unit	House	House + business building	Business place	Small Industry	Public Facilities	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Quarry	Karangsari	(Unit)	40	0	11	4	1	8	64
		Sarinagen	(Unit)	0	0	0	0	0	6	6
		Sub Total	(Unit)	40	0	11	4	1	14	70
2	Existing Road	Cijambu	(Unit)	0	1	4	0	0	0	5
		Karangsari	(Unit)	1	1	0	0	0	0	2
		Sarinagen	(Unit)	5	11	5	0	1	1	23
		Sub total	(Unit)	6	13	9	0	1	1	30
3	New Road	Sukaresmi	(Unit)	74	0	0	0	2	21	97
		Sirnalih	(Unit)	10	1	1	0	1	1	14
		Cijambu	(Unit)	7	0	5	0	0	6	18
		Cibitung	(Unit)	25	0	0	0	2	3	30
		Sub total	(Unit)	116	1	6	0	5	31	159
Total			(Unit)	162	14	26	4	7	46	259

Source : Data of Census 2010

Note: ¹Business place (small shops, retail place, shops).

²building empty with majority as residential house

e. Building Condition

The condition of the buildings that are affected by the project is divided into three classes, based on the condition of the building materials used. Of the total 259 buildings that are affected by the project, most or as many as 164 units (63.3%) is a building as on stilts with a wooden base. The building of semi-permanent and permanent (wall construction) are recorded 66 and 29 units, respectively (Table 2-11).

On the location of the existing road, the number of permanent and semi-permanent houses were larger compared to that of other project locations. As many as 22 units were located in the existing road. Most of these permanent building were used for residing, and some of them as both for residing and business place. The high number of the building permanent houses found in the existing road that may be because of better economic livelihood of the residents, or if the building houses are a form investment, they have the expectations will provide a high return to invested capital.

Table 2-11. Asset of building condition affected by the project

No.	Project	Village	Building Condition (Unit)			Total (Unit)
			Permanent	Semi Permanent	Wood/ on stilt	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Quarry	Karangsari	11	14	39	64
		Sarinagen	0	1	5	6
Sub Total			11	15	44	70
2	Existing Road	Cijambu	0	1	4	5
		Karangsari	1	0	1	2
		Sarinagen	10	3	10	23
Sub total			11	4	15	30
3	New Road	Sukaresmi	2	19	76	97
		Sirnagalih	1	9	4	14
		Cijambu	3	4	11	18
		Cibitung	1	15	14	30
Sub Total			7	47	105	159
Total		(unit)	29	66	164	259
		(%)	11.2%	25.5%	63.3%	100.0%

Source : Data of census 2010

f. Percentage of Total Building Area and Land to be acquired

Of the total building area of about 18,696 m² owned by the residents, approximately 78.8 % to be acquired by the project. The buildings that need to be compensated are all or parts of the buildings that are affected by the project so that they cannot be used as a house any more (see Table 2-12). According to the Kepmenpraswil no. 403/KPTS/M2002, year 2002, a minimum area that is considered to be a basic healthy house is about 21 m², built on a minimum of land area of 72 m². Using this criteria, the total buildings that should be compensated in the new road falls under the category of basic healthy house.

Table 2-12. Percentage of total building size to be acquired

No	Project Location	Village	Total Size (m ²)	Acquired Building Size (m ²)				
				Perma nent (m ²)	Semi Perma nent (m ²)	Wood/on stilt (m ²)	Total (m ²)	(Percenta ge)*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Karangsari	3,624	623	793	2,208	3,624	100.0%
		Sarinagen	254	0	42	212	254	100.0%
	Sub Total		3,878	623	835	2,420	3,878	100.0%
2	Existing Road	Cijambu	271	0	90	181	271	100.0%
		Karangsari	228	144	0	84	228	100.0%
		Sarinagen	1,366	806	173	387	1,366	100.0%
Sub total		1,865	950	263	652	1,865	100.0%	
3	New Road	Sukaesmi	6,132	251	1,503	3,885	5,639	92.0%
		Sirnagalih	2,539	11	625	51	687	27.0%
		Cijambu	1,704	333	322	327	982	57.6%
		Cibitung	2,588	85	1,253	366	1,704	65.8%
Sub total		12,963	680	3,703	4,229	9,012	69.5%	
Total			18,706	2,253	4,791	7,301	14,755	78.8%

Source : Data of Census 2010

Note: * Percentage of land to be acquired (9) obtained based on ratio column (8) and (4).

All buildings located at the existing road and quarry should be displaced due to safety concerns, and on the other hand the PAPs constructed their building on PLN's land. The total building size should be displaced from the both quarry and existing road covering as much as 5,743 m².

2.2. Residents and Project Affected Assets

Based on the ownership of land that are affected by the project, residents can generally be divided into two major groups, namely PAP who own land and who do not have owned land. Those who do not have owned land are almost entirely residing/cultivating on land owned by someone else (in the existing road and quarry are owned by PLN).

2.2.1. PAP distribution and Project Affected Land

As mentioned earlier (Table 2-1), the Census recorded 859 household affected by the project.

Based on spatial data, PAP who have owned land and do not have owned land vary between the three project areas. Owner resided along the new access road, consist of village of Sukaresmi and Cibitung are within Sub-District of Rongga, and villages of Sirnagalih and Cijambu are within Sub-District of Cipongkor.

Table 2.13. Number of PAP who use land

No	Project Location	Village	People who use land					
			His/her own land properties		Other properties		No response	
			HH	Plot	HH	Plot	HH	Plot
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Karangsari	0	0	386	0	0	0
		Sarinagen	0	0	19	0	0	0
	Sub Total		0	0	405	0	0	0
2	Existing Road	Karangsari	0	0	5	0	0	0
		Sarinagen	0	0	2	0	0	0
		Cijambu	0	0	22	0	0	0
	Sub total		0	0	29	0	0	0
3	New Road	Sukaresmi	91	132	14	21	0	0
		Sirnagalih	62	82	0	0	4	4
		Cijambu	79	103	1	2	1	1
		Cibitung	160	212	2	2	11	12
	Sub total		392	529	17	25	16	17
	Total		392	529	451	25	16	17

The affected resident who use land assets owned by other parties, including most of the land owned by PLN, were 451 HHs. Mostly are in the quarry site and existing road. There are 16 HHs did not give comment the properties of land he or she used.

2.2.2. PAP who own Houses/Buildings

Those who are occupying buildings/houses on lands affected by the project plan will be moved out and must get compensation for moving out. But the move out plan depends on consideration of their respective cases of the PAPs. Those who have to be moved out can be grouped in two main categories:

1. PAPs who own their own building assets which is entirely affected by the project.
2. PAP who own building assets that partially affected by the project, but the rest of the building is no longer suitable for living. In this case, the entire building will be displaced.

As noted earlier (Table 2-8) that in the project location has been recorded 288 units of buildings that are affected by the project (the building includes residences, small businesses, agro industries, etc.). Mostly as residential houses, there are 40 buildings are concurrently used for both residential house and business, these are also should be displaced.

All affected building houses could be classified into three building categories as described before, these classification relate to asset valuation and physical impact caused by removing the building partly. An affected stilt building has a risk building instability in construction, therefore replacement cost for these kind of building should be counted for whole building size.

Table 2-14. Classification of the project affected Residential houses/buildings

No	Project Location	Village	Permanent		Semi Permanent		Slit/Wood	Total (unit)
			Entirely affected	Partly affected	Entirely affected	Partly affected		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Quarry	Karangsari	5	0	10	7	18	40
		Sarinagen	0	0	0	0	0	0
Sub Total			5	0	10	7	18	40
2	Existing Road	Cijambu	0	0	1	0	0	1
		Karangsari	1	0	0	0	1	2
		Sarinagen	9	0	2	0	5	16
Sub Total			10	0	3	0	6	19
3	New Road	Sukaresmi	1	5	4	15	54	79
		Sirnalih	0	14	0	9	1	24
		Cijambu	1	9	1	3	0	14
		Cibitung	1	0	7	7	10	25
Sub Total			3	28	12	34	65	142
Total			18	28	25	41	89	201

Source: Data of Census 2010

Note: Differs from table 2-10 & 2-11 as those cover all building but Table 2-14 only includes house.

Based on the criteria of construction and condition of the building affected by the project, there are about 201 residential units (Table 2-14), of which 168 building units will be potentially moved out (Table 2-15).

Table 2-15. Total of Residential house/building asset that to be relocated

No	Project Location	Village	Classification of building			Total (unit)
			Permanent*)	Semi-Permanent**)	Wood/on slit	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Quarry	Karangsari	5	10	18	33
		Sarinagen	0	0	0	0
Sub Total			5	10	18	33
2	Existing Road	Cijambu	0	1	0	1
		Karangsari	1	0	1	2
		Sarinagen	9	2	5	16
Sub total			10	3	6	19
3	New Road	Sukaresmi	1	19	54	74
		Sirnagalih	1	8	1	10
		Cijambu	3	4	0	7
		Cibitung	1	14	10	25
Sub Total			6	45	65	116
Total			21	58	89	168

Source: Data of Census 2010;

*) Brick house

***) Partly brick house

Out of the 168 units residential building to be displaced, there are about 33 units located at the quarry site that have to be displaced. In the existing road, the buildings that need to be displaced are 19 units, and at the new road there are 116 house building units should be displaced.

2.3. Plant Asset

2.3.1. Number and Type of Plants

Plants included as assets to be compensated are perennial plants species, but the annual plants are not considered as asset because most annual plants can be harvested before the compensation is carried out. To avoid the PAPs' lost of annual crops, before the compensation payment, the PLN will announce the PAPs when the land will be used by the project.

To ease the assessment, the plants assets are divided into two groups namely:

- (1) **Non timber plants:** it defined as various plants that are normally harvested as plant parts of flower, fruit, leave, sap and so on. For example, mango (Mangifera indica), clove (Syzigium aromaticum), rubber (*Hevea braziliensis*), and sugar palm (Arenga pinnata).
- (2) **Timber plants:** it defined as various wood plants that are mainly harvested as wood, such as bamboo (Gigantochloa spp, Bambusa spp,) hardwood (Tectona grandis), mahogany (Switenia mahagony), and albizia (*Paraserianthes falcataria*).

Total plants affected by the project in the access road were 190,740 trees consisting of 84,588 non timber plants and 106,152 timber groups (Table 2-16). The number of each type of plant to be seen on the existing road, both in the village of Cijambu and Sarinagen. The dominance groups of timber plants in these locations are associated with the demand from local community for plants that can be turned into cash. In this time the origin of any timber large enough size (usually over 30 cm diameters) and a straight trunk will easily sold. In addition, most of timber plants do not require special maintenance and can be used as savings. Local people can easily sell trees or fruit trees as they want it.

In contrast to the existing road and new road, in the quarry, non timber plants are recorded more than timber. This is rather unusual, because as it is known that the quarry belongs to PLN, peasants should plant only annual crops, as planting annual crops are easy to sell for cash.

Table 2-16. Number of plants that are affected by project based on location and plant function group

No.	Project Location	Village	Plant Function Group		Number (trees)
			Non timber plants	Timber plants	
1	2	3	4	5	6
1	Quarry	Karangsari	51,480	69,791	121,271
2	Existing Road	Cijambu	1,158	3,310	4,468
		Sarinagen	13,430	6,332	19,762
		Sub Total	14,588	9,642	24,230
3	New Road	Cijambu	3,836	4,367	8,203
		Sirnagalih	1,462	3,714	5,176
		Cibitung	2,748	10,894	13,642
		Sukaresmi	10,473	7,744	18,217
		Sub Total	18,519	26,719	45,238
Total			84,587	106,152	190,739

Source: Tabulation of Primary Data 2009

The number of perennial plants are relatively numerous in each village in the project can indicate that the annual plants have significance in the life of local communities, particularly in terms of their economic support. The dominant plant species from both groups of plants: fruit and timber can be seen in Table 2-17.

Group of non timber plants (other than those listed in Table 2-17) are located in the project affected including avocados, *durian*, *dukuh*, citrus, *kemiri*, papaya, *pisitan*, pineapple and others. In general, non timber plants do not provide additional income, but are usually only to meet their own consumption needs and to give to neighbors. For example, mango, cashew, *pisitan*, breadfruit, *kaweni*, due to current fruit production is not much. Only several plant species of non timber plants such as sugar palm, *petai* and *jengkol* provide additional family income.

The groups of timber that dominate the land in the project area are albizia and bamboo. The bamboo plants in the project area consist of several types, such as of bamboo *tali*, bamboo *aur*, bamboo *gombong* and others. Types of bamboo that have economic value are bamboo *tali* and bamboo *gombong*. These types of timber plants are a source of significant for providing income of the community.

Table 2-17. Dominant type of plants of the affected by the project based on location

No.	Project Location	Village	Plant Species	
			non timber plants	timber plants
1	2	3	4	5
1	Quarry	Karang Sari	Banana (<i>Musa paradisiaca</i>), mango (<i>Mangifera indica</i>), <i>petai</i> (<i>Parkia speciosa</i>), <i>melinjo</i> (<i>Gnetum gnemon</i>), jackfruit (<i>Artocarpus heterophylla</i>), coconut (<i>Cocos nucifera</i>)	Bamboo (<i>Bambusa spp</i>), <i>albizia</i> (<i>Paraserianthes falcataria</i>), mahogany (<i>Swietenia mahagoni</i>), <i>Tisuk</i> (<i>Hibiscus macrophyllus</i>), <i>maesopsis</i> (<i>Maesopsis eminii</i>)
2	Existing Road	Cijambu and Sarinagen	Banana (<i>Musa paradisiaca</i>), Coffee (<i>Coffea sp</i>), mango (<i>Mangifera indica</i>), Clove (<i>Syzigium aromaticum</i>), Sugar palm (<i>Arenga pinnata</i>), Jack-fruit (<i>Artocarpus heterophylla</i>)	Bamboo (<i>Bambusa spp</i>), <i>albizia</i> (<i>Paraserianthes falcataria</i>), <i>suren</i> (<i>Toona sureni</i>), <i>kihaji</i> , <i>kaliandra</i> (<i>Caliandra sp</i>)
3	New Road	Cijambu Sirnagalih Cibitung Sukaresmi	Coffee (<i>Coffea sp</i>), Banana (<i>Musa paradisiaca</i>), Sugar palm (<i>Arenga pinnata</i>), <i>jengkol</i> (<i>Pithecelobium jeringa</i>), <i>Zalacca palm</i> (<i>Salacca edulis</i>), <i>Guava</i> (<i>Psidium guajava</i>)	Bamboo (<i>Bambusa spp</i>), <i>albizia</i> (<i>Paraserianthes falcataria</i>), <i>maesopsis</i> (<i>Maesopsis eminii</i>), mahogany (<i>Swietenia mahagoni</i>), <i>tisuk</i> (<i>Hibiscus macrophyllus</i>)

Source : Primary Data 2009

Based on the types of perennial plants that are affected by the project, then the compensation of the plants will be based on the following considerations:

Compensation value of non timber plants such as fruit plants is different from timber plants, because fruit plants are generally maintained more intensive and require higher costs. The fruit plants, for example *petai* can be harvested each year, coconut can be harvested each month, sugar palm can be tapped repeatedly, in one period of each tap can produce in 2 to 3 weeks. Timber plants are not intensively maintained, often poorly maintained, so that a small maintenance fee does not even exist, and the production can produce only once. For example, bamboo plants are usually not maintained, if there is only a cleaning seedling/bamboo shoots. Similarly *albizia* plants usually only costs for the purchase of seeds, planting, and then usually spontaneously grown.

The value of compensation should be distinguished between the types of plants viewed from the economic value of these crops. The compensation of *petai* should be higher than the compensation value of guava, because *petai* has more economic value than guava. Value of compensation of albizia should be more than *tisuk* although these plants are relatively the same of trunk diameter.

2.3.2. Plants condition

Regarding such variations plants growing on the site, whether viewed from the type of growth, growth rate and life cycle, the condition of the plant were divided into 3 groups, namely large, medium and small. This is in accordance with the grouping of plant condition from West Bandung regency government. However, to give the same picture of the plants, then grouping is limited to matters as follows:

1. Non timber plants
 - Small: the non timber plants that are not been harvested, from planting until the end of the vegetative growth.
 - Medium: the non timber plants that bear fruit have been harvested only once to 3 times in a year.
 - Large: the non timber plants that have been harvested for more than 3 times in a year.
2. Timber plants
 - Small: timber that has diameter less than 20 cm (diameter at a height of 1 m)
 - Medium: timber with diameter 21 to 30 cm (diameter at a height of 1 m)
 - Large: timber with diameter of more than 30 cm (diameter at a height of 1 m).

2.3.2.1. Non timber Plants Group

The number of non-timber plant groups presented on Table 2-18. Than 81,366 fruit trees are potentially affected by the project, 20,626 trees including crop categories / large size, 20,177 middle category trees, and 40,563 small category trees. The number of small plants more than medium-sized and large plants

Non-timber plants on large and medium-sized, there were 40,803 trees. This plant is one valuable source of income for the community.

In the case of non-timber crop compensation of large and medium-sized (40,803 trees) have received attention due to the possibility of these plants are one source of income of the community.

Table 2-18. Number of non timber plants affected by the project

No.	Project Location	Village	Trees categories			Total Number (Trees)
			Big	Medium	Small	
1	2	3	4	5	6	7
1	Quarry	Karangsari	12,704	13,435	2,5341	51,480
2	Existing Road	Cijambu	773	305	81	1,159
		Sarinagen	1,045	674	11,711	13,430
	Sub Total		1,818	979	11,792	14,589
3	New Road	Cijambu	405	823	372	1,600
		Sirnalalih	582	305	472	1,359
		Cibitung	1,141	214	475	1,830
		Sukaresmi	3,976	4,421	2,111	10,508
3	Sub Total		6,104	5,763	3,430	15,297
Total			20,626	20,177	40,563	81,366

Source : Tabulation of the Primary Data 2010

2.3.2.2. Timber Trees

Timber trees are considered as one of the sources of income for communities in the project site. This is because the price of wood is considerably high throughout the year and is easy to sell. The number of timber trees and their location can be seen in Table 2-19.

In the project affected area, the total of timber trees are 106,152 trees or 56 % of the total trees (timber + non timber trees) recorded during census. For compensation considerations, timber trees in medium and large size (72,334 trees) will refer to the price of timber per m³, the timber prices and timber species. Meanwhile for the reference of compensation for timber trees with small size will refer to volume in m³ and firewood prices as market prices.

Table 2-19. Number of timber plant are affected by the project based on location

No.	Project Location	Village	Trees category			Total Number (Trees)
			Big	Medium	Small	
1	2	3	4	5	6	7
1	Quarry	Karangsari	19,799	24,757	25,235	69,791
2	Existing Road	Cijambu	999	1,498	813	3,310
		Sarinagen	1,026	1,291	4,015	6,332
Sub Total			2,025	2,789	4,828	9,642
3	New Road	Cijambu	2,952	447	968	4,367
		Sirnagalih	2,668	486	560	3,714
		Cibitung	8,349	1,056	1,489	10,894
		Sukaesmi	6,052	954	738	7,744
Sub Total			20,021	2,943	3,755	26,719
Total			41,845	30,489	33,818	106,152

Source: Tabulation of Primary Data, 2010

3

Socioeconomic Condition

3.1. Number and Composition of Population Based on Age

The composition of family heads in all three project areas (quarry, existing and new road) according to the five-year age group are presented in Table 3-1. Number of affected household was 859 HHs, those consist of 405 HHs in Quarry, 29 HHs in Existing road and of 425 HHs in New road. The age composition of head of household in the access road can be seen in table 3-1. The table shows that this proportion of head of households is mostly between 35 to 64 years old. This range of age is considered as productive age, which could be qualified for project jobs (qualification as required by contractors) for supporting their economic families. Therefore, with the proposed project, effort to be made to avoid the loss of these jobs, by generating jobs associated with the project.

As for the head of households with age more than 70 years old (108HHs) generally, they are not economically active people who need to be given special attention.

Table 3-1. The head of household (HH) based on age

Age	Quarry		Existing road		New road		Total	
	Number of HHs	%	Number of HHs	%	Number of HHs	%	Number of HHs	%
≤ 24	8	1.98	0	0.00	6	1.41	14	1.63
25 - 29	24	5.93	3	10.34	13	3.06	40	4.66
30 - 34	29	7.16	3	10.34	21	4.94	53	6.17
35 - 39	42	10.37	9	31.03	47	11.06	98	11.41
40 - 44	45	11.11	5	17.24	45	10.59	95	11.06
45 - 49	40	9.88	3	10.34	47	11.06	90	10.48
50 - 54	63	15.56	2	6.90	62	14.59	127	14.78
55 - 59	31	7.65	2	6.90	40	9.41	73	8.50
60 - 64	44	10.86		0.00	56	13.18	100	11.64
65 - 69	24	5.93	1	3.45	36	8.47	61	7.10
≥ 70	55	13.58	1	3.45	52	12.24	108	12.57
Total Number	405	100.00	29	100.00	425	100.00	859	100.00

Source: Census data, 2010

The structure of PAPs based on age for each location can be seen in Table 3-2. According to this demographic figure, the majority of PAPs considered as productive (age 15-64 years old) is about 70.15% of the total PAPs, where 854 people (23.6%) with less than 15 years old. The number of PAPs with more than 70 years of age is 142 (3.93%) people.

Table 3-2. Age composition of total population of PAP

Age	Project area									Total Number
	Quarry			Existing Road			New Road			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
0-4	44	39	83	6	10	16	56	39	95	194
5-9	56	76	132	13	9	22	75	86	161	315
10-14	69	57	126	14	7	21	98	100	198	345
15-19	70	65	135	10	5	15	125	111	236	386
20-24	51	49	100	1	9	10	113	82	195	305
25-29	54	74	128	7	8	15	82	94	176	319
30-34	47	60	107	7	7	14	70	31	101	222
35-39	49	63	112	11	9	20	75	91	166	298
40-44	51	58	109	7	2	9	59	109	168	286
45-49	41	52	93	4	2	6	50	74	124	223
50-54	58	47	105	3	2	5	59	45	104	214
55-59	32	19	51	4	2	6	37	31	68	125
60-64	35	30	65	1	1	2	50	37	87	154
65-69	22	9	31	1	0	1	33	16	49	81
70-74	50	17	67	1	0	1	52	22	74	142
Total	729	715	1,444	90	73	163	1,034	968	2,002	3,609

Source: Census data 2010. Including nuclear family members residing in not the same house

3.2. Marital Status

Most of the PAPs (87.19%) are identified as married people, and only a small portion (0.81%) of un-married people (see Table 3-3). Based on census, it was known that from 7 head of family who are not married and their parents have passed away, so they are considered as heads of household

Resettlement policy should consider this marital status. For example, the status of widows who have poor socio-economic condition and very much depending economically on others, these people should be given greater attention. The number of widows with role as head of household is considered to be moderately high (see Table 3-3).

Table 3-3. Marital status of the PAPs

Marital Status	Project Area			Total	
	Quarry	Existing Road	New Road	Head of House Hold	Total (%)
Not Married	4	0	3	7	0.81
Married	344	27	378	749	87.19
Widower	23	0	17	40	4.66
Widow	34	2	27	63	7.33
Total	405	29	425	859	100.00

Source : Census Data 2010; *) Census data based on 20 m road width

3.3. Residency duration

Information on residency duration of the head of family has a very important role in the resettlement planning. Sociologically, rural population has a strong emotional bond with the length of stay in a location, the longer people live in one location, psychologically, the more difficult to move to another area.

Information on the residency duration of the head of PAP is presented in Table 3-4. Based on the table, it can be seen that the residency duration of family in all three project locations had more than 24 years 94.99 % (816 PAPs) and only 0.46 % (4 PAPs) of the duration of stay between 1 and 5 years. The data indicate that the emotional bond among members of the community is strong.

Table 3-4. Head of household based on residency duration

Project Location	Residency duration (years)					Total
	1 - 5	6 - 11	12 - 17	18 - 23	>= 24	
Quarry	2	5	6	12	380	405
Existing Road	2	3	3	1	20	29
New Road	0	2	1	6	416	425
Total	4	10	10	19	816	859

Source : Census Data 2010.

3.4. Head of household and family who join with them

At the three project locations have been noted 859 households, with the following distribution: quarry site 405 households, the existing road 29 households, and the new road 425 households. These 859 households (nuclear family) consist of 909 families. This indicates that one household composed by more than one head of family. The census also shows that the numbers of host families in the project site who have another joining family are 38 households. In this case, the number of joining family is 50 families.

Table 3-5. Number of PAPs in the project area

Project Area	Household (Nuclear Family)		Joining Family*)		Number of PAP (Family)
	Number	%	Number	%	
Quarry	405	47.15	10	20.00	415
Existing Road	29	3.38	11	22.00	40
New Road	425	49.48	29	58.00	454
Total	859	100.00	50	100.00	909

Source: census, 2010; *) Census data based on 20 m road width

* Joining family is the resident who stay with host families affected by the project

Table 3-6 shows that the total number of family, who join with another family, is dominant in the new road. Families who join with other household, are varies, mostly dominated by one join family. There is only one number of families found to have four join families. Psychologically, for rural communities, living together in one house can provide some benefits, because it can share (the difficulties and happiness) among

family members, most joining families recorded still have family connections with the nuclear family as relatives.

If the nuclear family (family who hosted another family) must be relocated, this impact will also be felt by families who are living with the nuclear families, because they have no other place to go. These joining families would probably lose their access to their work (cultivated land / business).

Table 3-6. Number of household that hosted other family

Area	Household with number of families joining				Total of Household that hosted
	1 HHs	2 HHs	3 HHs	4 HHs	
Quarry	9	1	0	0	10
Existing Road	7	2	0	0	9
New Road	13	4	1	1	19
Total	29	7	1	1	38

Source: Census Data 2010

3.5. Education

Community participation in education have impacted on the progress of a society, the higher average education, the public will move forward, because education is a basic prerequisite that has an influence on various dimensions of life. At the project site, the average educational participation is relatively low, and even some heads of household have never obtained formal education (not school). The level of education of heads of family on the project site can be seen in Table 3-7.

Education level of heads of family is important identified, related to the socialization process of the project and various efforts to improve the lives of PAP. Education level of the majority heads of family (83.59 %) had attended elementary school (as much as 69.97 % able to complete their elementary education), while 13.62 % did not complete the elementary school. In addition, 3.38 % heads of family who has never attended school can be categorized as illiterate, they will have difficulty in reading letters or documents relating to the implementation process of compensation between them and the PLN. For these people, there should be accompanied by an inspector when the compensation process is implemented.

Table 3-7. Education of Head of Family

Education of head household (hh)	Quarry		Existing Road		New Road		Total Number	
	(HH)	%	(HH)	%	(HH)	%	(HH)	(%)
Never attended School	15	3.70	0	0.00	14	3.29	29	3.38
Not Completed Elementary School	42	10.37	0	0.00	75	17.65	117	13.62
Completed Elementary School	295	72.84	17	58.62	289	68.00	601	69.97
Not Completed Primary High School	4	0.99	0	0.00	0	0.00	4	0.47
Completed Primary High School	29	7.16	3	10.34	23	5.41	55	6.40
Not Completed Senior High School	2	0.49	0	0.00	0	0.00	2	0.23
Completed High School	11	2.72	6	20.69	20	4.71	37	4.31

Education of head household (hh)	Quarry		Existing Road		New Road		Total Number	
	(HH)	%	(HH)	%	(HH)	%	(HH)	(%)
Diploma 1-3	5	1.23	1	3.45	0	0.00	6	0.70
The First Degree/S1	2	0.49	2	6.90	4	0.94	8	0.93
Total Number	405	100.00	29	100.00	425	100.00	859	100.00

Source : Census Data 2010

3.6. Occupation

Based on census data undertaken in the three project locations in 2010, number of 859 PAPs it was known that 792 heads of family (92.08 %) are self-employed, the remaining 67 heads of family (7.92%) do not have a job. Table 3-8 shows the number of head of family who self-employed, mostly in the agricultural sector (68.02%), followed by building construction sector 12.01% and trade sector 11.50%. The industrial sector absorbs only 0.38% of total heads of family because the PAPs are living in the rural area far from industrial sites. The fact that most PAPs are depending on the agricultural activities, so most PAPs will be affected by the proposed project just because the project displaced agricultural areas.

Head of family, who work in the trading sector, mostly reside in the village of Sarinagen, generally they have both residential / home and a place of business (shop) that stands in the land owned by PLN. In accordance with the project plan, this land is used for the project, and then the head of family who had been dependent of the trading business will lose a place of business, will further impact on the loss of their income sources.

Table 3-8. Households that have job based on job sector

Occupation Sector	Quarry		Existing Road		New Road		Total	
	Hhs	%	Hhs	%	HHs	%	HHs	%
Agriculture	261	69.41	4	14.29	273	70.54	538	68.02
Industry	2	0.53	0	-	1	0.26	3	0.38
Building/Construction	61	16.22	2	7.14	32	8.27	95	12.01
Trade	32	8.51	15	50.00	45	11.63	91	11.50
Transportation	4	1.06	2	7.14	9	2.33	15	1.90
Government official	8	2.13	4	14.29	9	2.33	21	2.65
Services	8	2.13	2	7.14	9	2.33	19	2.40
Others	0	-	0	-	9	2.33	9	1.14
Total	376	100	29	100	387	100.00	792	100.00

Source: Census Data 2010

Based on the field identification, there were several dominant types of work performed by the head of family in the project site (Table 3-9). Head of family engaged as farmer of owning land recorded 160 households ,mostly they reside in the new road. For most people who reside in the Quarry site (376 heads of households) 219 (58%) were recorded as sharecroppers, in land owned by PLN . Head of family who work as a labour farmer in access road and quarry are about 59 persons, half of them are living in the quarry. Construction jobs are important for the PAPs other than agriculture ,

involving as many as 54 heads of family in the quarry site. These construction workers, may be involved in project activity as construction workers.

Table 3-9. Various jobs held by head of household

Kind of Job (N= 792)	Project Location			Total Number
	Quarry	Existing Road	New Road	
Construction Labour	54	2	31	87
Motor bicycle for Passenger service	4	2	5	11
Entrepreneur	19	8	14	43
Overseas Worker	3	2	2	7
Village Official	6	0	4	10
Heavy Tool Operator	2	0	2	2
Religion Teacher	3	0	6	9
Trader	13	8	28	47
Animal Husbandry	4	0	5	9
Teacher	1	1	1	3
Tailor	0	0	4	4
Quarry labour	5	0	1	6
Factory worker	2	0	1	3
Credit Matter	1	0	0	1
Civil servant	2	3	4	9
Driver	0	0	4	4
Uncertain Job	0	0	3	3
Fortune Teller	0	0	2	2
Furniture Business	0	0	1	1
School Security	0	0	1	1
Farmer Land Tenure	219	3	89	311
Labour Farmer	30	0	29	59
Farmer own land	8	1	150	159
Total Number	376	29	387	792

Source: Census Data 2010

The impact of the project on families is differentiated by the type of the current family's job. For the cultivator peasants in the quarry site, the proposed project will displace their cultivated land, as main source of their income. Similarly, the farmers who owned land in the new road, the project impact would be significant, for those affected farm losing a large portion are of their land and is no longer feasible to conduct business activities.

In the existing road, the PAPs who involve in trading will be affected by the project. Some of the traders in the existing road which occupies the PLN land may be acquired. For those who still have land other than land owned by PLN, they can still continue their business activities, by shifting the business location. But those who do not have their own land will face with difficulties to continue to run their business.

Demography age can be differentiated into two categories i.e. productive age (15-64 year) and non-productive age (under 15 year and above 65 year). Based on age categories, among the 67 jobless household heads, there were 47 people belong to productive age categories and 20 people are classified as unproductive age categories (Table 3-10).

Table 3-10. Number of Unemployment Head Household Based On Age

Characteristic	Project Location			Total Number	
	Quarry	Existing Road	New Road	Total	%
Productive Age	21	0	26	47	70.14
Non Productive Age	8	0	12	20	29.85
Total Number	29	0	38	67	100.00

Source : Census Data 2010

Table 3-11 shows the married-unemployed person comprised the large part, while the widow and widower are relatively few.

Some of the heads of family who do not have job are those who are not in productive age, marital status based on widow as many as 20 % (Table 3-11). This group of PAPs who classified as elderly and do not have permanent job are considered potentially vulnerable people.

Table 3-11. Characteristics of elderly PAP who jobless based on marital status

Marital Status	Project Location			Total Number	
	Quarry	Existing Road	New Road	Total	%
Married	5	0	9	14	70.00
Widower	1	0	1	2	10.00
Widow	2	0	2	4	20.00
Total Number	8	0	12	20	100.00

Source : Census data 2010

Based on the field research, it has been identified the head of elderly families who do not have a job and get married, several of them are retirees. Although they are not working but still has a source of income (retired money payment), it means economically they are still able to support himself and his family members. These retirees are not considered as vulnerable if they still have adequate source of income.

3.7. Income

One of the indicators to measure economic condition of community is income level. For village condition, a measurement is usually used is Sayogyo parameter that is measured by equivalent to price of rice. Based on Sayogyo parameter poverty may be defined as if the income per capita less than worth the price of hulled rice 480 kg hulled rice/capita/year. Therefore, based on this parameter, with assumption that price of hulled rice at the time of conducting survey is Rp 4,000/kg, so the poverty line has been considered as Rp 160,000/capita/month.

Table 3-12 shows that most of the project affected people (PAPs), that is 450 HHs, has income higher than Rp 160,000/capita/month and the rest (409 HHs) has income equal to or less than Rp 160,000/capita /month. Based on Table 3-10, it can be seen that 47.61%

out of the 859 HHs in the Access road has been categorized as below the poverty line. Capacity building will be prioritized for the PAP's below the poverty line

Table 3-12. Proportion of PAP based on poverty line

Location	PAP Residing		Income ≤Rp160.000/ Cap/month		Income > Rp160.000/ Cap/month		Total Number	
	Sub-District	Village	Number	%	Number	%	Number	%
Quarry	Cipongkor	Karangsari	177	20.61	209	24.33	386	44.94
		Sarinagen	8	0.93	11	1.28	19	2.21
		Sub. Total	185	21.54	220	25.61	405	47.15
Existing Road	Cipongkor	Karangsari	1	0.12	1	0.12	2	0.23
		Sarinagen	1	0.12	22	2.56	23	2.68
		Cijambu	0	0.00	4	0.47	4	0.47
		Sub. Total	2	0.23	27	3.14	29	3.38
New Road	Cipongkor	Cijambu	81	9.43	0	0.00	81	9.43
		Sirnagalih	58	6.75	8	0.93	66	7.68
	Rongga	Cibitung	79	9.20	94	10.94	173	20.14
		Sukaresmi	4	0.47	101	11.76	105	12.22
		Sub. Total	222	25.84	203	23.63	425	49.48
Total Number			409	47.61	450	52.39	859	100.00

Source : Census data 2010

3.8. Vulnerable People

The criteria for vulnerability are usually based on criteria developed by World Bank and ADB. Based on this criteria and considering the local government concerns, this project use the following criteria for vulnerable people classification: (1) demography aspect (elderly citizen more than 70 years old), (2) Female household head, (3) economy aspect (poor); and (4) Disabled people.

Based on demography concept, the productive age is between 15-64 years old. However, in the case for Indonesia there are many people who are still doing economic activities, in several cases up to 70 years of age. But in general, for most people who are older than 70 years old, their economic activities have been greatly reduced.

The economic condition is closely associated with the status of employment. The people who do not work or jobless are difficult to fulfill their living, and economically they are usually depending on other people.

One of the indicators to measure economic condition income level for rural people is poverty line defined by "Sayogyo parameter". According to the Sayogyo parameter, someone is said to be below poverty line if he/she has income per capita/year equal to less than 480 kg of rice. Judging from the current (2009) price of rice of around Rp 4.000/kg, any person earning less than Rp160,000/capita/month is considered below the poverty line.

According to the World Bank Policies, widow as head of family is considered also as a vulnerable criterion because she has limited access to job market and/or economic

activities. In many resettlement cases, widows as head of family are often neglected. People with physical disability are also regarded to have limited access to job market and/or economic opportunities.

Based on the above criteria (demography, poverty level, widow household heads, and disability), the total identified vulnerable affected people are 2 HHs (Table 3-13). These families are eligible to get special economic assistance due to their vulnerability. According to their residency, the vulnerable people, 2 HHs are in quarry. Capacity building will be prioritized for the PAP's below the poverty line

Table 3-13. The Vulnerable People

Vulnerable Criteria	Project location			Total
	Quarry	Existing Road	New Road	
Elderly, Widow, Jobless, Below poverty line	2	0	0	2
Total	2	0	0	2

Source :Census data 2010.

3.9. Social Institutions

Social institutions referred to this study are a significant social institution with the interests of the project, which will be related problems faced by PAP. In this study, social institution can be defined as a system of behavior and relationships that center on social activities to meet the complexes special needs in public life. A formal social institution is usually formed through a planning process that is governed by a person or group of people who have the power and authority. While non-formal social institutions established by itself, to meet the needs of society, it is usually born when people are faced with problems or matters related to the fulfillment of the necessities of life.

In general in the project area access road (quarry, existing road and new road), it has not been found specific local social institutions, but several formal institutions were found, such as LKMD, BPD, PKK and Youth Association, and other non-formal institutions, such as religion gathering (pengajian), and regular social gathering (arisan). Those institutions have been predominantly found in the villages or urban area in all regions in Indonesia.

At the quarry site, existing and new road, non-formal institutions are mostly related to the religious aspects of residents are reflected in activities such as pengajian, preferred by most men and women resident. This activity is undertaken routinely in each village, in two-week or monthly basis. In a religious festival, there are the inherent cultural aspects of exchanging customs 'delivery'/hantaran (food / rice and side dishes) to relatives of two or one day before Eid (Idul Fitri), these activities are still conducted as a custom.

There are no regular dues collected by the village on its residents, in some village's habits 'perelek', the contribution of rice from each house (resident capable) two spoons/day. Results of 'perelek' managed by the village and publicly reported at each RW. This activity is only in the Village of Cijambu and Sirnagalih, Sub-District of Cipongkor, and Village of Cibitung, and Sukaresmi, Sub-District of Rongga. In the area of quarry (Village of Karang Sari and Sarinagen) this habit is not undertaken, as predicted in addition to majority of residents less able, some people also consider if necessary to help neighbours better form of labour only.

Another activity is the social gathering and savings and loans are managed by the women in each village. In addition, social institution of 'Wajit' which was established by local community in Sub-District of Cipongkor. This NGO in cooperation with Local Government and PLN is directly involved in the preparation of the project affected by land acquisition.

The relationship between the resident and community informal leaders is very strong. The communities' leaders are positioning such as chief of village or religion leaders and as a place to help resolve problems/disputes and ask for suggestions if residents have problems, whether it is a problem between the residents themselves, even to family problems. Generally, community leaders also play a role in decision-making related to public interest.

Like other villages, a formal public institutions in the access road (quarry, existing and new road), particularly in relation to the village administration, such as the LKMD, BPD, PKK and Youth Association are found. These institutions have function when there are activities that must be managed, as well as LKMD as programs implementing poverty alleviation received by the village, the distribution of Rice for the poor, and the implementation of PNPM PPK programmers. Supporting women interact in a formal institution is in a group of PKK of village, this institution became a basis for activities of women outside the Posyandu.

The role performed by the social institutions in the area of access road (quarry, the new road existing road) in relation to the Upper Cisokan Pumped Project, among which are NGOs' "Wajit" who has worked with PLN and the Government in connection with the implementation of land acquisition and compensation, and community leaders involved in the Project Dissemination activities undertaken by PLN in relation to the data collection process of the project affected people (PAP).

The process of population displacement due to the impact the project will not affect the existing institutions, wherever, formal and informal institutions, as mentioned above will grow and established itself by the residents, even if they are at the location of new settlements. Role of community leaders will always important, even if the person changed, but its role as a character replaced another, will still run as usual.

3.10. Aspirations and Perceptions of Family Head to Be Moved

3.10.1. Aspirations and Perceptions of Family Head

The information on aspiration and perception are obtained from interviews with head of household, with the reason that the head of household play an important role in the decision making on family matters. Information about the access road planning at the project site, have spread out within society. Planning of development that have been initiated through several surveys have caused the population to familiar with the plan, although knowledge related of project residents are limited to a few aspects.

The FGD conducted women perception collection regarding the Upper Cisokan Pumped Storage Project through Rural Women Association (PKK, Pengajian, Arisan) are resulted as follows:

1. Most women acknowledged the existence of project plan.
2. They have no objection with The Upper Cisokan Pumped Storage HEPP project plan.
3. Most women expects their access to clean water source, access to weekly market and to mosque (location of pengajian) should not be disturbed.
4. They worry about their children access to Cimega elementary school and Aliyyah school will be disturbed by the project, for this condition they expect that the project to anticipate and to provide way out.

As mentioned earlier that the number of head affected project, recorded 859 households, of this number, 141 household must be moved due to their house affected by the project. From the number of households mentioned earlier, 40 households are recorded in the quarry, 29 households in the existing road, and 72 households in the new road, socio-economic conditions can be seen in Table 3-14.

Table 3-14 shows that most of the PAPs are in productive age, with educational background mostly only up to primary school level, and the majority of livelihoods in the agricultural sector. Average numbers of inhabitants in most of the PAPs are less than four people. This information should be considered for finding a better new life after project completed.

Table 3-14. Socio-economic condition of HHs who should be re-settled

Variable	Project location			Total
	Quarry	Existing Road	New Road	
Age				
a. 15 - 64 years	37	27	62	126
b. > 65 years	3	2	10	15
Total	40	29	72	141
Number of person in one family				
a. ≤ 4 persons	31	10	41	82
b. 5 – 6 persons	9	11	23	43
c. ≥ 7 persons	0	8	8	16
Total	40	29	72	141
Education				
a. No school	1	0	2	3
b. Elementary school	34	17	58	109
c. Secondary school	1	3	7	11
d. High school	4	6	4	14
e. College	0	3	1	4
Total	40	29	72	141
Jobs				
a. Agriculture	18	4	52	74
b. Non-agriculture	18	24	15	57
c. No job	4	1	5	10
Total	40	29	72	141

Source: Census Data 2010

This description will explain the perceptions and aspirations of the heads of family and the head of the family in joining in other families. This information related to their aspirations and their perceptions of the impacts of the project, compensation options and resettlement plans.

The households due to project of quarry, existing and new road (859 HHs), 100 per cent of those households knowing the project plan, with information sources 355 household (41.38%) from the village officials; 465 households (54.13 %) from the community leaders and 39 households (4.54 %) knowing the project from project officials (surveyor and/or PLN).

Knowledge of residents on the project plan, also affect the perception of residents related to the impact caused by the project, whether it's negative impacts/ losses as well as positive impacts/ benefits of the project that can be seen in Table 3-15.

Table 3-15. Perceptions of Household Head against the Project Risk

Risks	Quarry		Existing Road		New Road		Total Number	
	Number	%	Number	%	Number	%	Number	%
Pollution	69	17.04	3	10.34	55	12.94	127	14.78
Loss of livelihood	16	3.95	4	13.79	34	8.00	54	6.29
Environmental Disturbance	109	26.91	6	20.69	32	7.53	147	17.11
Scatter of Family and Neighbour	26	6.42	8	27.59	56	13.18	90	10.48
Must move from homeland	10	2.47	3	10.34	21	4.94	34	3.96
Loss of agricultural land	28	6.91	3	10.34	103	24.24	134	15.60
Not Suitable Compensation	114	28.15	0	0.00	49	11.53	163	18.98
Did not know	33	8.15	2	6.90	75	17.65	110	12.81
Total Number	405	100.00	29	100.00	425	100.00	859	100.00

Source: Census Data 2010

Table 3-15 shows that the majority of PAPs (163 families) or (18.98 %) mentioned that the risk of the project, namely not suitable compensation, and 34 households (3.96%) believed that they have to move from his/her homeland. However, some of them mentioned that the project will provide the benefit for the community. The whole perceptions about the benefits of the project according to the households can be seen in Table 3-16. The perception of most households (262 HHs, or 30.50 %), shows that development projects will improvement of the road and create employment opportunities/new business. However, 36 heads of households stated that the construction of project will generate no benefit to them.

Table 3-16. Perception of Head of Household concerning Project Benefits

Benefits	Quarry		Existing Road		New Road		Total Number	
	Number	%	Number	%	Number	%	Number	%
Obtain appropriate compensation	80	19.75	1	3.45	59	13.88	140	16.30
Employment Opportunities/ New Business	176	43.46	10	34.48	44	10.35	230	26.78
Development of their area	21	5.19	7	24.14	39	9.18	67	7.80
Improvement of the road	62	15.31	4	13.79	196	46.12	262	30.50
Can develop a business	14	3.46	1	3.45	49	11.53	64	7.45
Not Imagine	28	6.91	4	13.79	28	6.59	60	6.98
No Benefit	24	5.93	2	6.90	10	2.35	36	4.19
Total Number	405	100.00	29	100.00	425	100.00	859	100.00

Source: Census Data 2010

This information is important because if the project does not provide benefit to residents would be a problem in the future because the head of the family who said there was no benefit may be an impediment to the sustainability of the project development. For example will affect the people associated with the implementation / process of compensation.

The results of interviews indicate that on all heads of households who should be resettled, there are only 15 households (10.63 %) who have agreed to be relocated by the government. The other majority of households 126 (89.36%) choose to move by themselves, with the following reasons: 69 (54.76%) of PAPs are worried about getting

unexpected suitable land at the new site, and 27 households (21.42%) preferred to be compensated with cash because they feel more free to use the compensation money.

Table 3-17. Reason do not agree to move by the government's plan

Project Area	Reason do not agree to move by the government				Total Number
	Worry with not suitable new land expectation	Prefer to be compensated by cash	They have already owned site plan	Depend on public opinion	
Quarry	20	13	-	-	33
Existing road	10	8	9	-	27
New Road	39	6	21	-	66
Total Number	69	27	30	-	126

Source: Census Data 2010

From 126 HHs who wants to move out on their own, majority prefer to live around Sarinagen village, around Sukaresmi village and around Karang Sari village (see table 3-18), and the rest (16 head of household) has not decided yet where to move out.

Table 3-18. Location preferred by the PAPs who want to move out on their own.

Desired location	Number of HH			Total	%
	Quarry	Existing Road	New Road		
Around Desa Sarinagen	12	16	0	28	22.22
Around Desa Karang Sari	17	1	0	18	14.29
Around Desa Cijambu	0	3	10	13	10.32
Around Desa Sirnagalih	0	0	12	12	9.52
Around Desa Cibitung	0	0	16	16	12.70
Around Desa Sukaresmi	0	0	23	23	18.25
Have not decided yet	4	7	5	16	12.70
Total	33	27	66	126	100.00

Source: Census Data 2010

For the 15 head of household who want to move out arranged by the local government, several villages have been offered to them. 7 of the PAPs want to move out to Ciangkong, 5 HHs prefer to Sukaresmi, and the rest (3 HHs) has not been decided yet (Table 3-19).

Table 3-19. Location for resettlement desired by PAPs who managed by the government

Desired location	Number of HH	%
Ciangkrong	7	46.66
Sukaresmi	5	33.33
Not decided yet	3	20.00
Total	15	100.00

Source: Census Data 2010

The reason why some of the PAPs want to move out to Ciangkrong is that this place is closer to economic activity so that they can make small business. While those who want o to move out to Sukaresmi because it is closer to their original place and it is closer to existing road.

Perception of heads of families who have to move regarding the desired price for building, 34 households stated that to follow the local market price, and the others want the price is based on the result of agreement between the government and community (table 3-10)

Information on the benchmark pricing of the buildings should be based on the PAPs who will be relocated, because they have an interest, in relation to their assets affected by the project. While, for the PAPs who do not have to be relocated do not have the interest on the price of the building. Information on the benchmark pricing other than the PAPs, was also collected from residents other than the PAPs through FGD.

Table 3-20. Perception of Head of Household on Building Price

Project Area	Price Standard				Total
	Local Market Price	Government follows the price decided by community	Agreement of the government and community consultation	District Head Decree	
Quarry	18	13	6	3	40
Existing road	8	8	9	4	29
New Road	8	11	36	17	72
Total	34	32	51	24	141

Source: Census Data 2010.

Related to land compensation (Table 3-21), there are 130 households who wanted the benchmark prices used for land compensation is base on the standard market price prevailing in the local area while 249 HHs wanted the prices is based on the result of agreement between government and community.

Table 3-21. Perception of Household on Land Price Standard

Project Area	Price Standard					Total
	Local Market Price	Government follows the price decided by community	Agreement between the government and the community	District Head Decree	No land*)	
Quarry	0	0	0	0	405	405
Existing road	0	0	0	0	29	29
New Road	130	44	249	17	0	425
Total	130	44	249	17	434	859

Source: Census Data 2010

*) land owned by PLN

3.10.2. Aspiration of Head of joining family

Perception of the head of joining the HH that the project will have a negative impact is presented in Table 3-22.

Table 3-22. Perception of Head of Joining Household on Project Negative Impact

Location Project	Negative Risk					Total
	Forced to move	Loss of job	Environmental Destruction	Fragmented Family and Neighbor	Loss of House	
Quarry	2	0	0	2	6	10
Existing road	2	0	2	3	4	11
New Road	4	8	0	5	12	29
Total	8	8	2	10	22	50

Source: Census Data 2010

Some PAPs also see the positive impact of the project. Around 15 households thought that the project will open up new jobs. Nevertheless, almost all 17 HHs agreed to the project because their villages will become more developed (Table 3-23).

Table 3-23. Perception the Head of Joining Household on Project Positive Impact

Project Location	Positive Impact					Total
	Get appropriate compensation	To expand Job opportunities	Government Program	For better accessibility	More developing village	
Quarry	1	4	3	0	2	10
Existing road	3	3	2	0	3	11
New Road	2	8	0	7	12	29
Total	6	15	5	7	17	50

Source: Census Data 2010

4.1 Legal Basis

The Legislation that underlies the implementation of the land acquisition and resettlement plan of the Upper Cisokan Pumped Storage project, among others are;

- Act No. 5/1960 concerning Basic Agrarian affairs.
- Act No. 26/2007 concerning Spatial Arrangement
- Act No. 15/1997 concerning Basic Transmigration affairs
- Act No. 19/2003 concerning State Enterprises
- Act No. 32/2004 concerning Local Government
- President RI Regulation No 36/2005 concerning Land Acquisition for Public development Implementation and No 65/2006 concerning the amendment of President RI Regulation No 36/2005.
- President RI Regulation No 4/2010 concerning Assignment of PT Perusahaan Listrik Negara (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.
- Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas
- Head of National Land Agency No 3/2007 concerning Implementation Regulation President RI Regulation No 36/2005 and No 65/2006 concerning the amendment of President RI Regulation No 36/2005.
- West Java Province Regulation No. 2/2003 concerning Spatial Planning of West Java area.
- West Java Province Regulation No. 2/2006 concerning Management of Reserved Area.
- West Bandung District Regulation No 1/1994 concerning Spatial Planning of Bandung District
- The World Bank Operation Manual, Operation Policies 4.12.
- Upper Cisokan Pumped Storage HEPP Loan Agreement Signed by the Government of Indonesia and the World Bank. Differences between Indonesia regulations and WB policy summarizes in Appendix 9. The Loan Agreement includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP.

4.2. The Rights to Land and Physical Asset

In Indonesia, rights over land is regulated by Act No. 5/1960. Land title, also called land certificate issued by the National Land Agency ('Badan Pertanahan Nasional'/BPN), includes:

- 'hak milik' or rights of ownership which indicate full ownership rights over land;
- 'hak guna bangunan' or rights to build title on the state-owned land for building¹ ;
- 'hak pakai' or rights to use title the land for any purpose;² and
- 'hak guna usaha' – rights to cultivate the state-owned land for agricultural purposes.³

In proposed projects, the following persons and communities will be considered "holders of land rights", i.e., persons or communities with rights to the land affected by a project:

- PAPs holding land rights titles or certificates issued by the local office of the National Land Agency or 'Badan Pertanahan Nasional' (BPN), including full ownership titles ('hak milik'), right to build titles ('hak guna bangunan'), right to use titles ('hak pakai'), or right to cultivate titles ('hak guna usaha').
- PAPs holding documents issued by local officials⁴ that demonstrate ownership (normally a property tax receipt -SPPT⁵ accompanied by other documents such as the contract of sale of the land in question and receipts of payment of public services, such as water and electricity);
- communities with traditional land rights ('hak ulayat');
- PAPs (individuals) with traditional rights ('hak adat'); and the Nazhir or recipient of donated 'wakaf' land

In Indonesia, there are many lands that have been dominated by the public without proof of the letter comes with ownership. In addition, people generally assume that SPPT can also be regarded as proof of ownership.

Based on the recognition of PAPs related to land ownership, mostly owned plots of land in the new road, 435 plots of land with the SPPT proof of ownership, certificate 60 plots, 6 Plots of land with the proof of ownership in the form of 'kikitor', 10 letter C, 12 purchase deed, and without any evidence is as many as 43 plots.

¹ A right to use title is typically granted to Indonesian citizens or legal entities for a maximum period of 30 years, and has to be renewed every 20 years. It can be converted into full a full ownership title ('Hak Milik').

² A right to use title ('Hak Pakai' – HP) is normally granted for a period of 25 years and can be renewed every 20 years.

³ The Land Cultivation Title ('Hak Guna Usaha' – HGU) is granted to Indonesian citizens or legal entities for periods of 25 to 35 years, and can be renewed every 25 years if the land is deemed to be managed and utilized properly.

⁴ National Land Agency ('Badan Pertanahan Nasional – BPN) of West Java District and Cianjur District.

⁵ Property tax receipt (Surat Pemberitahuan Pajak Terutang – SPPT) is a letter used by the Directorate General of Taxation to inform the land and building tax is payable to the taxpayer.

All lands affected by the project will be compensated according to available regulations (President RI Regulation No 36/2005 concerning Land Acquisition for Public development Implementation, No 65/2006 concerning the amendment of President RI Regulation No 36/2005), and Regulation of the Head of 'Badan Pertanahan Nasional' No 3/2007 about 'Ketentuan Pelaksanaan Peraturan Presiden' No. 36/2005.

For buildings, the available regulations for compensation are Government Regulation No.40/1988 about 'Hak Guna Usaha', 'Hak Guna Bangunan', 'and 'Hak Pakai' and Act No. 4, 1992 about Housing and Settlements. These regulation and Act do not provide an authorization to compensate affected persons for physical asset constructed illegally in the state-owned land should not be compensated. OP 4.12, however, explicitly states that those without legal title to affected land may be compensated for asset and may qualify for other resettlement and rehabilitation assistance (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 85). Squatters and encroachers may have a personal investment in asset or agricultural crops. Under OP 4.12, they are entitled to compensation at replacement cost (or an equivalent amount of rehabilitation assistance) for these lost assets (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 86). The entirety of OP4.12 as it applies to this project is reflected in this LARAP. The Loan Agreement between the Republic of Indonesia and the World Bank includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP

4.3. General Compensation Policy

In accordance with the President RI Regulation No 36/2005 and No. 65/2006, one of the task for Land Acquisition Committee to determine form and value of compensation (ganti rugi)⁶ which proposed by Independent Appraisal Consultant in consultation with the land owners and the project within less than 120 days since the first invitation letter of negotiation is issued. In general, land acquisition activities and compensation will be conducted through several stages of activity as outlined in Figure 4.1. Based on regulation of The Head of BPN No. 3 /2007, the second announcement of valuation result is not required because the decision will be directly discussed (musyawarah) with the PAPs for compensation price agreement.

The results of the assets valuation and compensation received from the independent appraiser will be used as standard value by the LAC to negotiate with the PAPs and PLN. The results of the negotiations with PAPs on the compensation should be mutually agreed upon before the Land Acquisition Committee finalized the form and value of the project-affected assets.

⁶ See Presidential Regulation 36/2005, Presidential Regulation 65/2006, and Head of BPN Regulation 3/2007.

In terms of compensation options desired by the PAP, the owner of affected buildings or land can choose to receive cash compensation, relocation / resettlement or other options. Other options include ready to build lots, land exchanges with same size and productivity, simple houses, to assist developers built housing with credit facilities or other schemes. PAP who chooses land for land compensation (if available) will get a piece of land with the same value as their previous land asset within the resettlement area planned by the project. *The compensation principle applies that the livelihood of PAP should be improved or at least to be restored as the level before the project.*

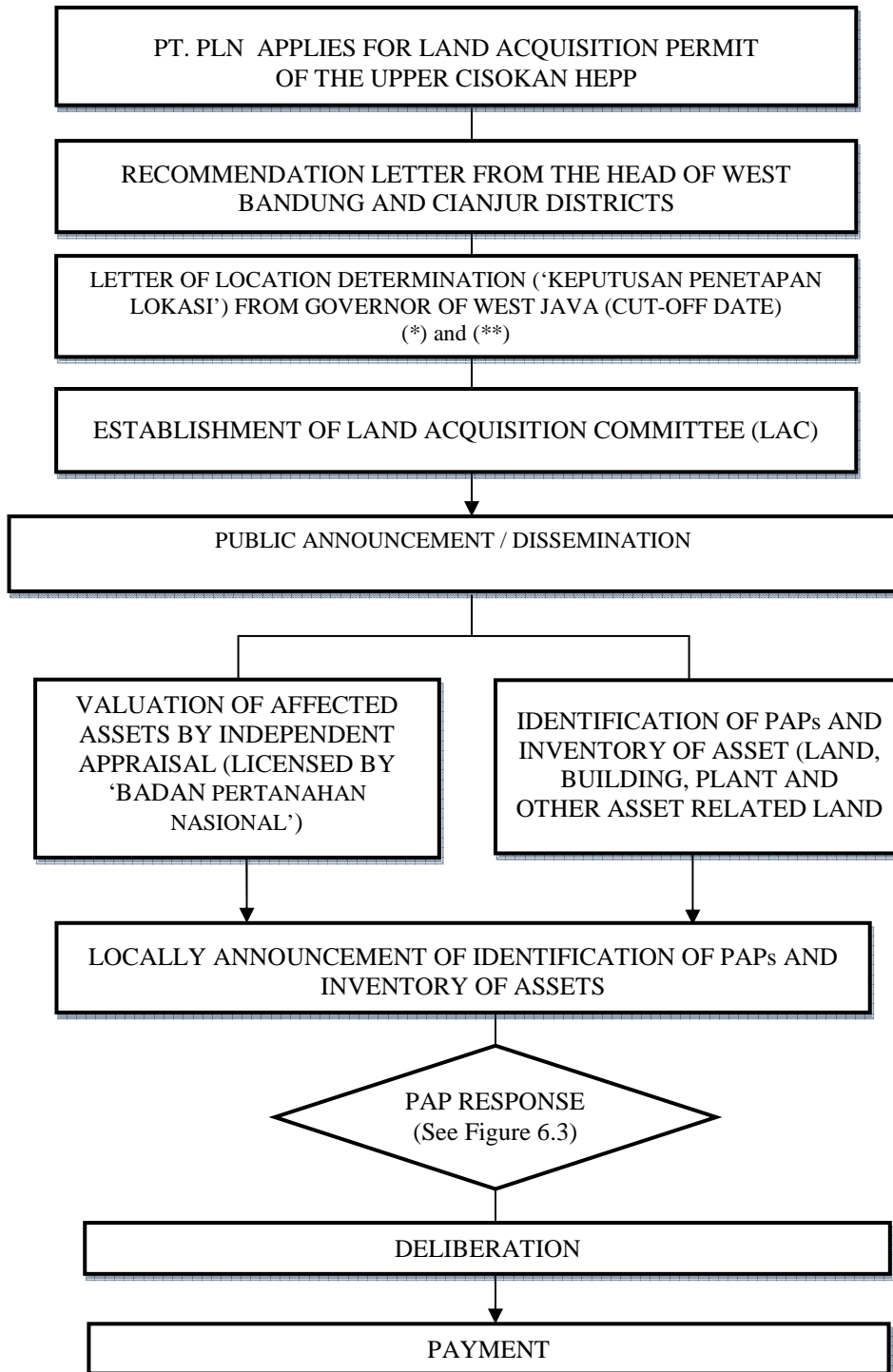
For public and social facilities, including privately owned, like the mosque, boarding schools, schools, water collecting and other utilities affected by the project, the form of compensations will be adjusted with policy related institutions, and also discussed with the community.

PLN and Local Government (Provincial and Districts) conduct socialization to disseminate project information both directly in the project area, and indirectly channeled through electronic and print mass media, within 14 days after the project location determination from West Java Governor is endorsed. The Project Land Acquisition Committee with PLN conduct a public consultation meeting with PAPs in the project area regarding the project risks and benefits, including, project entitlement and compensation, before conducting land and asset inventory and verification.

Final lists of affected land and asset inventory of the PAP from the LAC will be disclosed locally in village office

The Upper Cisokan Pumped Storage project required to provide land for the forest land replacement and resettlement sites. Selection for forest land replacement follows the Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement. According to Pre-FS study, resettlement sites were chosen based on geological, infrastructures, agro-ecosystem condition and socio-economic aspect (see LARAP's Appendix 1). Both forest land replacement and resettlement sites will go through screening referring the criteria as mentioned in LARAP's Appendix 10. If based on regulations and screening reveals that the people living in forest land replacement and resettlement sites are categorized as involuntary resettled people according to World Bank's OP 4.12, then policies in this LARAP will be applied to them. But if those people are not categorized as resettled people according to World Bank's OP 4.12, then policies in this LARAP will not valid for them, instead the compensation will be based on agreement between the project and the land owner.

Figure 4-1. Land acquisition procedure for public purpose project



Source: Regulation of the Head of Badan Pertanahan Nasional No 3/2007

*) Pinjam Pakai Kawasan Hutan (PPKH) based on PerMenhut no 43/2008

***)Tukar Menukar Kawasan Hutan (TMKH) based on PerMenhut no 32/2010

The general principles regarding land acquisition and resettlement plan that will be applied in this project are as follows:

- 1) Land Acquisition causing displacement will be avoided/minimized,
- 2) Land Acquisition will be done based on President RI Regulation No 36/2005, No 65/2006, and Regulation of the Head of 'Badan Pertanahan Nasional' No 3/2007,
- 3) Payment of compensation, relocation and resettlement will be done prior to commencement of the construction.
- 4) Project will provide options of compensation such as cash compensation, land to land compensation (if available), housing compensation, etc. to PAPs.
- 5) Members of 'Tim Perumus Kebijakan Permukiman Kembali'⁷ (the Resettlement Policy Formulating Team), the PAPs and their representatives, including women and other vulnerable groups among those affected, will be involved in the resettlement planning and implementation.
- 6) No one will be deprived off their land and other movable assets required for the project unless they are compensated for their losses.
- 7) No construction works will be initiated on such affected land before PAP having received their compensation for loss of land and other properties and Resettlement & Rehabilitation entitlements.
- 8) Consultation will involve stakeholders and PAPs will be provided opportunity to participate in planning and implementation of LARAP
- 9) The project will assist in providing opportunity to improve or at least to restore the livelihood the affected people to the level before the project.
- 10) The PAPs will be provided with resettlement assistance such as moving cost, transition cost given once for the affected HH and rehabilitation assistance such as income restoration.
- 11) Assistance (bantuan, tali asih, kadeudeuh) and compensation (ganti rugi) will be given sufficiently for affected people to replace assets or land acquired by the project with land or assets of equivalent value.
- 12) The monitoring will focus more to measure livelihood results, particularly for those most severely affected or most vulnerable

Paragraph 3 of OP 4.12 describes the coverage of the policy: "direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by the involuntary taking of land resulting in: (i) relocation or loss of shelter;(ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location

⁷ Keputusan bersama Bupati Bandung Barat dan PT PLN (Persero) Pembangkitan Hidro Jawa No. 800/KEP.337-1304 PEMB/2009 NO: 001.K/PHJ/2009 tentang Tim Terpadu Perumus Kebijakan Pembangunan Infrastruktur Dan Lingkungan Terkait Pembangunan PLTA Upper Cisokan Pumped Storage di Wilayah Kabupaten Bandung Barat

4.4. Considerations of Compensation

The amount of compensation (ganti rugi) and assistance (kompensasi/bantuan/tali asih/kadeudeuh) needed to replace an asset at current value including overhead expenses of the transaction, tax and registration charges, but excluding depreciation, as follows:

- (a) Agricultural land based on its productive potential;
- (b) Residential land based on actual market value;
- (c) Houses and other structures based on current market prices of building materials and labor, plus transaction costs (such as administrative charges, registration and titling costs), without deductions for salvaged building materials;
- (d) Trees, crops and plants on current market value; and;
- (e) Other productive assets like shops and commercial assets based on value of similar location with equivalent commercial market attributes.

This compensation (ganti rugi) and assistance (bantuan, tali asih, kadeudeuh) in this report are also known as replacement cost.

According to the OP 4.12, “Replacement cost” is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account (for a detailed definition of replacement cost, see Annex A, footnote 1) For losses that cannot easily be valued or compensated for in monetary terms (e.g., access to public services, customers, and suppliers; or to fishing, grazing, or forest areas), attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard. Such additional assistance is distinct from resettlement assistance to be provided under other clauses of para. 6. If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken. The alternative assets are provided with adequate tenure arrangements. The cost of alternative residential housing, housing sites, business premises, and agricultural sites to be provided can be set off against all or part of the compensation payable for the corresponding asset lost. Such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements

The compensation associated with this project is based on the following considerations:

- i. **Land:** the land value of compensation will be determined by LAC which the initial value is proposed by Independent Appraisal Consultant in consultation with the land owners and the project. As a reference for the process of consultation/negotiation, initial reference values will be set. The initial reference values are considered for use in the process of consultation with the community include market prices, the value of the last transaction that occurred in the regions concerned, and the value of the Independent Appraisal Assessment Team.

Based on World Bank policy (OP 4.12) all management fees and taxes associated with land compensation will be paid by the project⁸.

- ii. **House and other buildings/structures:** 1) assessment of the compensation cost of buildings and other assets will refer to a decree or local government regulation and also consider the value of issued by the Independent Appraisal Team, 2) Another approach in assessing the compensation price is the price of building materials to build a replacement building (or to repair the affected part of the building), plus the cost of transporting building materials to the site and the cost of labor or services contractors, plus the costs of registration, and fees to reverse the name and tax. Based on World Bank policy in the case of replacement cost asset affected, depreciation of the assets and benefit caused by the project should not be included in the calculation.

Under normal GOI procedures for calculating compensation, the older structures are depreciated and the value after depreciation is therefore lower than for new structures. However, while this is equitable for market transactions when sellers can use the money as they wish, for involuntary acquisition the value after depreciation may be too low to replace lost structures. Most PAPs are expected to purchase or build new structures since the number of PAPs is very large, exceeding the existing supply of the structures for sale.

A decree related to compensation value of buildings and other assets will be issued by the Government of West Bandung District and Cianjur District. Based on World Bank policy (OP 4.12) all management fees and taxes on buildings associated with the compensation will be paid by the project.

- iii. **Plants:** compensation based on the standard tree pricing in accordance with the local government regulation. In case the lost productions have not been harvested, plant owners will be given one-time harvest compensation.

In addition to the above consideration, according to the World Bank Policies (OP 4.12), the remaining project affected lands and buildings are eligible to be acquired by the project if:

- i. The remaining land is less than 72 m² (based on Minister of Public Work Decree 403/KPTS/M/2002 concerning Technical Guidelines Development Simple Healthy House); or
- ii. The remaining building is less than 7.2 m²/person (Minister of Public Work Decree No.403/KPTS/M2002 concerning Technical Guidelines Development of Simple Healthy House); or

⁸ For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.(OP 4.12 - Annex A p. 3 Footnote 1)

- iii. Remaining agricultural land area affected is less than 70% of the previous area (economically can be considered to be disadvantageous); or
- iv. For the house built on stilts ('rumah panggung'), the project will compensate the whole house.

The project will relocate and reconstruct the affected infrastructures such as mosque, school, village office, water supply, road, bridge, sewerage/drainage system, cemetery, etc., in consultation with the community. Specifically for the grave, the project will also provide relocation cost given to the PAPs.

The project will also compensate the forestland affected by the project in accordance to the Government Regulation No. 10/2010 concerning 'Tata Cara Perubahan Peruntukan dan Fungsi Kawasan Hutan'. Based on this regulation, among others, the project will allocate non-forestland to substitute two times of affected forestland ('clause 12 sub clause 2') and will conduct a reforestation of the proposed substitute land '(clause 17 sub clause 1 item a)'. The Screening procedure to select the forest replacement area will follow the mechanism as mentioned in appendix 10.

4.5. Category of the Project Affected People (PAP) and other entities to receive compensation

PAP and other entities eligible to receive compensation when meet the criteria of the cut-off date. The cut-off date is defined as the date of the West Java Province Governor issues a Decree of Location Determination for the Upper Cisokan Pumped Storage Project HEPP. The asset inventory announcement on affected people who have title holders within the project location will be conducted by LAC and for the PAPs who have no title will be conducted by the joint team of PLN and local government. Cut-off date will be done in one date both for titled and non-titled PAPs. Argument for this cut-off date arrangement is first of all will reduce potential social conflict considering that if the cut-off date announcement will be done in two separate dates, it will likely result in rumors on compensation issues, distrust from local people to the proposed project, the possibility that PAPs titled holders will complaint why do the non-titled holders get compensation while the titled holders did not, and other negative impacts. All of these potential conflict will pose a serious challenge to the proposed project is not carefully handled by deciding that the cut-off date. The Land Acquisition Committee will have to verify ownership status of Project Affected Peoples (PAPs) during implementation and announce its inventory result and redress its grievances. The normal practice of LAC to assess the ownership status of the asset for those PAP who does have legal land ownership, the head village will issue letter to prove its ownership status (using the land transaction, *leter-C*, or using village book which register the land in village). In case that the land has not been registered in the village book, the neighborhood need to prove that the land ownership. The physical asset and crops will be physically checked by the LAC.

Inventory conducted by LAC will produce a list of titled holder. PAPs who will receive compensation (ganti rugi). The inventory conducted by Joint team (PLN and local government committee) will produce a list of non-titled holder PAPs who will receive assistance (bantuan, tali asih, kadeudeuh). For the non-titled holders PAPs, Independent Appraisal Consultant will assess the assistance eligibility for them, and then the Joint Team of Local Government and PLN will deliver assistance in the form of cash and/or technical assistances. In anticipating the number of illegal non-titled holder PAPs who want to be assisted, before the announcement of list of inventory result, the PLN (through Independent Appraisal Consultant) will reconfirm the number of eligible non-titled holder PAPs. For legality purpose, the local government, in this case represented by the Bappeda [district-level planning board], will issue a Surat Keputusan [legal letter] as a legal basis for the PLN and the local government to carry on the identification of the PAPs with no legal asset ownership [non-titled PAPs]. In most cases, the local government will be represented by government officers from kecamatan [sub-district] level. There is also possibility that the persons acting as LAC member to handle the titled holder PAPs will be the same persons working with the PLN to handle the non-titled holder PAPs. The LAC membership and its working mechanism are arranged in accordance with government regulation.

The PLN's efforts to prevent either new encroachment or early evictions before LAC announce the cut-off date can be done in the PLN and Perhutani's lands. The mechanism for which PLN and Perhutani carry on monitoring program to identify new encroachers in the PLN and Perhutani's lands will be done by signing a memorandum between PLN and Perhutani. The date for memorandum signing will be decided by an agreement made by PLN and Perhutani. The memorandum will cover tasks such as identification of the PAPs who are already there before cut-off date, and those who are arriving after the cut-off date announcement. Before signing the MoU, the PLN will carry on re-census to make sure the number and names of PAPs who are already in the PLN and Perhutani's lands. The PAPs on this re-census list will be assisted according to the World Bank's assistance policies. The World Bank assistance policies will be implemented after the memorandum has been signed. Those PAPs who come in after the MoU signing will not be assisted, even though they can still utilize the PLN and Perhutani lands.

For the PLN and Perhutani's lands, a monitoring system will be established to identify the new occupiers [up-dating the PAPs data base on state lands]. These new occupiers [after MoU signing] will then together with PLN and Perhutani make an agreement that they can not demand any assistance should the land be used by the project. While for the private lands, the PLN will re-identify the number of non-titled holders prior to the cut-off date announcement. These non-titled holders will be eligible for assistance in the form of technical assistances. Based on the study, category of the PAPs that will receive assistance is presented in Table 4.1.

Table 4-1. Category of PAP and Entitlement Matrix⁹

Asset Loss	Category of PAP*	Compensation Type	Description
1. Land	1. Those who have land with letters of ownership.	Obtaining cash and Non Cash	<ul style="list-style-type: none"> - Cash: <ul style="list-style-type: none"> a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes - Non cash (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	2. Those who have land without letters of ownership.	Obtaining cash and Non Cash	<ul style="list-style-type: none"> - Cash: <ul style="list-style-type: none"> a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes - Non cash (Assistance refers to item 4.6): <ul style="list-style-type: none"> c. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or a. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	3. Sharecroppers, squatters and encroachers who Cultivate Land/ Reside on PLN's/ Perhutani's land	Obtain Non Cash Only	Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given once for the affected HH
	4. Tenant	Obtain Non Cash Only	<ul style="list-style-type: none"> - Cash: Assistance in transition cost given once for the affected HH and - Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given

⁹ Resettlement Options Refers to Table 7-1

Asset Loss	Category of PAP*	Compensation Type	Description
			once for the affected HH
2. Buildings/ Houses	5. House Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> • Cash: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For HHs who want to be resettled by themselves, receive cash compensation (<i>ganti rugi</i>) • For HHs who want to be resettled by project, receive the building/house (non cash) b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes d. Assistance in moving allowance - Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	6. Small Shop/ Workshop Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> - Cash will be given to building owners who have small shops/workshops separated from their houses: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For building owners who want to be resettled by themselves, receive cash compensation (<i>ganti rugi</i>) • For HHs who want to be resettled by project, receive small shops/workshops with the same value of their previous small shops/workshops (non cash) b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes d. Assistance in moving allowance - Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> - Capacity building in a form of Assistance in enhancing skill given

Asset Loss	Category of PAP*	Compensation Type	Description
			once for the affected HH and/or - Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	7. Tenant	Obtaining cash and Non Cash	- Cash : Assistance in moving allowance and - Non Cash : Capacity building in a form of Assistance in enhancing skill given once for the affected HH
3. Plants	8. Plant owners,	Obtaining cash for plants compensation	• Cash : a. Cash compensation for Perennial plants based on Local Government standard, and b. in case the lost productions have not been harvested, plant owners will be given one-time harvest compensation
4. Public Facilities/ infrastructure (School, mosque, water source, road, bridge, sewage water system etc)		Protection, relocation, rehabilitation	a. Public facilities affected by the project impact will be repaired or relocated with consultation to resettled communities. b. Detailed Management of affected public can be seen in EMP report
5. Forest land	9. Perhutani	Land to land substitution and re-vegetation cost	• Land substitution will be conducted two times area of land affected by the project. • Revegetation cost for the new forest land will be born from the project.
Refer to above description (item 1,2 and 3)	Vulnerable PAP	• Refer to above description (item 1,2 and 3)	- Cash and non cash: category of asset lost item 1, 2 and 3 - <i>Additional Assistance by the project:</i> a. assistance in acquiring certificate service b. assistance in moving service to new settlement site c. other assistance resources will be determined by the RIT during the implementation
	Severely Affected People	• Refer to above description (item 1,2 and 3)	- Cash and non cash: category of asset lost item 1, 2 and 3 - <i>Additional Assistance by the project:</i> a. assistance in acquiring certificate service

Note:

* See The World Bank Policies (OP 4.12).

Elaboration of the description shown in this table can be seen in Sub-Chapter 4.6 Assistance

4.6. Assistance

4.6.1. Assistance in Training of Technical and Financial Administration Skill

PAP who lost their jobs/source of income will receive assistance to the same living conditions as before affected by the project and even increased. Types or forms of assistance such as development of motivation, skills training and specific job types, the guidance to start and develop micro business, micro business credit, marketing development, assistance during the transition period given once for the affected HH, and strengthening of community organizations and other services.

This technical and/or financial assistance should be monitored and evaluated by the IMA¹⁰ to make sure that the increasing economic condition of the PAPs can be realized.

In addition to either cash compensation for lost assets and relocation sites, PAPs will also be eligible for additional rehabilitation assistance, tailored to their preferences, from one of the six assistances in enhancing skill options described below:

1. Agriculture intensification, or
2. Diversified land-based activities, or
3. Business/ Marketing Incubation, or
4. Training of production and processing techniques, or
5. Facilitating micro business development, or
6. Training of animal husbandry technique.

4.6.2. Assistance in Cooperation with the Local Government

Apart from those technical and financial assistances provided by PLN, these PAP's will also be integrated and prioritized into Government Programs on increasing small scale economic programs (UKM/small enterprises programs). This program will maintain and increase the PAP's economic condition in long run. The relocated PAPs will be provided with resettlement assistance such as moving allowance, transition cost given once for the affected HH (for 2 months) and rehabilitation such as assistance for income restoration.

4.6.3. Resettlement Assistance

For PAPs who should be resettled, they are eligible to acquire assistance in enhancing capital. The PAPs will be given one of these following Starting Micro Business Packages:

- a. Livestock Package
Raising Livestock Package consisting of Lambs and Poultrys, or

¹⁰ Independent Monitoring Agency

- b. Farming Associated Business Package
Food processing package from farming products such as banana, cassava, taro chips, and yams including their seedlings, or
- c. Small Shop Package
Shops of daily needs selling sugar, rice, egg, palm oil, meat (beef and chicken), milk, corn, kerosene, salt, etc.

If it is applicable the resettlement assistance for vulnerable will follow the other PAP, such as capacity building and starting micro business packages, and also other assistances will be given such as assistance in acquiring certificate service, assistance in moving service to new settlement site

Other resources will be determined by the RIT during the implementation, so this additional assistance proposed will be sufficient to restore their livelihoods.

4.7. Affected Asset

Based on category of PAP and entitlement matrix presented in Tabel 4-1, the study identified number of PAP in relation to their asset loss. As indicated in Table 4-2, for instance, 69 households which own land with letters of ownership are potential to be affected by the project, whilst those who have land without letters of ownership is 356 households.

With this tabulation approach, there will be some PAPs who were included into several categories, for example, house owner may also have a land with letters of ownership but also encroach on Perhutani's land. One HH can be counted more than once because he can be counted for several categories according to legal status of land ownership, land tenure, legal status of building ownership, residence status, plant ownership. So, the numbers of HH on Table 4-2 cannot be summed.

With regard to buildings, the LARAP study identified a number of households which will be indirectly affected by the project; they are families which reside in others houses affected by the project. Potential impact that might affect these families is the lost of access to the house they usually reside. Number of this PAP category is 50 households.

Table 4-2. Number of PAP by Category

Affected Asset	Category of PAP	Number of Potential PAPs ³⁾ (HHs)	Number of asset
Land	Those who have land with letters of ownership ⁴⁾ .	69	88
	Those who have land without letters of ownership.	356	478
	Sharecroppers, squatters and encroacher who Cultivate Land/ Reside on PLN's/ Perhutani's land	623	689
Buildings/houses	House Owners ⁵⁾ .	194	187
	Joining family	50	-
	Small Shop/ Workshop Owners/Small Industry	47	110
Plants	Plant owners,	749	190.739
Public Facilities/ infrastructure - Mosques (<i>Mesjid & Mushola</i>) - School - Village Office - Bridge ¹⁾ - Cemetery - Volley Ball Field - Water Sources/Spring	Community/related government		5
			-
			-
			5
			1
			2
			1
Forestland ²⁾	Perhutani		1 area

¹⁾ including some temporary/small bridges

²⁾ number of forest land plots needs to be further identified

³⁾ based on field data census

⁴⁾ explained in Table 2-5 page 2-5.

⁵⁾ explained in Tabel 2-10 page 2-10.

Table 4-2 describes the number of PAPs who potentially affected by the proposed project. In reality, there are many households who are potentially lost several assets in the same time, e.g. they might lose their house, home garden, agricultural land, and or other buildings.

Categorizing asset lost into combination of house, home garden, agricultural land, and other buildings, the census carried out to identify the potential asset loss indicates that there are 12 categories of PAPs according to their affected assets. As indicated in Table 4-3, for instance, there are 17 households who might lose their house, home garden, agricultural land, and other buildings; 3 households in Quarry area, 3 households in Existing Road area, and 11 households in New Road area. Most of the affected households are those whose agricultural lands or whose access to land are potentially affected by the project.

Table 4-3. Number of household by affected assets in Access Road (N=859)

No	Potential Affected Asset	Project Location			Total Potential Affected household(PAP)
		Quarry*)	Existing Road*)	New Road	
1	House, homegarden, agricultural land, other buildings	3	3	11	17
2	House, homegarden, other buildings	2	5	18	25
3	House, homegarden, agricultural land	4	2	32	38
4	House, homegarden	15	13	43	71
5	House, agricultural land, other buildings	2	-	7	9
6	House, agricultural land	13	1	28	42
7	Homegarden, agricultural land, other buildings	2		2	4
8	Homegarden, other buildings	-	5	1	6
9	Homegarden, agricultural land,	1	-	8	9
10	Homegarden	-	-	7	7
11	Agricultural land, other buildings	17	-	20	37
12	Agricultural land	346	0	248	594
	Total potential affected household (PAP)	405	29	425	859

*) Land owned by PLN

To avoid negative impacts on the affected households (PAPs), in line with the Indonesian Government and the World Bank policies, the project will compensate the affected households with compensation that at least enable them to own similar assets in other places. Applying this principle, the compensation value will also be consulted or negotiated with the affected households by the LAC.

For the severity category, the LARAP approach is emphasizing more on the tenure status and access to productive assets. The OP 4.12 category of severely affected has not taken into consideration (for those who may have lost more than 10% of their productive assets and 20% or more of their land) with the assumption that lost assets will be replaced appropriately. The tenure status and access to productive assets are more important since the PAPs who are not the asset owner only have the access to asset (for example sharecropper). By the time affected asset is compensated by the project, those PAPs will loss of access to asset, in the other hand they will not be compensated because the compensation is only eligible for the asset owner

In spite of the majority of the affected households which will be fairly compensated or assisted by the project and in relation to ownership of the affected lands, a part of potentially affected households might be severely affected by the project due to loss of access to the land within the project area. They are:

1. the affected households who have only access to land within the project site for cultivation and/or other economic activities; the land they cultivate or occupy belongs to other people (these households will lose their source of income since the land that they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners/project and will be used for the project);
2. the affected households who have only houses erected on land within the project site but the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area);
3. the affected households who have only houses erected on land within the project site and only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area and they will lose their source of income because the land they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners and used for the project).

In accordance with the above three categories, Table 4-4 indicates that out of 859 affected households (excluding 50 joining families), approximately 85 households can be categorized as those who might be severely affected by the project commencement; including in this number 2 households which are categorized as vulnerable households. Considering this, the project will give special attention to these affected households in the form of assistances as outlined in section 4.5 (Table 4-1) and section 4.6.

For those without land title who are also losing shelter, assistance for livelihoods will include in-kind shelter assistance, including options such as credit terms or leases for relocation sites (either provided by the village or PLN) and facilitation assistance to groups of PAPs in finding affordable locations.

Table 4-4. Number of Potential Severely Affected Households

Category of PAP	Project Area			Total
	Quarry	Existing Road	New Road	
Households who have only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	19	0	7	26
Households who have only houses erected on land within the project site but the land belongs to other people	12	7	22	41
Households who have only houses erected on land within the project site and access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	11	2	5	18
Total	42	9	34	85

5

Consultation and Discussion

Based on the LARAP study, the activity of consultation and discussion with the PAPs is divided into two parts. The first part was already done. The second part is the discussion and consultation that will be done later on. Apart from that, this chapter will also mention about the location and options of resettlement and steps need to be taken in relation with the resettlement.

5.1. Consultation and Discussion that have already been done

This consultation and discussion was purposed to collect perceptions and desires of the community from the Access Road regarding the asset acquisition (land, buildings & plants) and the proposed relocation of residents, socialization and group discussion (FGD) had been conducted. The purpose of FGDs is to get the perception of the public regarding compensation and resettlement. Public consultation (FGD) was conducted in 5 villages, located at Sarinagen (existing road), and Cijambu, Sirnagalih, Cibitung, and Sukaresmi (new road). FGD participants were attended by women (gender), vulnerable groups, land owners, community leaders and local government element of the village, and Sub-District officials. Socialization and discussions carried out in two places, at Multi Purpose Room of Cipongkor Sub-District Office, West Bandung District on Thursday, October 23, 2008 and the Multi Purpose Room of Sub-District Rongga, District of West Bandung on Thursday, October 24, 2008 (for List of Participants see Appendix 5-1).

During the socialization, PT PLN (Persero) West Java Generation and Transmission Project as the previous initiator of the project described the objectives and benefit particularly those involving the land acquisition and construction of the Upper Cisokan HEPP. PLN also explained that the staking-out marking, measurement and inventory of land, buildings and plants conducted by LARAP team is as input for the Committee for Land Acquisition (P2T), then they will further conduct re-inventory and recheck the measurements and calculations.

As for socialization on resettlement, there has been 1 FGD meeting for upper dam carried out on 6 February 2011 in Rongga sub-district. The theme raised in this FGD is about information on resettlement plan. The plan is presented in Appendix 1 on Pre-Feasibility Site of Resettlement Area. Socialization discussed the design resettlement plan for the resettlement program arranged by the project and identification of public facilities and social infrastructures required by the PAPs at the resettlement site.

Socialization and FGD facilitated by PT Kwarsa Hexagon in the presence of PT PLN, representative of community affected by the project, representatives of community leaders from the inundated village, representatives of women's groups, officials of

village, sub-district officials and Muspika sub district. The FGD results agreed forum as an agreed conclusion (List of Participants see Appendix 8b).

In the area of upper dam and Access Road, socialization and FGDs for income restoration conducted on 1 March, 2011 in the Sukaresmi village Rongga Sub-District and Cijambu Village Cipongkor Sub-District, West Bandung District. The FGD in lower dam was carried out on 4 March, 2011 in Margaluyu Village Campaka sub-district, Cianjur District. The aim of the consultation and discussion is to identify and determine types of income restoration that need to be carried out including its associate trainings.

In the socialization of PLN describes the objectives and benefits of each type of Starting Micro Business Packages as income restoration program and Assistance in Training of Technical and Financial Administration Skill particularly for PAPs who need to be resettled either by the project or move by themselves. Elaboration of the description for income restoration can be seen in Sub-Chapter 4.6 Assistance. The FGD results agreed forum as an agreed conclusion (List of Participants see Appendix 8c).

Public aspirations of the Project, Compensation and Resettlement and Income Restoration

Important things the opinions and wishes of the people who appear in the discussion are as follows:

- For those who are willing to move through the resettlement site arranged by the project, they expect that residential location not far from their previously homes area.
- People want to know the certainty of when the realization of the development of Upper Pumped Storage Cisokan be implemented, because people have been waiting so long since the year 1989;
- People willing to participate in the project work.
- Community wants to clarify about the compensation arrangement of project-affected land, structures and vegetation. They want compensation price of land, crops and buildings or other assets in accordance with the prevailing market price of consultation between the government and society. Payments made in cash directly to the owner through the bank;
- For the people who will move out by themselves, they will stay around the project (not far from where live now); and
- People who live in Existing Road realize that they live on the land owned by PLN. Although there was agreement that they must move out when the land to be used by PLN, but they want their affected building can be replaced by the project in accordance with market prices.

The results of socialization and consultation with the community using FGD approaches showed that the results were consistent with the survey results, which most of the project affected people want to move their properties by own arrangement. Meanwhile, when viewed from the location where the desired move, most people choose to move in the same village.

Table 5-1 Matrix of Socialization and Consultation Activities that has already been done (FGD with PAP)

No	Socialization, FGD	Location/Date	Participant	Conclusion
5.1	Socialization,			
	<i>New Road</i>	Sub-District of Rongga, District of West Bandung, Friday, 24 October 2008	<ul style="list-style-type: none"> • Number of participant 54 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • Representative of residents who are impacted by the Project. 	<ul style="list-style-type: none"> • PAP agree on the development of the Upper Cisokan Pumped Storage • PAP want to know precise time on construction of the Upper Cisokan Pumped Storage Project because they have uncertainly waited since 1989. • PAP want to participate as worker at the project works. • PAP want to know how they obtain compensation of land, structures/buildings, and crops that are impacted by project. • Value of compensation (land, structures, crops and other assets) must consider the resident expectation. • For the resident who are impacted by the project, if they must move out, they want to move to new settlement in the surrounding the project. • According to project proponent, the inventory of land, structures/buildings and crops will be undertaken by LARAP team, as input for land acquisition committee (P2T). The inventory data will be rechecked by P2T
	<i>Existing Road</i>	Sub-District of Cipongkor, Thursday October 23, 2008	<ul style="list-style-type: none"> • Number of participant 47 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District Officials • Board of Sub-district leaders • Village Officials • Community Leader and • Representative of the community who are impacted by the Project 	<ul style="list-style-type: none"> • The PAPs realize that they live on the land owned by PLN/Indonesia Power. Although the existing agreement with Indonesia Power on the use of land that they have to voluntarily move out when PLN use the land, but they want to obtain compensation for their buildings which have built by themselves. • For those who do not have land in other places if they have to move out with assistance of the government, the site is not far from where they live now. • Resident wants to participate in the project work. • Just like in the location of the New Road that this LARAP study as inputs for the Land Acquisition Committee (P2T)

No	Socialization, FGD	Location/Date	Participant	Conclusion
5.2	FGD			
	<i>New Road</i>	Undertaken in village of Village of Cijambu, Cibitung, Sukaresmi of New Road. October 25, 2008.	<ul style="list-style-type: none"> • Number of Participant 42 person • PLN Generation and Transmission of West Java, • LPPM UNPAD • Sub-District Officials • Muspika (Board of Sub-District Leaders) • Village Officials • Informal Leader, and • Representative of the community who area affected by the Project. 	<ul style="list-style-type: none"> • PAP hope that compensation would be paid in cash via Bank, in accordance with price that appropriate with market price, so the PAP could buy the land in new place. • PAP ask to re-measure their land because the measurement that have been done no match reality in the field. • All cost of moving graves must be paid by the project. • The compensation price would be undertaken by consensus between PAP and the Project • Administration process / certificates and letters of land would be undertaken by the government. • The rice field crops and other agricultural land that have not been harvested at the time held that compensation must be paid for the compensation of various input costs of cultivating rice that have been allocated.
	<i>Existing Road</i>	Undertaken in Village of Sarinagen. October 23, 2008	<ul style="list-style-type: none"> • Number of participants 77 persons • PLN Generation and Transmission of West Java, • LPPM UNPAD • District Officials • Muspika (Board of Sub-District Leaders) • Village officials • Informal Leaders, and • Representative of the community who are affected by the Project. 	<ul style="list-style-type: none"> • PAP realize that the place they occupy is owned by PLN • Although there is an agreement with PLN, the building has been built on PLN's land, including crops, must be paid in accordance with market price. • PAP want to know clearly the borders of widening the road would be used by the project. • PAP wants to know when the Upper Cisokan Pumped Storage HEPP projects will be precisely constructed.

5.2. Consultation and Discussion that Need to be Done

Consultation will be continued with the disclosure of this LARAP, and to be discussed in public meeting:

- For the benefit of the affected community, the executive summary of LARAP and its entitlement framework will be translated into Bahasa Indonesia and its availability at local village offices advertised for easy access to LARAP related information
- Key features of the entitlements will be displayed in billboards along the project corridor
- Together with the village administration, PLN will conduct information dissemination sessions in villages and ensure involvement of local community/traders and encourage their participation in implementation
- Focused attention will be made for consultation with vulnerable groups to ensure that their specific needs are addressed

The stakeholders usually play important role to succeed such program, by this consideration, they will also be informed to acquire their concerns. This activity will be conducted by PLN Project with the assistance of consultant and the road contractors. The stakeholders to be involved in consultation other than the PAPs among others are:

- Forestry Agency
- Village Office
- Sub District Office
- West Bandung District Office
- Agriculture Agency of West Bandung District
- Public Works of West Bandung District
- Educational Office of West Bandung District
- Stone mining laborer
- Teachers of elementary schools in the Existing road
- Parents of elementary schools student
- *Ojeg* Drivers
- Residents along the existing road
- Residents near the quarry site
- User of water source in *Gunung Karang* Quarry site
- Community around the new resettlement areas
- Local NGO

To make sure that the implementation of compensation and resettlement can be carried out smoothly and effectively, an appropriate strategy of consultation and discussion need to be done as outlined in Table 5-2. The focus, time scale, and strategy of consultation and discussion will cover the following aspects:

1. Consultation and Discussion on Asset Lost;

Two things that should be covered in the consultation and discussion:

- a. The information resulted from the inventory done by P2T (LAC) on lands and assets associated with the land. This information should be publicly announced at village and sub-district level.
 - b. Grievances from PAPs. Based on the inventory results, PAPs may be able to confirm and/or complain on the content of the published list. Within 14 (fourteen) days, the PAPs have opportunity to make grievances to the Grievance Handling Team. Based on these grievances, the P2T (LAC) will clarify the subject matters, including any ground check on land and assets on the land being subjects of the grievance.
2. Consultation and discussion on asset compensation;
There are three activities on asset compensation as follows:
- a. Setting the price of land as desired by the PAP. This activity's objective is to get the information on price as consideration to set the price for land compensation.
 - b. Discussion leading to the determination of price for land and asset compensation. This activity is to negotiate the price for land compensation as desired by the PAPs and agreed by the PT PLN.
 - c. Socialization of the timing and mechanism of compensation payment. This activity will be carried out only after the decision on price has been made by the P2T (LAC).
3. Consultation and discussion on resettlement;
There are two activities will be carried out for this consultation and discussion:
- a. Providing the PAPs with information on resettlement plan and income restoration.
 - b. Design resettlement plan for the resettlement program arranged by the local government. This activity is aimed at the identification of public facilities and social infrastructures required by the PAPs at the resettlement site.
4. Consultation and discussion on income restoration.
The consultation and discussion for income restoration covers a single issue, which is the information on income restoration program on resettlement plan. The aim of the consultation and discussion is to identify and determine types of income restoration that need to be carried out including its associate trainings.

Table 5-2. Strategies for Consultation and Discussion

Item for consultation	Parties involved	Location	Time Frame	Strategies of consultation
Asset Lost:				
The announcement of the inventory result on land and asset by P2T	LAC, National Land Agency, Village Office; Sub District Office; PLN, PAPs	Village and sub-district offices	After P2T finishing its assets inventory	Dissemination via public boards and other printing and electronic media
PAP's grievances on land size, size of building, number of plants, status of ownership	LAC, Grievance handling team, Village Office; Sub District Office; West Bandung District Office; Agriculture Agency of West Bandung District, PAPs, Local NGO and PLN.	PAPs location	One month after the announcement of inventory result	Grievance handling mechanism
Compensation:				
Obtaining land price desired by PAPs and actual market price	P2T, PLN, Village Office; Sub District Office; West Bandung District Office Village Officer, Local NGO.	PAPs location	After announcement of inventory result	Obtaining price of land desired by PAPs through FGD
Negotiation (<i>Musyawahah</i>) to make an agreement on price of land	P2T, PLN, PAPs, IMA, Village Office; Sub District Office; West Bandung District Office; Agriculture Agency of West Bandung District; Public Works of West Bandung District; Teachers of elementary schools, Police	PAPs location	Before the price of land has been decided by P2T	Negotiation on price of land between PLN and PAP
Dissemination on price for compensation, time and mechanism of the payment	P2T, Village Office; Sub District Office; West Bandung District Office; Agriculture Agency of West Bandung District; Public Works of West Bandung District, PLN, Bank, PAPs, POLRI, Local NGO	PAPs location	After P2T decided the price of land compensation and after local government decided the price of buildings and plants	Dissemination to PAPs
Resettlement:				
Providing PAPs with information on resettlement plan and income restoration	Resettlement team, Village Office; Sub District Office; West Bandung District Office; Agriculture Agency of West Bandung District; Public Works of West Bandung District; PAPs,	PAPs location	After the selection of location site by PLN	Socialization on resettlement plan and income restoration

Item for consultation	Parties involved	Location	Time Frame	Strategies of consultation
	Local NGO			
Resettlement design plan for location arranged by the local government	Resettlement team, Village Office; Sub District Office; West Bandung District Office; Agriculture Agency of West Bandung District; Public Works of West Bandung District; PAPs, Local NGO	Resettlement location that has been decided	After the location has been decided by PLN	FGD on public facilities required by the PAPs at the resettlement
Income Restoration				
The selection and implementation of Income Restoration and associated trainings for PAPs after resettlement	Resettlement team, special task force at the local government, training consultants, PLN, PAPs.	Resettlement site and other decided places	After resettlement	FGD on types of Income Restoration and implementation of trainings

5.3. Location of Resettlement and Steps Needed

5.3.1. Location of Resettlement

PLN has consulted with PAPs on project plan, compensation, and the possibility of relocation of the PAPs. Based on this consultation, the majority of the PAPs have decided that they want to move out around their current houses. Considering the PAPs desired for resettlement site and considering the existing condition of the site, therefore the PLN proposed that for PAPs from access road and quarry to be moved to Kampung Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampung Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampung Nagrak, Giri Mulya village, Cibeber sub-district, Cianjur district. Those proposed villages have not been officially decided.

Pre Feasibility site assessments are underway and their results will be summarized in that section before LARAP finalization.

5.3.2. Community response to resettlement plan

As already mentioned in Chapter III concerning the PAPs aspiration on the resettlement plan, out of 141 head of household, who is should be moved out, 126 head of household want to move out on their own, while 15 head of household would like to be moved out by the government..

Those who want to resettle on their own, 28 head of household want to move to the same village (Sarinagen village), 23 head of household want to move to the surrounding village of Sukaresmi, 13 head of household prefer Cijambu village, 18 head of household prefer Karang Sari village, 12 head of household prefer Sinargalih village, 16 head of household prefer Cibitung village, and the rest (16 head of household) have not decided yet where to move.

5.3.3. Steps need to be taken

A. Resettlement site managed by the government/project

Steps to determine the resettlement are as follows:

1. PLN propose a permit to the District of Bandung Barat and Province of West Java to use Kampung Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampung Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampung Nagrak, Giri Mulya village, Cibeber sub-district, Cianjur district, as a proposed resettlement site.
2. After the government permit has been granted, PLN conduct a feasibility study and environmental carrying capacity for those two resettlement sites.
3. Site visit and consultation regarding location and perception of the PAPs.
4. Decision of resettlement site based on study result.
5. Consultation with PAPs on early design on resettlement plan and associated economic measures based on local characteristics.
6. Design and physical construction of resettlement including other facilities required by the PAPs
7. Relocation of the PAPs to the resettlement site.
8. Monitoring and "treatment" to new settlers, covering socio-psychological aspects, and economic development.

B. Resettlement on their own

1. The government should provide the PAPs with information on the development plan of the sites that desired by the PAPs (in the surrounding project area).
2. Guiding and giving assistance to the PAPs who want to move out on their own with small scale economic development.
3. The PAPs who want to move out by group (minimal 30 households) will be provided with facilities such as road, drainage, and other necessary public facilities supported financially by the PLN. To realize this promise, the PLN will establish a resettlement unit with close working coordination with the resettlement implementing team.
4. Monitoring on economic development.

6

LARAP Institution and Procedure of Grievances Handling

6.1 Institution in implementing LARAP

In addition to the Unit of Project Implementation (PIU) as a task force within the structure of PLN Hydro Java Generation, some institutions will be involved in implementation activities of LARAP of the Upper Cisokan Pumped Storage Project namely (1) Land Acquisition Committee (LAC/P2T); (2) Joint Team of Local Government and PLN for Non Title Holders. (3) Independent Appraisal Agency licensed of the National Land Agency (BPN), (4) Team of Policy Formulation and Resettlement Implementation; (5) Grievances Task Force, and (6) Independent Monitoring Agency.

6.1.1 Land Acquisition Committee (P2T/LAC)

Location of the access road development plans and carrying material in the Quarry is situated in District of West Bandung. But as an inseparable part of the Upper Cisokan Pumped Storage Project located in two regencies, namely District of West Bandung and District of Cianjur. In case the needed land for public purpose development located in 2 (two) districts/cities or more, Land Acquisition Committee will be established by the Governor's Decree. This is in accordance with Presidential Regulation No. 36 of 2005 and Presidential Regulation No. 65 of 2006 on Land Acquisition for Development for Implementation of Public Interest and the Head of BPN Regulation No. 3 of 2007 on the implementation of two those regulations. Aside from the LAC, Joint Team of Local Government and PLN for Non Title Holders will do tasks to comply with the World Bank OP 4.12. Joint Team will inventory personal investment of non title holders who may have asset in the form of physical structures or agricultural crops.

Thus, *P2T/LAC* of Province of West Java, *P2T/LAC* of West Bandung District and Cianjur District together with Joint Team Local Government - PLN will involve in this project since the land acquisition plan for access road.

6.1.1.1 Membership, functions and tasks of LAC/P2T of West Java Province

In accordance with Article 15 Head of BPN Regulation No. 3 of 2007, membership at the provincial level *LAC/P2T* mostly consists of nine people, organized as follows:

- a. Secretary of West Java Regional as Chairman and concurrent member;
- b. Local officials in the province of the echelon II level designated as Vice Chairman
- c. Head of Regional Office of the National Land Agency of West Java Province or official appointed as Secretary and concurrent Member; and

- d. Head Office / Office / Agency in the province related to the implementation of land acquisition or the official appointed as a Member.

West Java Province LAC served as follows:

- a. Provide direction, guidance and direction for the implementation of land acquisition in the district, in this case is Land Acquisition Committees of West Bandung district.
- b. Combine coordinating and implementing land acquisition in the district.
- c. Giving consideration to the Governor for decision making solution form and amount of compensation proposed by the Head of District, and
- d. To supervise and control the implementation of land acquisition and compensation.

6.1.1.2. Membership, functions and Tasks of Land Acquisition Committee (LAC/P2T) of West Bandung and Cianjur District

In accordance with Article 14 Head of BPN Regulation No. 3 of 2007, membership at the district level *P2T* mostly consists of nine people, organized as follows:

- a. Regional Secretary as Chairman and concurrent Member;
- b. Officials from the device element area echelon II level as Vice Chairman and concurrent Member;
- c. Head of Land Office District / City or official appointed as Secretary and concurrent Member; and
- d. Head Office / Office / Agency in the County / City related to the implementation of land acquisition or the official appointed as a Member.

District Land Acquisition Committees of West Bandung has a duty as follows:

- a. Giving an explanation or information to the public;
- b. Conduct research and inventory of land areas, buildings, plants and other objects relating to land, the rights to be released or transferred;
- c. Conduct research on the legal status of land areas due to be released or transferred and the supporting documents;
- d. Announcing the results of research and inventory as referred to in letters b and c;
- e. Hiring a licensed Appraiser to appraise value of affected land
- d. Estimating the land price appraisal, buildings, plants and other objects relating to land from a licensed Independent Appraisal Agency of Agrarian Office and related agencies responsible for assessing the land, buildings, plants and other objects relating to land;
- f. Hold a meeting with the owners with government agencies that require land in order to determine the form and amount of indemnification;
- g. Determine the amount of compensation for the land rights to be released or transferred.
- h. To be witness in delivering of compensation to the owners.
- i. Making the news release or transfer of rights.

- j. Administer and document all land acquisition and the file handed to PLN that require land and Agrarian District Office; and
- k. Delivering the consideration of the problems with land acquisition resolution to the mayor if the council did not reach consensus for decision making.

6.1.2 Licensed Independent Appraisal Agency of BPN

Land Price Appraisal Institution (licensed by BPN) is appointed to conduct the assessment of land prices in this project. The appointment made by the LAC (*P2T*) of Districts of West Bandung through Assessment Letter of District's Head, in this case Districts of West Bandung in accordance with their respective locations affected the Upper Cisokan Pumped Storage project.

Land Price Appraisal Institution is a professional institution/team and independent to determine the land value/price that further will be used by the LAC as base to achieve agreement on land compensation with the PAP. Once appointed, the Appraisal team will conduct survey to persons, and institutions involved in land acquisition process in project area for determining the land price.

As for determining the value of buildings and the establishment of plants/other stands are attached to the land will be referred to the Regional Regulation or other regulations issued by the Government of West Bandung District. PLN will communicate and socialize with both the district government, including giving information to the Government of West Java province (before land compensation conducted) to publish recent legislation or other regulations such as Head of District Regulation which can become the reference in the pricing structure and plant affected by the Upper Cisokan Pumped Storage Project.

The independent appraisal consultants will determine eligibility by following the LARAP criteria in chapter 4, of non title holders who may have asset in the form of physical structures or agricultural crop of personal investment and appraising their asset values. They will also assess the assistance eligibility for them.

6.1.3. Resettlement Policy Formulating Team (RPFT) and Resettlement Implementing Team (RIT)

Resettlement Policy Formulating Team is an institution, which review resettlement formula produced by consultants of LARAP to appropriate local government policy. Resettlement Policy Formulating Team tasks to formulate resettlement policies that to be implemented in accordance with the conditions of each region by Resettlement Implementing Team.

The resettlement Implementation Team will coordinate all resettlement implementation activities, including through setting up assistance and restoration of social and economic life/income of PAP after developing project. This team set by the

Governor decree of cross-sector by involving local governments and groups of experts and PLN.

6.1.4. Grievance Task Force

A grievance redress procedure (Figure 6-1) will be the guidance to answer to various queries and to address grievances and issues that the PAPs are likely to bring, with regard to disputes over ownership and inheritance of the affected assets, distribution of compensation among the heirs, missing affected assets and persons in the census, etc. The procedure will not replace the existing legal process; based on consensus, the procedure will seek to resolve the issues quickly in order to expedite the receipt of compensation, without resorting to expensive and time-consuming legal actions. The institution to handle grievance redress is the Task Force developed in Project Implementation Unit (PIU). The Task Force consists of PLN Officers and the hired experts. It has two main tasks namely the first as an accompaniment to the people or PAP during this project; and the second to accommodate and facilitate the public grievances related to the implementation of this project. The grievances submitted to Grievance Task Force in PIU should be in writing (see sample form below).

AN EXAMPLE OF THE FORM OF GRIEVANCES OF THE PEOPLE WHO ARE AFFECTED BY THE UPPER CISOKAN PROJECT

TYPE OF GRIEVANCES :

- 1) List of Impacted Asset Inventory
- 2) Implementation of Asset compensation and Resettlement
- 3) Other grievances

Name Reporter /PAP : _____

Village / Sub-District : _____

Description of grievance : _____

Date: _____,

Recipient Grievances Officer, _____ Reporter,

Description of Response : _____

Date: _____,

Personnel who provide response,

Personnel who will be assigned to this Task Force and advocacy of the grievance handling are originated from non-profit institution or university and / or experts who have the commitment and experience in community development. This Task Force will be established by PLN as part of project implementation overall of the Upper Cisokan Pumped Storage Project.

The main task of this Task Force serves assurance of PAP's right and interest in this project. The PAPs need two kinds of project assurances. The first is the assurance of the timeframe of grievance redress, so the PAP will have the certainty of his/her grievance to be handled by this institution during the agreed time frame (i.e. 3 weeks he/she has received the solution answer). The second assurance is law assistance (advocating) by this Task Force to advocate PAP's interest.

The work mechanism of this Task Force is follows:

- Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for advocating and grievance handling.
- The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions (LAC/RIT) for further action. The action should be handled one week after receiving the grievances.
- Institutions relevant (LAC/RIT) to the grievance handling should give response/way out to the Task Force in two weeks time.
- The Task Force for Grievance Handling should give a response/way out to PAP in three weeks.

The member of this Task Force is independent and the work mechanism as depicted in picture 6-1, so it will serves assurance that any grievance raised by the PAP will be properly handled. In other hand the project will receive the periodic report that submitted by this Task Force.

6.1.5. Independent Monitoring Agency

During the implementation process of LARAP both at the time of the land acquisition and its property the implementation of the resettlement needs of an independent monitoring agency. This team has function to monitor and directly serves as the implementing agencies and monitors the impact evaluation of the overall project implementation.

Monitoring and Evaluation are critical activities in the implementation of any plan. This assumes significance if the plan is related to Land Acquisition and Resettlement & Rehabilitation. Monitoring involves periodic assessment of plan implementation to ascertain whether the activities are progressing as envisaged and provides feedback on how to keep the plan on schedule and at the same time maintain quality. By contrast, evaluation is the impact of plan in terms of achieving its intended objectives. This focuses more on results than the processes. The monitoring indicators are presented in Table 6-2.

Benchmarks for measuring restoration of livelihoods (improving or at least restoring livelihood) of the PAP will be the following parameters.

- a) **Family income** – defined as the annual family income before and 2 years after relocation
- b) **Replacement of lost assets with assets of comparable value** – defined as the market value of replacement assets compared with that of the assets lost
- c) **Shelter condition** – qualitative assessment by PAPs and quantitative assessment of size and quality of structures
- d) **Family Infrastructure access (clean water, sanitation facilities, electricity)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)
- e) **Public Services access (road, market, education facility, praying facility)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)

Assisted by an independent monitoring agency, the project staff will directly liaises with the Resettlement Implementation Team (RIT) and Land Acquisition Committee (LAC) and monitor progress in both land acquisition and resettlement implementation. Monitoring will consist of an array of steps related to LARAP preparation and implementation, as well as those involved in the process leading to commencement of the civil works. The independent monitoring agency will be responsible for setting up and operating an integrated system by using verifiable indicators to monitor and report progress and performance in terms of the integrated schedule of these tasks.

The following format will be used for monitoring task:

- Format for monitoring progress in the legal land acquisition process (Table 6-3)
- Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land (Table 6-4).
- Format for summary information on compensation payment for private lands and public lands (Table 6-5).
- Format for summary information on assistance payment by PLN to affected properties (Table 6-6).
- Format for summary information of resettlement on housing colony prepared by PLN (Table 6-7)
- Format for information on grievance redress activities, by project location (Table 6-8).

6.2. Report Submission of Involved Institution

Also as a form of accountability by the activities of each institution mentioned above, then all the institutions involved in this LARAP implementation required to provide monthly reports, quarterly and annual reports to the hand-related parties (Table 6-2).

Each project report will be prepared in accordance with the needs of the report itself, but as general guidelines for preparing reports of systematic reporting is at least contained:

Table 6-1. Matrix of Project Activity Report Delivery

No	Institution	Report Kind	Submitted to	Note
1.	Land Acquisition Committee (P2T) of West Java Province	Implementation of Function and its Duty	Governor of West Java	Monthly/Quarterly/ Yearly
2.	Land Acquisition Committees (P2T) of West Bandung District	Implementation of function and its duty	Districts of West Bandung	Monthly/Quarterly/ Yearly
		Asset Inventory List	Public Information	Attached in village, District, and PLN office
3.	Licensed Appraisal	Valuation Result of land price	P2T District	Finishing undertaking asset valuation
4.	Resettlement Policy Formulating Team	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan Project</i>	Monthly/Quarterly/ Yearly
5.	Task of advocating and handling grievances of PAP	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan Project</i>	Monthly/Quarterly/Yearly
		PAP grievances	Involved bodies with PAP grievance	Each of occurring grievance
6.	Independent Monitoring Agency	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan Project</i>	Monthly/Quarterly/ Yearly
7.	PLN PIU	RAP program monitoring *)	World Bank	Reports to plan for follow up on any failures to replace lost assets or restore livelihoods

*) If by the end of the each RAP program, monitoring demonstrates that livelihoods have not been restored to at least pre-project levels, the project will commit extra funds to conclude livelihood restoration for all PAPs. The reports will:

- 1) determine whether the main objectives of the LARAP have been realized,
- 2) verify the delivery of all agreed forms of compensation and assistance,
- 3) assess whether these have been sufficient to replace lost assets, and to restore livelihoods, and
- 4) if the assessment reveals that these objectives may not be realized (that assets are not replaced or incomes or living standards have not been restored -or are not likely to be- for a significant proportion of the affected population), then completion reports will include proposed follow-up measures for PLN to agree with the Bank.

6.3. Prevention of Land Speculation

After the establishment of Location Determination Decree issued by the Governor, it will be noticed to the public, especially the owners of assets located in the location of the project plan (and the Quarry access road), no transaction should be allowed except for PAPs who has a prior permit from the Regent or Governor.

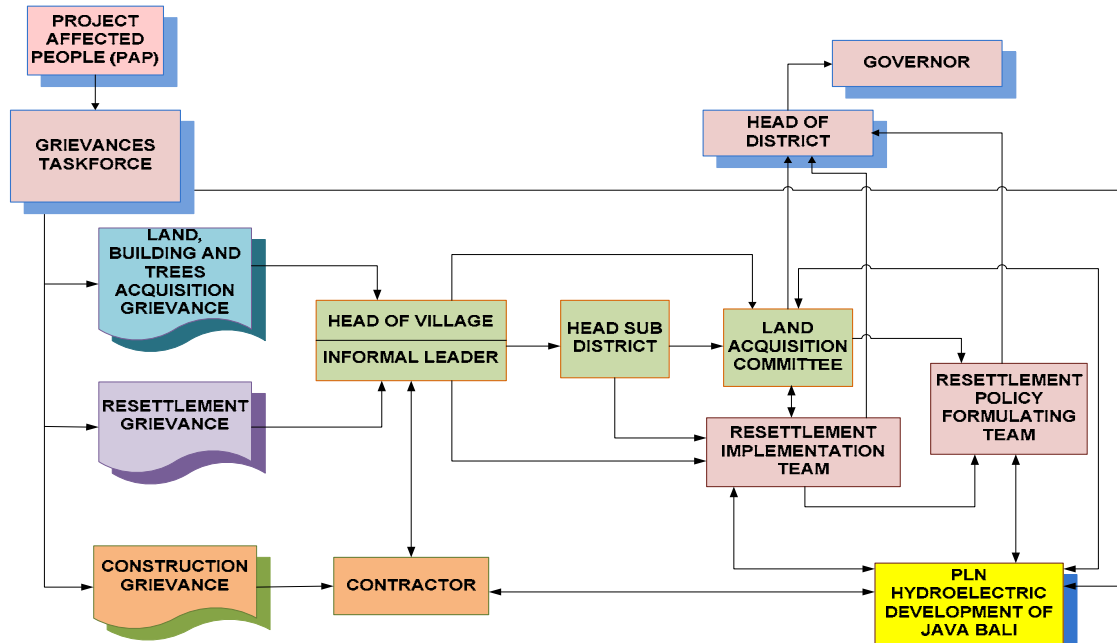
Socialization of and supervision of these efforts will be made widely and continuously until the resettlement activity is completed. Socialization will be carried out by PLN together with (officials) district, sub district and village. Prospective environmental surveillance of the project location and potential location of settlements that will be used for resettlement of PAP will also be conducted to prevent the transfer of cultivation, occupancy or utilization of land and physical assets are placed. These activities will be conducted in order to avoid domination / exploitation by people who are not entitled, which will disadvantage people affected by the project.

Besides, PLN will encourage to undertake payment for the land, physical assets, and trees implemented as quickly as possible and directly to the owner for the project-affected communities do not experience losses due to speculative activities.

In accordance with the elaboration of the above institution, the LARAP's working mechanism should cover: (1) land acquisition mechanism (2) compensation payment mechanism, and (3) resettlement working mechanism, as shown in Figures 6-2, 6-3, and 6-4.

Figure 6-1.

MECHANISM OF GRIEVANCE HANDLING FOR THE UPPER CISOKAN PUMP STORAGE PROJECT



Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for Advocating and Solution.

PAP's grievances regarding to the land acquisition, should submit their grievance to the Task Force within **14 calendar days** after the announcement of the asset inventory by the LAC (Article 41 Clause 1 Regulation of Head of National Land Agency No.3/2007)

The Governor should response not more than **30 calendar days** (Article 41 Clause 3 Regulation of Head of National Land Agency No.3/2007)

The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions for further action. The action should be handled **7 calendar days** after receiving the grievances.

Institutions relevant to the grievance handling should give response/way out to the Task Force within **14 calendar days**.

The Task Force for Advocating and Grievance Handling should give a response/way out to PAP within **21 calendar days**.

Figure 6-2.

INSTITUTIONAL SCHEME OF RESETTLEMENT ACTIVITY OF UPPER CISOKAN PUMPED STORAGE HEPP

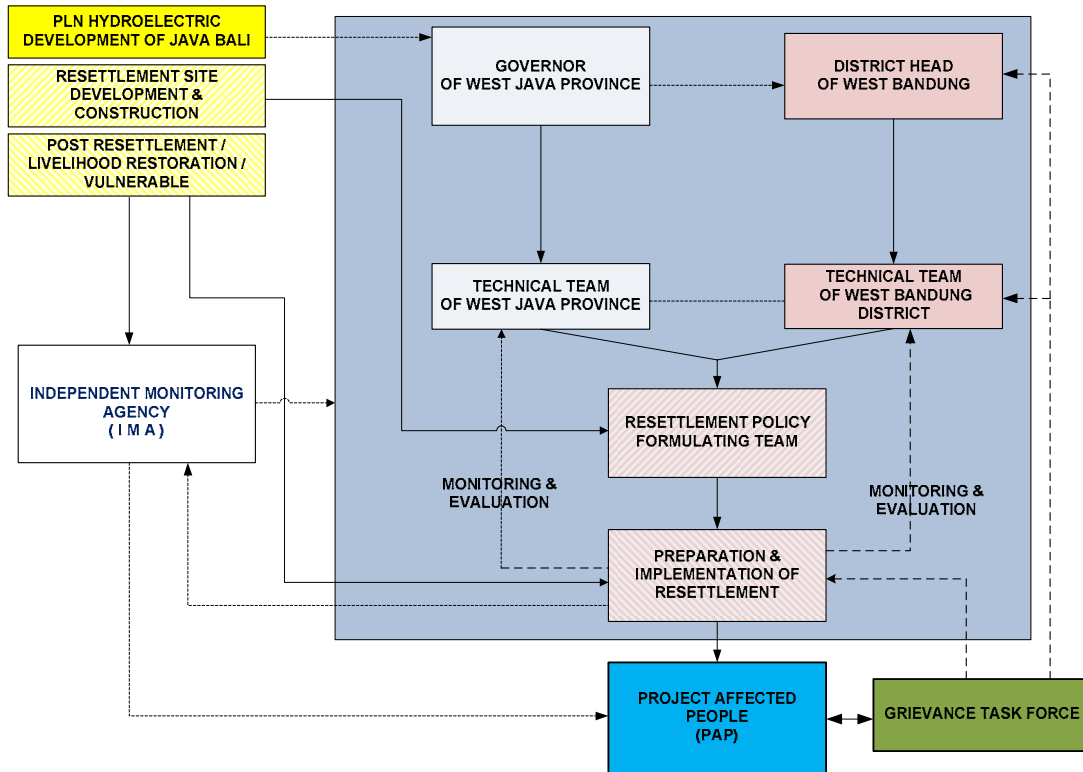
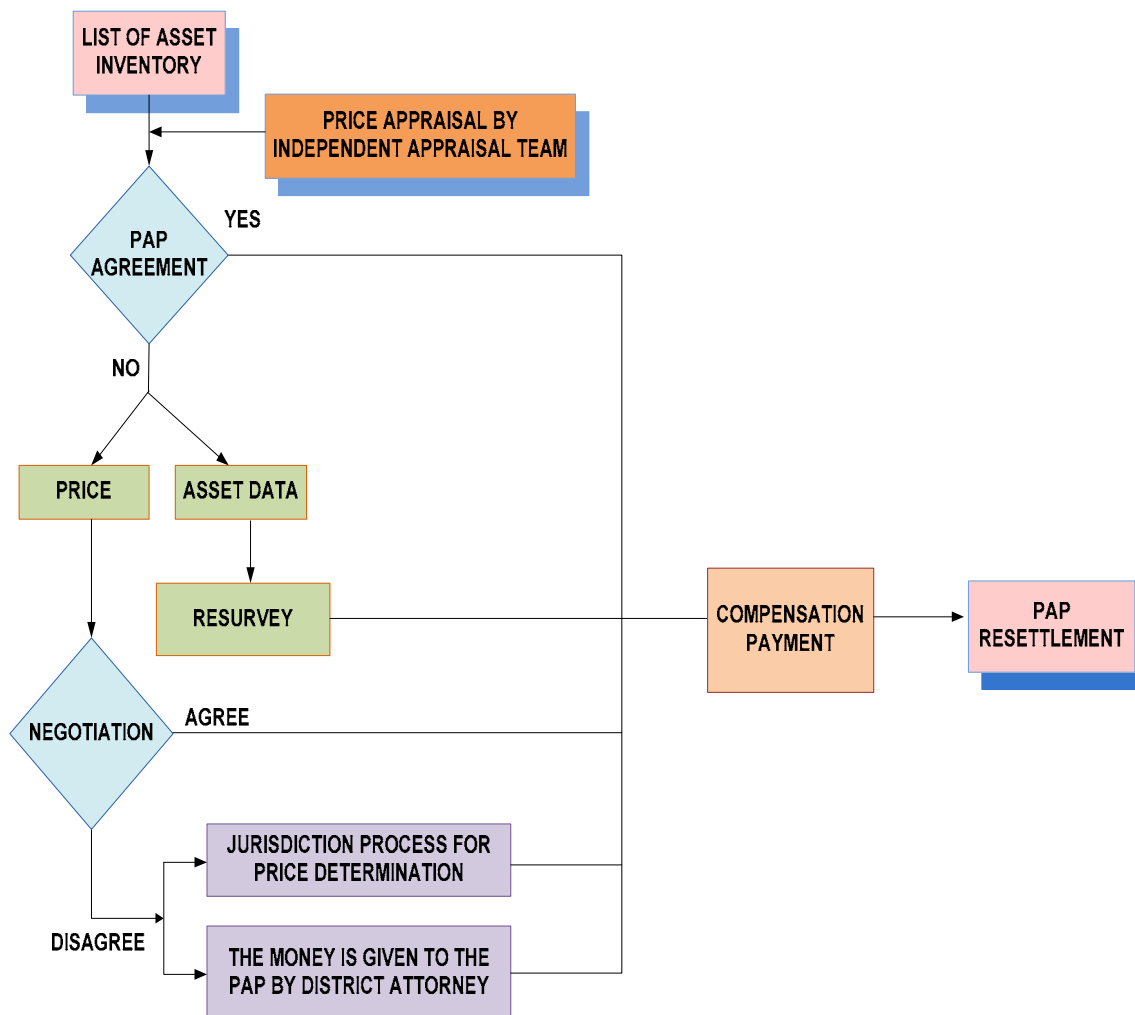


Figure 6-3.

COMPENSATION PAYMENT SCHEME



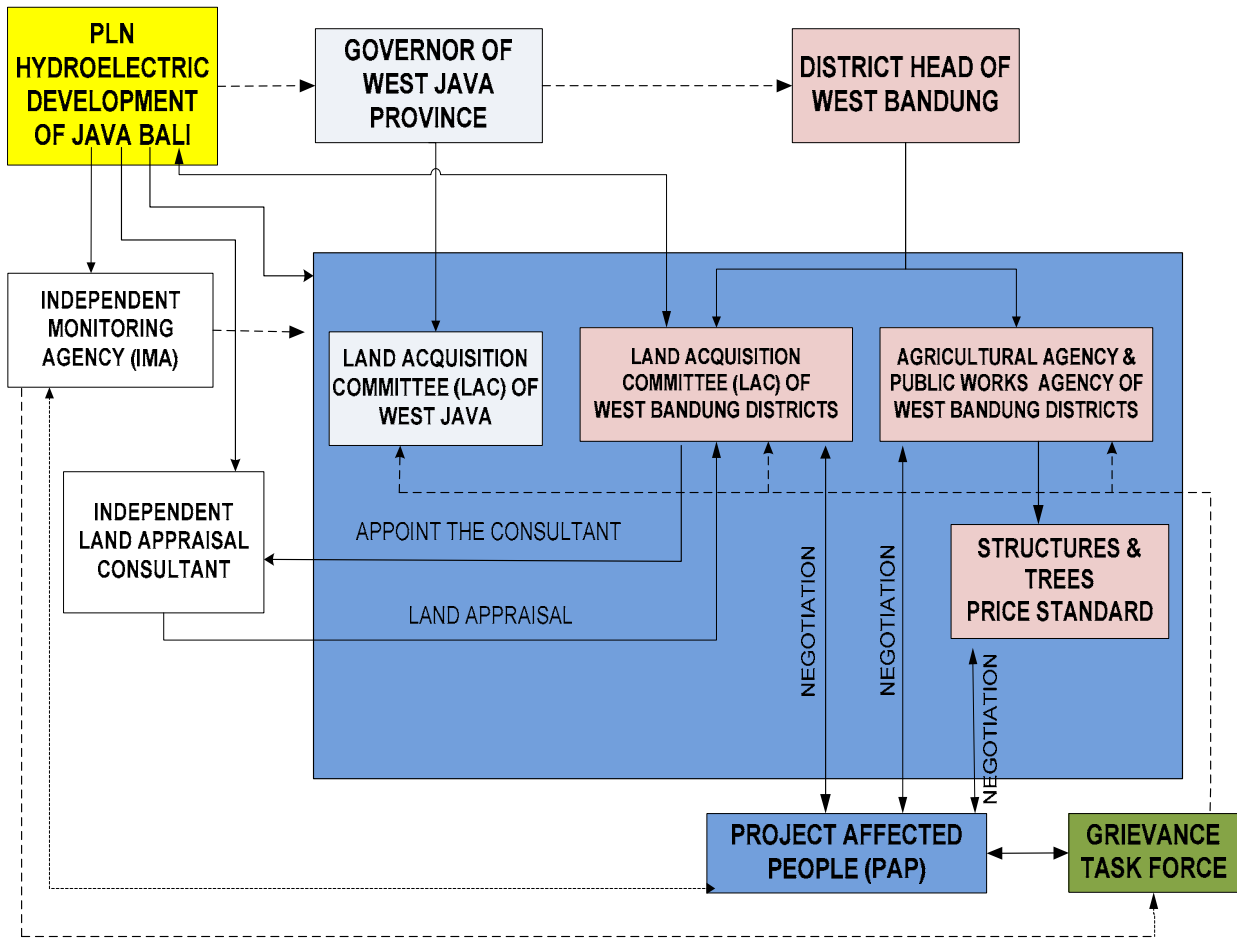
Note:

Jurisdiction process for price determination: Based on Presidential Regulation No 36 year 2005, Presidential Regulation No 65 Year 2006 and Head of National Land Agency Regulation No 3 Year 2007 concerning Land Acquisition that the land owner who disagree with the decision of Land Acquisition Committee (LAC) concerning land price, may submit the objection to Bupati (Head of Regent) of West Bandung or to Governor of West Java or Minister of Home Affairs.

The Bupati/Governor/Minister will scrutinize the argumentation and consideration of the Land owner and the consideration of the LAC and then make decision on land price.

Figure 6-4

INSTITUTIONS SCHEME OF LAND ACQUISITION



6.4. Execution of LARAP

The activity execution of this LARAP will be conducted by the PIU of Upper Cisokan Pumped Storage HEPP under the coordination of PLN Principal Project of Hydroelectric Power Development of Java and Bali. In executing the compensation and resettlement plan the PIU establish Resettlement and Compensation Manager to execute the following activities:

1. Administration and Legal Aspect of the project activities which involve the following: legal counseling staff, general services staff, external compliance monitoring agency, financial auditing team, grievance officer, and mediating committee.
2. Survey/Census/Data management;
3. Site Resettlement Development and Construction
4. Post Resettlement Handling and Restoration
5. Monitoring and Evaluation.

The overall working mechanism of compensation and resettlement plan as outlined in figure 6-5. To speed up the process of compensation and resettlement program smoothly and effectively, the capacity building will be conducted as outlined in Appendix 11. The description of this mechanism of compensation and resettlement program is as follows:

1. Administration and Legal Aspects
 - a. Legal aspect of Upper Cisokan project. This activity helps the project in various matters associated with legal aspects. The team in charge with this activity will be formed out of PLN (out sourcing) and consisting of resource persons with competency in Indonesian laws and regulations.
 - b. General services aspects. This activity helps the project for handling general administrative and human-related aspects in the implementation of compensation and resettlement. This activity will be carried out by PLN administrative staffs.
 - c. External monitoring grievance aspects. This activity will be handled by an independent team outside of the compensation and resettlement management team. The independent team called Independent Monitoring Agency (IMA), where it's monitoring and evaluation results will then be reported to internal grievances handling officer for further resolution by the Grievance Task Force.
 - d. Financial auditing aspect. This activity will be done by the third party, which is a certified public accountant.
 - e. Grievance handling officer. This officer task is to coordinate with the Grievance Task Force for solving any grievances related with project implementation.

2. Data Management/Survey/Census.

Data and information collected from survey/ census will be managed by special agency established by local government, called Land Acquisition Committee (*P2T*). This agency, in doing its job, will be working together with National Land Agency

(BPN) and independent Land Appraisal. Activities that need to be carried out are as follows:

- survey of physical assets;
- survey of socio-economic data;
- data processing through PAP's information system;
- deciding rights that should be given to the PAPs according to entitlement criteria set up by PLN.

The collected data and information will be organized in the form of PAP's data and information. The data and information will be made available in hard and soft copies. All collected data and information will be organized by special staff, who will report to the compensation and resettlement manager. To modify the data and information collected from the survey, one should have written permission from PLN through the Compensation and Resettlement Manager.

3. The development of Resettlement Sites and Construction.

The development of resettlement sites and construction activities consists of the following three activities: (1) Site survey, design and architecture plan; (2) Construction works monitoring; and (3) Monitoring of environmental consequences resulting from construction work. All activities will be done in collaboration with the third party in accordance with government regulation.

4. Recovery After Resettlement

The recovery programs after resettlement are carried out in the following:

- a. livelihood restoration, which is part of PAP's economic restoration;
- b. business resettlement, which is part of small scale economic development for those who lost their economic earning; and
- c. monitoring and evaluation of resettlement programs.

Points a) and b) will be done by working together with the third party, especially the consultant with experience in economic recovery and community development programs.

5. Monitoring and Evaluation.

Monitoring and evaluation activities will be covering the following:

- (1) monitoring of infrastructure and other facilities in the resettlement sites; and
- (2) monitoring of PAP's economic restoration and business resettlement, which is part of small scale economic development for those who lost their economic earning .

It is also necessary to note that the implementation of these program activities will result in some forms of agreements. Therefore, all of these agreements including agreement with the third party should be in accordance with current government regulations.

The job description of PLN PIU personnel is presented in Appendix 12.

Figure 6-5.

INSTITUTION OF LAND ACQUISITION AND RESETTLEMENT ACTIVITY

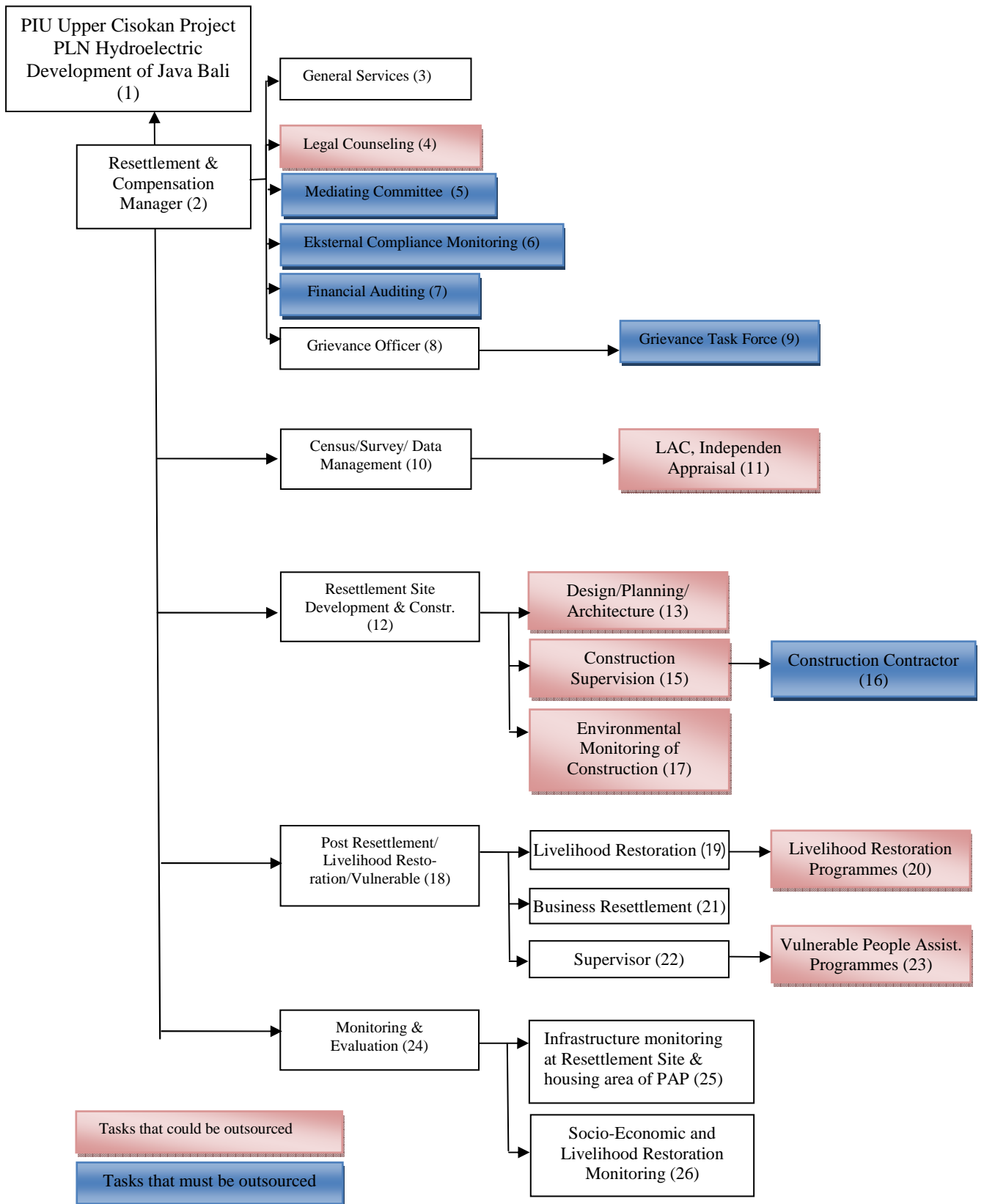


Table 6-2 Monitoring indicators

Project Location : Access Road and Quarry

Reporting Date :

Monitoring Indicators	Total				Villages																							
					Karangsari				Sarinagen				Cijambu				Sukaresmi				Sirnagalih				Karangsari			
	Base-line		Moni-toring		Base-line		Moni-toring		Base-line		Moni-toring		Base-line		Moni-toring		Base-line		Moni-toring		Base-line		Moni-toring		Base-line		Moni-toring	
	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable
1. PHYSICAL																												
a) Extent of land acquired																												
b) Number of structures demolished																												
c) Number of land owner and private structure owners paid compensation																												
d) Number of families affected moved out																												
e) Number of PAPs receiving assistance/compensation																												
f) Number of PAPs provided transport facilities/shifting allowance																												
g) Number of PAPs allotted house under PLN housing scheme																												
h) Area and quality of land purchased compared with former holdings																												

Table 6-3. Format for monitoring progress in the legal land acquisition process

Project Location : Access Road and Quarry

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish			Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Land	Structure	Vegetation				
Existing Access road	Plan									
	Monitoring									
New Access road	Plan									
	Monitoring									
Quarry	Plan									
	Monitoring									
TOTAL										

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5.

Table 6-4. Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land

Project Location : Access Road and Quarry

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish		Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Structure	Vegetation				
Existing Access road	Plan								
	Monitoring								
New Access road	Plan								
	Monitoring								
Quarry	Plan								
	Monitoring								
TOTAL									

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5.

Table 6-5. Format for summary information on compensation payment for private lands and public lands

Project Location : Access Road and Quarry

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Number of PAPs	Number & Percentage of Entitled PAP Paid (cumulative)								
					Land		Structure		Vegetation		Other Assets		
					Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number of PAPs	Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number and percent of PAPs Paid	
Existing Access road	Plan												
	Monitoring												
New Access road	Plan												
	Monitoring												
Quarry	Plan												
	Monitoring												
TOTAL													

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5.

Table 6-6. Format for summary information on assistance payment by PLN to affected properties

Project Location : Access Road and Quarry

Reporting Date :

Project Location	Total No. of PAPs	No. of PAPs Eligible for Assistance	Number & (Percentage) of PAPs Paid by PLN for			
			Enhancing Remaining Land Productivity	Enhancing Skill And Capital	Business/Marketing Incubation	Others
Existing Access road						
New Access road						
Quarry						
TOTAL						

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5.

Table 6-7. Format for Summary Information of Resettlement on Housing Colony Prepared By PLN

Project Location : Access Road and Quarry

Reporting Date :

Project Location	Total No. of PAPs	No. of PAPs Eligible for housing assistance	Date of house ready	Date of inspection by RIT	Date of inspection by PAP	Date of PAP move in
Existing Access road						
New Access road						
Quarry						
TOTAL						

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5.

Table 6-8. Format for Information on Grievance Redress Activities, By Project Location

Project Location : Access Road and Quarry
 Reporting Date :

Project Location	Number of meetings (cumulative)	Number of Grievances submitted, By Reasons and Affected Groups (Cumulative)									Number of Grievances Reviewed, By Reasons and Affected Groups (Cumulative)									Number of Grievances Accepted for Redress (Cumulative)				
		Reasons						Number Submitted by			Reasons						Number Reviewed For			Legal PAPs	Squatter, Sharecropper	Others		
		1	2	3	4	5	6	Legal PAPs	Squatter, Sharecropper	Others	1	2	3	4	5	9	Legal PAPs	Squatter, Sharecropper	Others					
Existing Access road																								
New Access road																								
Quarry																								
TOTAL																								

Reasons: 1-5 for Five Major Reasons, and 6 for all other reasons (Name the major reasons listed under the codes).

Affected Groups: Legal PAPs - Owners recognized by law; Squatter, Sharecropper – persons use public land for agriculture or dwelling purposes; Others - persons not identified by socioeconomic survey, or persons and community groups acting independently or on behalf of the PAPs.

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

7.1. Land Acquisition Action Plan

The LARAP study found that there are some gaps between Government of Indonesia's regulations on land acquisition and the World Bank policies. For example, the compensation for building assets, the World Bank policies insists that new and old building should not be compensated differently, the new building should get more cash compensation compared to that of old building. Other gaps between the GOI's regulation and World Bank Policies are the treatments for squatters, encroachers, vulnerable and severely affected people. While according to the Indonesia's regulation, squatters, encroachers should not get any compensation (and even should be evicted from state owned land). As for vulnerable and severely affected people, there are no regulations covering their assistances. The World Bank Policies mention that squatters, encroachers, vulnerable and severely affected people should be compensated and get assistance for their assets according to the OP 4.12. Therefore, it is recommended that the solution to this problem would be that the compliance to the World Bank policies on land acquisition should be within, and not against, the Indonesia's formal regulations. By this reason, all land acquisition implementation should be carried out in accordance with the process and standards outlined in the LARAP, after the loan agreement between Indonesian Government and the World Bank is signed.

7.1.1. Assets inventory (Land, Buildings & Plants)

Based on Regulation of the Head of National Land Agency No. 3/2007 on The Implementation of Presidential Regulation No 36/2005 and Presidential Regulation No 65/2006, therefore the activity of inventory asset (land, building & plant) will be conducted with the mechanism as follows:

- Based on Permit Letter of Determination of Location issued by Governor of West Java, the PLN propose land acquisition to the District of West Bandung.
- Based on the letter of land acquisition proposed by the PLN, the District of West Bandung will form Land Acquisition Committee (P2T/LAC). Considering that the project location is in two districts, therefore, at the provincial level should also be formed provincial-level P2T/LAC.
- LAC and National Land Agency at each district will make inventory affected assets (lands, buildings, and plants) including to review legal status of the affected land, referring to the available data as described in the Access Road LARAP assisting by PLN and UNPAD, In carrying out assets inventory, P2T/LAC will be coordinating with:
 - National Land Agency (BPN) for verifying to mapping each of PAP's land;
 - Public Work Agency for verifying building and other physical objects on lands which is affected by the project;

- Agriculture Agency for verifying plant asset on the land affected by the project;
- 'Satuan Tugas' (Task Force) that can be established by P2T/LAC in assisting them in identification of PAPs and inventory of affected assets.
- Joint Team of Local Government and PLN will make inventory affected assets for the non title holders.
- The LAC/P2T will announce the result of investigation and inventory on assets (lands, buildings, and plants) for the title and Joint Team of Local Government and PLN will announce the result of investigation and inventory on assets for the non title holders, for about one month at village and sub-district offices where the project located;
- The LAC/P2T and Joint Team of Local Government and PLN will accommodate and follow-up on grievances and improving the lists accordingly.

7.1.2. Negotiation

- Prior to negotiation, the Independent Appraisal Consultant that appointed by the LAC will valuate affected land (refer to Article 27 BPN No. 3/2007). Independent Appraisal Consultant will assess land compensation value/replacement cost (ganti rugi) for the title reporting to the LAC. The Independent Appraisal Consultant will also assess assistance (bantuan/tali asih/kadeudeuh) for the non title holders with regard to the World Bank Policies (OP 4.12) reporting to the Joint Team of Local Government and PLN.
- While affected structures, plants and other assets (non-land) will be valuated by relevant institution in the district (refer to Article 29, BPN No. 3/2007). The valuation of the affected assets shall reflect to Article 1 (11) President Regulation No. 36/2005 that compensation shall be able to provide the continuation of life of PAPs better than the social and economic life before the provision of land.
- The valuation result of land compensation value/replacement cost (ganti rugi) will be submitted to the LAC and will be decided by local government based on the result of negotiation between the land owner and PLN mediated by the LAC.
- In each village the head of LAC will lead the land price negotiation with the PAP and PLN. It might be conducted once in most cases, or more than once in other cases.
- When the land price negotiation has been agreed between the PAP and the Project, then the LAC will initiate the nomination payment list.
- When the value of compensation cannot be reached, the case will be reported to District Head. If the district cannot reach agreement with the PAPs, the case might be taken as an agenda meeting in the Policy Formulating Team of West Java Province before conveying it to Governor of West Java for solution decision.
- Where possible, repeat negotiation with the PAP will be taken using above formulating Bupati (Regent) / Governor policy
- The last option to solve the problem is to go to court with consignment. However the objective of preparing the LARAP is to do land acquisition and resettlement well approach and solution as social economy condition of the affected peoples.

7.1.3. Preparation of draft of nomination payment list

- The LAC will prepare three kinds of draft of nomination payment list of Land, buildings and Plants/Trees
- These lists will be published in Village office. The PAP will have the chance to check their affected assets belonging.
- Based on the revised payment proposed by the PAPs, LAC should make field verification together with the PAPs.
- Based on the LAC verification result, LAC will issue the revised list of payment and this list will be used as the final compensation payment list.

7.1.4. Compensation Payment

- After getting cash transfer from PLN Head office, PLN PHJ will proceed the compensation payment.
- Compensation payment will be conducted in the affected village office by the project.
- Compensation will be given in cash through bank transfer
- Three kind of payment list of Land, buildings and Plants/Trees should be signed or finger print by the legal owner
- The photograph of payment receiving PAP will be taken and put in the payment list.

7.2. Resettlement Action Plan

7.2.1. Action Plan

In parallel with compensation process, Resettlement Implementation Team will further develop various resettlement and rehabilitation options that people can choose from, in consultation with PAPs and provide references where readers can find each package defined, and contact persons for delivering each option. This information will be publish and available in each affected village offices.

Action that needs to be done in relation with resettlement and economic restoration program are as follows:

7.2.1.1. Project Managed-Resettlement Program

Steps to determine the resettlement are as follows:

1. The pre feasibility study of resettlement sites has been conducted as presented as a supplement document of this LARAP (Appendix 1)..
PLN will seek the government endorsement to develop a resettlement site. Institutions / parties to be involved in this activity are PLN, the District of West Bandung and Province of West Java..
2. After the government endorsement has been granted, PLN conduct a feasibility study and environmental carrying capacity for those resettlement sites covering:
 - a. Geological condition and potential natural hazard,

- b. Clean water availability
- c. Agro ecosystem study, ,
- d. Physiographic and land suitability,
- e. Accessibility to economic and social facilities such as market, education, and health.
- f. Socio-economic aspects of the proposed site such as land ownership, perception of local community regarding the proposed resettlement plan, etc.

Institutions / parties to be involved in this activity are PLN, Consultant and PAPs.

3. Inventory of PAPs who want to be moved to the new settlement site. Institutions/ parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.
4. Resettlement site visit and consultation regarding location and perception of the PAPs. Institutions / parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, and Local NGO.
5. Decision of resettlement site based on study result. Institutions / parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.
6. Consultation with PAPs on preliminary resettlement plan design and associated economic restoration programs that will be developed in accordance to local resources. Institutions / parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.
7. Design and physical construction of resettlement including other facilities required by the PAPs. Institutions / parties to be involved in this activity are PLN, Resettlement Team, and Contractor.
8. Relocation of the PAPs to the resettlement site.
 - a. Decision on house ownership including administration status of assets in their new settlement site.
 - b. Moving out the PAPs to their new settlement site.

Institutions / parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.

9. Monitoring and “treatment” to new settlers, covering socio-psychological aspects, and economic development. Institutions / parties to be involved in this activity are PLN, Resettlement Team, PAPs, Consultant, Village Office, Sub District Office, West Bandung District Office, and Local NGO.
10. The new access road is critical path for the Upper Cisokan dam construction, but the resettlement site will not be ready when the access road construction started. Rental house will be proposed as interim solution for the affected houses until the resettlement sites ready,

7.2.1.2. Resettlement on Their Own site

1. The government should provide the PAPs with information on the Spatial Planning of the area desired by the PAPs (in the surrounding project area).

Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.

2. Interview a sample of PAPs will be taken to discover how they plan to invest compensation, prepare procedures to assist. Institutions/parties to be involved in this activity are PLN, Resettlement Team.
3. Guiding and giving assistance to the PAPs who want to move out on their own with small scale economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, and Local NGO.
4. The PAPs who want to move out by group (minimal 30 households) will be provided with facilities such as road, drainage, and other necessary public facilities. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, Independent Monitoring Agency, and Local NGO.
5. Monitoring on economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District Office, Independent Monitoring Agency, and Local NGO.

7.2.1.3. Action Plan of Resettlement

The Resettlement Implementation Team will play the most important role for the success of resettlement. There will be Resettlement Implementation Team (RIT) in district of West Bandung. To synchronize the operation mechanism of resettlement between two teams will be facilitated by the Resettlement Policy Formulating Team. The following table 7.1 and 7.2 describes the key issues and brief action plan.

In supporting the program action of relocation of those PAPs who would like to be relocated by the PLN/local government, in the Appendix 1 is a pre-study of site assessment for the potential resettlement sites. The result of the pre-site assessment for the resettlement program of the UCPS Project recommends that considering that most PAPs are preferred to be relocated in the surrounding areas where they are living, and considering that most PAPs are working on land-based economic activities, this study initially come up with nine potential sites. Based on consideration of the biophysical characteristics and aspects of the natural hazard, and agro ecosystem, of the nine potential sites required for resettlement, this study determined the three locations, namely Kampung Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampung Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampung Nagrak, Girimulya village, Cibeber sub-district, Cianjur district. These three sites are relatively possible based on basic criteria for resettlement sites, especially geological and clean water availability.

As part of the economic recovery for those PAPs who have to relocate, there will be some models of agriculture-based economic activities. First, agriculture-based activity

in the form of home garden-based agricultural practice with market-oriented fruits as main components. Second, livestock-based small scale economic activities with goats as main component. Thirdly, chicken-based small scale economic activities, with local chicken as main component, and fourthly, after harvest fruit processing with banana and cassava as the main components. Fifthly, the combination of agriculture, animal husbandry and home industry

As for the housing design for each of the proposed site for resettlement, it was recommended that considering that in Kampong Nagrak, the geological characteristics and conditions are not “sensitive” to mass movement and/or landslide, the housing design and construction could be permanent house (house with full cement construction), semi-permanent (a combination of cement and wood/bamboo construction), and rumah panggung (fully wood construction). While, for Kampong Nagrak and Kampong Pasir Taritih, considering that these two locations are relatively with steep and very steep slope, the rumah panggung will be more suitable. All of these housing design will be completed with sanitary and accessibility to water and electricity. More elaborated information to the site assessment results can be learned from the separate report, titled “a pre-feasibility Site Assessment for the Resettlement Program of the UCPS Project” Appendix 1 of this report.

7.2.1.4. Land Acquisition on Forest replacement and Resettlement sites

Based on Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement, there are 6 candidate areas to be forest land replacement, which are: Bojongsalam village, Rongga sub-district; Sirnaraja village, Cipeundeuy sub-district; Gununghalu village, Gununghalu sub-district; Cinengah village, Rongga sub-district; Bunijaya village, Gununghalu sub-district and Ciptaharja village Cipatat sub-district located in West Bandung district. As for the location of Cianjur district, there are 2 candidate areas to be forest land replacement, which are: Mekarjaya village, Campaka sub-district and Cibadak village, Cibeber sub-district.

According to Minister of Environmental Decree No. 13 Year 2010 on Environmental Management and Monitoring Efforts and Commitment Letter to Perform Environmental Management and Monitoring, the using areas for forest replacement and resettlement sites must conduct study on Environmental Management and Monitoring Efforts (UKL-UPL) or short EIA/EMP.

7.2.1.5. Partly completion works.

The construction of existing road segment (6.7 km) has been finished. This road had been used as a public road, since 1985 which performing the economic artery of the villages. The construction (widening and upgrading) was to build new pavement of 2 m width in the left and right to the 4 m existing pavement, so that the total pavement

became 8 m. Then another 3.5 m width of both sides have been cleared for the road shoulder and drainage ditches, so that the total of construction width was 15 m.

Land Compensation.

No land compensation has been given. The land affected is all owned by PLN, all occupant's PAP have been signed an agreement that they will return the land being occupied by them without demanding compensation. All PAPs are happy to have new smooth and wider road in their village.

Structures Compensation and assistance.

The project implementation recorded 83 PAPs who own the structures that were affected, but none were displaced. Among them, there were 9 huts and 4 stalls have been moved by the owners. All PAPs were able to shift back in the remaining land, also owned by PLN. Some assistance were be given to PAP such as: demolition work, debris removal, access across the ditch to improved road and 'compassionate' disturbance assistance.

Crops Compensation.

The improvement of existing road impacted rice field of 3,137 m² in quarry area which planted by 37 PAPs. The project waited the planted rice to be harvested before the soil works initiated on affected rice fields. Crops compensation payment have been given to PAP for once time harvest of Rp1.240/m².

Other assistance.

Other assistance given to PAP was as construction laborer. All of the 250 subcontractor's laborers were hired from among local residents, in coordination with RT (neighborhood heads).

Monitoring.

The improvement of new access road did not disturb their livelihood, all the people can do their activities as usual and even better. Monitoring on income and livelihood of the PAP has not conducted yet by Independent monitoring consultant (IMA). During the implementation of the project, PLN will assign IMA to document income of those affected to assess whether any loss of livelihood occurs. It is expected that losses are so minor that they will not affect anyone's earning ability. If loss of livelihood does unexpectedly occur, measures to correct it will be designed based on the agreed LARAP.

Table 7.1 Resettlement Options

No	Resettlement Option	Assistance	Schedule	Responsible entities
1	PAPs to be moved by PLN.	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	Resettlement Implementing Team (RIT), PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity, musholla) 	Ready after being paid of asset compensation	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	<ul style="list-style-type: none"> 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package ✓ 	<ul style="list-style-type: none"> After moving in After moving in After moving in 	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
2	PAPs who wish to move by themselves with more than 30 HHs	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity) 	During housing development	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months before moving in 2 months before moving in 2 months before moving in 2 months before moving in 2 months before moving in 2 months before moving in	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
3	PAP who wish to move in to existing villages (individual HH, in the existing of non affected housing area)	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
4	Stay in the existing house The PAP whose house is not acquired by the project	• Assistance in moving allowance is not eligible		RIT, PLN
		• Assistance in transition cost	For 2 month at the time of moving in	PLN
		• Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: ✓ Training of animal husbandry technique	2 months after compensation	Coordinator: RIT, PLN Livestock agency
		✓ Training of production and processing techniques	2 months after compensation	• Agriculture Training Station
		✓ Facilitating micro business development	2 months after compensation	• Industrial Training Station
		✓ Business/ Marketing Incubation	2 months after compensation	• Industrial Training Station
		✓ Agriculture intensification	2 months after compensation	• Agriculture Training Station
		✓ Diversified land-based activities	2 months after compensation	• Agriculture Training Station
		Assistance in enhancing capital for severely affected family entitle one type of the following: ✓ Farming Associated Business Package	In paralel with the PAP in no 2 and 3	RIT, PLN
		✓ Small Shop Package		

Table 7-2. Action Plan of Resettlement

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
1	Dispensing of Information				
	a) Information of resettlement policy	<ul style="list-style-type: none"> • Coordination Resettlement Policy Formulating Team (RPFT), Resettlement Implementing Team (RIT), Land Acquisition Committee (LAC) and PLN Project Implementing Unit (PIU) to redress the issues of resettlement 	West Bandung	Monthly	- RPFT - RIT West Bandung
	b) Information of resettlement implementation	<ul style="list-style-type: none"> • Announcement and socialization of resettlement policy and implementation for the PAP, including various resettlement and rehabilitation options. The RIT develop information dissemination for the PAP through direct meeting conducted in the village meeting hall and by distributing leaflet for the PAP. • Consultation with PAP and Villages Officers will be conducted on several issues such as: <ul style="list-style-type: none"> ▪ Resettlement Location and infrastructures ▪ Assistance ▪ Grievance redress mechanism 	Affected Villages	Monthly	- RIT West Bandung
2	Managing of PAP resettlement				
	a) Data of PAP	<ul style="list-style-type: none"> • Data of PAP who own asset and have received compensation will be adopted from the Land Acquisition Committee. • Data of PAP who own no asset that gathered through previously census will be reconfirmed with the village authority 	Affected Villages	Monthly	West Bandung District: LAC to provide data for RIT
	b) Non Vulnerable PAP	<ul style="list-style-type: none"> • Facilitating the PAP who chooses to move out by their own by providing Assistance in moving allowance and identifying when they need economic restoration and assistance 	Affected Villages	After Assets compensation payment	- RIT West Bandung
	c) Vulnerable PAP	<ul style="list-style-type: none"> • Facilitating the PAP who opts to move out by their own by providing Assistance in moving allowance • Identifying and facilitating the PAP who opts to move out to housing colony built by the project and identifying the assistance needed. • Providing Assistance in moving allowance and in-kind assistance. 	Affected Villages	After Assets compensation payment	- RIT West Bandung
	d) Housing Colony developed by PLN PIU	<ul style="list-style-type: none"> • Site selection and Design 	<ul style="list-style-type: none"> • Kampong Nagrak and Kampong Pasir Taritih 	December 2010	- PLN PIU: The Implementation - RIT : Input and PAP consultation coordination

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
		• Construction	• Kampong Nagrak and Kampong Pasir Taritih	July - Dec 2011	- PLN PIU: The Implementation - RIT : Input and PAP consultation coordination
		• Identifying the eligible PAP	Affected Villages	Starting March 2011	RIT
	e) Infrastructure in the new settlement area other than mentioned on 2d)	Identifying the proposed settlement area where occupied by more than 30 new houses of PAP that needs new Infrastructure to built by the PIU.	To be confirmed	After Assets compensation payment	RIT
		• Construction	To be confirmed	After Assets compensation payment	PLN PIU
3	Economic restoration and Assistance				
	a) Capacity building	In cooperation with the PIU, facilitating the PAP with the training and other capacity building. This will be conducted after the data mentioned in 2. a) ready and before the PAP moving out takes place.	Affected Villages	After Assets compensation payment	RIT with PLN PIU
	b) Coaching	In cooperation with the PIU, facilitating the PAP with the coaching to develop economic restoration. This will be conducted after the PAP moving out takes place.	To be confirmed	After PAP moving into new places	RIT with NGO or specialist
	c) In kind assistance,	In cooperation with the PIU, providing the PAP with the in kind assistance to develop economic restoration. This will be conducted after the PAP moving out takes place.	Affected Villages	Just after PAP moving into new places	RIT with PLN PIU
	d) Finding out shelter/ farmland assistance	Assistance for non-title holders and title holders for PAH to find land for their shelter and/or farmland needs	To be confirmed	Before assets compensation payment	RIT with PLN PIU
4	Reporting and Monitoring				
	a) Monitoring	Develop close cooperation with IMA. Use the monitoring data to feedback the implementation. In cooperation with the PIU, the RIT will also develop data base of PAP and monitor the resettlement.	Affected Villages (The previous and the new destination)	Quarterly, after relocation (in segment)	RIT in cooperation with IMA and PLN PIU
	b) Reporting	Report will be submitted to Governor of West Java, Bupati (Head of District/Regents) West Bandung and to PLN. PLN will send the report to World Bank.	Bandung	Quarterly	RIT
5	Grievance redress	Grievance of the PAP will be managed in cooperation with several institutions such as Grievance Task Force, LAC, RIT, PIU and sector involved institution. Grievance and the redress implementation will be recorded and reported.	Affected Villages (The previous and the new destination)	Monthly	RIT in cooperation with Grievance Task Force , PLN-PIU and LAC

Note: PIU – Project Implementing Unit (PLN Hydro Development Java-Bali; ; IMA (Independent Monitoring Agency)

7.3. Schedule and Cost

Activities to be implemented in resettlement activities of PAPs are included : socialization and dissemination of the project to PAPs, socialization and discussion of land acquisition, land acquisition, discussion about resettlement plan, discussion of public choice of rehabilitation plan, consultation on resettlement site, preparation and resettlement site construction, implementation of population movement, monitoring and evaluation of project implementation.

The LARAP providing sufficient budget which include the following aspects:

1) Basic losses

Providing the Compensation budget for all type of losses (private own, institutional and public facilities). Although the replacement and mitigation cost of losses and public facilities (school) is calculated under the LARAP budget, but the works will be conducted under the EMP scheme.

2) Rehabilitation, Compensation and Management.

Providing the budget for:

- o Assistance for PAPs such as providing capacity building, micro business starting package, business transition allowances.
- o Committees budget: a) Land Compensation b) Resettlement Implementation team c) Resettlement Policy Formulating team
- o Capacity building for institutional (Committees and PLN PIU)

The resettlement activities and time schedule is presented in Table 7-3 and the volume of affected assets and activities for cost estimation are presented in Table 7-4 and 7-5 respectively.

Table 7.4. LARAP - Cost Estimate Existing Access Road, New Access Road And Quarry Upper Cisokan Pumped Storage Power Plants

NO	TYPE OF LOSS	VOLUME					ALLOCATED BUDGET (x Rp 1000)	
		Unit	AR Existing	AR - New	Quarry	TOTAL		
A	BASIC LOSSES						78,510,405	
1	Agricultural Land	ha	-	26.06	51.66	77.7	Spent in EMP	
2	Homegarden and Business Land	ha	-	1.45	0.37	1.8		
3	Forestry Land	ha	-	49.49	-	49.5		
4	Plants/Trees Crops		-					
4.1	Trees Perennial crop		24.23	45.24	121.27	190.74		
	a). Trees (Timber)	trees	9.64	26.72	69.79	106.15		
	b). Trees (fruit trees)	trees	14.59	18.52	51.48	84.59		
4.2	Non perennial crop	ha	-	10.21	21.85	32.06		
5	Houses	m ²	1,863	12,917	3,877	18,657		
		unit	30	188	70	288		
6	Squatters (Lost of shelter)	PAP	19		33	52		
7	Business		22	10	15	47		
8	Loss of Jobs (Sharecropper, labors & squatters)		29	17	405	451		
9	Public Facility and Social infrastructure	m ²	-					
	a). Mosque/Mushola	Unit	-	4	1	5		
	b). School (Noise and Safety)	Unit	2	-	-	2		
	c). Graves	Number	-	754	-	754		
	Project Affected Household (PAH)	PAH	29	425	405	859		
B	REHABILITATION, COMP. & MANAGEMENT							52,384,720
1	Vulnerable groups	PAP	-	-	2	2		
2	Relocation allowances	PAP	29	72	40	141		
3	Development & Constr. of Relocation sites	Sites	-	-	-	1		
4	Communication, Monitoring & Evaluation	Opr. Months	-	-	-	12		
5	Assistance							
a	Capacity Building for PAPs	PAH				859		
b	Micro business Starting Package	PAH				859		
c	Business Transition allowances	PAH				859		
6	Land Compensation Committee	Opr. Months	-	-	-	8		
7	Resettlement Implementation Team	Opr. Months	-	-	-	12		
8	Policy Formulating Resettlement Team	Opr. Months	-	-	-	12		
9	Capacity Building	Times	-	-	-	2		
	Price and Physical Contingency (5 %)	%				5	3,925,520	
	TOTAL ALLOCATED BUDGET						134,820,645	

Table 7-5. LARAP - Cost Estimate Assumption Calculation

NO	Type Of Loss	Cost Estimate Assumption Calculation
A	BASIC LOSSES	
1	Agricultural Land	Estimate market price of land. Independent team will survey and define the basic land price. Negotiation between Land Owner and PLN
2	Homegarden	
3	Forestry Land	The acreage will be based on Minister Decree. The substitution price will follow the above procedure. Replacement will be 2x affected land + Re-vegetation at new location + Land mapping. The Land price at new location and the land price at previous land will be determined by the Independent Appraisal Team -----> Source Perhutani consultation 2009.
4	Plants/Trees Crops	The basic price will follow the Head of District Decree (West Bandung District) concerning agriculture compensation.
4.1	Trees Perennial crop	
	a). Trees (Timber)	
	b). Trees (non timber)	
4.2	Non perennial crop	The basic price will follow the Head of District Decree (West Bandung District) concerning agriculture compensation
5	Houses/building	Estimate market price to build house. The basic price will follow the Head of District Decree (West Bandung District)
6	Squatters (Lost of shelter)	Relocation allowance
7	Business	Compensation per business
8	Loss of Jobs (Sharecropper, labors & squatters)	Based on minimum basic salary of the district
9	Public Facility and Social infrastructure	
	- Mosque/Mushola	Average 36m2/unit, Land 100m, replacement building
	- Schools	Protection measures
	- Graves	Average cost to relocate graves
B	REHABILITATION, COMP. & MANAGEMENT	
1	Vulnerable groups	Allowance for transportation per PAP
2	Relocation allowances	Allowance for transportation per HH of PAP
3	Development & Constr. of Relocation sites	Estimated cost of Development for Construction of one Relocation sites (Houses, road, water facility, electricity, mushola)
4	Communication, Monitoring & Evaluation	Monitoring cost by consultant
5	Assistance	
a	Capacity Building for PAPs	Averaged operational cost for capacity building and others
b	Micro business Starting Package	Averaged cost for micro business packages
c	Business Transition allowances	Averaged cost for 2 months minimal cost for household
6	Land Compensation Committee	Cost for operational and honorarium by Land Compensation Committee
7	Resettlement Implementation Team	Cost for operational and honorarium by Resettlement Implementation Team
8	Resettlement Policy Formulating Team	Cost for operational and honorarium by Resettlement Policy Formulating Team
9	Capacity-building (institutional)	Cost for operational and honorarium by Capacity-building institutional
	Physical Contingency (3%)	Percentage of Basic loss
	Price Contingency (2%)	Percentage of Basic loss
	TOTAL	

1

Introduction

1.1. Background of the LARAP

In order to increase the supply of electrical power in Java, the government (in this case PT. PLN Persero), plans to build the Upper Cisokan Pumped Storage Project HEPP (UCPS project) located in West Bandung and Cianjur District. This electrical energy project has a capacity of 1040 MW.

This UCPS HEPP Project plan is also supported by instructions from the Government of Indonesia as written in the President RI Regulation No 4/2010 concerning Assignment of PT Perusahaan Listrik Negara (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas and the Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.

The Upper Cisokan Pumped Storage Project consists of 3 sub-project components, namely 1) the construction of access road, 2) construction of upper and lower dams, and 3) construction of 500 KV transmission lines. Physical construction of these projects require land acquisition that will impact on people's lives, as a result of the loss or decrease in land assets, or require further removal of residents from the location currently occupied.

In order to minimize the negative impacts arising from land acquisition for the Project Upper Cisokan Pumped Storage, PLN conducts study and consultations with the project-affected people (PAP) to prepare a document of Land Acquisition and Resettlement Action Plan (LARAP). This LARAP document is part of the loan agreement requirement and subject to be approved by The World Bank.

This LARAP document was prepared based on World Bank guidelines OP 4.12, however some of the framework policies may differ from Indonesia's Regulations. The differences between Indonesia regulations and World Bank policy is summarized in Appendix 9. The implementation of the framework subject to GOI's approval or payment due to the land acquisition in accordance with the World Bank guidelines to be done after the signing of loan agreement. Once the loan agreement of Upper Cisokan Pumped Storage HEPP project has been signed, the agreement between the GOI and the World Bank the Appendix 9 will have the legal force to be implemented as a legal basis for Land Acquisition and Resettlement for this project.

The disclosure of the LARAP document of tower site and row transmission line have been initiated since mid of June 2010, and the report will be published and made it

possible for any comment. The comment will be reviewed and adjusted by PLN for further action.

The data presented in this LARAP document based on field inventory and according to the PAPs, that was conducted from November 2009 to January 2010 by LARAP Study Team from LPPM UNPAD. These data, can be used as a reference for asset acquisition (*ganti rugi*) which will be carried out by Land Acquisition Committee (LAC). The LAC in executing the asset inventory will coordinate with the following agencies: with the BPN – Badan Pertanahan Nasional (National Agrarian Agency) which responsible for land size data, the Public Work Agency which responsible for building assets, and Agricultural agency which responsible for plant assets. And, if necessary, The Joint Team of Local Government and PLN will also use the data presented in this LARAP document as a reference for assistance for Non Title Holders.

Land Acquisition procedures for public interest will be carried out by LAC and in determining value of asset acquisition will be assessed by Independent Appraisal Consultant¹. Aside from land acquisitions for the title holders, the Independent Appraisal Consultant also will assess the assistance eligibility for the non title holders. The Joint Team of Local Government and PLN will use Independent Appraisal Consultant's assessment to conduct the assistance for non title holders.

Amendments or revisions to this LARAP will be conducted by PLN and submitted to World Bank for review. Any changes affecting peoples' entitlements will be made after consulting with PAPs and disclosing the proposed LARAP change in the project area for at least two weeks, for comment from PAPs.

1.2. Description of 500 kV Transmission Lines of the Upper Cisokan Pumped Storage

This Extra High Voltage Transmission Line of 500 kV will be built towards the north from the Upper Cisokan Pumped Storage and connecting with the double routes of Extra High Voltage Transmission Line of Saguling-Cibinong (each distance of about 15.9 km) as part of securing the Java-Bali transmission electric system.

The Extra High Voltage Transmission Line requires 82 towers. The area passed by the Transmission Line and/or used for the tower consists of settlements, rice fields, dry land rice fields, gardens/ plantations and shrubs.

The Extra High Voltage Transmission Line which will be built has double circuits which are arranged vertically mounted on a double circuit tower type. Right of Way

¹ Based on the Presidential Regulation No. 36/2005, No. 65/2006 and The Head of National Land Agency Regulation No. 3/2007.

(ROW) within the corridor of Extra High Voltage Transmission Line of double circuit is 17 m to the left and right of the center line, free of trees taller than 3 m.

The number of tower for each village passed by the Extra High Voltage Transmission Line can be seen in Table 1-1.

Table 1-1. The number of tower in each village passed by the Extra High Voltage Transmission Line.

District	Sub-district	Village	Line 1	Line 2	Number of tower
(1)	(2)	(3)			
Cianjur	Bojongpicung	Cibarengkok	5	5	10
		Jatisari	7	5	12
		Kemang	4	-	4
		Neglasari	-	2	2
		Sukajaya	-	1	1
		Sukarama	7	8	15
		Sukaratu	11	10	21
	Haurwangi	Haurwangi	2	-	2
		Ramasari	-	3	3
		Sukatani	5	-	5
West Bandung	Rongga	Sukaresmi	4	3	7
Total			45	37	82

Total of land that is needed to develop of the Extra High Voltage Transmission Line of 500 kV of the Upper Cisokan Pumped Storage approximately 105.26ha, with the following specifications :

- Corridor of free space : approximately 100.13ha (length 29.5km, width 34 meters);
- Tower Pad: approximately 5.125ha (tower number 82; width approximately 625 meters/tower)

1.3. Purpose and Aim of LARAP Preparation

The purpose of the preparation of the Land Acquisition and Resettlement Action Plan (LARAP) of the Upper Cisokan Pumped Storage HEPP is to prepare a report relating to land acquisition and resettlement for people who their land will be used by PLN (Persero) in the project planning and decision-making as a tool for the prospective donor. The objective as follows:

1. To mitigate negative impacts of land acquisition activities, as a result the Project Affected People (PAP) will not decrease the level of their life.
2. To give opportunity to the PAP to participate in the development process.

3. To obtain accurate data about the PAP and other data in accordance with the guidelines applied in Indonesia and guidance of the prospective donors (World Bank), as consideration for the implementation of LARAP.
4. To disseminate LARAP to the public associated with the transfer of assets, with the aim to obtain the same perceptions and early get feedback from the PAP.
5. To develop guidance / general propose of the resettlement plan for displaced PAP.
6. To provide grievance redress mechanism and monitoring and evaluation procedure of the LARAP implementation.
7. To formulate policies on complying the needs between GOI's regulation and the World Bank

1.4. Data Collection Method

Method of data collection in this project is divided into two, namely the secondary data collection that includes technical and non-technical data, and the primary data to inventory the people who are affected by the project.

1.4.1. Secondary Data Collection

Secondary data collection includes technical and non-technical data:

1.4.1.1. Technical Data

- Project design made by PT. PLN (Persero) which described the project development plan (detailed design, 2000-2001).
- Supplementary study (2006-2007) and additional supplementary study (2007).
- Environmental Impact Analysis document (EIA/ANDAL) of the 500 kV Transmission Lines of Upper Cisokan Pumped Storage HEPP.
- Data and map of land/plot measurements (persil) carried out by PT. PLN.

1.4.1.2. Non-technical data

- Regulations related to the implementation of land acquisition and resettlement of project affected people (PAP).
- Letter from Kantor Pelayanan Pajak Bumi dan Bangunan (Land and Building Tax Office) which indicates estimated value of the land and building (Nilai Jual Objek Pajak) in the project area.
- Decree of the head of District where the project site is located on the price/value of crop compensation.
- The documents from PLN concerning the activities that have been conducted in order to socialize the project, and the process of agreement on compensation with landowners who might be affected by the project.

1.4.2. Primary Data Collection

Two methods were used to collect primary data, namely Census, and Focus Group Discussion (FGD).

1.4.2.1. Census

Census was carried out to inventory the Project-Affected People (PAP). Data collection in this census activity was conducted from house to house by interviewing the households. Data collected in this activity includes, among others, data on general information of the household, ownership of land, building and crop stands (questionnaire is attached in appendix 1.3).

1.4.2.2. Focus Group Discussion

Focus Group Discussion (FGD) was also carried out to disseminate idea/plan of the proposed project and to gather information that could not be obtained through census from the community. The FGD was conducted on 30 – 31 August 2009 in village of Haurwangi District of Cianjur, with participants consisting of community leaders and residents in the villages affected by the project.

2

Inventory of the Project Affected Asset

This chapter will be divided into 3 parts, the first part (section 2.1) will discuss the project affected assets, especially land and building assets, the second part (section 2.2) deals with the project affected people (PAP) which is related with asset acquisition status of land and buildings which are affected by the project, and the third part (section 2.3) deals with plants which are affected by the project.

2. 1. Project Affected Assets

2.1.1. Project Affected Land Assets

Double circuit of Transmission Line along the 15.5 km and 16 km connects The Upper Cisokan Pump Storage towards the transmission lines of Saguling-Cibinong line. The width of land needed right of way (ROW) of the transmission line is around 34 m. This transmission line requires land of about 131.77 hectares (page 1-2). From 131.77 Ha of land requires for transmission line, only 62.87 Ha can be identified by census and the rest is mostly under controlled by Perum Perhutani. Based on census, 62.87 Ha of land which will be using by the project are located on 430 plots of land with a total area of 161.21 Ha (Table 2-1).

a). Project affected land use

Plots of land affected by the project are around 430 plots of land or around 161.21 ha in total area. In general, this project affected area is in the form of agricultural lands. These agricultural lands comprise of wet rice fields 69.16 ha (42.9 %), dry rice fields 37.92 ha (23.5 %), and gardens 40.39 ha (25.1%), while the rest are home garden, dryland, and others (Table 2-1 column (6), (7) and (8)).

Table 2-1. Project affected land use

Project Location	Subdistrict	Village	Unit	Total	Land use				
					Home garden	Wet Rice field	Dry land rice field	Garden	Dry land and others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ROW	Rongga	Sukaresmi	Plots	12	6	0	-	5	1
			Area (ha)	16.38	0.06	15.72	-	0.61	-
	Bojongpicung	Sukarama	Plots	83	6	33	7	27	10
			Area (ha)	3.64	0.03	3.40	0.21	-	-
		Sukajaya	Plots	11	-	1	5	2	3
			Area (ha)	1.00	-	-	1.00	-	-
		Sukaratu	Plots	56	3	19	2	32	-
			Area (ha)	9.46	1.36	0.48	7.22	0.28	0.13
		Kemang	Plots	3	-	-	3	-	-
			Area (ha)	3.03	-	0.06	1.35	1.00	0.63
		Neglasari	Plots	20	1	18	1	-	-
			Area (ha)	21.63	0.57	7.95	0.75	12.36	-
	Jatisari	Plots	23	5	2	14	1	1	
		Area (m2)	43.01	1.60	16.30	4.57	16.93	3.62	
	Cibarengkok	Plots	16	0	1	13	2	-	
		Area (ha)	3.94	1.16	-	-	2.30	0.48	
	Haurwangi	Sukatani	Plots	56	-	43	6	7	-
			Area (ha)	4.82	-	4.82	-	-	-
		Haurwangi	Plots	17	-	17	-	-	-
			Area (ha)	12.90	-	0.38	11.94	0.58	-
Ramasari	Plots	55	1	52	0	2	-		
	Area (ha)	11.95	-	9.88	0.76	1.31	-		
Subtotal			Plots	352	22	186	51	78	15
			Area (ha)	131.77	4.77	58.99	27.80	35.37	4.85
TOWER	Rongga	Sukaresmi	Plots	7	1	3	-	3	-
			Area (ha)	2.09	-	2.09	-	-	-
	Bojongpicung	Sukarama	Plots	7	-	4	1	1	1
			Area (ha)	0.73	-	0.73	-	-	-
		Sukajaya	Plots	3	-	1	-	-	2
			Area (ha)	0.15	0.01	-	-	0.14	-
		Sukaratu	Plots	28	3	11	3	8	3
			Area (ha)	5.62	0.08	1.28	4.20	0.06	0.00
		Kemang	Plots	2	1	0	0	1	0
			Area (ha)	0.58	0.00	0.14	0.00	0.00	0.44
		Neglasari	Plots	3	0	3	0	0	0
			Area (ha)	10.33	0.76	2.37	1.85	2.85	2.50
	Jatisari	Plots	9	1	1	6	1	0	
		Area (ha)	2.92	0.00	1.42	1.00	0.25	0.25	
	Cibarengkok	Plots	7	0	0	4	3	-	
		Area (ha)	2.04	0.08	1.19	0.00	0.77	-	
	Haurwangi	Sukatani	Plots	3	-	1	-	2	-
			Area (ha)	0.64	-	0.64	-	-	-
Haurwangi		Plots	4	-	4	-	-	-	
		Area (ha)	3.71	-	0.00	3.07	0.63	-	
Ramasari	Plots	5	-	5	-	-	-		
	Area (ha)	0.63	-	0.31	-	0.32	-		
Subtotal			Plots	78	6	33	14	19	6
			Area (ha)	29.44	0.93	10.17	10.12	5.02	3.19
Total			Plots	430	28	219	65	97	21
			Area (ha)	161.21	5.71	69.16	37.92	40.39	8.04

Source: Census Data, 2010.

Table 2-2. Land area used by the project

Project area	Sub-district	Village	PAP (HH)	Land plots affected by the project		Land area used by the project		
				Number of land plot	Area (Ha)	Number of land plot	Area (Ha)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
ROW	Bojongpicung	Cibarengkok	11	16	12.90	16	5.21	
		Jatisari	74	23	9.46	23	5.64	
		Kemang	10	3	1.00	3	0.85	
		Neglasari	48	20	3.64	20	2.36	
		Sukajaya	3	11	3.03	11	1.49	
		Sukarama	15	83	43.01	83	11.92	
		Sukaratu	15	56	21.63	56	6.43	
	Haurwangi	Haurwangi	13	17	4.82	17	1.98	
		Ramasari	47	55	16.38	55	6.31	
		Sukatani	14	56	11.95	56	7.31	
	Rongga	Sukaesmi	36	12	3.94	12	1.39	
	Subtotal			286	352	131.77	352	50.89
	TOWER	Bojongpicung	Cibarengkok	5	7	3.71	7	1.57
Jatisari			6	9	5.62	9	3.35	
Kemang			2	2	0.15	2	0.05	
Neglasari			17	3	0.73	3	0.14	
Sukajaya			2	3	0.58	3	0.58	
Sukarama			2	7	2.92	7	1.14	
Sukaratu			7	28	10.33	28	3.66	
Haurwangi		Haurwangi	7	4	0.64	4	0.34	
		Ramasari	3	5	2.09	5	0.53	
		Sukatani	4	3	0.63	3	0.31	
Rongga		Sukaesmi	5	7	2.04	7	0.31	
Subtotal			60	78	29.44	78	11.98	
Total			346	430	161.21	430	62.87	

b). Project affected land use that to be compensated

Of the total land area of 62.87 ha affected by the project, mostly (50.89 ha) is under the ROW of transmission line. These lands can still be used for agricultural purposes because they are not disturbed directly by the project. Therefore, according to the Decree of the Minister of Mines and Energy, these lands do not need to be acquired by the Project. The land that need to be acquired by the PLN is the lands that affected by the tower project of about 82 tower sites, totaling of about 11.98 ha (Table 2-3). Total land is needed for developing 82 tower pad approximately 5.13 ha, but according to the result of census, the total land need to be compensated is 11.98 Ha. This is due to the remaining land area, in some cases, which is not economical to use. Thus, the remaining land should be considered to be acquired by the project.

Table 2-3. Project affected land use that to be compensated

Project	Sub District	Village	Land use will be compensated (hectare)					Total (ha)
			Home garden	Wet Rice field ¹	Dry land rice field	Garden	Dry land/ Others ²	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ROW	Rongga	Sukaesmi	0.34	-	-	0.57	0.48	1.39
	Bojongpicung	Sukarama	0.14	4.10	2.00	3.52	2.17	11.92
		Sukajaya	-	0.03	0.68	0.50	0.29	1.49
		Sukaratu	0.28	1.60	0.27	4.28	-	6.43
		Kemang	-	-	0.85	-	-	0.85
		Neglasari	0.03	2.12	0.21	-	-	2.36
		Jatisari	1.01	0.48	3.99	0.14	0.03	5.64
		Cibarengkok	-	0.04	4.93	0.25	-	5.21
	Haurwangi	Sukatani	-	5.60	0.66	1.05	-	7.31
		Haurwangi	-	1.98	-	-	-	1.98
		Ramasari	0.06	6.02	-	0.23	-	6.31
	Sub total			1.86	21.96	13.58	10.53	2.96
Tower	Rongga	Sukaesmi	0.04	0.11	-	0.16	-	0.31
	Bojongpicung	Sukarama	-	0.58	0.50	0.05	0.01	1.14
		Sukajaya	-	0.14	-	-	0.44	0.58
		Sukaratu	0.21	1.37	0.67	1.22	0.20	3.66
		Kemang	0.01	-	-	0.04	-	0.05
		Neglasari	-	0.14	-	-	-	0.14
		Jatisari	0.08	0.64	2.60	0.03	-	3.35
		Cibarengkok	-	-	1.20	0.37	-	1.57
	Haurwangi	Sukatani	-	0.07	-	0.24	-	0.31
		Haurwangi	-	0.34	-	-	-	0.34
		Ramasari	-	0.53	-	-	-	0.53
	Sub total			0.34	3.90	4.97	2.11	0.65
Total			2.20	25.86	18.55	12.64	3.61	62.87

Source : Data of Census, 2010

Note:

¹ including the fish pond.

² the dry land field with open field, shrub.

c). Remaining ownership land

Land to be acquired is based on the result of determination of boundary line under ROW of transmission projects made by PLN. The boundary line will divide into two land areas, part of an area to be compensated because such land will be used for the projects, the remaining land area will not be compensated and it remains the property of the resident. Except the remaining land is considered by the land owner not economical.

Because of this land acquisition, the local people's land will be reduced. The home garden area will be reduced, in average, from 14,371.00 m² to 7,680.00 m², rice field reduced from 60,996.80 m² to 38,596.30 m², dry field will be reduced from 64,857.30 m² to 32,066.40 m², and mixed garden reduced from 44,665.90 m² to 27,395.60 m² (Table 2-4).

Out of 430 affected land plots, there are 323 land plots affected entirely and 107 land plots affected partly (Table 2-5). Among them, there are 78 plots of land for tower

PAPs, it consists of 60 plots of land that entirely affected, and 18 plots of land partially affected.

Table 2-4. Average remaining area affected by the project

Project	Sub District	Village	size	Average land affected by project (m ² /plot)				
			Unit	Home garden	Wet Rice field	Dry land rice field	Garden	Dry land and others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ROW	Rongga	Sukaresmi	Initial (m ²)	1,933.3	-	-	4,600.0	4,800.0
			Rest (m ²)	1,366.7	-	-	3,460.0	-
	Bojongpicung	Sukarama	Initial (m ²)	2,665.0	4,938.6	6,521.4	6,270.7	3,621.0
			Rest (m ²)	2,430.0	3,696.5	3,671.4	4,968.9	1,450.0
		Sukajaya	Initial (m ²)	-	560.0	2,700.0	5,000.0	2,083.3
			Rest (m ²)	-	280.0	1,350.0	2,500.0	1,133.3
		Sukaratu	Initial (m ²)	1,899.3	4,185.2	3,750.0	3,862.7	-
			Rest (m ²)	950.0	3,091.0	2,400.0	2,525.9	-
		Kemang	Initial (m ²)	-	-	3,333.3	-	-
			Rest (m ²)	-	-	500.0	-	-
		Neglasari	Initial (m ²)	300.0	1,806.1	2,100.0	-	-
			Rest (m ²)	-	713.6	-	-	-
		Jatisari	Initial (m ²)	2,713.4	2,400.0	5,157.1	2,800.0	1,250.0
			Rest (m ²)	700.0	-	2,307.1	1,400.0	1,000.0
	Cibarengkok	Initial (m ²)	-	3,780.0	9,184.6	2,893.0	-	
		Rest (m ²)	-	3,402.0	5,396.2	1,643.0	-	
	Sukatani	Initial (m ²)	-	2,298.4	1,266.7	1,867.0	-	
		Rest (m ²)	-	996.7	166.7	367.0	-	
	Haurwangi	Haurwangi	Initial (m ²)	-	2,837.8	-	-	-
			Rest (m ²)	-	1,670.8	-	-	-
Ramasari		Initial (m ²)	560.0	3,022.2	-	3,050.0	-	
		Rest (m ²)	-	1,863.9	-	1,900.0	-	
Sub total			Initial (m ²)	10,071.00	25,828.30	34,013.10	30,343.40	11,754.30
			Rest (m ²)	5,446.70	15,714.50	15,791.40	18,764.80	3,583.30
Tower	Rongga	Sukaresmi	Initial (m ²)	800.0	3,950.0	-	2,566.7	-
			Rest (m ²)	400.0	3,583.3	-	2,033.3	-
	Bojong-picung	Sukarama	Initial (m ²)	-	3,555.0	10,000.0	2,500.0	2,500.0
			Rest (m ²)	-	3,263.2	5,000.0	2,000.0	2,400.0
		Sukajaya	Initial (m ²)	-	1,400.0	-	-	2,200.0
			Rest (m ²)	-	-	-	-	-
		Sukaratu	Initial (m ²)	2,520.0	2,156.4	6,166.7	3,562.5	8,333.3
			Rest (m ²)	1,833.3	915.3	3,933.3	2,037.5	7,666.7
		Kemang	Initial (m ²)	140.0	-	-	1,400.0	-
			Rest (m ²)	-	-	-	1,000.0	-
		Neglasari	Initial (m ²)	-	2,442.7	-	-	-
			Rest (m ²)	-	2,442.7	-	-	-
		Jatisari	Initial (m ²)	840.0	12,804.0	7,000.0	560.0	-
			Rest (m ²)	-	6,400.0	2,666.7	280.0	-
	Cibarengkok	Initial (m ²)	-	-	7,677.5	2,113.3	-	
		Rest (m ²)	-	-	4,675.0	880.0	-	
	Sukatani	Initial (m ²)	-	3,080.0	-	1,620.0	-	
		Rest (m ²)	-	2,390.0	-	400.0	-	
	Haurwangi	Haurwangi	Initial (m ²)	-	1,610.0	-	-	-
			Rest (m ²)	-	767.5	-	-	-
Ramasari		Initial (m ²)	-	4,170.4	-	-	-	
		Rest (m ²)	-	3,119.8	-	-	-	
Sub total			Initial (m ²)	4,300.00	35,168.50	30,884.20	14,322.50	13,033.30
			Rest (m ²)	2,233.30	22,881.80	16,275.00	8,630.80	10,066.70
Total			Initial (m ²)	14,371.00	60,996.80	64,857.30	44,665.90	24,787.60
			Rest (m ²)	7,680.00	38,596.30	32,066.40	27,395.60	13,650.00

Source : Data of census, 2010

Table 2-5. Number of compensated land plots based on land classification

No	Project Location	Sub-District / Village		Home garden		Wet land rice field		Dry land rice field		Garden		Dry land		Others		Total (Land Plots)		
				Partially	Entirely	Partially	Entirely	Partially	Entirely	Partially	Entirely	Partially	Entirely	Partially	Entirely	Partially	Entirely	
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(16)	(17)	
1	ROW	Rongga	Sukaresmi	3	3	-	-	-	-	-	5	1	-	-	-	4	8	
		Bojongpicung	Sukarama	2	4	2	23	3	4	2	25	4	6	-	8	13	70	
			Sukajaya	-	-	-	1	-	5	-	2	-	3	-	-	-	11	
			Sukaratu	1	2	3	7	-	2	3	29	-	-	2	7	9	47	
			Kemang	-	-	-	-	1	2	-	-	-	-	-	-	1	2	
			Neglasari	1	-	2	2	1	0	-	-	-	-	5	9	9	11	
			Jatisari	4	1	2	-	1	13	-	1	-	1	-	1	-	7	16
			Cibarengkok	-	-	-	1	2	11	-	2	-	-	-	-	-	2	14
		Haurwangi	Sukatani	-	-	9	9	5	1	3	4	-	-	5	20	22	34	
			Haurwangi	-	-	2	2	-	-	-	-	-	-	5	8	7	10	
			Ramasari	1	-	1	9	-	-	-	2	-	-	13	29	15	40	
Sub total				12	10	21	54	13	38	8	70	5	10	30	81	89	263	
2	Tower	Rongga	Sukaresmi	-	1	1	2	-	-	-	3	-	-	-	-	1	6	
		Bojongpicung	Sukarama	-	-	1	2	-	1	-	1	-	1	-	1	-	1	6
			Sukajaya	-	-	1	-	-	-	-	-	-	2	-	-	-	3	-
			Sukaratu	1	2	1	2	-	3	1	7	-	3	1	7	4	24	
			Kemang	1	-	-	-	-	-	-	1	-	-	-	-	1	1	
			Neglasari	-	-	-	3	-	-	-	-	-	-	-	-	-	3	
			Jatisari	1	-	-	-	2	4	-	1	-	-	-	1	3	6	
			Cibarengkok	-	-	-	-	1	3	1	2	-	-	-	-	2	5	
		Haurwangi	Sukatani	-	-	-	-	-	-	1	1	-	-	-	1	1	2	
			Haurwangi	-	-	-	1	-	-	-	-	-	-	1	2	1	3	
			Ramasari	-	-	-	-	-	-	-	-	-	-	1	4	1	4	
Sub total				3	3	4	10	3	11	3	16	2	4	3	16	18	60	
Total				15	13	25	64	16	49	11	86	7	14	33	97	107	323	

d). Land Tenure/Land Ownership

Land affected by the project consists of private land owned and the land does not belong to the PAP but currently occupied/planted by the PAP through various agreements with the owner.

The land does not belong to the PAP to be grouped into several original owners, i.e. the land owned by individuals (the local people) and the state forest land authorities (Perhutani). Of the total land area affected by the project, 226 plots of land are owned by the PAP, and the rest, 204 plot, owned the other parties but cultivated or occupied by PAP (Table 2-6).

Land occupied by PAP tenants are mostly owned by state forestry, the number reached 102 plots of land or approximately 23% of the total land affected by the project. Perhutani's land occupied by the PAPs are concentrated in three villages, namely Sukarama and Sukajaya village, both in the region of Bojongpicung sub district, and village Sukaresmi in Rongga sub district.

Table 2-6. Status of land occupied by PAPs

Project	Sub district	Village	PAPs own	Other parties owner (land plots):				Total (land-plot)
				Private	Village	Perhutani	Gov.	
ROW	Rongga	Sukaresmi	2	-	-	10	-	12
	Bojong-picung	Sukarama	40	5	12	26	-	83
		Sukajaya	-	-	9	2	-	11
		Sukaratu	27	3	6	19	1	56
		Kemang	2	-	-	1	-	3
		Neglasari	17	3	-	-	-	20
		Jatisari	13	1	5	4	-	23
		Cibarengkok	8	-	1	7	-	16
	Haurwangi	Sukatani	45	5	-	5	1	56
		Haurwangi	12	5	-	-	-	17
		Ramasari	25	28	1	1	-	55
	Sub total			191	50	34	75	2
TOWER	Rongga	Sukaresmi	3	-	-	4	-	7
	Bojongpicung	Sukarama	2	1	-	4	-	7
		Sukajaya	-	-	3	-	-	3
		Sukaratu	15	2	2	9	-	28
		Kemang	1	-	1	-	-	2
		Neglasari	2	1	-	-	-	3
		Jatisari	2	-	1	6	-	9
		Cibarengkok	4	-	-	3	-	7
	Haurwangi	Sukatani	1	1	-	1	-	3
		Haurwangi	4	-	-	-	-	4
		Ramasari	1	4	-	-	-	5
Subtotal			35	9	7	27	-	78
Total			226	59	41	102	2	430

Based on census results, there are 163 plots of land that have no document of legitimate proof of ownership or land occupation, and there are as many as 157 plots of land have document, but these letters did not prove legal ownership (Tabel 2-7, column 8 to 11). There are just as many as 110 plots of land that have legal ownership letter (Tabel 2-7, column 4 to 7).

Most lands that have no legitimate proof of ownership found in the village Ramasari, Sukarama and Sukaresmi. Particularly in the last two villages, the lands that have no ownership of this letter may be related to the presence of forestry land in the village. Based on the recognition of PAP, there were 102 plots of land owned by PT Perhutani, but of this number, there are only 10 plots of land that have permit to be occupied (Table 2-7).

Table 2-7. Ownership Proof of land occupied by PAPs

Project location	Sub-district	Village	Land certificate	Purchased deed	<i>Leter C</i>	<i>Kikitir</i>	Village letter	SPPT	Purchased receipt	Forestry permit	No document	Total number of plots
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
ROW	Rongga	Sukaresmi	-	1	-	-	-	1	-	-	10	12
	Bojongpicung	Sukarama	2	2	-	11	-	36	-	1	31	83
		Sukajaya	1	-	-	8	-	-	-	-	2	11
		Sukaratu	10	1	-	-	3	16	-	7	19	56
		Kemang	-	-	-	-	-	2	-	-	1	3
		Neglasari	11	2	-	-	-	4	-	-	3	20
		Jatisari	-	-	-	6	-	12	-	-	5	23
		Cibarengkok	-	-	-	1	-	7	-	-	7	16
	Haurwangi	Sukatani	4	-	-	1	-	24	2	-	14	56
		Haurwangi	-	4	-	-	-	8	-	-	5	17
Ramasari		5	8	1	1	-	10	1	-	29	55	
Subtotal			33	30	1	28	3	120	3	8	126	352
TOWER	Rongga	Sukaresmi	-	2	-	-	-	1	-	-	4	7
	Bojongpicung	Sukarama	-	-	-	-	-	2	-	-	5	7
		Sukajaya	-	-	-	3	-	-	-	-	-	3
		Sukaratu	5	-	-	2	-	7	1	2	11	28
		Kemang	-	-	-	-	-	1	-	-	1	2
		Neglasari	2	-	-	-	-	-	-	-	1	3
		Jatisari	-	-	-	1	-	2	-	-	6	9
		Cibarengkok	-	-	-	-	-	4	-	-	3	7
	Haurwangi	Sukatani	-	-	-	-	-	1	-	-	2	3
		Haurwangi	1	1	-	-	-	2	-	-	-	4
Ramasari		1	-	-	-	-	-	-	-	4	5	
Subtotal			9	3		6	-	20	1	2	37	78
Total			42	33	1	34	3	140	4	10	163	430

2.1.2. Project Affected Building Assets

Buildings that are affected by the project are 56 units, it consists of 43 units located in ROW and 13 units are located in the tower sites.

a). Size of the project affected Building

The total affected buildings of 56 units have a total area of about 2,053 m², thus the average building size is 36.66 m². Building size is classified into eight classes, ranging from the smallest size, which is a building with floor-area of 21 m² to class of building with a floor-area of more than 70 m². Based on the building classification (Table 2-8), the building floor area is relatively small on average, half of the buildings are less than 21 m.

Table 2-8. Number and size of project affected building based on size of the buildings

No	Project Location	Village	Number of Project Affected Building (unit)							Total (unit)
			<21m ²	21-34m ²	35-44m ²	45-54m ²	55-64m ²	65-70m ²	>70m ²	
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	ROW	Sukaresmi	-	-	1	1	-	2	3	7
		Sukarama	17	4	-	2	-	-	1	24
		Sukajaya	-	-	-	-	-	-	-	-
		Sukaratu	3	-	-	-	-	-	1	4
		Kemang	-	-	-	-	-	-	-	-
		Neglasari	-	-	-	-	-	-	1	1
		Jatisari	1	-	-	-	2	-	2	5
		Cibarengkok	1	-	-	-	-	-	-	1
		Sukatani	-	-	-	-	-	-	-	-
		Haurwangi	1	-	-	-	-	-	-	1
Ramasari	-	-	-	-	-	-	-	-		
Subtotal			23	4	1	3	2	2	8	43
2	TOWER	Sukaresmi	2	-	-	1	1	-	-	4
		Sukarama	1	-	-	-	-	-	-	1
		Sukajaya	-	-	-	-	-	-	-	0
		Sukaratu	2	-	-	-	2	-	-	4
		Kemang	-	-	1	-	-	-	-	1
		Neglasari	-	-	-	-	-	-	-	-
		Jatisari	-	-	-	1	-	-	1	2
		Cibarengkok	-	-	-	-	-	-	-	-
		Sukatani	-	1	-	-	-	-	-	1
		Haurwangi	-	-	-	-	-	-	-	-
Ramasari	-	-	-	-	-	-	-	-		
Subtotal			5	1	1	2	3	-	1	13
Total			28	5	2	5	5	2	9	56

b). Building Use

The use of the building is grouped into six forms of use, consisting of: (1) residential, (2) home and place of business, (3) place of business, (4) home industry (factories, processing of agricultural products), (5) social and public facilities, and (6) others. There are 56 buildings which will be affected by the project, most of them (42.9%) are housing, and 18 units (32.1%) of the total building is used for public facilities owned by PAPs (Table 2-9). There are also empty buildings of about 12.5% with majority of them are residential buildings. The public facilities own by the PAPs are *mushola* and cemetery.

Table 2-9. Building used in the project affected area

No	Project Location	Sub-District	Village	Number of Project Affected Building (unit)								
				House	House & Business Place	Business Place ¹	Home industry ²	Public Facilities owned by PA	Others ³	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
1	ROW	Rongga	Sukaresmi	6	0	1	0	0	0	7		
		Bojongpicung	Sukarama	7	0	0	1	12	4	24		
			Sukajaya	0	0	0	0	0	0	0		
			Sukaratu	2	0	0	0	2	0	4		
			Kemang	0	0	0	0	0	0	0		
			Neglasari	1	0	0	0	0	0	1		
			Jatisari	3	0	0	1	1	0	5		
			Cibarengkok	0	0	0	0	1	0	1		
		Haurwangi	Sukatani	0	0	0	0	0	0	0		
			Haurwangi	0	0	0	0	0	1	1		
		Ramasari	0	0	0	0	0	0	0			
Subtotal				19	0	1	2	16	5	43		
2	TOWER	Rongga	Sukaresmi	1	1	0	0	2	0	4		
		Bojongpicung	Sukarama	0	0	0	0	0	1	1		
			Sukajaya	0	0	0	0	0	0	0		
			Sukaratu	2	1	0	0	0	1	4		
			Kemang	0	1	0	0	0	0	1		
			Neglasari	0	0	0	0	0	0	0		
			Jatisari	1	1	0	0	0	0	2		
			Cibarengkok	0	0	0	0	0	0	0		
		Haurwangi	Sukatani	1	0	0	0	0	0	1		
			Haurwangi	0	0	0	0	0	0	0		
			Ramasari	0	0	0	0	0	0	0		
		Subtotal				5	4	0	0	2	2	13
		Total				24	4	1	2	18	7	56

Note:¹ Business Places (small shops). ² Agricultural Production Process, storehouse.

³ Empty building with majority as residential area

From the total number of building affected by the project, as many as 31 buildings are as residential, they consist of house, business place and home industry. There are 9 buildings precisely stand on the planed tower site hence that building should be removed.

c). Status of Building and Land Ownership

Project affected buildings are entirely owned by residents, but there are 29 buildings are built on land owned by non PAPs. These owners can be individual land owners or the village (*tanah desa*).

Table 2-10. Land status which is used by the PAPs

No	Project Location	Sub-District	Village	Number of Building (unit)	Building constructed on PAP land (unit)	Building constructed on non PAP land (unit)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)		
1	ROW	Rongga	Sukaresmi	7	1	6		
		Bojongpicung	Sukarama	24	14	10		
			Sukajaya	0	0	0		
			Sukaratu	4	1	3		
			Kemang	0	0	0		
			Neglasari	1	1	0		
			Jatisari	5	3	2		
			Cibarengkok	1	1	0		
		Haurwangi	Sukatani	0	0	0		
			Haurwangi	1	1	0		
			Ramasari	0	0	0		
		Sub total				43	22	21
		2	TOWER	Rongga	Sukaresmi	4	1	3
Bojongpicung	Sukarama			1	0	1		
	Sukajaya			0	0	0		
	Sukaratu			4	2	2		
	Kemang			1	1	0		
	Neglasari			0	0	0		
	Jatisari			2	0	2		
	Cibarengkok			0	0	0		
Haurwangi	Sukatani			1	1	0		
	Haurwangi			0	0	0		
	Ramasari			0	0	0		
Sub total				13	5	8		
Total				56	27	29		

Source : Data of Census, 2010

d). Buildings that need to be compensated

The whole buildings on the tower site should be relocated, and those will be compensated. On the other hand, the buildings under the transmission line based on the Ministry Decree of Mines and Energy No. 01.P/47/MPE/1992 and No. 975/K/47/MPE/1999 on Open Space and High Voltage should not be removed, because the buildings are not physically disturbed. In accordance with these regulations, total buildings which are affected by transmission tower project and should be removed and compensated are 13 units consist of 9 houses and 4 other buildings (*kiosk*) [see Table 2-11]. The whole area that their standing buildings need to be removed is around 524 m².

In addition to those 13 buildings, there are 43 other buildings sited under the ROW consist of 19 houses and other buildings such as kiosk. Regarding the above regulations, these buildings need not be relocated and compensated. Despite this, as indicated in FGD, the owners of lands and buildings are revealing their anxiety regarding health effect, comfortability and possibility of economic loss due to degrading value of land. They hope the project should take care if the health problems arise in the future resulted from the transmission line (see also section 5.1.2). Regarding this, the PLN is required to prepare a monitoring and evaluation mechanism on any possible negative psychological and health impacts associated with the proposed project. This mechanism should be established through an independent monitoring agency (IMA).

Table 2-11. Number and size of building which affected by the project

No.	Project	Village	Unit	House	House + business building	Business place	Home Industry	Public Facilities owned by PAP	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	ROW	Sukaresmi	Unit	6	-	1	-	-	-	7
			m ²	414	-	70	-	-	-	484
		Sukarama	Unit	7	-	-	1	12	4	24
			m ²	288	-	-	21	102	40	451
		Sukajaya	Unit	-	-	-	-	-	-	-
			m ²	-	-	-	-	-	-	-
		Sukaratu	Unit	2	-	-	-	2	-	4
			m ²	106	-	-	-	21	-	127
		Kemang	Unit	-	-	-	-	-	-	-
			m ²	-	-	-	-	-	-	-
		Neglasari	Unit	1	-	-	-	-	-	1
			m ²	108	-	-	-	-	-	108
		Jatisari	Unit	3	-	-	1	1	-	5
			m ²	211	-	-	124	5	-	340
		Cibarengkok	Unit	-	-	-	-	1	-	1
			m ²	-	-	-	-	4	-	4
		Sukatani	Unit	-	-	-	-	-	-	0
			m ²	-	-	-	-	-	-	0
		Haurwangi	Unit	-	-	-	-	-	1	1
			m ²	-	-	-	-	-	15	15
Ramasari	Unit	-	-	-	-	-	-	-		
	m ²	-	-	-	-	-	-	-		
Subtotal			Unit	19	-	1	2	16	5	43
			m²	1127	-	70	145	132	55	1529
2	TOWER	Sukaresmi	Unit	1	1	-	-	2	-	4
			m ²	55	65	-	-	53	-	173
		Sukarama	Unit	-	-	-	-	-	1	1
			m ²	-	-	-	-	-	12	12
		Sukajaya	Unit	-	-	-	-	-	-	-
			m ²	-	-	-	-	-	-	-
		Sukaratu	Unit	2	1	-	-	-	1	4
			m ²	120	12	-	-	-	9	141
		Kemang	Unit	-	1	-	-	-	-	1
			m ²	-	40	-	-	-	-	40
		Neglasari	Unit	-	-	-	-	-	-	0
			m ²	-	-	-	-	-	-	0
		Jatisari	Unit	1	1	-	-	-	-	2
			m ²	84	50	-	-	-	-	134
		Cibarengkok	Unit	-	-	-	-	-	-	-
			m ²	-	-	-	-	-	-	-
		Sukatani	Unit	1	-	-	-	-	-	1
			m ²	24	-	-	-	-	-	24
		Haurwangi	Unit	-	-	-	-	-	-	-
			m ²	-	-	-	-	-	-	-
Ramasari	Unit	-	-	-	-	-	-	-		
	m ²	-	-	-	-	-	-	-		
Subtotal			Unit	5	4	-	-	2	2	13
			m²	283	167	-	-	53	21	524
Total			Unit	24	4	1	2	18	7	56
			m²	1410	167	70	145	185	76	2053

Source : Data of Census 2010

e). Building Type

The type of the buildings that are affected by the project is divided into three classes, based on the condition of the building materials used. Of the total 56 buildings that are affected by the project, most or as many as 48 units (85.7%) is a building as on stilts with a wooden base. The permanent buildings (brick-wall construction) are recorded 8 units (Table 2-12).

Table 2-12. Buildings type affected by the project

No.	Project Location	Sub-District	Village	Building type (Unit)			Total (Unit)
				Permanent	Semi Permanent	Wood/ on stilt	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	ROW	Rongga	Sukaresmi	-	-	7	7
		Bojongpicung	Sukarama	1	-	23	24
			Sukajaya	-	-	-	-
			Sukaratu	3	-	1	4
			Kemang	-	-	-	-
			Neglasari	1	-	-	-
			Jatisari	2	-	3	-
			Cibarengkok	-	-	1	-
		Haurwangi	Sukatani	-	-	-	-
			Haurwangi	-	-	1	1
			Ramasari	-	-	-	-
Sub total				7	-	-	43
2	TOWER	Rongga	Sukaresmi	-	-	4	4
		Bojongpicung	Sukarama	-	-	1	1
			Sukajaya	-	-	-	-
			Sukaratu	-	-	4	4
			Kemang	-	-	1	1
			Neglasari	-	-	-	-
			Jatisari	-	-	1	2
			Cibarengkok	-	-	-	-
		Haurwangi	Sukatani	-	-	1	1
			Haurwangi	-	-	-	-
			Ramasari	-	-	-	-
Sub total				1	-	-	13
Total				8	-	48	56

Source : Data of census 2010

f). Total Building Size to be acquired

As shown in Table 2-13, total building that need to be compensated consist of one permanent building with an area of 84 m², and 12 buildings of wood construction, with total area of 440 m². Total areas of these buildings are 524 m² (Table 2-13).

Table 2-13. Total building size to be acquired

Sub-District	Village	Total Size (m ²)	Acquired Building Size (m ²)			
			Permanent (m ²)	Semi Permanent (m ²)	Wood/on stilt (m ²)	Total (m ²)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rongga	Sukaesmi	173	-	-	173	173
Bojongpicung	Sukarama	12	-	-	12	12
	Sukajaya	0	-	-	-	-
	Sukaratu	141	-	-	141	141
	Kemang	40	-	-	40	40
	Neglasari	0	-	-	-	-
	Jatisari	134	84	-	50	134
	Cibarengkok	-	-	-	-	-
Haurwangi	Sukatani	24	-	-	24	24
	Haurwangi	-	-	-	-	-
	Ramasari	-	-	-	-	-
Total		524	84	-	440	524

Source : Data of Census 2010

Note: All buildings that should be compensated is located in the tower sites

2.2. PAP and Project Affected Assets

PAP distribution and Project Affected Land

The number project people (PAP) recorded were 346 households, but the PAPs who are relocated are those who are living on lands and buildings that affected by the tower project. They consist of 9 PAPs living in the four villages, namely Sukaesmi, Sukaratu, Jatisari and Sukatani (Table 2-14).

Table 2-14. Total of project affected household and building

No	Project	Sub-District	Village	Total PAP (HH)	Total Building (unit)	Total PAP (HH) have to be relocated	Total Building (unit) Have to be relocated
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1	ROW	Rongga	Sukaesmi	11	7	-	-
		Bojongpicung	Sukarama	74	24	-	-
			Sukajaya	10	-	-	-
			Sukaratu	48	4	-	-
			Kemang	3	-	-	-
			Neglasari	15	1	-	-
			Jatisari	15	5	-	-
			Cibarengkok	13	1	-	-
		Haurwangi	Sukatani	47	-	-	-
			Haurwangi	14	1	-	-
			Ramasari	36	-	-	-
Subtotal				286	43	-	-

No	Project	Sub-District	Village	Total PAP (HH)	Total Building (unit)	Total PAP (HH) have to be relocated	Total Building (unit) Have to be relocated		
(1)		(2)	(3)	(4)	(5)	(6)	(7)		
2	TOWER	Rongga	Sukaresmi	5	4	2	4		
		Bojongpicung	Sukarama	6	1	-	1		
			Sukajaya	2	-	-	-		
			Sukaratu	17	4	3	-		
			Kemang	2	1	1	-		
			Neglasari	2	-	-	-		
			Jatisari	7	2	-	2		
			Cibarengkok	7	-	-	-		
		Haurwangi	Sukatani	3	1	-	1		
			Haurwangi	4	-	-	-		
			Ramasari	5	-	-	-		
		Subtotal				60	13	9	13
		Total				346	56	9	13

2.3. Plant Asset

Land in the transmission line that needs to be compensated consist of lands for row and tower. In the tower site, all plants should be removed. While, land for the row, plants with the height of less than 3 m are allowed to grow. Those plants with more than 3 m height should be trimmed regularly.

The plants inventoried as assets only for perennial plants, whereas for annual plants are not included as asset due to these annual plants have probably been harvested when the project implemented. To ease the assessment, the plants assets divided into two groups namely:

- (1) **Non Timber plants:** it defined as various plants that are normally harvested as plant parts of flower, fruit, leave, sap and so on. For example, non timber plants such as mangga (*Mangifera indica*), cengkeh (*Syzigium aromaticum*), karet (*Hevea braziliensis*), and aren (*Arenga pinnata*).
- (2) **Timber plants:** it defined as various timber/wood plants that are mainly harvested as wood, such as bamboo (*Gigantochloa spp*, *Bambusa spp*, jati (*Tectona grandis*), mahoni (*Switenia mahagony*), and albasia (*Paraserianthes falcataria*).

Regarding such variations plants growing on the site, whether viewed from the type of growth, growth rate and life cycle, the condition of the plant divided into 3 groups, namely large, medium and small. This is in accordance with the grouping of plant condition from West Bandung districts government. However, to give the same picture of the plants, then grouping is limited to matters as follows:

1. Non Timber plants
 - Little: the non timber plants that have not been fruitful, from planting until the end of the vegetative growth.

- Medium: the non timber plants that bear fruit only once to 3 times in a year.
 - Large: the non timber that have been harvested for more than 3 times in a year.
2. Timber plants
- Small: timber that has diameter less than 20 cm (diameter at a height of 1 m)
 - Medium: timber with diameter 21 to 30 cm (diameter at a height of 1 m)
 - Large: timber with diameter of more than 30 cm (diameter at a height of 1 m).

Number of individual plants recorded under transmission line plan can be seen in Table 2-15. Total individual plants that are affected by the project have been recorded 213,751 trees consisting of 122,214 trees of non timber plants, and 91,537 trees of timber plants (Table 2-15). In general, in the project area has been predominantly by plants compared to timber plants. Because the non timber plants may significantly provide benefits compared to that of timber plant group.

Table 2-15. Number and condition of plants on the transmission line

Plant Group	Condition			
	Big	Middle	Small	Total
Timber	2,213	13,329	65,995	91,537
Non Timber	4,566	32,538	55,110	122,214
Number	6,779	45,867	121,105	213,751

Source :Primary Data Year 2010

It has been mentioned that all plants on the land for construction of towers must be acquired by the project. The plants must be acquired in the tower pad are 39,187 non timber plants and timber plant group (Table 2-16).

Table 2-16. Number and condition of plants in the tower site

Plant Group	Condition			
	Big	Middle	Small	Total
Timber	1,427	1,954	1,8639	22,020
Non Timber	4,290	291	1,2586	17,167
Number	5,717	2,245	3,1225	39,187

Source : Census, 2010.

On the ROW transmission land, numbers of individual plants recorded were 174,564 trees. (Table 2-17).

Table 2-17. Number and condition of plants in the row transmission line

Plant Group	Size			
	Big	Middle	Small	Total
Timber	10,786	11,375	47,356	69,517
Non Timber	30,276	32,247	42,524	105,047
Number	41,062	43,622	89,880	174,564

Source :Census 2010

On the transmission ROW the trees with high more than 3 meters will be acquired and plants that of lower than 3m are still allowed to grow. Some of plants recorded that lower than 3 m including kopi (*Coffea* sp), pisang (*Musa paradisiaca*), lada (*Piper nigrum*) and nanas (*Ananas comosus*). Various plants and its conditions that are recorded under the proposed transmission line can be seen from Table 2-18 to Table 2-21.

Table 2-18. Plant species of timber plants in the proposed row transmission line

Plant Species	Size			
	Big	Middle	Small	Total
Albasiah (<i>Paraserianthes falcataria</i>)	2,136	5,675	17,403	25,214
Mahoni (<i>Switenia mahagony</i>)	262	889	5,286	6,437
Akasia (<i>Acasia</i> sp)	28	771	2,159	2,958
Bambu (<i>Bambusa</i> sp)	7,900	1,540	3,433	12,873
Bambu Tali (<i>Gigantochloa apus</i>)	-	-	5	5
Cikri	36	286	3,411	3,733
Garu	-	-	190	190
Jati (<i>Tectona grandis</i>)	86	612	6,450	7,148
Kananga	-	-	3	3
Ki Hiang (<i>Albizia procera</i>)	15	5	217	237
Kiacret (<i>Spathodea campanulata</i>)	-	10	17	27
Kiara (<i>Ficus</i> sp)	-	-	50	50
Kihaji	-	-	190	190
Kisoka	-	-	5	5
Malanding	-	25	15	40
Mindi (<i>Melia azederach</i>)	320	750	6,722	7,792
Nangsi	-	2	0	2
Puspa (<i>Schima walahii</i>)	-	-	190	190
Rajamandala	-	-	190	190
Saga	-	800	245	1,045
Sobsis (<i>Maesopsis eminii</i>)	-	-	57	57
Suren (<i>Toona sureni</i>)	-	-	260	260
Tarik Angin	-	-	620	620
Tisuk (<i>Hibiscus macrophyllus</i>)	1	10	238	249
Waru (<i>Hibiscus tiliaceus</i>)	2	-	-	2
Total	10,786	11,375	47,356	69,517

Table 2-19. Plant species of non Timber plants on the proposed ROW Transmission line

Plant Species	Size			
	Big	Middle	Small	Total
Alpokan (<i>Persea americana</i>)	11	3	23	37
Aren (<i>Arenga pinnata</i>)	77	198	765	1,040
Belimbing (<i>Averhoa carambola</i>)	-	-	190	190
Cengkih (<i>Syzigium aromaticum</i>)	3	-	-	3
Cengkih (<i>Syzigium aromaticum</i>)	-	6	64	70
Ceremai (<i>Phyllanthus javanicus</i>)	-	-	190	190
Duku (<i>Lansium domesticum</i>)	7	5	203	215
Durian (<i>Durio zibethinus</i>)	55	64	620	739
Jambe (<i>Areca cathecu</i>)	-	-	1	1
Jambu air (<i>Syzigium aquae</i>)	2	-	-	2
Jambu batu (<i>Psidium guajava</i>)	1	-	15	16
Jengkol (<i>Pithecelobium jeringa</i>)	79	45	295	419
Jeruk (<i>Citrus sp</i>)	9	3	14	26
Jeruk bali (<i>Citrus grandis</i>)	-	-	7	7
Kakao (<i>Theobroma cacao</i>)	40	-	-	40
Kapas (<i>Gossipium sp</i>)	0	25	-	25
Kapok (<i>Ceiba petandra</i>)	33	66	13	112
Kapolaga (<i>Amomum sp</i>)	15	-	-	15
Karet (<i>Hevea brasiliensis</i>)	-	-	12	12
Kecapi (<i>Sandoricum koetjape</i>)	21	7	96	124
Kelapa (<i>Cocos nucifera</i>)	16	27	26	69
Kemiri (<i>Aleurites moluccana</i>)	9	4	18	31
Kluwih (<i>Hibiscus sp</i>)	-	-	2	2
Kopi (<i>Coffea sp</i>)	1,400	30	1,036	2,466
Kupa (<i>Syzigium polycephalum</i>)	-	6	4	10
Limus (<i>Mangifera foetida</i>)	2	20	52	74
Mangga (<i>Mangifera indica</i>)	30	27	242	299
Manggis (<i>Garcinia mangostana</i>)	0	2	-	2
Melinjo (<i>Gnetum gnemon</i>)	19	-	71	90
Menteng (<i>Baccaurea racemosa</i>)	5	-	25	30
Nangka (<i>Artocarpus heterophylla</i>)	113	51	433	597
Panili (<i>Vanilla sp</i>)	50	450	-	500
Petai (<i>Parkia speciosa</i>)	42	95	395	532
Petai cina (<i>Leucaena leucocephala</i>)	1	13	226	240
Picung (<i>Pangium edule</i>)	-	-	6	6
Pisang (<i>Musa paradisiacal</i>)	28,158	21,000	35,787	84,945
Pisitan (<i>Lansium domesticum</i>)	1	38	34	73
Rambutan (<i>Nephelium lappaceum</i>)	64	60	520	644
Salak (<i>Salacca edulis</i>)	12	10,000	920	10,932
Sawo (<i>Achras zapota</i>)	-	2	200	202
Sirsak (<i>Annona muricata</i>)	1	-	15	16
Sukun (<i>Artocarpus sp</i>)	-	-	4	4
Total	30,276	32,247	42,524	105,047

Table 2-20. Plant species of the timber plant on the proposed tower pad

Plant Species	Size			
	Big	Middle	Small	Number
Alabasia (<i>Paraserianthes falcataria</i>)	90	219	7,154	7,463
Mahoni (<i>Switenia mahagoni</i>)	20	334	3,992	4,346
Bamboo (<i>Gigantochloa apus</i>)	1,200	-	3,250	4,450
Kihiang (<i>Albizia procera</i>)	1	46	79	126
Mindi (<i>Melia azederach</i>)	-	600	490	1,090
Tisuk (<i>Hibiscus macrophyllus</i>)	-	-	127	127
Kibungur	-	13	2	15
Tereup (<i>Ficus sp</i>)	-	-	2	2
Jati (<i>Tectona grandis</i>)	56	134	10.95	1,285
Jengjing (<i>Albizia chinensis</i>)	-	-	6	6
Keledog	-	1	-	1
Mara (<i>Macaranga tanarius</i>)	-	-	4	4
Juar (<i>Cassia siamea</i>)	60	2	10.98	1,160
Sobsis (<i>Maesobsis eminii</i>)	-	605	12.52	1,857
Kisoga	-	-	53	.53
Turi (<i>Sesbania grandiflora</i>)	-	-	5	5
Kiacret (<i>Spatodea campanulata</i>)	-	-	30	30
Total	1,427	1,954	18,639	22,020

Table 2-21. Plant species of non timber plants on the proposed tower pad

Plant Species	Size			
	Big	Middle	Small	Total
Pisang (<i>Musa paradisiacal</i>)	3,830	-	6,492	10,322
Kemiri (<i>Aleurites moluccana</i>)	-	-	58	58
Limus (<i>Mangifera foetida</i>)	-	-	2	2
Mangga (<i>Mangifera indica</i>)	3	17	64	84
Nangka (<i>Artocarpus heterophylla</i>)	17	30	285	332
Sirsak (<i>Annona muricata</i>)	-	-	5	5
Kopi (<i>Coffea sp</i>)	400	-	2,017	2,417
Durian (<i>Durio zibethinus</i>)	10	7	201	218
Aren (<i>Arenga pinnata</i>)	-	46	1,778	1,824
Jambu Batu (<i>Psidium guajava</i>)	-	-	3	3
Kelapa (<i>Cocos nucifera</i>)	4	4	24	32
Petai (<i>Parkia speciosa</i>)	8	56	99	163
Petai Cina (<i>Leucaena leucocephala</i>)	-	-	50	50
Sukun (<i>Artocarpus sp</i>)	-	-	5	5
Rambutan (<i>Nephelium lappaceum</i>)	4	82	232	318
Melinjo (<i>Gnetum gnemon</i>)	4	-	8	12
Pisitan (<i>Lansium domesticum</i>)	1	-	6	7
Belimbing (<i>Averrhoa carambola</i>)	-	-	1	1
Kapuk (<i>Ceiba petandra</i>)	-	9	3	12
Alpoket (<i>Persea americana</i>)	-	11	13	24
Jeruk (<i>Citrus sp</i>)	8	-	4	12
Picung (<i>Punica granatum</i>)	-	-	1	1
Jengkol (<i>Pithecelobium jeringa</i>)	-	8	50	58

Plant Species	Size			
	Big	Middle	Small	Total
Kecapi (<i>Sandoricum koetjape</i>)	-	6	23	29
Salak (<i>Salacca edulis</i>)	-	-	1,004	1,004
Asam (<i>Tamarindus indica</i>)	1	-	-	1
Kupa (<i>Syzigium polycephalum</i>)	-	-	6	6
Karet (<i>Hevea brasiliensis</i>)	-	15	30	45
Campoleh (<i>Madhuca cuneata</i>)	-	-	3	3
Lada (<i>Piper nigrum</i>)	-	-	1	1
Sawo (<i>Achras zapota</i>)	-	-	98	98
Salam (<i>Syzigium polyanthum</i>)	-	-	20	20
Total	4,290	291	12,586	17,167

3

Socio-Economic Condition

3.1. Number and Composition of Population Based on Age

Number of affected household are 346 HHs, consist of 286 HHs in ROW, and of 60 HHs in Tower sites. The age composition of household head in the ROW and Tower can be seen in Table 3-1. The largest proportion of house hold head age is between 45 to 54 years old. . This range of age is considered as productive age, which could be qualified for project jobs (qualification as required by contractors) for supporting their economic families. Therefore, with the proposed project, effort to be made to avoid the loss of these jobs, by generating jobs associated with the project.

As for the head of households with age more than 70 years old is 49 HHs (14.16%), generally, they are not economically active people who need to be given special attention.

Table 3-1. Age of households head based on age

Age	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
≤ 24	3	1.05	1	1.67	4	1.16
25 - 29	10	3.50	1	1.67	11	3.18
30 - 34	11	3.85	2	3.33	13	3.76
35 - 39	16	5.59	5	8.33	21	6.07
40 - 44	19	6.64	2	3.33	21	6.07
45 - 49	42	14.69	11	18.33	53	15.32
50 - 54	50	17.48	10	16.67	60	17.34
55 - 59	35	12.24	10	16.67	45	13.01
60 - 64	31	10.84	4	6.67	35	10.12
65 - 69	29	10.14	5	8.33	34	9.83
70 +	40	13.98	9	15.00	49	14.16
Total	286	100.00	60	100.00	346	100.00

Source: Census Data 2010

The structure of PAPs based on age for each location can be seen in Table 3-2. According to this demographic figure, the PAPs considered as productive age (15-64 years old) are 848 people (66.09%) and 313 people (24.39%) are less than 15 years old. The number of PAPs with more than 70 years of age is about 72 (5.61%) people.

Table 3-2. Age composition of PAP

Age	ROW			Tower			Total		
	Male	Female	Sub Total	Male	Female	Sub Total	Male	Female	Total
0 - 4	21	22	43	6	5	11	27	27	54
5 - 9	47	53	100	13	7	20	60	60	120
10 -14	59	52	111	17	11	28	76	63	139
15 - 19	69	51	120	16	11	27	85	62	147
20 - 24	51	28	79	10	5	15	61	33	94
25 - 29	32	27	59	3	6	9	35	33	68
30 - 34	15	15	30	3	5	8	18	20	38
35 - 39	20	44	64	8	8	16	28	52	80
40 - 44	20	36	56	2	9	11	22	45	67
45 - 49	38	52	90	11	8	19	49	60	109
50 - 54	47	42	89	9	12	21	56	54	110
55 - 59	33	33	66	10	5	15	43	38	81
60 - 64	29	14	43	4	7	11	33	21	54
65 - 69	24	18	42	5	3	8	29	21	50
70 - 74	15	11	26	4	0	4	19	11	30
75 - 79	15	8	23	4	0	4	19	8	27
80 +	9	4	13	1	1	2	10	5	15
Jumlah	544	510	1,054	126	103	229	670	613	1,283

Source: Census data 2010.

3.2 Marital Status

Most of affected household head recorded as married (93.64%), and only small number as widower or widow. The family head widow status certainly require attention and more handling especially for old widow (more than 70 years) due to they are potential to be vulnerable people.

Table 3-3. Marital status of head of household

Marital Status	Project Area					
	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Married	267	93.36	57	95.00	324	93.64
Widower	4	1.40	1	1.67	5	1.45
Widow	15	5.24	2	3.33	17	4.91
Total	286	100.00	60	100.00	346	100.00

Source :Census Data 2010

3.3. Residency Duration

Duration of residents in certain area has been considered important to be identified. This information can be used as consideration in resettlement plan. Sociologically, rural population has a strong emotional bond with the length of stay in a location, the longer people live in one location, the more difficult to move to another area.

Information on the residency duration of the head of PAP can be seen in Table 3-4. It shows that majority of the PAP (94.80%) in the transmission area have been living for more than 24 years. Only small numbers of people are living in the project affected area less than 11 years.

Table 3-4. Head of households based on Residency Duration

Residency Duration	Project Area					
	ROW		Tower		Total	
	N	%	N	%	N	%
1-5	2	0.70	-	-	2	0.58
6 -11	2	0.70	-	-	2	0.58
12 17	4	1.40	-	-	4	1.16
18 23	7	2.45	3	5.00	10	2.89
>= 24	271	94.76	57	95.00	328	94.80
Total	286	100.00	60	100.00	346	100.00

Source: Census Data 2010

3.4. Nuclear Family and Joining Family

Among the 401 affected HHs, consist of 346 nuclear families and 55 joining families. (Table 3-5). In general, those joining and host families have family relationship. Psychologically, for rural communities, living together in one house can provide some benefits, because it can share (the difficulties and happiness) among family members. Most of joining families still have family connections with the nuclear family as relatives. Numbers of families who join with other household are mostly dominated by one join family. There is a small portion of the number of families to have more one join families.

If the nuclear family (family who hosted another family) must be relocated, this impact will also be felt by families who are living with the nuclear families, because they usually have no other place to go. These joining families would probably lose their access to their work (cultivated land / business).

Table 3-5. Number of nuclear and joining families

Family status	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Nuclear Family	286	85.1	60	86.6	346	85.3
Joining Family	48	14.9	7	13.4	55	14.7
Number	334	100	67	100	401	100

Source: Census Data 2010

3.5. Occupation

Based on census data there are 336 HHs have a job, and the remaining 10 HHs did not have a job. Table 3-6 shows the number of HHs who self-employed, mostly in the agricultural sector (85.55%), followed by trade sector 4.33%. The fact that most PAPs are depending on the agricultural activities.

Table 3-6. Households that have job based on job sector

Type of Occupation	Project Area					
	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Agriculture	245	85.66	51	85.00	296	85.55
Industry	10	3.50	2	3.33	7	2.02
Building/Construction	4	1.40	1	1.67	5	1.45
Trade	7	2.45	3	5.00	15	4.33
Transportation	1	0.35	-	-	1	0.29
Government official	6	2.10	-	-	6	1.73
Services	4	1.40	2	3.33	6	1.73
Job less	9	3.15	1	1.67	10	2.89
Total	286	100.00	60	100.00	346	100.00

Source: Census Data 2010

Although the head of family are working in both agricultural and trade sectors, in fact, their jobs are not directly affected by the project, so that they are not losing their assets/business site, but their comfort and perhaps, psychologically, they feel will be negatively affected by the project. Other impact is that the price of their lands under the transmission line will be lower than the used to be.

There were several dominant types of work performed by the head of family in the project site (Table 3-7). Head of family engaged as farmer or owning land recorded 180 HHs (52.0%); mostly they reside in the ROW (154 HHs). Head of family who work as sharecropper are 68 HHs (19.7%), most of them are living in the ROW. While 39 HHs are wage labor in agriculture

Table 3-7. Various jobs held by the of household Head

Type of Occupation	Project Area					
	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Land owner farmer	154	53.8	26	43.3	180	52.0
Share cropper	52	18.2	16	26.7	68	19.7
Wage labor in agricultural	32	11.2	7	11.7	39	11.3
Land owner and share cropper	7	2.4	1	1.7	8	2.3
Trade	7	-	3	-	10	-
Village Official	1	0.3	-	-	1	0.3
Entrepreneur	6	-	2	-	8	-
Building Labourer	3	-	1	1.7	4	-
Security officer	1	0.3	-	-	1	0.3
Driver	1	0.3	-	-	1	0.3
Islamic teacher	-	-	1	1.7	1	0.3
<i>Paranormal/Paraji</i>	2	0.7	-	-	2	0.6
Private worker	5	-	2	3.3	7	-
Overseas worker	1	0.3	-	-	-	0.3
Government officer	5	1.4	-	-	5	1.2
No jobs	9	3.1	1	1.7	10	2.9
Total	286	100.0	60	100.0	346	100.0

Source : Census Data 2010

Among the 10 heads of household who do not have job, it consists of productive age of 1 HHs, and as non productive age of 9 HHs. Moreover, based on the marital status, the entire jobless HHs has been recorded as married persons. This data indicates that this group of people must be given special attention.

The educational background of the unemployment heads of the PAPs have been identified, that majority as the primary school category consisting of graduated from the elementary school 63.6 % and did not graduate from the elementary school 9.1 %. While the rest 27.3% are graduated from senior high school.

3.6. Income

One of the indicators to measure economic condition of community is income level. For village condition, a measurement is usually used is Sayogyo parameter that is measured by equivalent to price of rice. Based on Sayogyo parameter poverty may be defined as if the income per capita less than worth the price of hulled rice 480 kg hulled rice/capita/year. Therefore, based on this parameter, with assumption that price of hulled rice at the time of conducting survey is Rp4,000/kg, so the poverty line has been considered as Rp160,000/capita/month. Table 3-8 shows the economic condition of the PAPs based on the "Sayogyo parameter" poverty level, so that the number of PAPs level of poverty can be known.

Table 3-8 shows most of the PAPs (80.3%) have income higher than Rp160,000/capita/month and the rest (19.7 %) has income the same or less than Rp160,000. Of the 68

PAPs who are economically poor. Based on this result, it can be inferred that most people in the transmission area has been categorized as above the poverty line, most of them is located in the propose of ROW transmission lines. Capacity building will be prioritized for the PAP's below the poverty line

Table 3-8. Proportion of PAP based on poverty line

Income	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Income > Rp.160,000/Cap/month	230	80.4	48	80.0	278	80.3
Income ≤ Rp.160,000/Cap/month	56	19.6	12	20.0	68	19.7
Total	286	100.0	60	100.0	346	100.0

Source: Census Data 2010

3.7. Education

Participation of society in education has influenced in the advancement of a society, higher average education of a society so the society will be more advanced because the education is a basic prerequisite that has effect on various dimensions of life. In transmission location planned, average of participation of the community in education has been recorded low; even some of the people have never obtained formal education (never attending school). The detail of the education level of heads of household in the project can be seen in Table 3-9.

Table 3-9. Education of head of households

Education of Head of Household	ROW		Tower		Total	
	(HHs)	%	(HHs)	%	(HHs)	(%)
No School	4	1.4	1	1.7	5	1.4
Not Completed Elementary School	32	11.2	5	8.3	37	10.7
Completed Elementary School	214	74.8	49	81.7	263	76.0
Not Completed senior high School	1	0.3	-	-	1	0.3
Completed junior high School	15	5.2	2	3.3	17	4.9
Completed High School	13	4.5	3	5.0	16	4.6
Diploma/D1 - 3	5	1.7	-	-	5	1.5
First Degree/S1	2	0.7	-	-	2	0.6
Total	286	100.0	60	100.0	346	100.0

Source :Census Data 2010

The education level of heads of household recorded that most people has ever attended the primary school consisting of 76.0 % of them completed the elementary school and 10.7 % did not completed the elementary school (Table 3-9). In addition, some of the people who never attended school can be categoized as illiterate. Moreover, the illiterate people will get difficulty if they must read letters or documents in relation to the implementation process of the compensation between PAP and the PLN. Therefore, when the compensation process implemented, for the illiterate people must be accompanied by an inspector.

3.8. Vulnerable People

The criteria for vulnerability are usually based on criteria developed by World Bank and ADB. Based on this criteria and considering the local government concerns, this project use the following criteria for vulnerable people classification: (1) demography aspect (elderly citizen more than 70 years old), (2) Female household head, (3) economy aspect (poor); and (4) Disabled people.

Based on demography concept, the productive age is between 15-64 years old. However, in the case for Indonesia there are many people who are still doing economic activities, in several cases up to 70 years old. But in general, for most people whose age are more than 70 years old, their economic activities have been greatly reduced.

The economic condition is closely associated with the status of employment. The people who do not work or jobless are difficult to fulfill their living, and economically they are usually depending on other people.

One of the indicators to measure economic condition income level for rural people, is poverty line defined by "Sayogyo parameter". According to the Sayogyo parameter, someone is said to be below poverty line if he/she has income per capita/year equal to less than 480 kg of rice. Judging from the current (2009) price of rice of around Rp4,000/kg, any person earning less than Rp160,000/capita/month is considered below the poverty line.

According to the guidelines, widow as head of family is considered also as a vulnerable criterion because she has limited access to job market and/or economic activities. In many resettlement cases, widows as head of family are often neglected. People with physical disability are also regarded to have limited access to job market and/or economic opportunities.

Based on the above criteria (demography, poverty level, widow household head, and disability), the total identified vulnerable affected families are 2 HHs. These families are eligible to get special economic assistance due to their vulnerability. According to their residency, these vulnerable people, 2 HHs are in ROW transmission line (Sukaratu Village, Sub District Bojong Picung, Cianjur)

3.9. Social Institution

Social institutions have been identified in the village are mainly community institutions that are related with village government, such as *LKMD*, *BPD*, *PKK* and *Karang Taruna*. These local institutions carrying out their activities according to their function. For example, the *LKMD* has function as the implementation of the government programmes, such as poverty reduction programs, distribution of the government rice subsidy (*raskin*), and application of economic empowerment programs (*PNPM*, *PKK*). In addition, for accommodating female activities, it has been accommodated to establish the family welfare education (*PKK*), and activities have

been proposed to enhance or empower female community through various social and economic activities.

The institution of youth activities (*Karang Taruna*) has been purposed to accommodate appreciation and activities of adolescents or young generation in the village. Various activities have been undertaken, such as sports, arts, and other activities as considered as assisting implementation of the village government activities. For example, they participate in joining the village security guard by participating in village patrol (*siskamling*) and participation in various the village government activities or religion activities and collecting electricity bill payment.

The transmission line project covers Sukaresmi village, sub-district of Rongga, district of Bandung Barat, seven villages in the sub-district of Bojong Picung, and three villages of sub-district Haurwangi, district of Cianjur. In the district of Cianjur, there are some non-government organization such as WALHI Cianjur and Serikat Petani Cianjur, which are concerned about the Upper Cisokan Project. These non-government organizations are monitoring closely the project activity.

3.10. Aspirations and Perceptions of Family Head to Be Moved

3.10.1. Aspirations and Perceptions of Family Head

The aspiration and perception were obtained from interviews with head of household, since the head of household play an important role in the decision making on family matters. Information of transmission project, have spread out within society. Planning of development that have been initiated through several surveys have caused the population to familiar with the plan, although knowledge related to project residents are limited only to a few aspects.

The FGD conducted women perception collection regarding the Upper Cisokan Pumped Storage Project through Rural Women Association (*PKK, Pengajian, Arisan*) are resulted as follows:

1. Most women acknowledged the existence of project plan.
2. They have no objection with The Upper Cisokan Pumped Storage HEPP project plan.
3. Women group expect that the transmission lines will not disturb their health condition.
4. The women groups also hope that the development of the tower will not restrict their activity in the agricultural sector.
5. The women group hopes that the PLN will establish an institution that handles complaints from the local people in relation with the existing of the transmission lines.

As mentioned earlier that the number of head of family affected by the project, are 346 households (not included the joint families). Out of these 346 households, there are 9 households who must be relocated. In determining the number of PAPs who have to

be relocated, it does not consider the status of house ownership, but only consider the number of PAPs in the project area. All of the 9 households who have to be relocated, all are in the tower site.

The Characteristic of PAPs who should be re-settled is presented in Table 3-10. It shows that most of the PAPs are in productive age with educational level up to primary school. The majority of livelihoods are in the agricultural sector and the member families of about four persons. This information should be considered for finding a better new life after project completed.

Table 3-10. The Characteristic of PAPs who should be re-settled

Variable	Project location	
	ROW	Tower
Age		
a. 15 - 64 years	0	8
b. > 65 years	0	1
Total	0	9
Average family size		
a. ≤ 4 persons	0	7
b. 5 – 6 persons	0	2
c. ≥ 7 persons	0	0
Total	0	9
Education		
a. No school	0	0
b. Elementary school	0	9
c. Junior high school	0	0
d. Senior high school	0	0
e. College	0	0
Total	0	9
Jobs		
a. Agriculture	0	9
b. Non-agriculture	0	0
c. No job	0	0
Total	0	9

Source: Census Data 2010

The households who have to be relocated (9 HHs), are 100 percent of knowing the project plan, with information sources 4 HHs from the village officials, 2 HHs from the community leaders, and 3 HHs from family and the others.

The survey involving of 346 HHs indicated that 318 HHs (92.0%) agree to the project, while 18 HHs (5.2%) disagree, and the rest 10 HHs (2.82%) did not say anything. The 318 HHs who do agree with the proposed project, more than half of the respondents (163 HHs) agree to the project plan because the project will be of public interest, other reasons are due to project as the government program and for economic interest of the village economic development. Table 3-11 shows variations of some reasons of the heads of household agree on the project plan.

Tabel 3-11. Reasons of heads of the household agree with development of the Project (N=318)

Reason	ROW	Tower	Total	
	(HHs)	(HHs)	(HHs)	(%)
Public Interest	128	35	163	51.26
Obtain Electricity Facility	34	2	36	11.32
Agree with majority PAPs opinion	7	4	11	3.46
Government Programme	16	2	18	5.66
High compensation	63	11	74	23.27
No significant impact	13	3	16	5.03
Total	261	57	318	100.0

Source: Census Data 2010

While people who disagree on the project (18 HHs), most respondent mentioned that the selling price of land will be low, and the agricultural land will be reduced and cannot be cultivated anymore. Moreover, for some respondents who did not give opinion caused of some reasons, such as following with others, and did not know of the project plan.

Table 3-12 shows various perception of the respondent on benefits of the project, majority of the respondents answered that they will get compensation (43.06 %), provide employment opportunity (13.58 %), and the project can meet the electricity needs (15.03 %).

Table 3-12. Perception of heads of the household on benefit of the project

No	Perception	ROW		Tower		Total	
		HHs	%	HHs	%	HHs	%
1	Obtain compensation	121	42.31	28	46.67	149	43.06
2	Provide employment	37	12.94	10	16.67	47	13.58
3	Can meet the electricity need	47	16.43	5	8.33	52	15.03
4	Village more develop	20	6.99	3	5.00	23	6.65
5	No response	61	21.33	14	23.33	75	21.68
Total		286	100.0	60	100.0	346	100.0

Source : Census Data 2010

Unlike the people who agreed the project, the people who did not agree project mentioned that most reasons of the risks would occur caused of the project, namely the agricultural land would be reduced and lost in main occupation, cannot cultivate crops any more, and price of land would be low.

Development of the project will also provide some great expectation for the majority of the people affected project, it recorded that 271 HHs mentioned that have some expectation on the project and 75 HHs that did not response on the project.

3.10.2. Perception of the Heads of Household on the Moving Process

Based on census regarding the perception of the heads of affected household on the people moving process, recorded from 346 HHs of the affected project, 337 HHs mentioned they do not need to be move, due to only land asset on ROW of transmission lines and only 9 HHs in tower site to be relocated.

All the 9 HHs who do not agree with the government arrangement for relocation, 6 HHs of them mentioned that because the government plan on site location is not match with the PAPs desire, and 3 HHs indicates that the location site is too far from where they are living now.

From 9 head of household who have to be relocated (on their own) want their new settlement are still within the same village (7 HHs), and only 1 HH is willing to be Kp. Sodong, Taman Jaya, Gununghalu, Bandung Barat, and 1 HH is willing in Kampung Paraban Desa karang Nunggal Kecamatan Cibeber Kabupaten Cianjur.

The perception on price of building, the majority households express the desire that the project to implement the agreement between the government and community consultation. The second desire is the Government follows the price decided by community (Table 3-13).

Information on the benchmark pricing of the buildings should be based on the PAPs who will be relocated, because they have an interest, in relation to their assets affected by the project. While, for the PAPs who do not have to be relocated do not have the interest on the price of the building.

Perception of heads household who have to move on a benchmark price of the desired building, 7 HHs the opinion also joined the government wants to set the prices , and 1 HH is a willing local market price the same and 1 HH is a willing government follows the price decided by community

Perceptions about the price of land, captured from those who only have a land only, from census data found the number of heads of households with land assets affected by the project and should be reimbursed that there are 343 HHs and have no land assets at the project site there are 3 HHs. Table 3-13 shows, that most of them wanted the benchmark price was set up by the agreement between the government with the community (270 HHs) and only one HHs just wants the benchmark land price in accordance with the NJOP/PBB price.

Table 3-13. Perception of household on land price standard (N=343)

Price Standard	Project Area					
	ROW		Tower		Total	
	Number (HHs)	%	Number (HHs)	%	Number (HHs)	%
NJOP/PBB Price	1	0.34	-	-	1	0.29
Local Market Price	26	9.15	9	15.25	35	10.20
Government follows the price decided by community	26	9.15	11	18.64	37	10.79
Agreement between the government and the community	231	81.36	39	66.10	270	78.72
Total	284	100	59	100	343	100

Source: Census Data Year 2010

The information on the way of compensation is based on the opinion from 346 HHs who will be affected by the proposed project. Most PAPs want their compensation in the form of cash and paid directly to them, only small PAPs who want their money compensation paid through the bank (Table 3-14).

Table 3-14. The way the compensation should be carried out

The way	Project area					
	ROW		Tower		Total	
	HHs	%	HHs	%	HHs	%
Directly paid without middle man	259	90.6	53	88.3	312	90.2
Directly paid through the bank	27	9.4	7	11.7	34	9.8
Total	286	100.0	60	100.0	346	100.0

Source: Census Data Year 2010

3.10.3. Aspiration and Perception of Head of joining family

The information on people aspiration on the proposed project is not only obtained from the PAPs, but also from those of PAPs who are joining with the nucleus families. This is important because these joining PAPs are also affected by the proposed project.

The majority of joining families responded that the project have no risk, and only 8 HHs indicate that the proposed project will have a negative impact such as lost of their job, the price of the affected lands will be reduced, and the rest did not know (Table 3-15).

Table 3-15. Perception of the head of joining household on negative impact of project (N=8)

Negative impact	Project Location		Total
	ROW	Tower	
	Count	Count	Count
Decreasing business	2	-	2
Decreasing land price	-	1	1
Do not know	5	-	5
Total	7	1	8

Source: Census Data Year 2010

Out of the 55 joining families, 51 HHs thought that the project have positive benefits such as money compensation, new job opportunities, and their local economic activities will be developed (Table 3-16). But, a few of them did not see any benefits.

Table 3-16. Perception the head of joining household on positive impact (N=51)

Positive Impact	Project Area		Total
	ROW	Tower	
Get appropriate compensation	21	4	24
To expand Job opportunities	17	1	18
The need of electricity has been satisfied	0	1	1
More developing village	2	0	2
Do not know	5	0	5
Total	45	6	51

Source: Census Data 2010

4

Eligibility and Entitlement

4.1. Legal Basis

The Legislation that underlies the implementation of the land acquisition and resettlement plan of the Upper Cisokan Pumped Storage project, among others are;

- Act No. 5/1960 concerning Basic Agrarian affairs.
- Act No. 26/2007 concerning Spatial Arrangement
- Act No. 15/1997 concerning Basic Transmigration affairs
- Act No. 19/2003 concerning State Enterprises
- Act No. 32/2004 concerning Local Government
- Presidential Regulation No 36/2005 concerning Land Acquisition for Public development Implementation and No 65/2006 concerning the amendment of Presidential RI Regulation No 36/2005.
- Presidential Regulation No 4/2010 concerning Assignment of PT *Perusahaan Listrik Negara* (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.
- Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas
- Ministry Mines and Energy regulation No 975/K/47/MPE year 1999 concerning Free space zone of Transmission lines
- Head of National Land Agency No 3/2007 concerning Implementation Regulation Presidential Regulation No 36/2005 and No 65/2006 concerning the amendment of Presidential Regulation No 36/2005.
- West Java Province Regulation No. 2/2003 concerning Spatial Planning of West Java area.
- West Java Province Regulation No. 2/2006 concerning Management of Reserved Area.
- West Bandung District Regulation No 1/1994 concerning Spatial Planning of Bandung District
- Cianjur District Regulation No 1/1994 concerning Spatial Planning of Cianjur District.
- The World Bank Operation Manual, Operation Policies 4.12.
- Upper Cisokan Pumped Storage HEPP Loan Agreement Signed by the Government of Indonesia and the World Bank. Differences between Indonesia regulations and WB policy summarizes in Appendix 9. The Loan Agreement includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP.

4.2. The Rights to Land and Physical Asset

In Indonesia, rights over land is regulated by Act No. 5/1960. Land title, also called land certificate issued by the National Land Agency (*'Badan Pertanahan Nasional'*/BPN), includes:

- *'hak milik'* or rights of ownership which indicate full ownership rights over land;
- *'hak guna bangunan'* or rights to built title on the state-owned land for building¹ ;
- *'hak pakai'* or rights to use title the land for any purpose;² and
- *'hak guna usaha'* –rights to cultivate the state-owned land for agricultural purposes.³

In proposed projects, the following persons and communities will be considered “holders of land rights”, i.e., persons or communities with rights to the land affected by a project:

- PAPs holding land rights titles or certificates issued by the local office of the National Land Agency or *'Badan Pertanahan Nasional'* (BPN), including full ownership titles (*'hak milik'*), right to build titles (*'hak guna bangunan'*), right to use titles (*'hak pakai'*), or right to cultivate titles (*'hak guna usaha'*).
- PAPs holding documents issued by local officials⁴ that demonstrate ownership (normally a property tax receipt -SPPT⁵, accompanied by other documents such as the contract of sale of the land in question and receipts of payment of public services, such as water and electricity);
- Communities with traditional land rights (*'hak ulayat'*);
- PAPs (individuals) with traditional rights (*'hak adat'*); and the Nazhir or recipient of donated *'wakaf'* land

In Indonesia, there are many lands that have been dominated by the public without proof of the letter comes with ownership. In addition, people generally assume that SPPT can also be regarded as proof of ownership.

Based on the recognition of PAPs related to land ownership, mostly owned plots of land in the ROW, 120 plots of land with the SPPT⁷ proof of ownership, 28 Plots of land with the proof of ownership in the form of *'kikitir'*, 1 letter C, 3 Receipts, 3 village reference, and certificate 33 plots and without any evidence is as many as 126 plots.

¹ A right to use build title is typically granted to Indonesian citizens or legal entities for a maximum period of 30 years, and has to be renewed every 20 years. It can be converted into full a full ownership title (*'Hak Milik'*).

² A right to use title (*'Hak Pakai'* – HP) is normally granted for a period of 25 years and can be renewed every 20 years.

³ The Land Cultivation Title (*'Hak Guna Usaha'* – HGU) is granted to Indonesian citizens or legal entities for periods of 25 to 35 years, and can be renewed every 25 years if the land is deemed to be managed and utilized properly.

⁴ National Land Agency (*'Badan Pertanahan Nasional'* – BPN) of West Java District and Cianjur District.

⁵ Property tax receipt (*Surat Pemberitahuan Pajak Terutang* – SPPT) is a letter used by the Directorate General of Taxation to inform the land and building tax is payable to the taxpayer

Description of land ownership in the Tower consists of 20 plots of land with tax letter (SPPT) proof of ownership, 6 Plots of land with the proof of ownership in the form of 'kikistir', 1 Receipts, and 9 plots certificate and without any documents 37 plots.

All lands affected by the project will be compensated according to available regulations (Presidential Regulation No 36/2005 concerning Land Acquisition for Public development Implementation, No 65/2006 concerning the amendment of Presidential Regulation No 36/2005), and Regulation of National Land Agency No 3/2007 concerning Implementation Regulation Presidential RI Regulation No 36/2005 and No 65/2006 concerning the amendment of Presidential RI Regulation No 36/2005.

For buildings, the available regulations for compensation are Government Regulation No.40/1988 about 'Hak Guna Usaha', 'Hak Guna Bangunan', and 'Hak Pakai' and Act No. 4, 1992 about Housing and Settlements. These regulations and Act do not provide an authorization to compensate affected persons for physical asset constructed illegally in the state-owned land should not be compensated. OP 4.12, however, explicitly states that those without legal title to affected land may be compensated for their asset and may qualify for other resettlement and rehabilitation assistance (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 85). Squatters and encroachers may have a personal investment in asset or agricultural crops. Under OP 4.12, they are entitled to compensation at replacement cost (or an equivalent amount of rehabilitation assistance) for these lost assets (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 86). The entirety of OP4.12 as it applies to this project is reflected in this LARAP. The Loan Agreement between the Republic of Indonesia and the World Bank includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP.

4.3. General Compensation Policy

In accordance with the Presidential Regulation No 36/2005 and No. 65/2006, one of the task for Land Acquisition Committee to determine form and value of compensation (*ganti rugi*)⁶ which proposed by Independent Appraisal Consultant in consultation with the land owners and the project within less than 120 days since the first invitation letter of negotiation is issued. In general, land acquisition activities and compensation will be conducted through several stages of activity as outlined in Figure 4.1. Based on regulation of The Head of BPN No. 3 /2007, the second announcement of valuation result is not required because the decision will be directly discussed (*musyawarah*) with the PAPs for compensation price agreement.

The results of the assets valuation and compensation received from the independent appraiser will be used as standard value by the LAC to negotiate with the PAPs and

⁶ See Presidential Regulation 36/2005, Presidential Regulation 65/2006, and Head of BPN Regulation 3/2007

PLN. The results of the negotiations with PAPs on the compensation should be mutually agreed upon before the Land Acquisition Committee finalized the form and value of the project-affected assets.

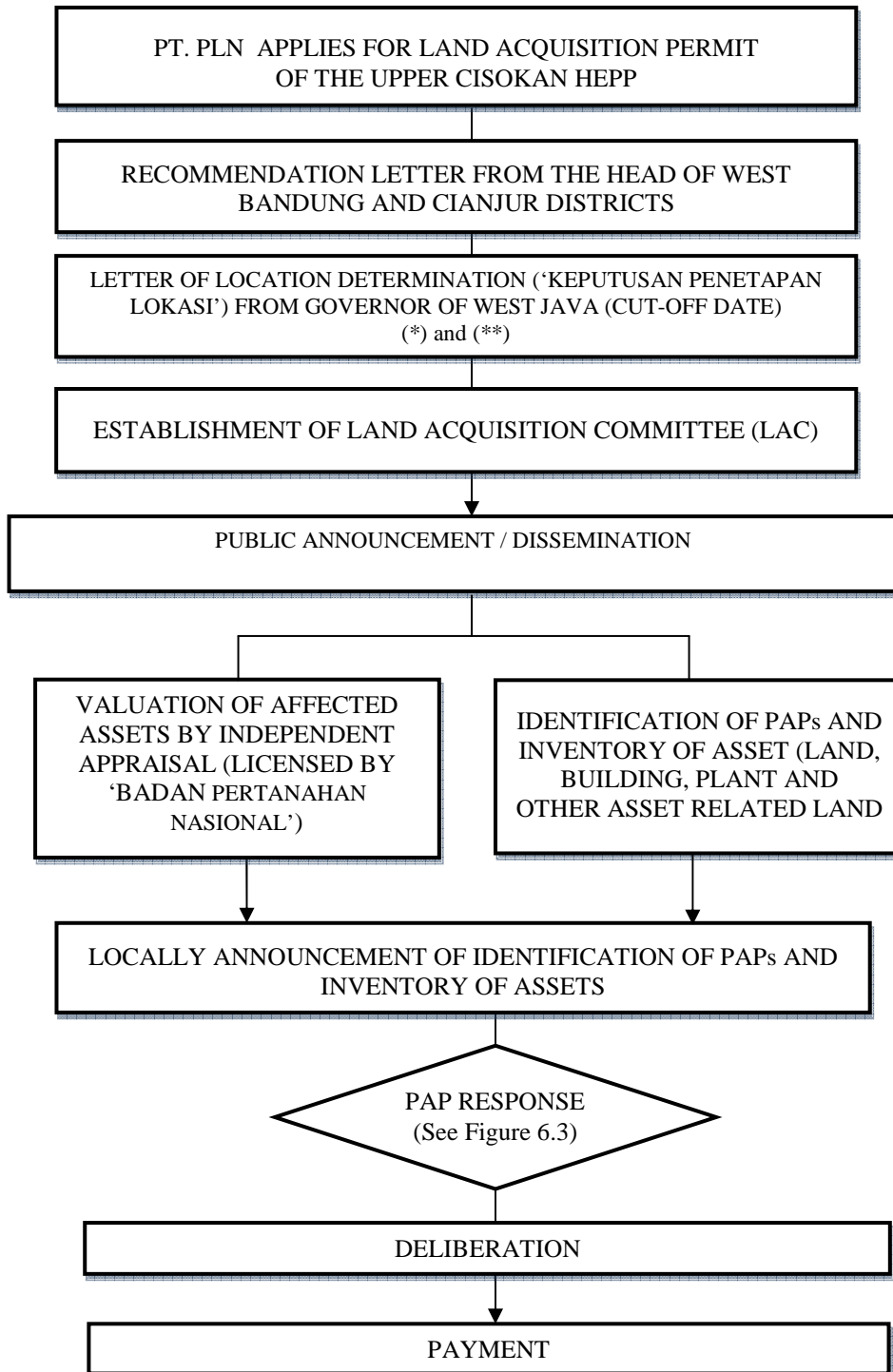
In terms of compensation options desired by the PAP, the owner of affected buildings or land can choose to receive cash compensation, relocation / resettlement or other options. Other options include ready to build lots, land exchanges with same size and productivity, simple houses, to assist developers built housing with credit facilities or other schemes. PAP who chooses land for land compensation (if available) will get a piece of land with the same value as their previous land asset within the resettlement area planned by the project. The compensation principle applies that the livelihood of PAP should be improved or at least to be restored as the level before the project. For public and social facilities, including privately owned, like the mosque, boarding schools, schools, water collecting and other utilities affected by the project, the form of compensations will be adjusted with policy related institutions, and also discussed with the community.

PLN and Local Government (Provincial and Districts) conduct socialization to disseminate project information both directly in the project area, and indirectly channeled through electronic and print mass media, within 14 days after the project location determination from West Java Governor is endorsed. The Project Land Acquisition Committee with PLN conduct a public consultation meeting with PAPs in the project area regarding the project risks and benefits, including, project entitlement and compensation, before conducting land and asset inventory and verification.

Final lists of affected land and asset inventory of the PAP from the LAC will be disclosed locally in village office.

The Upper Cisokan Pumped Storage project required to provide land for the forest land replacement. Selection for forest land replacement follows the Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement. According to Pre-FS study, resettlement sites were chosen based on geological, infrastructures, agro-ecosystem condition and socio-economic aspect (see LARAP's Appendix 1). The forest land replacement will go through screening referring the criteria as mentioned in LARAP's Appendix 10. If based on regulations and screening reveals that the people living in forest land replacement is categorized as involuntary resettled people according to World Bank's OP 4.12, then policies in this LARAP will be applied to them. But if those people are not categorized as resettled people according to World Bank's OP 4.12, then policies in this LARAP will not valid for them, instead the compensation will be based on agreement between the project and the land owner.

Figure 4-1. Land acquisition procedure for public purpose project



Source: Regulation of the Head of *Badan Pertanahan Nasional* No 3/2007

*) *Pinjam Pakai Kawasan Hutan* (PPKH) based on PerMenhut no 43/2008

**) *Tukar Menukar Kawasan Hutan* (TMKH) based on PerMenhut no 32/2010

The general principles regarding land acquisition and resettlement plan that will be applied in this project are as follows:

- 1) Land Acquisition causing displacement will be avoided/minimized,
- 2) Land Acquisition will be done based on Presidential Regulation No 36/2005, No 65/2006, and Regulation of the Head of 'Badan Pertanahan Nasional' No 3/2007,
- 3) Payment of compensation, relocation and resettlement will be done prior to commencement (if available) of the construction.
- 4) Project will provide options of compensation such as cash compensation, land to land compensation, housing compensation, etc. to PAPs.
- 5) Members of 'Tim Perumus Kebijakan Permukiman Kembali'⁷ (the Resettlement Policy Formulating Team), the PAPs and their representatives, including women and other vulnerable groups among those affected, will be involved in the resettlement planning and implementation.
- 6) No one will be deprived off their land and other movable assets required for the project unless they are compensated for their losses.
- 7) No construction works will be initiated on such affected land before PAP having received their compensation for loss of land and other properties and Resettlement & Rehabilitation entitlements.
- 8) The design of transmission line will use National and WHO Standard concerning EMF radiation. The free space zone has been design safe for human to reside for 24 hour under the conductors. Based on this design:
 - The PAP may allow to have the normal house under the transmission, so no houses will be relocated along the ROW.
 - Based on Ministry Mines and Energy regulation No 975/K/47/MPE year 1999 concerning Free space zone of Transmission lines
 - ✓ The trees more than 3 m height will not be allowed and will be compensated using the standard price issued by the head of District decree.
 - ✓ The land owner will receive assistance on how to use the land along the ROW.
 - ✓ The lands, buildings and crops on the tower foot print will be acquired and fully compensated.
 - The environmental monitoring report will be available in PLN project office.
- 9) Consultation will involve stakeholders and PAPs will be provided opportunity to participate in planning and implementation of LARAP
- 10) The project will assist in providing opportunity to improve or at least to restore the livelihood the affected people to the level before the project.

⁷ Keputusan Bersama Bupati Bandung Barat Dan PT PLN (Persero) Pembangkitan Hidro Jawa Nomor: 800/Kep.337-1304 Pemb/2009 Nomor: 001.K/PHJ/2009 Tentang Tim Terpadu Perumus Kebijakan Pembangunan Infrastruktur Dan Lingkungan Terkait Pembangunan PLTA Upper Cisokan Pumped Storage Di Wilayah Kabupaten Bandung Barat

- 11) The PAPs will be provided with resettlement assistance such as moving cost, transition cost given once for the affected HH (food assistance for 6 months) and rehabilitation assistance such as income restoration.
- 12) Assistance (*bantuan, tali asih, kadeudeuh*) and compensation (*ganti rugi*) will be given sufficiently for affected people to replace assets or land acquired by the project with land or assets of equivalent value.
- 13) The monitoring will focus more to measure livelihood results, particularly for those most severely affected or most vulnerable

Paragraph 3 of OP 4.12 describes the coverage of the policy: “direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by the involuntary taking of land resulting in: (i) relocation or loss of shelter;(ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

4.4. Considerations of Compensation

The amount of compensation (*ganti rugi*) and assistance (*kompensasi/bantuan/tali asih/kadeudeuh*) needed to replace an asset at current value including overhead expenses of the transaction, tax and registration charges, but excluding depreciation, as follows:

- (a) Agricultural land based on its productive potential;
- (b) Residential land based on actual market value;
- (c) Houses and other structures based on current market prices of building materials and labor, plus transaction costs (such as administrative charges, registration and titling costs), without deductions for salvaged building materials;
- (d) Trees, crops and plants on current market value; and;
- (e) Other productive assets like shops and commercial assets based on value of similar location with equivalent commercial market attributes.

This compensation (*ganti rugi*) and assistance (*bantuan, tali asih, kadeudeuh*) in this report are also known as replacement cost.

According to the OP 4.12, “Replacement cost” is the method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account (for a detailed definition of replacement cost, see Annex A, footnote 1) For losses that cannot easily be valued or compensated for in monetary terms (e.g., access to public services, customers, and suppliers; or to fishing, grazing, or forest areas), attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard. Such additional assistance is distinct from resettlement assistance to be provided under other clauses of para. 6. If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken. The alternative assets are provided with adequate

tenure arrangements. The cost of alternative residential housing, housing sites, business premises, and agricultural sites to be provided can be set off against all or part of the compensation payable for the corresponding asset lost. Such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements.

The compensation associated with this project is based on the following considerations:

- i. **Land:** the land value of compensation will be determined by LAC which the initial value is proposed by Independent Appraisal Consultant in consultation with the land owners and the project. As a reference for the process of consultation/negotiation, initial reference values will be set. The initial reference values are considered for use in the process of consultation with the community include market prices, the value of the last transaction that occurred in the regions concerned, and the value of the Independent Appraisal Assessment Team.

Based on World Bank policy (OP 4.12) all management fees and taxes associated with land compensation will be paid by the project.⁸

- ii. **House and other buildings/structures:** 1) assessment of the compensation cost of buildings and other assets will refer to a decree or local government regulation and also consider the value of issued by the Independent Appraisal Team, 2) Another approach in assessing the compensation price is the price of building materials to build a replacement building (or to repair the affected part of the building), plus the cost of transporting building materials to the site and the cost of labor or services contractors, plus the costs of registration, and fees to reverse the name and tax. Based on World Bank policy in the case of replacement cost asset affected, depreciation of the assets and benefit caused by the project should not be included in the calculation.

Under normal GOI procedures for calculating compensation, the older structures are depreciated and the value after depreciation is therefore lower than for new structures. However, while this is equitable for market transactions when sellers can use the money as they wish, for involuntary acquisition the value after depreciation may be too low to replace lost structures. Most PAPs are expected to purchase or build new structures since the number of PAPs is very large, exceeding the existing supply of the structures for sale.

A decree related to compensation value of buildings and other assets will be issued by the Government of West Bandung District and Cianjur District. Based on World

⁸ For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes. (OP 4.12 - Annex A p. 3 Footnote 1)

Bank policy (OP 4.12) all management fees and taxes on buildings associated with the compensation will be paid by the project⁹.

- iii. **Plants:** compensation based on the standard tree pricing in accordance with the local government regulation. In case the lost productions have not been harvested, plant owners will be given one-time harvest compensation.

In addition to the above consideration, according to the World Bank Policies (OP 4.12), the remaining project affected lands and buildings are eligible to be acquired by the project if:

- i. The remaining land is less than 72 m² (based on Minister of Public Work Decree 403/KPTS/M/2002 concerning Technical Guidelines Development Simple Healthy House); or
- ii. The remaining building is less than 7.2 m²/person (Minister of Public Work Decree No.403/KPTS/M2002 concerning Technical Guidelines Development of Simple Healthy House); or
- iii. Remaining agricultural land area affected is less than 70% of the previous area (economically can be considered to be disadvantageous); or
- iv. For the house built on stilts (*'rumah panggung'*), the project will compensate the whole house.

The project will relocate and reconstruct the affected infrastructures such as mosque, school, village office, water supply, road, bridge, sewerage/drainage system, cemetery, etc., in consultation with the community. Specifically for the grave, the project will also provide relocation cost given to the PAPs.

The project will also compensate the forestland affected by the project in accordance to the Government Regulation No. 10/2010 concerning '*Tata Cara Perubahan Peruntukan dan Fungsi Kawasan Hutan*'. Based on this regulation, among others, the project will allocate non-forestland to substitute two times of affected forestland ('clause 12 sub-clause 2') and will conduct a reforestation of the proposed substitute land '(clause 17 sub clause 1 item a)'. The Screening procedure to select the forest replacement area will follow the mechanism as mentioned in appendix 10.

4.5. Category of the Project Affected People (PAP) and other entities to receive compensation

PAP and other entities eligible to receive compensation when meet the criteria of the cut-off date. The cut-off date is defined as the date of the West Java Province Governor issues a Decree of Location Determination for the Upper Cisokan Pumped Storage Project HEPP. The asset inventory announcement on affected people who have title

⁹ All printed italic in this document are subject to the loan agreement signed by the GOI and the World Bank

holders within the project location will be conducted by LAC and for the PAPs who have no title will be conducted by the joint team of PLN and local government. Cut-off date will be done in one date both for titled and non-titled PAPs. Argument for this cut-off date arrangement is first of all will reduce potential social conflict considering that if the cut-off date announcement will be done in two separate dates, it will likely result in rumors on compensation issues, distrust from local people to the proposed project, the possibility that PAPs titled holders will complaint why do the non-titled holders get compensation while the titled holders did not, and other negative impacts. All of these potential conflict will pose a serious challenge to the proposed project is not carefully handled by deciding that the cut-off date. The Land Acquisition Committee will have to verify ownership status of Project Affected Peoples (PAPs) during implementation and announce its inventory result and redress its grievances. The normal practice of LAC to assess the ownership status of the asset for those PAP who does have legal land ownership, the head village will issue letter to prove its ownership status (using the land transaction, *leter-C*, or using village book which register the land in that village). In case that the land has not been registered in the village book, the neighborhood need to prove that the land ownership. The physical asset and crops will be physically checked by the LAC.

Inventory conducted by LAC will produce a list of titled holder PAPs who will receive compensation (*ganti rugi*). The inventory conducted by Joint team (PLN and local government committee) will produce a list of non-titled holder PAPs who will receive assistance (*bantuan, tali asih, kadeudeuh*). For the non-titled holders PAPs, Independent Appraisal Consultant will assess the assistance eligibility for them, and then the Joint Team of Local Government and PLN will deliver assistance in the form of cash and/or technical assistances. In anticipating the number of illegal non-titled holder PAPs who want to be assisted, before the announcement of list of inventory result, the PLN (through Independent Appraisal Consultant) will reconfirm the number of eligible non-titled holder PAPs. For legality purpose, the local government, in this case represented by the Bappeda [district-level planning board], will issue a *Surat Keputusan* [legal letter] as a legal basis for the PLN and the local government to carry on the identification of the PAPs with no legal asset ownership [non-titled PAPs]. In most cases, the local government will be represented by government officers from sub-district level. There is also possibility that the persons acting as LAC member to handle the titled holder PAPs will be the same persons working with the PLN to handle the non-titled holder PAPs. The LAC membership and its working mechanism are arranged in accordance with government regulation.

The PLN's effort to prevent either new encroachment or early evictions before LAC announce the cut-off date can be done in the PLN and Perhutani's lands. The mechanism for which PLN and Perhutani carry on monitoring program to identify new encroachers in the PLN and Perhutani lands will be done by signing a memorandum between PLN and Perhutani. The date for memorandum signing will be decided by an agreement made by PLN and Perhutani. The memorandum will cover tasks such as identification of the PAPs who are already there before cut-off date, and

those who are arriving after the cut-off date announcement. Before signing the MoU, the PLN will carry on re-census to make sure the number and names of PAPs who are already in the PLN and Perhutani's lands. The PAPs on this re-census list will be assisted according to the World Bank's assistance policies. The World Bank assistance policies will be implemented after the memorandum has been signed. Those PAPs who come in after the MoU signing will not be assisted, even though they can still utilize the PLN and Perhutani lands.

For the PLN and Perhutani's lands, a monitoring system will be established to identify the new occupiers [up-dating the PAPs data base on state lands]. These new occupiers [after MoU signing] will then together with PLN and Perhutani make an agreement that they will not demand any assistance should the land be used by the project. While for the private lands, the PLN will re-identify the number of non-titled holders prior to the cut-off date announcement. These non-titled holders will be eligible for assistance in the form of technical assistances.

Based on the study, category of the PAPs that will receive compensation is presented in Table 4.1.

Table 4-1. Category of PAP and Entitlement Matrix¹⁰

Asset Loss	Category of PAP*	Compensation Type	Description
1. Land	Land on Tower's foot print Land along ROW 1. Those who have land with letters of ownership.	Obtaining cash and Non Cash	As described below Compensation according Ministry Mines and Energy regulation No 975/K/47/MPE year 1999 concerning Free space zone of Transmission lines - Cash: a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes - Non cash (Assistance refers to item 4.6): a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can

¹⁰ Resettlement Options refers to Table 7-1

Asset Loss	Category of PAP*	Compensation Type	Description
			choose one of the packages refer to item 4.6
	2. Those who have land without letters of ownership.	Obtaining cash and Non Cash	<ul style="list-style-type: none"> - Cash: <ul style="list-style-type: none"> a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes - Non cash (Assistance refers to item 4.6): <ul style="list-style-type: none"> c. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or a. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	3. Sharecroppers, squatters and encroachers who Cultivate Land/ Reside on PLN's/ Perhutani's land	Obtain Non Cash Only	Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given once for the affected HH
	4. Tenant	Obtain Non Cash Only	<ul style="list-style-type: none"> - Cash: Assistance in transition cost given once for the affected HH and - Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given once for the affected HH
2. Buildings/ Houses on Tower's foot print	5. House Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> • Cash: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For HHs who want to be resettled by themselves, receive cash compensation (<u>ganti rugi</u>) • For HHs who want to be resettled by project, receive the building/house (non cash) b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes d. Assistance in moving allowance - Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or

Asset Loss	Category of PAP*	Compensation Type	Description
			b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	6. Small Shop/ Workshop Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> - Cash will be given to building owners who have small shops/workshops separated from their houses: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For building owners who want to be resettled by themselves, receive cash compensation (ganti rugi) • For HHs who want to be resettled by project, receive small shops/workshops with the same value of their previous small shops/workshops (non cash) b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes d. Assistance in moving allowance - Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> - Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or - Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	7. Tenant	Obtaining cash and Non Cash	<ul style="list-style-type: none"> - Cash : Assistance in moving allowance and - Non Cash : Capacity building in a form of Assistance in enhancing skill given once for the affected HH
3. Plants	8. a) Plant owners, on Tower's foot print	Obtaining cash for plants compensation	<ul style="list-style-type: none"> • Cash : <ul style="list-style-type: none"> a. Cash compensation for Perennial plants based on Local Government standard, and b. in case the lost productions have not been harvested, plant owners will be given one-time harvest compensation
	b) Plant owners, along ROW	Obtaining cash and non cash for plants compensation	<ul style="list-style-type: none"> a. Cash compensation for Perennial plants above 3 m height based on Local Government standard, and b. Non Cash : Capacity building in a form of Assistance in enhancing skill given once for the affected HH
4. Public Facilities/		Protection,	a. Public facilities affected by the project

Asset Loss	Category of PAP*	Compensation Type	Description
infrastructure (School, mosque, water source, road, bridge, sewage water system etc)		relocation, rehabilitation	impact will be repaired or relocated with consultation to resettled communities. b. Detailed Management of affected public can be seen in EMP report
5. Forest land	9. Perhutani	Land to land substitution and re-vegetation cost	<ul style="list-style-type: none"> Land substitution will be conducted two times area of land affected by the project. Revegetation cost for the new forest land will be born from the project.
Refer to above description (item 1,2 and 3)	Vulnerable PAP	<ul style="list-style-type: none"> Refer to above description (item 1,2 and 3) 	<ul style="list-style-type: none"> Cash and non cash: category of asset lost item 1, 2 and 3 Additional Assistance by the project: <ul style="list-style-type: none"> a. assistance in acquiring certificate service b. assistance in moving service to new settlement site c. other assistance resources will be determined by the RIT during the implementation.
	Severely Affected People	<ul style="list-style-type: none"> Refer to above description (item 1,2 and 3) 	<ul style="list-style-type: none"> Cash and non cash: category of asset lost item 1, 2 and 3 Additional Assistance by the project: <ul style="list-style-type: none"> a. assistance in acquiring certificate service

Note:

* See The World Bank Policies (OP 4.12).

Elaboration of the description shown in this table can be seen in Sub-Chapter 4.6 Assistance

4.6. Assistance

4.6.1. Assistance in Training of Technical and Financial Administration Skill

PAP who lost their jobs/source of income will receive assistance to the same living conditions as before affected by the project and even increased. Types or forms of assistance such as development of motivation, skills training and specific job types, the guidance to start and develop micro business, micro business credit, marketing development, assistance during the transition period given once for the affected HH, and strengthening of community organizations and other services.

This technical and/or financial assistance should be monitored and evaluated by the IMA¹¹ to make sure that the increasing economic condition of the PAPs can be realized.

¹¹ Independent Monitoring Agency

In addition to either cash compensation for lost assets and relocation sites, PAPs will also be eligible for additional rehabilitation assistance, tailored to their preferences, from one of the six assistances in enhancing skill options described below:

1. Agriculture intensification, or
2. Diversified land-based activities, or
3. Business/ Marketing Incubation, or
4. Training of production and processing techniques, or
5. Facilitating micro business development, or
6. Training of animal husbandry technique

4.6.2. Assistance in Cooperation with the Local Government

Apart from those technical and financial assistances provided by PLN, these PAP's will also be integrated and prioritized into Government Programs on increasing small scale economic programs (UKM/small enterprises programs). This program will maintain and increase the PAP's economic condition in long run. The relocated PAPs will be provided with resettlement assistance such as moving allowance, transition cost given once for the affected HH (for 2 months) and rehabilitation such as assistance for income restoration.

4.6.3. Resettlement Assistance

For PAPs who should be resettled, they are eligible to acquire assistance in enhancing capital. The PAPs will be given one of these following Starting Micro Business Packages:

- a. Livestock Package
Raising Livestock Package consisting of Lambs and Poultry, or
- b. Farming Associated Business Package
Food processing package from farming products such as banana, cassava, taro chips, and yams including their seedlings, or
- c. Small Shop Package
Shops of daily needs selling sugar, rice, egg, palm oil, meat (beef and chicken), milk, corn, kerosene, salt, etc.

If it is applicable the resettlement assistance for vulnerable will follow the other PAP, such as capacity building and starting micro business packages, and also other assistances will be given such as assistance in acquiring certificate service, assistance in moving service to new settlement site

Other resources will be determined by the RIT during the implementation, so this additional assistance proposed will be sufficient to restore their livelihoods.

4.7 Affected Asset

Based on category of PAP and entitlement matrix presented in Table 4-1, the study identified number of PAP in relation to their asset loss. As indicated in Table 4-2, for instance, 78 households which own land with letters of ownership are potential to be affected by the project, whilst those who have land without letters of ownership is 225 households.

With this tabulation approach, there will be some PAPs who were included into several categories, for example, house owner may also have a land with letters of ownership but also encroach on Perhutani's land. One HH can be counted more than once because he can be counted for several categories according to legal status of land ownership, land tenure, legal status of building ownership, residence status, plant ownership. So, the numbers of HH on Table 4-2 cannot be summed.

With regard to buildings, the LARAP study identified a number of households which will be indirectly affected by the project; they are families which reside in others houses affected by the project. Potential impact that might affect these families is the loss of access to the house they usually reside. Number of this PAP category is 55 households.

Table 4-2. Number of PAP by category

Affected Asset	Category of PAP	Number of PAP ²⁾ (HHs)	Number of asset
Land	Those who have land with letters of ownership ³⁾	78	110 plots
	Those who have land without letters of ownership.	225	320 plots
	Sharecroppers, squatters and encroachers who Cultivate Land/ Reside on PLN's/ Perhutani's land	168	204 plots
Buildings/houses	House Owners ⁴⁾	24	24 units
	Joining family	55	-
	Small Shop/ Workshop Owners/Small Industry	7	7 units
Plants	Plant owners,	181	213,751 plants
Public Facilities/ infrastructure - Mosques (<i>Mesjid & Mushola</i>) -Grave	Community/related government		163 units
Forestland ¹⁾	Perhutani	86	102 plots

²⁾ number of forest land plots needs to be further identified

³⁾ based on field data census

⁴⁾ explained in Table 2-5.

⁵⁾ explained in Tabel 2-10

Table 4-2 describes number of PAP partially based on potentially affected asset. In reality, there are many households which are potentially lost several assets in the same time, e.g. they might lose their house, home garden, agricultural land, and or other buildings.

Categorizing asset lost into combination of house, home garden, agricultural land, and other buildings, the census carried out to identify the potential asset loss indicates that there are 11 categories of PAPs according to their affected assets.. As indicated in Table 4-3, for instance, there are 5 households who might lose their house, home garden, agricultural land, and other buildings. Most of the affected households are those whose agricultural lands or whose access to land are potentially affected by the project.

Table 4.3. Number of household by affected assets in Transmission Area (N=343)

Affected Assets	Project Area		Total
	ROW	Tower	
House, Homegarden, agric land, other buildings	4	1	5
House, Homegarden, other buildings	-	1	1
House, Homegarden, agric land	7	3	10
House, Homegarden	7	-	7
House, agric land, other buildings	1	3	4
House, agric land	2	2	4
Homegarden, agric land, other building	2	-	2
Homegarden,	1	-	1
Homegarden, agric land	1	1	2
Agric land, other buildings	20	4	24
Agric land	239	44	283
Total	284	59	343

To avoid negative impacts on the affected households (PAPs), in line with the Indonesian Government and the World Bank policies, the project will compensate the affected households with compensation that at least enable them to own similar assets in other places. Applying this principle, the compensation value will also be consulted or negotiated with the affected households by the LAC.

For the severity category, the LARAP approach is emphasizing more on the tenure status and access to productive assets. The OP 4.12 category of severely affected has not taken into consideration (for those who may have lost more than 10% of their productive assets and 20% or more of their land) with the assumption that lost assets will be replaced appropriately. The tenure status and access to productive assets are more important since the PAPs who are not the asset owner only have the access to asset (for example sharecropper). By the time affected asset is compensated by the project, those PAPs will loss of access to asset, in the other hand they will not be compensated because the compensation is only eligible for the asset owner

In spite of the majority of the affected households which will be fairly compensated or assisted by the project and in relation to ownership of the affected lands, a part of potentially affected households might be severely affected by the project due to loss of access to the land within the project area. They are:

1. the affected households who have only access to land within the project site for cultivation and/or other economic activities; the land they cultivate or occupy belongs to other people (these households will lose their source of income since the land that they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners/project and will be used for the project);
2. the affected households who have only houses erected on land within the project site but the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area);
3. the affected households who have only houses erected on land within the project site and only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area and they will lose their source of income because the land they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners and used for the project).

In accordance with the above three categories, Table 4-4 indicates that out of 346 affected households (excluding 55 joining families), approximately 17 households can be categorized as those who might be severely affected by the project commencement; including in this number 2 households which are categorized as vulnerable households. Considering this, the project will give special attention to these affected households in the form of assistances as outlined in section 4.5 (Table 4-1) and section 4.6.

For those without land title who are also losing shelter, assistance for livelihoods will include in-kind shelter assistance, including options such as credit terms or leases for relocation sites (either provided by the village or PLN) and facilitation assistance to groups of PAPs in finding affordable locations.

Table 4-4. Number of severely affected households

Category of PAP	Project Area		Total
	ROW	Tower Site	
Households who have only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	13	1	14
Households who have only houses erected on land within the project site but the land belongs to other people	1	-	1
Households who have only houses erected on land within the project site and access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	-	2	2
Total	14	3	17

5

Consultation and Discussion

Based on the LARAP study, the activity of consultation and discussion with the PAPs is divided into two parts. The first part was already done. The second part is the discussion and consultation that will be done later on. Apart from that, this chapter will also mention about the location and options of resettlement and steps need to be taken in relation with the resettlement.

5.1. Consultation and Discussion that have already been done

The socialization and focused group discussion on transmission line has been done on 30-31 August 2009 at the multi-purpose room of the Sub-district of Haurwangi, District of Cianjur. The PAPs from the West Bandung District (village Sukaresmi, sub-district of Rongga) are also invited to this meeting.

This discussion was attended by representatives of project affected people (transmission line, tower area), women community, community leaders, village and sub-district officials, and the representatives from the PLN and study team (Padjadjaran University).

The meeting is in the form of FGD and the purpose of FGDs is to get a response from the public regarding compensation and resettlement program. Public consultation (FGD) was conducted in Sub district Haurwangi, Cianjur. The FGD participants are representative from the PAPs in the transmission lines area (11 villages) and it was attended by women community, vulnerable groups, land owners, community leaders and local government elements of the village, and Sub-District officials. For list of participants see Appendix 5-1.

In the socialization, the PLN of West Java Generation and Transmission Project describes the objectives and benefits of the project, particularly those involving the land acquisition and construction of the Upper Cisokan HEPP. PLN also explained that the field markings, measurements, and inventory of land, buildings and plants conducted by the LARAP team will be used as information for the Committee for Land Acquisition (LAC/P2T), LAC will further re-inventory the measurements and calculations.

5.1.1. Public aspirations of the Compensation and Resettlement Programs

Important opinions and wishes of the people who appear in the discussion are as follows:

- For those who are willing to be resettled, they expect that the relocation site should be close to their current homes.
- The PAPs want to know for sure when the development of transmission lines will be done, they have waited for so long, since the year 1989;
- Most people are willing to participate in the project work.
- The local community wants the clarity about how the replacement of land, construction and other project-affected will be done. Most people want that the compensation price of land, crops and buildings or other assets in accordance with the current market price. The final price should be consulted between the government and local project-affected people. Payments should be made in cash directly to the owner.
- For those who will move out by themselves, they will stay around the project (not far from where they live now).

5.1.2. Socialization and focused group discussion

The results of socialization and focused group discussion are as follows:

1. Basically, people do not oppose to the proposed transmission lines project covering transmission line and tower site.
2. Most people want that the money compensation should be paid directly to them in cash.
3. Most people do expect that the proposed project do not disturb their on-going agricultural activities.
4. People insists that a handling complaint institution needs to be established, to monitor and evaluate potential negative impacts related to health, psychological and economic aspects resulted from transmission lines project.
5. Most people want that the payment of the compensation paid directly to the project affected people.
6. People understand that compensation value will be determined by agreement between PAPs and LAC.
7. The handling complaint institution/mechanism will be formed once the LARAP study has been done by the LPPM-UNPAD
8. Further socialization and discussion between the PLN and the PAPs will be done in the near future.

The results of socialization and consultation with the community using FGD technique are in line with the survey results, which indicate that all PAPs want to move by themselves in the same or nearby village.

Table 5-1 Matrix of Socialization and consultation activities that has already been done (FGD with PAP)

No	Socialization, FGD	Location/Date	Participant	Conclusion
5.1	Socialization, <i>ROW Transmission and Tower</i>	Multi-purpose room of Haurwangi, Monday, August 30, 2009	<ul style="list-style-type: none"> • Representative of 11 villages • Number of participant 75 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • PAPs of the transmission line project • PAPs of the Tower project • Representative of women group • Community leaders 	<ul style="list-style-type: none"> • Most people do not oppose the project • The compensation money should be paid directly to the people, not middle man. • Compensation price should be decided based on the agreement between PAPs and local government • A complaint institution/mechanism should be established to handle disputes affected by transmission lines, especially on health-related matters. • More information on negative effects caused by transmission lines • Houses that affected by the tower project should not be moved out of the village. • Need more information on the compensation for transmission line, and how much PLN will compensate them?
5.2	FGD <i>ROW Transmission and Tower</i>	Multi-purpose room of Haurwangi, Monday, August 31, 2009	<ul style="list-style-type: none"> • Representative of 11 villages • Number of participant 75 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • Those affected by transmission line project • Representative of tower project affected people • Representative of women group • Community leaders 	<ul style="list-style-type: none"> - Most people do not oppose the project - Those affected by the tower project want that the compensation should be based on market price - The compensation money should be paid directly to the people, not middle man. - Those affected by transmission line project want their compensation money should consider the negative impacts from the transmission lines, in this case the price of the land lower than it should be and the health effect should also be considered. - PLN will establish a complaint institution/mechanism - The information on health , psychological and economic impacts resulted from transmission lines should be announced publicly, so that all concerned people are aware of it and anticipative measures can be taken. - In response to the PAPs’ concerns, PLN with independent monitoring team will work together in monitoring and evaluating socio-economic condition and health of the PAPs in the transmission line for possible compensation.

5.2. Consultation and Discussion that Need to be Done

Consultation will be continued with the disclosure of this LARAP, and to be discussed in public meeting:

- For the benefit of the affected community, the executive summary of LARAP and its entitlement framework will be translated into Bahasa Indonesia and its availability at local village offices advertised for easy access to LARAP related information
- Key features of the entitlements will be displayed in billboards along the project corridor
- Together with the village administration, PLN will conduct information dissemination sessions in villages and ensure involvement of local community/traders and encourage their participation in implementation
- Focused attention will be made for consultation with vulnerable groups to ensure that their specific needs are addressed

The stakeholders usually play an important role to succeed such program, by this consideration, they will also be informed to acquire their concerns. This activity will be conducted by PLN Project with the assistance of consultant and the contractors. The stakeholders to be involved in consultation other than the PAPs among others are:

- Forestry Agency
- Village Officers
- Sub District Officers
- West Bandung District Officers
- Agriculture Agency of West Bandung District
- Cianjur District Officers
- Agriculture Agency of Cianjur District
- Resident along the ROW Transmission and Tower
- Local Woman Group (PKK dan Posyandu)
- Local Informal Leader
- Local NGO

To make sure that the implementation of compensation and resettlement can be carried out smoothly and effectively, an appropriate strategy of consultation and discussion need to be done as outlined in Table 5-2. The focus, time scale, and strategy of consultation and discussion will cover the following aspects:

1. Consultation and Discussion on Asset Lost;
Two things that should be covered in the consultation and discussion are:
 - a. The information resulted from the inventory done by P2T (LAC) on lands and assets associated with the land. These information should be publicly announced at village and sub-district level.
 - b. Grievances from PAPs. Based on the inventory results, PAPs may be able to confirm and/or complain on the content of the published list. Within 14 (fourteen) days, the PAPs have opportunity to make grievances to the

Grievance Handling Team. Based on these grievances, the P2T (LAC) will clarify the subject matters, including any ground check on land and assets on the land being subjects of the grievance.

2. Consultation and discussion on asset compensation;
There are three activities on asset compensation as follows:
 - a. The objective of consultation and discussion is to obtain information on the price of land as desired by the PAP and Independent Appraisal's value.
 - b. Discussion leading to the determination of price for land and asset compensation. This activity is to negotiate the price for land compensation base on Independent Appraisal's value, desires by the PAPs and agreed by the PT PLN.
 - c. Socialization of the timing and mechanism of compensation payment. This activity will be carried out only after the decision on price has been made by the P2T (LAC).
 - d. Socialization and discussion on the policy of complaint handling from the PAPs, especially those in the proposed development of ROW transmission lines.

3. Consultation and discussion on resettlement;
There are two activities will be carried out for this consultation and discussion:
 - a. Providing the PAPs with information on the development plan of the sites that desired by the PAPs (in the surrounding project area)
 - b. Giving assistance to PAPs who want to move out on their own with small scale economic development.

4. Consultation and discussion on income restoration.
The consultation and discussion for income restoration covers a single issue that is the information on income restoration program after acquisition (compensation), including health assurance for the PAPs who are affected by the development of ROW transmission lines. The aim of the consultation and discussion is to identify and determine types of income restoration that need to be carried out including its associate trainings.

Table 5-2. Strategies for consultation and discussion

Item for consultation	Parties involved	Location	Time Frame	Strategies of consultation
Asset Lost:				
The announcement of the inventory result on land and asset by P2T	LAC, BPN, Village Office; Sub District Office; PLN, PAPs	Village and sub-district offices	After LAC finishing its assets inventory	Dissemination via public boards and other printing and electronic media
PAP's grievances on land size, size of building, number of plants, status of ownership	LAC, Grievance handling team, Village Office; Sub District Office; West Bandung District Office; Cianjur District Office; Agriculture Agency of West Bandung District, Agriculture Agency of Cianjur District PAPs, Local NGO and PLN	Project site offices	One month after the announcement of inventory result	Grievance handling mechanism

Item for consultation	Parties involved	Location	Time Frame	Strategies of consultation
Compensation:				
Obtaining land price desired by PAPs and actual market price and Independent Appraisal's price.	P2T, PLN, Village Officer; Sub District Office; West Bandung District Office; Cianjur District Office; Local NGO.	Village Offices	After announcement of inventory result	Obtaining price of land desired by PAPs through FGD
Negotiation (<i>Musyawarah</i>) to make an agreement on price of land	LAC, Complaint handling team, Village Officer; Sub District Officer; Bandung District Officer; Cianjur District Officer; Agriculture Agency of West Bandung District, Agriculture Agency of Cianjur District, PAPs, Local NGO.	Village Offices	Before the price of land has been decided by P2T	Negotiation on price of land between PLN and PAP through LAC as the mediator.
Dissemination on price for compensation, time and mechanism of the payment	LAC, Village Officer; Sub District Officer; West Bandung District Officer; Agriculture Agency of West Bandung District; Public Works of West Bandung District; Cianjur District Officer; Agriculture Agency of Cianjur District; Public Works of Cianjur District, PLN, Bank, PAPs, POLRI, Local NGO	Village Offices	After P2T decided the price of land compensation and after local government decided the price of buildings and plants	Dissemination to PAPs
Income Restoration				
The selection and implementation of Income Restoration and associated trainings for PAPs after resettlement (including health assurance for the affected PAPs by the development of ROW transmission lines)	Resettlement team, special task force at the local government, training consultants, PLN, PAPs.	Resettlement site and other decided places	After resettlement	FGD on types of Income Restoration and implementation of trainings

5.3. Resettlement and Steps Needed

Based on the aspiration from PAPs on the resettlement of PAPs from the proposed tower site, all of these PAPs will move out by themselves. This is understandable considering that lands around the proposed tower project are still available, so that they prefer to move out there (at the surrounding project area). Based on this, the role of government is more to facilitate this own initiative relocation program. Regarding these, the PLN and the local government will be responsible:

1. to provide the PAPs with information on the development plan of the sites that desired by the PAPs (in the surrounding project area),
2. to guide and give assistance to the PAPs who want to move out on their own with small scale economic development, and
3. to monitor economic improvement of the PAPs.

6

LARAP Institution and Procedure of Grievances Handling

6.1 Institution in implementing LARAP

In addition to the Unit of Project Implementation (PIU) as a task force within the structure of PLN Hydro Java Generation, some institutions will be involved in implementation activities of LARAP of the Upper Cisokan Pumped Storage Project namely (1) Land Acquisition Committee (LAC/P2T); (2) Joint Team of Local Government and PLN for Non Title Holders; (3) Independent Appraisal Agency licensed of the National Land Agency (BPN), (4) Team of Policy Formulation and Resettlement Implementation; (5) Grievances Task Force, and (6) Independent Monitoring Agency.

6.1.1 Land Acquisition Committee (LAC/P2T)

Location of transmission is situated in District of West Bandung and Cianjur District. But as an inseparable part of the Upper Cisokan Pumped Storage Project located in two regencies, namely Districts of West Bandung and Cianjur, the PLN Hydro Java Generation will submit to the Government of West Java Province to establish and set the Land Acquisition Committee (LAC/P2T) in the West Java Province and the Districts of West Bandung and Cianjur at the district level. This is in accordance with Presidential Decree No. 36 of 2005 and Presidential Regulation No. 65 of 2006 on Land Acquisition for Development for Implementation of Public Interest and the Head of BPN Regulation No. 3 of 2007 on the implementation of two those regulations. Thus, LAC of Province of West Java will involve in this project since the land acquisition plan for the location of reservoir and access road construction and carrying materials up the completion of the acquisition of land for project activities of the Upper Cisokan Pumped Storage as a whole. Aside from the LAC, Joint Team of Local Government and PLN for Non Title Holders will do tasks to comply with the World Bank OP 4.12. Joint Team will inventory personal investment of non title holders who may have asset in the form of physical structures or agricultural crops.

6.1.1.1 Membership, functions and tasks of LAC/P2T of West Java Province

In accordance with Article 15 Head of BPN Regulation No. 3 of 2007, membership at the provincial level LAC/P2T mostly consists of nine people, organized as follows:

- a. Secretary of West Java Regional as Chairman and concurrent member;
- b. Local officials in the province of the echelon II level designated as Vice Chairman
- c. Head of Regional Office of the National Land Agency of West Java Province or official appointed as Secretary and concurrent Member; and
- d. Head Office / Office / Agency in the province related to the implementation of land acquisition or the official appointed as a Member.

West Java Province LAC served as follows:

- a. Provide direction, guidance and direction for the implementation of land acquisition in the district, in this case is Land Acquisition Committees of West Bandung District and Cianjur District;
- b. Combine coordinating and implementing land acquisition in the district;
- c. Giving consideration to the Governor for decision making solution form and amount of compensation proposed by the Head of District, and
- d. To supervise and control the implementation of land acquisition and compensation.

6.1.1.2. Membership, functions and Tasks of Land Acquisition Committee (LAC/P2T) West Bandung and Cianjur Districts

In accordance with Article 14 Head of BPN Regulation No. 3 of 2007, membership at the district level LAC/P2T mostly consists of nine people, organized as follows:

- a. Regional Secretary as Chairman and concurrent Member;
- b. Officials from the device element area echelon II level as Vice Chairman and concurrent Member;
- c. Head of Land Office District / City or official appointed as Secretary and concurrent Member; and
- d. Head Office / Office / Agency in the County / City related to the implementation of land acquisition or the official appointed as a Member.

District Land Acquisition Committees of West Bandung and Cianjur have a duty as follows:

- a. Giving an explanation or information to the public;
- b. Conduct research and inventory of land areas, buildings, plants and other objects relating to land, the rights to be released or transferred;
- c. Conduct research on the legal status of land areas due to be released or transferred and the supporting documents;
- d. Announcing the results of research and inventory as referred to in point b and c;
- e. Hiring a licensed Appraiser to appraise value of affected land
- d. Estimating the land price appraisal, buildings, plants and other objects relating to land from a licensed Independent Appraisal Agency of Agrarian Office and related agencies responsible for assessing the land, buildings, plants and other objects relating to land;
- f. Hold a meeting with the owners with government agencies that require land in order to determine the form and amount of indemnification;
- g. Determine the amount of compensation for the land rights to be released or transferred.
- h. To see the delivery of compensation to the owners.
- i. Making the news release or transfer of rights.
- j. Administer and document all land acquisition and the file handed to PLN that require land and Agrarian District Office; and

- k. Delivering the consideration of the problems with land acquisition resolution to the mayor if the council did not reach consensus for decision making.

6.1.2 Licensed Independent Appraisal Agency of BPN

Land Price Appraisal Institution (licensed by BPN) is appointed to conduct the assessment of land prices in this project. The appointment made by the LAC/P2T of Districts of West Bandung and Cianjur through Assessment Letter of District's Head, in this case Districts of West Bandung and Cianjur in accordance with their respective locations affected the Upper Cisokan Pumped Storage project.

Land Price Appraisal Agency is a professional institution/team and independent to determine the land value/price that further will be used by the LAC as base to achieve agreement on land compensation with the PAP. Once appointed, the Appraisal team will conduct survey to PAPs, and institutions involved in land acquisition process in project area for determining the land price

As for determining the value of buildings and the establishment of plants / other stands are attached to the land will be referred to the Regional Regulation or other regulations issued by the Government of West Bandung District and Cianjur District Government in accordance with the exposed location of each project. PLN will communicate and socialize with both the district government, including giving information to the Government of West Java province, to the District Government (before land compensation conducted) to publish recent legislation or other regulations such as Head of District Regulation which can become the reference in the pricing structure and plant affected by the Upper Cisokan Pumped Storage Project.

The independent appraisal consultants will determine eligibility of non title holders who may have asset in the form of physical structures or agricultural crop of personal investment and appraising their asset values. They will also assess the assistance eligibility for them.

6.1.3. Resettlement Policy Formulating Team (RPFT) and Resettlement Implementation (RIT)

Resettlement Policy Formulating Team is an institution, which review resettlement formula produced by consultants of LARAP to appropriate local government policy. Resettlement Policy Formulating Team tasks to formulate resettlement policies that to be implemented in accordance with the conditions of each region by Resettlement Implementing Team.

The resettlement Implementation Team will coordinate all resettlement implementation activities, including through setting up assistance and restoration of social and economic life/income of PAP after developing project. This team set by the Governor decree of cross-sector by involving local governments and groups of experts

and PLN. Though, all of the PAPs in the tower pad prefer to relocate by themselves, therefore, in line with the World Policy on insuring that PAPs should get better livelihood condition, a special program on economic recovery need to be proposed, for example training and specific financial assistance

6.1.4. Grievance Task Force

A grievance redress procedure (Figure 6-1) will be the guidance to answer to various queries and to address grievances and issues that the PAPs are likely to bring, with regard to disputes over ownership and inheritance of the affected assets, distribution of compensation among the heirs, missing affected assets and persons in the census, etc. The procedure will not replace the existing legal process; based on consensus, the procedure will seek to resolve the issues quickly in order to expedite the receipt of compensation, without resorting to expensive and time-consuming legal actions.

The institution to handle grievance redress is the Task Force developed in Project Implementation Unit (PIU). The Task Force consists of PLN Officers and the hired experts. It has two main tasks namely the first as an accompaniment to the people or PAP during this project; and the second to accommodate and facilitate the public grievances related to the implementation of this project. The grievances submitted to Grievance Task Force in PIU should be in writing (see sample form below).

**AN EXAMPLE OF THE FORM OF GRIEVANCES OF THE
PEOPLE WHO ARE AFFECTED BY THE UPPER CISOKAN PROJECT**

TYPE OF GRIEVANCES :

- 1) List of Impacted Asset Inventory
- 2) Implementation of Asset compensation and Resettlement
- 3) Other grievances

Name Reporter /PAP : _____

Village / Sub-District : _____

Description of grievance : _____

Date: _____

Recipient Grievances Officer,

Reporter,

Description of Response : _____

Date: _ _

Personnel who provide response,

Personnel who will be assigned to this Task Force and advocacy of the grievance handling are originated from non-profit institution or university and/or experts who have the commitment and experience in community development. This Task Force will be established by PLN as part of project implementation overall of the Upper Cisokan Pumped Storage Project.

The main task of this Task Force serves assurance of PAP's right and interest in this project. The PAPs need two kinds of project assurances. The first is the assurance of the timeframe of grievance redress, so the PAP will have the certainty of his/her grievance to be handled by this institution during the agreed time frame (i.e. 3 weeks he/she has

received the solution answer). The second assurance is law assistance (advocating) by this Task Force to advocate PAP's interest.

The work mechanism of this Task Force is follows:

- Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for advocating and grievance handling.
- The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions (LAC/RIT) for further action. The action should be handled one week after receiving the grievances.
- Institutions relevant (LAC/RIT) to the grievance handling should give response/way out to the Task Force in 14 calendar days.
- The Task Force for Grievance Handling should give a response/way out to PAP in 21 calendar days.

The member of this Task Force is independent and the work mechanism as depicted in Figure 6-1, so it will serves assurance that any grievance raised by the PAP will be properly handled. In other hand the project will receive the periodic report that submitted by this Task Force.

6.1.5. Independent Monitoring Agency

During the implementation process of LARAP both at the time of the land acquisition and its property the implementation of the income restoration needs of an independent monitoring agency. This team has function to monitor and directly serves as the implementing agencies and monitors the impact evaluation of the overall project implementation, including mitigation of socio-economic and health impacts of the PAPs affected by the development of Transmission lines.

Monitoring and Evaluation are critical activities in the implementation of any plan. This assumes significance if the plan is related to Land Acquisition and Income Restoration. Monitoring involves periodic assessment of plan implementation to ascertain whether the activities are progressing as envisaged and provides feedback on how to keep the plan on schedule and at the same time maintain quality. By contrast evaluation is the impact of plan in terms of achieving its intended objectives. This focuses more on results than the processes. The monitoring indicator are presented in Table 6-2.

Benchmarks for measuring restoration of livelihoods (improving or at least restoring livelihood) of the PAP will be the following parameters.

- a) **Family income** – defined as the annual family income before and 2 years after relocation

- b) **Replacement of lost assets with assets of comparable value** – defined as the market value of replacement assets compared with that of the assets lost
- c) **Shelter condition** – qualitative assessment by PAPs and quantitative assessment of size and quality of structures
- d) **Family Infrastructure access (clean water, sanitation facilities, electricity)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)
- e) **Public Services access (road, market, education facility, praying facility)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)

Assisted by an independent monitoring agency, the project staff will directly lease with the Income Restoration Team and Land Acquisition Committee (LAC) and monitor progress in both land acquisition and income restoration implementation. Monitoring will consist of an array of steps related to LARAP preparation and implementation, as well as those involved in the process leading to commencement of the civil works. The independent monitoring agency will be responsible for setting up and operating an integrated system by using verifiable indicators to monitor and report progress and performance in terms of the integrated schedule of these tasks.

The following format will be used for monitoring task:

- Format for monitoring progress in the legal land acquisition process (Table 6-3)
- Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land (Table 6-4).
- Format for summary information on compensation payment for private lands and public lands (Table 6-5).
- Format for summary information on assistance payment by PLN to affected properties (Table 6-6).
- Format For Summary Information of Resettlement on Housing Colony Prepared By PLN (table 6-7)
- Format for information on grievance redress activities, by project location (Table 6-8).

6.2. Report Submission of Involved Institution

Also as a form of accountability by the activities of each institution mentioned above, then all the institutions involved in this LARAP implementation required to provide monthly reports, quarterly and annual reports to the hand-related parties (Table 6-1).

Each project report will be prepared in accordance with the needs of the report itself, but as general guidelines for preparing reports of systematic reporting is at least contained:

Table 6-1. Matrix of Project Activity Report Delivery

No	Institution	Report Kind	Submitted to	Note
1.	Land Acquisition Committee (LAC/P2T) of West Java Province	Implementation of Function and its Duty	Governor of West Java	Monthly/Quarterly/Yearly
2.	Land Acquisition Committees (LAC/P2T) of West Bandung/ Cianjur District	Implementation of function and its duty	Districts of West Bandung/ Cianjur	Monthly/Quarterly/Yearly
		Asset Inventory List	Public Information	Attached in village, District, and PLN office
3.	Licensed Appraisal	Valuation Result of land price	LAC/P2T District	Finishing undertaking asset valuation
4.	Resettlement Policy Formulating Team	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan</i> Project	Monthly/Quarterly/Yearly
5.	Task of advocating and handling grievances of PAP	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan</i> Project	Monthly/Quarterly/Yearly
		PAP grievances	Involved bodies with PAP grievance	Each of occurring grievance
6.	Independent Monitoring Agency	Implementation of function and its duty	PLN cq. PIU of the <i>Pumped Storage Upper Cisokan</i> Project	Monthly/Quarterly/Yearly
7.	PLN PIU	RAP program monitoring *)	World Bank	Reports to plan for follow-up on any failures to replace lost assets or restore livelihoods

*) If by the end of the each RAP program, monitoring demonstrates that livelihoods have not been restored to at least pre-project levels, the project will commit extra funds to conclude livelihood restoration for all PAPs. The reports will:

- 1) determine whether the main objectives of the LARAP have been realized,
- 2) verify the delivery of all agreed forms of compensation and assistance,
- 3) assess whether these have been sufficient to replace lost assets, and to restore livelihoods, and
- 4) if the assessment reveals that these objectives may not be realized (that assets are not replaced or incomes or living standards have not been restored -or are not likely to be- for a significant proportion of the affected population), then completion reports will include proposed follow-up measures for PLN to agree with the Bank.

6.3. Prevention of Land Speculation

After the establishment of Location Determination Decree issued by the Governor, it will be noticed to the public, especially the owners of assets located in the location of the project plan, no transaction should be allowed except for PAPs who has a prior permit from the Regent or Governor.

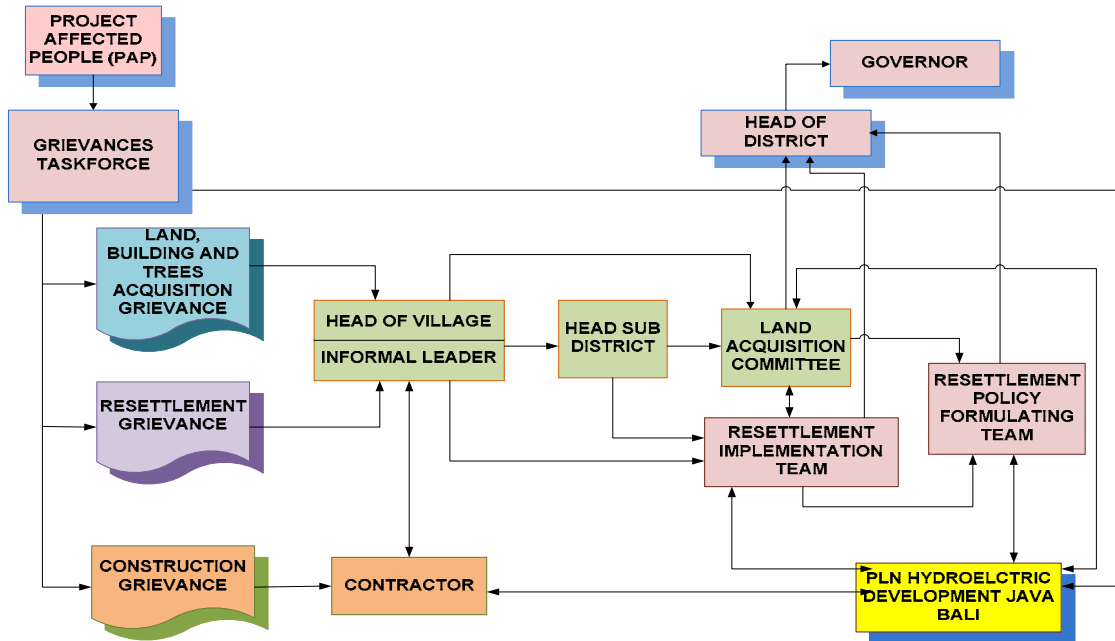
Socialization of and supervision of these efforts will be made widely and continuously

until the income restoration activity is completed. Socialization will be carried out by PLN together with (officials) district, sub district and village. Prospective environmental surveillance of the project location of PAP will also be conducted to prevent the transfer of cultivation, occupancy or utilization of land and physical assets are placed. These activities will be conducted in order to avoid domination / exploitation by people who are not entitled, which will disadvantage people affected by the project.

Besides, PLN will encourage to undertake payment for the land, physical assets, and trees implemented as quickly as possible and directly to the owner for the project-affected communities do not experience losses due to speculative activities.

In accordance with the elaboration of the above institution, the LARAP working mechanism should cover: (1) land acquisition mechanism (2) compensation payment mechanism, and (3) resettlement working mechanism, as shown in Figures 6-2, 6-3, and 6-4.

Figure 6-1.
MECHANISM OF GRIEVANCE HANDLING FOR
THE UPPER CISOKAN PUMP STORAGE PROJECT



Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for Advocating and Solution.

PAP's grievances regarding to the land acquisition, should submit their grievance to the Task Force within **14 calendar days** after the announcement of the asset inventory by the LAC (Article 41 Clause 1 Regulation of Head of National Land Agency No.3/2007)

The Governor should response not more than **30 calendar days** (Article 41 Clause 3 Regulation of Head of National Land Agency No.3/2007)

The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions for further action. The action should be handled **7 calendar days** after receiving the grievances.

Institutions relevant to the grievance handling should give response/way out to the Task Force within **14 calendar days**.

The Task Force for Advocating and Grievance Handling should give a response/way out to PAP within **21 calendar days**.

Figure 6-2.

INSTITUTIONAL SCHEME OF RESETTLEMENT ACTIVITY OF UPPER CISOKAN PUMPED STORAGE HEPP

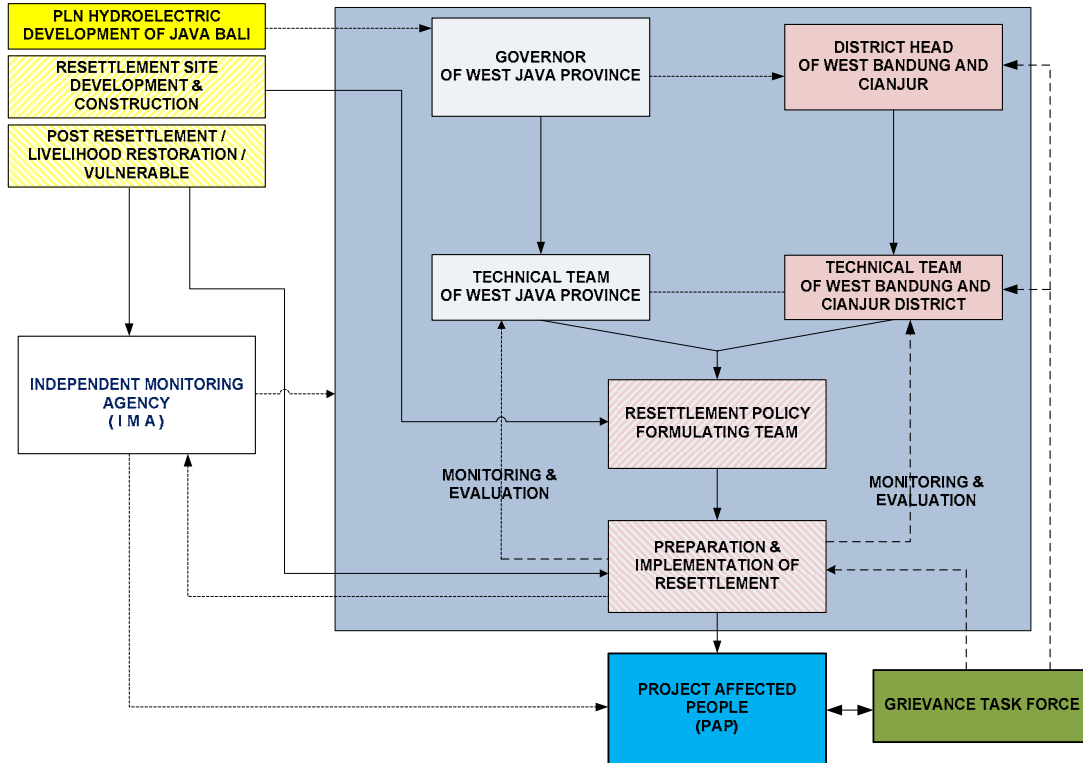
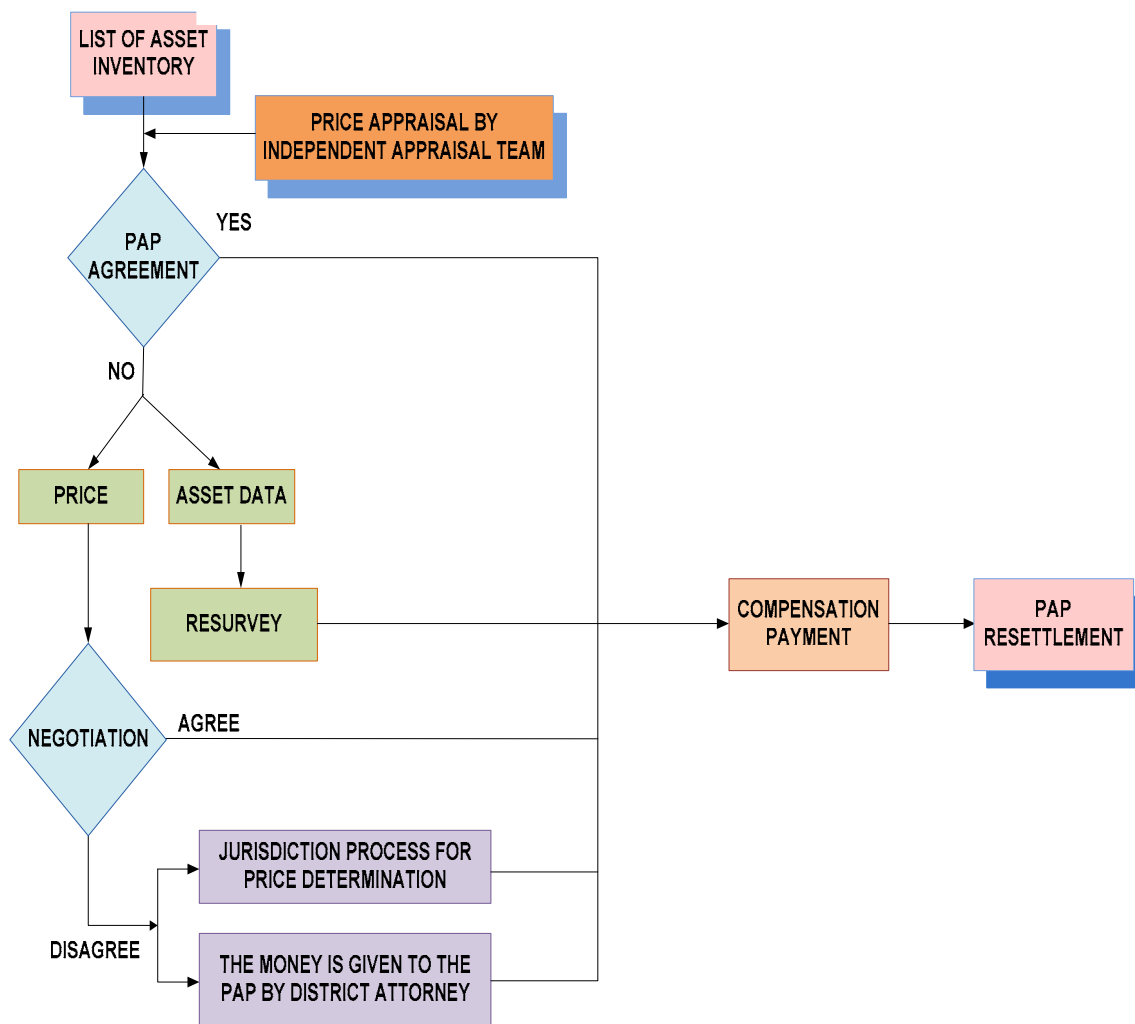


Figure 6-3.

COMPENSATION PAYMENT SCHEME



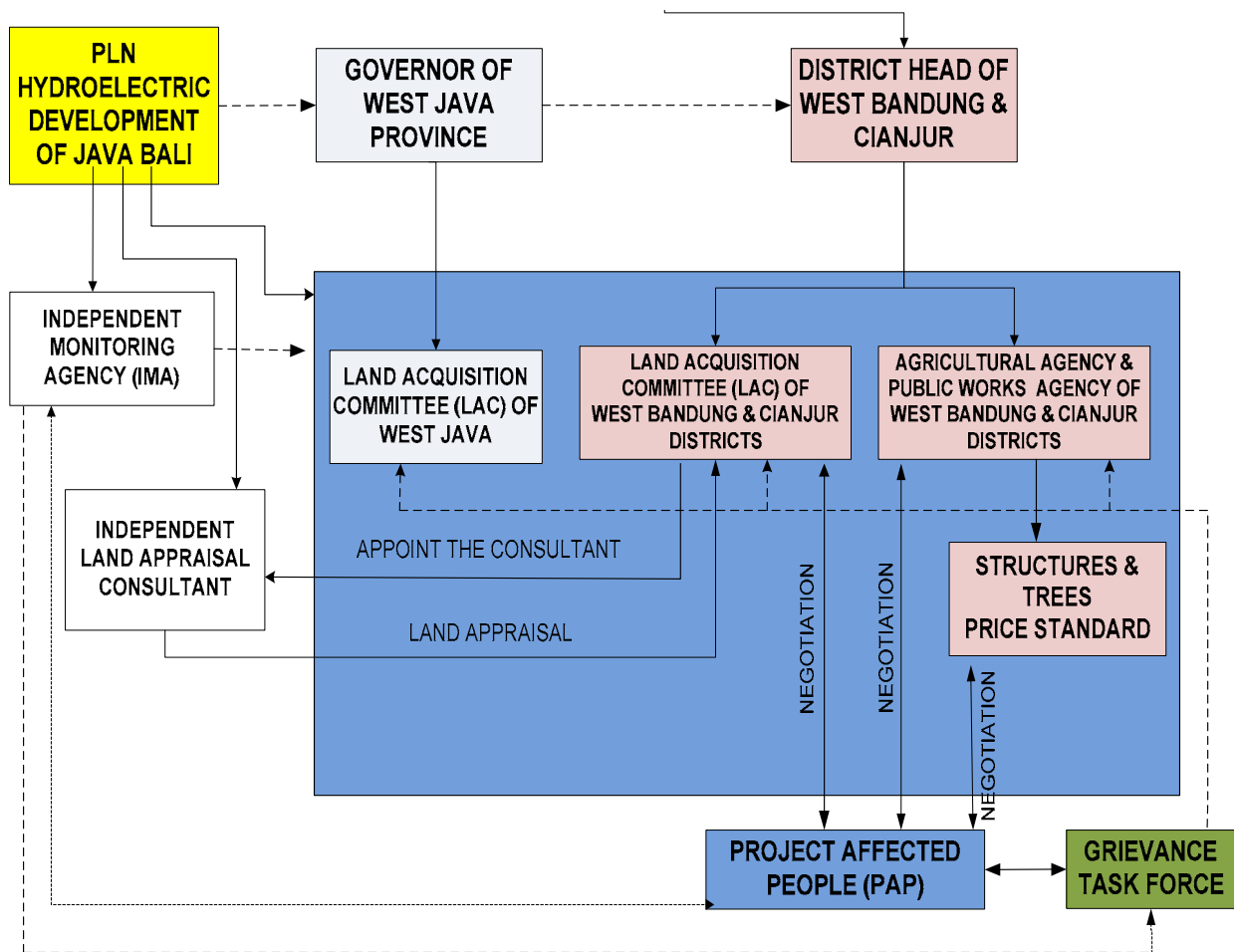
Note:

Jurisdiction process for price determination: Based on Presidential Regulation No 36 year 2005, Presidential Regulation No 65 Year 2006 and Head of National Land Agency Regulation No 3 Year 2007 concerning Land Acquisition that the land owner who disagree with the decision of Land Acquisition Committee (LAC) concerning land price, may submit the objection to Bupati (Head of Regent) of West Bandung/Cianjur or to Governor of West Java or Minister of Home Affairs.

The Bupati/Governor/Minister will scrutinize the argumentation and consideration of the Land owner and the consideration of the LAC and then make decision on land price.

Figure 6-4

INSTITUTIONS SCHEME OF LAND ACQUISITION



6.4. Execution of LARAP

The activity execution of this LARAP will be conducted by the PIU of Transmission Upper Cisokan Pumped Storage HEPP – PLN Hydro Java Generation. In executing the compensation and income restoration plan the PIU establish Income Restoration and Compensation Manager to execute the following activities:

1. Administration and Legal Aspect of the project activities which involve the following: legal counseling staff, general services staff external compliance monitoring agency, financial auditing team, grievance officer, and mediating committee.
2. Survey/Census/Data management;
3. Post Acquisition Handling and Restoration
4. Monitoring and Evaluation.

The overall working mechanism of compensation and income restoration plan as outlined in figure 6-5. To speed up the process of compensation and income restoration

program smoothly and effectively, the capacity building will be conducted as outlined in Appendix 11. The description of this mechanism of compensation and income restoration program is as follows:

1. Administration and Legal Aspects

- a. Legal aspect of Upper Cisokan project. This activity helps the project in various matters associated with legal aspects. The team in charge with this activity will be formed out of PLN (out sourcing) and consisting of resource persons with competency in Indonesian laws and regulations.
- b. General services aspects. This activity helps the project for handling general administrative and human-related aspects in the implementation of compensation and income restoration. This activity will be carried out by PLN administrative staffs.
- c. External monitoring grievance aspects. This activity will be handled by an independent team outside of the compensation and income restoration management team. The independent team called Independent Monitoring Agency (IMA), where its monitoring and evaluation results will then be reported to internal grievance handling officer for further resolution by the Grievance Task Force.
- d. Financial auditing aspect. This activity will be done by the third party, which is a certified public accountant.
- e. Grievance handling officer. This officer task is to coordinate with the Grievance Task Force for solving any grievances related with project implementation.

2. Data Management/Survey/Census.

Data and information collected from survey/ census will be managed by special agency established by local government, called Land Acquisition Committee (LAC/P2T). This agency, in doing its job, will be working together with National Land Agency (BPN) and independent Land Appraisal. Activities that need to be carried out are as follows:

- survey of physical assets;
- survey of socio-economic data;
- data processing through PAP's information system;
- deciding rights that should be given to the PAPs according to entitlement criteria set up by PLN.

The collected data and information will be organized in the form of PAP's data and information. The data and information will be made available in hard and soft copies. All collected data and information will be organized by special staff, who will report to the compensation and income restoration manager. To modify the data and information collected from the survey, one should have written permission from PLN through the Compensation and income restoration Manager.

3. Recovery After Compensation

The recovery programs after compensation are carried out in the following:

- a. livelihood restoration, which is part of PAP's economic restoration;
- b. business development, which is part of small scale economic development for those who lost their economic earning; and
- c. monitoring and evaluation of income restoration programs.

Points a) and b) will be done by working together with the third party, especially the consultant with experience in economic recovery and community development programs.

4. Monitoring and Evaluation.

Monitoring and evaluation activities will be covering monitoring of PAP's economic restoration and business income restoration, which is part of small scale economic development for those who lost their economic earning .

It is also necessary to note that the implementation of these program activities will result in some forms of agreements. Therefore, all of these agreements including agreement with the third party should be in accordance with current government regulations.

Figure 6-5.

INSTITUTION OF LAND ACQUISITION AND RESETTLEMENT ACTIVITY

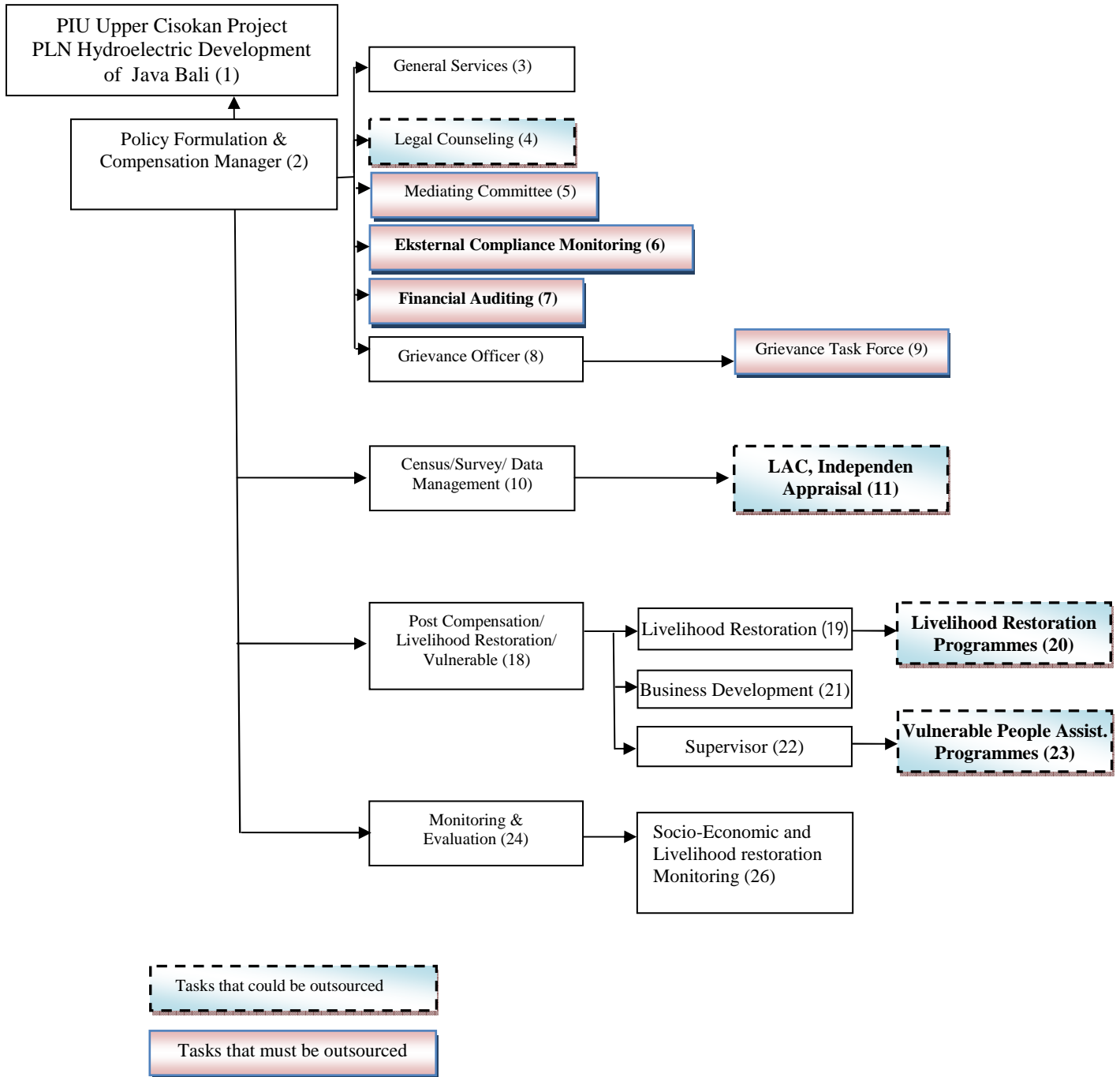


Table 6-2 Monitoring indicators

Project Location : Transmission Line

Reporting Date :

Monitoring Indicators	Total				Villages																				
					Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		
	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	
1. PHYSICAL																									
a) Extent of land acquired																									
b) Number of structures demolished																									
c) Number of land owner and private structure owners paid compensation																									
d) Number of families affected moved out																									
e) Number of PAPs receiving assistance/compensation																									
f) Number of PAPs provided transport facilities/shifting allowance																									
g) Number of PAPs allotted house under PLN housing scheme																									
h) Area and quality of land purchased compared with former holdings																									

Monitoring Indicators	Total				Villages																					
					Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line	
	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable
1. ECONOMIC																										
a) Utilization of compensation																										
b) The value of compensation																										
c) Number of business re-established																										
d) Income per capita of displaced PAP																										
2. GRIEVANCE																										
a) Cases of Land Acquisition referred to court, pending and settled																										
b) Number of grievance meetings																										
c) Number of village level meetings																										
d) Number of field visits by PLN/RIT/RPFT officers on Resettlement and Rehabilitation																										
e) Number of cases disposed by PLN/RIT/RPFT officers on Resettlement and Rehabilitation to the satisfaction of PAPs.																										

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-3. Format for monitoring progress in the legal land acquisition process

Project Location : Transmission Line
 Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish			Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Land	Structure	Vegetation				
Transmission Line	Plan									
	Monitoring									
Tower	Plan									
	Monitoring									
TOTAL										

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-4. Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land

Project Location : Transmission Line

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish		Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Structure	Vegetation				
Transmission Line	Plan								
	Monitoring								
Tower	Plan								
	Monitoring								
TOTAL									

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-5. Format for summary information on compensation payment for private lands and public lands

Project Location : Transmission Line
 Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Number of PAPs	Number & Percentage of Entitled PAP Paid (cumulative)							
					Land		Structure		Vegetation		Other Assets	
					Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number of PAPs	Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number and percent of PAPs Paid
Transmission Line	Plan											
	Monitoring											
Tower	Plan											
	Monitoring											
TOTAL												

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-6. Format for summary information on assistance payment by PLN to affected properties

Project Location : Transmission Line

Reporting Date :

Project Location	Total No. of PAPs	No. of PAPs Eligible for Assistance	Number & (Percentage) of PAPs Paid by PLN for			
			Enhancing Remaining Land Productivity	Enhancing Skill And Capital	Business/Marketing Incubation	Others
Transmission Line						
Tower						
TOTAL						

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-7. Format For Information On Grievance Redress Activities, By Project Location

Project Location : Transmission Line

Reporting Date :

Project Location	Number of meetings (cummulative)	Number of Grievances submitted, By Reasons and Affected Groups (Cumulative)									Number of Grievances Reviewed, By Reasons and Affected Groups (Cumulative)									Number of Grievances Accepted for Redress (Cumulative)				
		Reasons						Number Submitted by			Reasons						Number Reviewed For			Legal PAPs	Squatter, Sharecropper	Others		
		1	2	3	4	5	6	Legal PAPs	Squatter, Sharecropper	Others	1	2	3	4	5	9	Legal PAPs	Squatter, Sharecropper	Others					
Transmission Line																								
Tower																								
TOTAL																								

Reasons: 1-5 for Five Major Reasons, and 6 for all other reasons (Name the major reasons listed under the codes).

Affected Groups: Legal PAPs - Owners recognized by law; Squatter, Sharecropper – persons use public land for agriculture of dwelling purposes; Others - persons not identified by socioeconomic survey, or persons and community groups acting independently or on behalf of the PAPs.

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

7.1 Land Acquisition Action Plan

The LARAP study found that there are some disagreement between Government of Indonesia's regulations on land acquisition and the World Bank policies. For example, the compensation for building assets, the World Bank policies insists that new and old building should not be compensated differently. The new building should gets more cash compensation compared to that of old building. Other gap between the GOI's regulation and World Bank Policies are the treatments for squatters, encroachers, vulnerable and severely affected people. While according to the Indonesia's regulation, squatters, encroachers should not get any compensation (and even should be evicted from state owned land). As for vulnerable and severely affected people, there are no regulations covering their assistances. The World Bank Policies mention that squatters, encroachers, vulnerable and severely affected people should be compensated and get assistance for their assets according to the OP 4.12. Therefore, it is recommended that the solution to this problem would be that the compliance to the World Bank guideline on land acquisition should be within, and not against, the Indonesia's formal regulations. By this reason, all land acquisition implementation should be carried out in accordance with the process and standards outlined in the LARAP, after the loan agreement between Indonesian Government and the World Bank is signed.

7.1.1. Assets inventory (Land, Buildings & Plants)

Based on Regulation of the Head of National Land Agency No. 3/2007 on The Implementation of Presidential Regulation No 36/2005 and Presidential Regulation No 65/2006, therefore the activity of inventory asset (land, building & plant) will be conducted with the mechanism as follows:

- Based on Permit Letter of Determination of Location issued by Governor of West Java, the PLN propose land acquisition to the District of West Bandung and District of Cianjur.
- Based on the letter of land acquisition proposed by the PLN, the District of West Bandung and District of Cianjur will establish the Land Acquisition Committee (LAC/P2T). Considering that the project location is in two districts, therefore, at the provincial level should also be formed provincial-level LAC/P2T.
- LAC and National Land Agency at each district will make inventory affected assets (lands, buildings, and plants) including to review legal status of the affected land, referring to the available data as described in the LARAP assisting by PLN and UNPAD.
- In carrying out assets inventory, LAC/P2T will be coordinating with:
 - National Land Agency (BPN) for verifying and mapping each of PAP's land;

- Public Work Agency for verifying building and other physical objects on lands which is affected by the project;
- Agriculture Agency for verifying plant asset on the land affected by the project;
- Task Force that can be established by LAC/P2T in assisting them in identification of PAPs and inventory of affected assets.
- Joint Team of Local Government and PLN will make inventory affected assets for the non title holders.
- The P2T/LAC will announce the result of investigation and inventory on assets (lands, buildings, and plants) for the title and Joint Team of Local Government and PLN will announce the result of investigation and inventory on assets for the non title holders, for about one month at each village and sub-district offices where the project located;
- The LAC/P2T and Joint Team of Local Government and PLN will accommodate and follow-up on grievances and improving the lists accordingly.

7.1.2. Negotiation

- Prior to negotiation, the Independent Appraisal Consultant that appointed by the LAC will valuate affected land (refer to Article 27 BPN No. 3/2007). Independent Appraisal Consultant will assess land compensation value/replacement cost (*ganti rugi*) for the title reporting to the LAC. The Independent Appraisal Consultant will also assess assistance (*bantuan/tali asih/kadeudeuh*) for non title holders with regard to the World Bank Policies (OP 4.12) reporting to the Joint Team of Local Government and PLN.
- While affected structures, plants and other assets (non-land) will be valuated by relevant institution in the district (refer to Article 29, BPN No. 3/2007). The valuation of the affected assets shall reflect to Article 1 (11) Presidential Regulation No. 36/2005 that compensation shall be able to provide the continuation of life of PAPs better than the social and economic life before the provision of land.
- The valuation result of land compensation value/replacement cost (*ganti rugi*) will be submitted to the LAC and will be decided by local government based on the result of negotiation between the land owner and PLN mediated by the LAC.
- In each village the head of LAC will lead the land price negotiation with the PAP and PLN. It might be conducted once in most cases, or more than once in other cases.
- When the land price negotiation has been agreed between the PAP and the Project, then the LAC will initiate the nomination payment list.
- When the value of compensation cannot be reached, the case will be reported to District Head. If the district cannot reach agreement with the PAPs, the case might be taken as an agenda meeting in the Policy Formulating Team of West Java Province before conveying it to Governor of West Java for solution decision.
- Where possible, repeat negotiation with the PAP will be taken using above formulating Head of District/Governor policy

- The last option to solve the disagreement between the parties is to go to court for consignment. However the objective of preparing the LARAP is to do land acquisition and resettlement well approach and solution as social economy condition of the affected peoples.

7.1.3. Preparation of draft of nomination payment list

- The LAC will prepare three kinds of draft of nomination payment list of Land, buildings and Plants/Trees
- These lists will be published in Village office. The PAP will have the chance to check their affected assets belonging.
- Based on the revised payment proposed by the PAPs, LAC should make field verification together with the PAPs.
- Based on the LAC verification result, LAC will issue the revised list of payment and this list will be used as the final compensation payment list.

7.1.4. Compensation Payment

- After getting cash transfer from PLN Head office, PLN PHJ will proceed the compensation payment
- Compensation payment will be conducted in the affected village office by the project.
- Compensation will be given in cash through bank transfer
- Three kind of payment list of Land, buildings and Plants/Trees should be signed or finger print by the legal owner
- The photograph of payment receiving PAP will be taken and put in the payment list.

7.2 Resettlement Action Plan

Action that needs to be done in relation with resettlement and economic restoration program are as follows:

1. The government should provide the PAPs with information on the Spatial Planning of the area desired by the PAPs (in the surrounding project area). Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Cianjur District Office, and Local NGO.
2. Interview a sample of PAPs will be taken to discover how they plan to invest compensation, prepare procedures to assist. Institutions/parties to be involved in this activity are PLN, Resettlement Team.
3. Guiding and giving assistance to the PAPs who want to move out on their own with small scale economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Cianjur District Office, and Local NGO.
4. The PAPs who want to move out by group (minimal 30 head of household) will be provided with facilities such as road, drainage, and other necessary public facilities. Institutions/parties to be involved in this activity are PLN, Resettlement

Team, PAPs, Village Office, Sub District Office, West Bandung and Cianjur Districts Office, Independent Monitoring Agency, and Local NGO.

5. Monitoring on economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Cianjur District Office, Independent Monitoring Agency, and Local NGO.

The Resettlement Implementation Team will play the most important role for the success of resettlement. There will be formed Resettlement Implementation Team (RIT) of this project in District Cianjur. To synchronize the operation mechanism of resettlement between two teams will be facilitated by the Resettlement Policy Formulating Team. The following table 7.1 and table 7.2 describe the key issues and brief action plan.

In supporting the program action of relocation of those PAPs who would like to be relocated by the PLN/local government, in the appendix is a pre-study of site assessment for the potential resettlement sites. The result of the pre-site assessment for the resettlement program of the UCPS Project recommends that considering that most PAPs are preferred to be relocated in the surrounding areas where they are living, and considering that most PAPs are working on land-based economic activities, this study initially come up with nine potential sites. Based on consideration of the biophysical characteristics and aspects of the natural hazard, and agro ecosystem, of the nine potential sites required for resettlement, this study determined the three locations, namely Kampung Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampung Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampung Nagrak, Giri Mulya village, Cibeber sub-district, Cianjur district. These three sites are relatively possible based on basic criteria for resettlement sites, especially geological and clean water availability.

As part of the economic recovery for those PAPs who have to relocate, there will be four models of agriculture-based economic activities. First, agriculture-based activity in the form of homegarden-based agricultural practice with market-oriented fruits as main components. Second, livestock-based small scale economic activities with goats as main component. Thirdly, chicken-based small scale economic activities, with local chicken as main component, and fourthly, after harvest fruit processing with banana and cassava as the main components. Fifthly, the combination of agriculture, animal husbandry and home industry.

As for the housing design for each of the proposed site for resettlement, it was recommended that considering that in Kampung Nagrak, the geological characteristics and conditions are not "sensitive" to mass movement and/or landslide, the housing design and construction could be permanent house (house with full cement construction), semi-permanent (a combination of cement and wood construction), and sundanese traditional house (rumah panggung = fully wood/bamboo construction). While, for Kampung Nagrak and Kampung Pasir Taritih, considering that these two locations are relatively with steep and very steep slope, the rumah panggung will be more suitable. All of these housing design will be

completed with sanitary and accessibility to water and electricity. More elaborated information to the site assessment results can be learned from the separate report, titled “a pre-feasibility Site Assessment for the Resettlement Program of the UCPS Project” in the Appendix 1 of this report.

7.3 Land Acquisition on Forest replacement

Based on Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement, there are 6 candidate areas to be forest land replacement, which are: Bojongsalam village, Rongga sub-district; Sirnaraja village, Cipeundeuy sub-district; Gununghalu village, Gununghalu sub-district; Cinengah village, Rongga sub-district; Bunijaya village, Gununghalu sub-district and Ciptaharja village Cipatat sub-district located in West Bandung district. As for the location of Cianjur district, there are 2 candidate areas to be forest land replacement, which are: Mekarjaya village, Campaka sub-district and Cibadak village, Cibeber sub-district.

According to Minister of Environmental Decree No. 13 Year 2010 on Environmental Management and Monitoring Efforts and Commitment Letter to Perform Environmental Management and Monitoring, the using areas for forest replacement sites must conduct study on Environmental Management and Monitoring Efforts (UKL-UPL) or short EIA/EMP.

Table 7-1. Resettlement Options

No	Resettlement Option	Assistance	Schedule	Responsible entities
1	PAPs to be moved by PLN.	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	Resettlement Implementing Team (RIT), PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity, musholla) 	Ready after being paid of asset compensation	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	<ul style="list-style-type: none"> 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	<ul style="list-style-type: none"> After moving in After moving in After moving in 	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
2	PAPs who wish to move by themselves with more than 30 HHs	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity) 	During housing development	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	• RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
3	PAP who wish to move in to existing villages (individual HH, in the existing of non affected housing area)	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station •
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	• RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
4	Stay in the existing house The PAP whose house is not acquired by the project	• Assistance in moving allowance is not eligible		RIT, PLN
		• Assistance in transition cost	For 2 month at the time of moving in	PLN
		• Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for severely affected family entitle one type of the following: ✓ Farming Associated Business Package	In paralel with the PAPs in no 2 and 3	RIT, PLN

Table 7-2. Action Plan of Resettlement

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
1	Dispensing of Information				
	a) Information of resettlement policy	<ul style="list-style-type: none"> • Coordination Resettlement Policy Formulating Team (RPFT), Resettlement Implementing Team (RIT), Land Acquisition Committee (LAC) and PLN Project Implementing Unit (PIU) to redress the issues of resettlement 	Bandung, or West Bandung or Cianjur	Monthly	<ul style="list-style-type: none"> - RPFT - RIT West Bandung - RIT Cianjur
	b) Information of resettlement implementation	<ul style="list-style-type: none"> • Announcement and socialization of resettlement policy and implementation for the PAP, including various resettlement and rehabilitation options. The RIT develop information dissemination for the PAP through direct meeting conducted in the village meeting hall and by distributing leaflet for the PAP. • Consultation with PAP and Villages Officers will be conducted on several issues such as: <ul style="list-style-type: none"> ▪ Resettlement Location and infrastructures ▪ Assistance ▪ Grievance redress mechanism 	Affected Villages	Monthly	<ul style="list-style-type: none"> - RIT West Bandung - RIT Cianjur
2	PAP data	<ul style="list-style-type: none"> • Data of PAP who own asset and have received compensation will be adopted from the Land Acquisition Committee. 	Affected Villages	Monthly	Each Regency (West Bandung and Cianjur): LAC to provide data for RIT
		<ul style="list-style-type: none"> • Data of PAP who own no asset that gathered through previously census will be reconfirmed with the village authority 	Affected Villages	After Cut-off date	- RIT Cianjur
3	Economic restoration and Assistance				
	a) Capacity building	In cooperation with the PIU, facilitating the PAP with the training and other capacity building. This will be conducted after the data mentioned in 2 has been ready and before their assets acquired by the project.	Affected Villages	After Assets compensation payment	RIT with PLN PIU

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
	b) Coaching	In cooperation with the PIU, facilitating the PAP with the coaching to develop economic restoration. This will be conducted after the PAP assets acquired by the project.	To be confirmed	After PAP moving into new places	RIT with NGO or specialist
	c) In kind assistance,	In cooperation with the PIU, providing the PAP with the in kind assistance to develop economic restoration. This will be conducted after the PAP assets acquired by the project.	Affected Villages	Before PAP moving into new places	RIT with PLN PIU
	d) Finding out shelter/ farmland assistance	Assistance for non-title holders and title holders for PAH to find land for their shelter and/or farmland needs	To be confirmed	Before assets compensation payment	RIT with PLN PIU
4	Reporting and Monitoring				
	a) Monitoring	Develop close cooperation with IMA. Use the monitoring data to feedback the implementation. In cooperation with the PIU, the RIT will also develop data base of PAP and monitor the resettlement.	Affected Villages (The previous and the new destination)	Quarterly, after relocation (in segment)	RIT in cooperation with IMA and PLN PIU
	b) Reporting	Report will be submitted to Governor of West Java, Bupati (Head of Regent) of Cianjur and to PLN. PLN will send the report to World Bank.	Cianjur	Quarterly	RIT
5	Grievance redress	Grievance of the PAP will be managed in cooperation with several institutions such as LAC, RIT, PIU and sector involved institution. Grievance and the redress implementation will be recorded and reported.	Affected Villages (The previous and the new destination)	Monthly	RIT in cooperation with PLN PIU and LAC

Note: PIU – Project Implementing Unit ((PLN Hydro Development Java-Bali)); IMA – Independent Monitoring Agency

7.3 Schedule and Cost

Activities to be implemented in resettlement activities of PAP (Project Affected People) are included: socialization and dissemination of the project to PAP, socialization and discussion of land acquisition, land acquisition, discussion about resettlement plan, discussion of public choice of rehabilitation plan, consultation on resettlement site, preparation and resettlement site construction, implementation of population movement, monitoring and evaluation of project implementation.

The LARAP providing sufficient budget which include the following aspects:

1) Basic losses

Providing the Compensation budget for all type of losses.

2) Rehabilitation, Compensation and Management.

Providing the budget for:

- Assistance for PAPs such as providing capacity building, micro business starting package, business transition allowances.
- Committees budget: a) Land Compensation b) Resettlement Implementation team c) Resettlement Policy Formulating team
- Capacity building for institutional (Committees and PLN PIU)

The resettlement activities and time schedule is presented in Table 7-3. The cost estimation and the assumption of cost calculation are presented in Table 7-4 and 7-5 respectively.

**TABLE 7-3 LARAP SCHEDULE OF 500 KV TRANSMISSION LINES
UPPER CISOKAN PUMPED STORAGE HYDRO ELECTRIC POWER PLANT PROJECT, WEST JAVA, INDONESIA**

NO	NO OF YEAR	1												2												3												4												5											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
A	MAIN PROJECT CIVIL WORKS	[Solid bar]																																																											
1	MAIN CIVIL WORKS OF UPPER & LOWER DAMS	[Solid bar]																														[Solid bar]																													
2	MAIN CIVIL WORKS OF POWERHOUSE	[Solid bar]																														[Solid bar]																													
3	MAIN CIVIL WORKS OF 500 KV TRANSMISSION LINES	[Solid bar]																																																[Solid bar]											
4	CIVIL WORKS OF EXISTING ACCESS ROAD	[Dashed bar]																		[Empty]																																									
5	CIVIL WORKS OF NEW ACCESS ROAD	[Solid bar]																		[Empty]																																									
6	QUARRY WORKS	[Solid bar]																																										[Empty]																	
7	INUNDATION	[Empty]																																																											
B	LARAP PREPARATION	[Empty]																																																											
1	DRAFT LARAP DISCLOSURE	[Empty]												[Solid bar]												[Empty]																																			
2	FINAL LARAP	[Empty]																		[Solid bar]												[Empty]																													
C	LAND ACQUISITION OF 500 KV TRANSMISSION LINES	[Empty]																																																											
1	SOCIALIZATION	[Empty]																																				[Solid bar]												[Empty]											
2	LAND PARCELS MAPPING	[Empty]																																				[Solid bar]												[Empty]											
3	ASSETS INVENTORY (LAND, STRUCTURES & CROPS)	[Empty]																																				[Solid bar]												[Empty]											
4	NEGOTIATION	[Empty]																																				[Solid bar]												[Empty]											
5	PREPARATION OF NOMINATION PAYMENT LIST	[Empty]																																				[Solid bar]												[Empty]											
6	COMPENSATION PAYMENT	[Empty]																																				[Solid bar]												[Empty]											
D	IMA MONITORING	[Empty]																																																											
E	LARAP MONITORING REPORT	[Dashed bar]																																																											
F	GRIEVANCE REDRESS	[Dashed bar]																																																											

**Table 7-4. LARAP - Cost Estimate Upper Cisokan Pumped Storage Power Plant
Transmission area**

No	Type Of Loss	Volume				Allocated Budget (xRp.1000)
		UNITS	Tower's footprint	T/L ROW	TOTAL	
A	BASIC LOSSES	ha				35,447,980.00
1	Agricultural Land	ha	11.64	49.03	60.67	
2	Homegarden	ha	0.34	1.86	2.20	
3	Forestry Land	ha	1.86	35.40	37.26	
4	Plants/Trees Crops					
4.1	Trees Perennial crop					
	a). Trees (Timber plants)	trees (x1000)	22.02	69.52	91.54	
	b). Trees (Non Timber plants)	trees (x1000)	17.17	105.05	122.21	
4.2	Non perennial crop	ha	20.29	0	20.29	
5	Houses/building	m2	283	0	283	
		unit	5	0	5	
6	Squatters (Lost of shelter)	PAP	0	0	-	
7	Business		4	0	-	
8	Loss of Jobs (Sharecropper, labors & squatters)		0	0	-	
9	Public Facility and Social infrastructure	m2			-	
	a). Mosque	Unit	0	0		
	b). Mushola	Unit	0	0		
	c). School	Unit	0	0		
	d). Graves	Number				
	Project Affected Household (PAH)	PAH	60	286	346	
B	REHABILITATION, COMP. & MANAGEMENT					8,436,080
1	Vulnerable groups	PAP	2		2	
2	Relocation allowances	PAP	9	0	9	
3	Development & Constr. of Relocation sites	Sites				
4	Communication, Monitoring & Evaluation	Opr. Months			24	
5	Assistance					
a	Capacity Building for PAPs	PAH			346	
b	Micro business Starting Package	PAH			346	
c	Business Transition allowances	PAH			346	
6	Land Compensation Committee	Opr. Months			9	
7	Resettlement Implementation Team	Opr. Months			16	
8	Resettlement Policy Formulating Team	Opr. Months			8	
8	Capacity-building (institutional)	Times			2	
	Physical Contingency (3%)	%			3	1,063,439
	Price Contingency (2%)	%			2	708,960
	TOTAL					45,656,459

Table 7-5. LARAP - Cost Estimate Assumption Calculation

NO	Type Of Loss	Cost Estimate Assumption Calculation
A	BASIC LOSSES	
1	Agricultural Land	Estimate market price of land. Independent team will survey and define the basic land price. Negotiation between Land Owner and PLN
2	Homegarden	
3	Forestry Land	The acreage will be based on Minister Decree. The substitution price will follow the above procedure. Replacement will be 2x affected land + Re-vegetation at new location + Land mapping. The Land price at new location and the land price at previous land will be determined by the Independent Appraisal Team -----> Source Perhutani consultation 2009.
4	Plants/Trees Crops	The basic price will follow the Head of District Decree (West Bandung or Cianjur District) concerning agriculture compensation
4.1	Trees Perennial crop	
	a). Trees (Timber plants) b). Trees (Non Timber plants)	
4.2	Non perennial crop	The basic price will follow the Head of District Decree (West Bandung or Cianjur District) concerning agriculture compensation
5	Houses/building	Estimate market price to build house. The basic price will follow the Head of District Decree (West Bandung or Cianjur District)
6	Squatters (Lost of shelter)	Relocation allowance
7	Business	Compensation per business
8	Loss of Jobs (Sharecropper, labors & squatters)	Based on minimum basic salary of the district
9	Public Facility and Social infrastructure	
	a). Mosques	N/A
	b). Schools	N/A
	c). Graves	N/A
B	REHABILITATION, COMP. & MANAGEMENT	
1	Vulnerable groups	Allowance for transportation per PAP
2	Relocation allowances	Allowance for transportation per HH of PAP
3	Development & Constr. of Relocation sites	N/A
4	Communication, Monitoring & Evaluation	Monitoring cost by consultant
5	Assistance	
a	Capacity Building for PAPs	Averaged operational cost for capacity building and others
b	Micro business Starting Package	Averaged cost for micro business packages
c	Business Transition allowances	Averaged cost for 2 months minimal cost for household
6	Land Compensation Committee	Cost for operational and honorarium by Land Compensation Committee
7	Resettlement Implementation Team	Cost for operational and honorarium by Resettlement Implementation Team
8	Resettlement Policy Formulating Team	Cost for operational and honorarium by Resettlement Policy Formulating Team
9	Capacity-building (Institutional)	Cost for operational and honorarium by Capacity-building institutional or NGO
	Physical Contingency (3%)	Percentage of Basic loss
	Price Contingency (2%)	Percentage of Basic loss
	TOTAL	

1

Introduction

1.1. Background of The LARAP

In order to increase the supply of electrical power in Java, the government (in this case PT. PLN Persero), plans to build the Upper Cisokan Pumped Storage Project HEPP (UCPS project) located in West Bandung and Cianjur Districts. The project has installed capacity of 1040 MW.

This UCPS HEPP Project plan is also supported by instructions from the Government of Indonesia as written in the President RI Regulation No 4/2010 concerning Assignment of PT Perusahaan Listrik Negara (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas and the Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.

The Upper Cisokan Pumped Storage Project consists of 3 sub-project components, namely 1) the construction of access road, 2) construction of upper and lower dams, and 3) construction of 500 KV transmission lines. Physical construction of these projects require land acquisition that will impact on people's lives, as a result of the loss or decrease in land assets, or require further removal of residents from the location currently occupied.

This power plant is located in two districts, the upper reservoir is in West Bandung district and the lower reservoir is in West Bandung and Cianjur districts (Table 1.1, and Map 1).

Table 1-1. The location of upper and lower reservoirs in the Upper Cisokan Pumped Storage

Location (1)	District (2)	Sub-District (3)	Village (4)
Upper reservoir	West Bandung	Rongga	Sukaresmi Bojong salam
Lower reservoir	West Bandung	Rongga	Cicadas
	Cianjur	Campaka	Margaluyu
		Cibeber	Girimulya Karangnunggal

According to the basic design report (Newjec, 2001), water surface area of upper reservoir will be planned about 80 ha and lower reservoir is around 260 ha. The lower reservoir will be designed to have water surface elevation at +495 m and the upper

reservoir at +796.5 m above sea level. The maximum of head between the upper and lower reservoir is around 301.5 meters, and the total discharge is around 432 m³/second. This will produce an electricity power around 1,040 MW. The Upper Cisokan Pumped Storage will be completed with two intake buildings, two head race tunnels, and the ground type of power building with the dimension of 160 m x 24 m x 50 m (Table 1-2).

Table 1-2. Technical data of the Upper Cisokan Pumped Storage

I. Plant Data	Information	
Installed Capacity (MW)	1.040 (260 MW x 4 units)	
Maximum Input (MW)	1.100 (275 MW x 4 units)	
Max. Turbin Discharge (m ³ /sec)	432	
Max. Gross Head (m)	301.5	
Min. Gross Head (m)	278	
Loss Head (m)	10	
Rated Net Head (m)	276	
II. Reservoir Scale and Hydrology		
	Upper reservoir	Lower reservoir
Catchment Area (km ²)	10.5	355.0
Reservoir Surface Area at H.W.L (km ²)	0.8	2.6
H.W.L (m)	796.5	499.5
L.W.L (m)	777.5	495.0
Effective Depth / Fluctuation (m)	19.0	4.5
Active Storage (10 ⁶ m ³)	10.0	10.0
Average River Discharge (m ³ /sec)	0.4	14.9
Design Flood (m ³ /sec)	230.0	1,100.0
III. Main Civil Structures		
1. Dam		
Type	Concrete Gravity/RCC	Concrete Gravity/RCC
Height (m)	75.5	98.0
Crest Length (m)	375	294
Elevation of Crest (m)	800.5	503
Volume of Dam Body (m ³)	347.000	490.000
2. Spillway		
Type	Center Overflow	Center Overflow
Discharge Capacity (m ³ /sec)	230	1.100
Gate Type	No Gate	Radial gates
Height x width	-	10,9 x 10,0
Number	-	2
3. Intake		
Type	Slide Intake	
Gate	Steel wheeled-type	
Number	2	
4. Headrace Tunnel		

Length (m) Cross Section Number	Approx. 1.220 m (no.1), 1.160 m (no.2) Circular Section With Inside Diameter 7,4 m 2
5. Surge tank	
Type Inside Diameter (m) Height (m) Number	Restricted orifice type 15.0 (shaft) 78 m 2
6. Penstock	
Type Length (m) Inside Diameter(m) Thickness (mm) Number	Embedded Steel Pipe 475~529 5,9~4,17~3,1 20-52 2
7. Underground Power House	
Cavern Section Type Height (m) Maximum Width(m) Length (m)	Bullet Shape 51 26 156,6
8. Tailrace Tunnel	
Length (m) Cross Section	190~270 Circular Section with inside diameter 5,2
IV. Electro-Mechanical Equipment	
1. Pump-Turbine	
Type Related net head/ Min. Pump head (m) Max. Turbine Discharge (m ³ /s) Max. Pump Discharge (m ³ /s) Rated Turbine output/max. pump input Rated Speed (rpm) Number of Units	Vertical, single stage Francis type reversible 276 m/280 m 108 89,1 268/275 (MW) 300 4
2. Generator-Motor	
Type Generator output (MVA)/Motor Input (MW) Rated Voltage (kV) Rated Power Factor Rated Frequency (Hz) Rated Speed (rpm) Number of Units	Vertical shaft, 3-phase AC synchronous 278/280 18 0,9 lagging 50 300 4
3. Generator Transformer	
Type Rated Power (MVA) Rated Frequency (Hz) Rated Voltage - LV Winding (kV) - HV Winding (kV)	3-phase oil immersed underground 300 50 18 500
4. Switchyard	
Type Rated Voltage (kV) Number of feeders	Outdoor 500 4

The total area needed to be acquired for the upper is around 138.11 ha (80 ha for the surface water area) and lower reservoir is around 302.52 ha.

This proposed project plan will resettle a lot of affected people and will inundate agriculture and forest areas. Therefore, to minimize the negative impact of land acquisition for upper lower reservoir development, PT. PLN composed this document, and in the same time, consulted with project affected people (PAP) for better solutions. This documents related with the Land Acquisition and Resettlement Action Plan (LARAP) will then be used to make an agreement with the World Bank concerning any compensation, assistance and resettlement programs associated with the proposed projects and subject to approved by the world bank.

This LARAP document was prepared based on World Bank guidelines OP 4.12, however some of the framework policies may differ from Indonesia's Regulations. The differences between Indonesia regulations and World Bank policy is summarized in Appendix 9. The implementation of the framework subject to GOI's approval or payment due to the land acquisition in accordance with the World Bank guidelines to be done after the signing of loan agreement. Once the loan agreement of Upper Cisokan Pumped Storage HEPP project has been signed, the agreement between the GOI and the World Bank the Appendix 9 will have the legal force to be implemented as a legal basis for Land Acquisition and Resettlement for this project.

The disclosure of the LARAP document of Upper and Lower Reservoir have been initiated since mid of November 2010, and the report will be published and made it possible for any comment. The comment will be reviewed and adjusted by PLN for further action.

The data presented in this LARAP document based on field inventory and according to the PAPs that was conducted from November 2009 to January 2010 by LARAP Study Team from LPPM UNPAD. These data, can be used as a reference for asset acquisition (ganti rugi) which will be carried out by Land Acquisition Committee (LAC). The LAC in executing the asset inventory will coordinate with the following agencies: with the BPN – Badan Pertanahan Nasional (National Agrarian Agency) which responsible for land size data, the Public Work Agency which responsible for building assets, and Agricultural agency which responsible for plant assets. And, if necessary, The Joint Team of Local Government and PLN will also use the data presented in this LARAP document as a reference for assistance for Non Title Holders.

Land Acquisition procedures for public interest will be carried out by LAC and in determining value of asset acquisition will be assessed by Independent Appraisal Consultant¹. Aside from land acquisitions for the title holders, the Independent

¹ Based on the Presidential Regulation No. 36/2005, No. 65/2006 and The Head of National Land Agency Regulation No. 3/2007.

Appraisal Consultant also will assess the assistance eligibility for the non title holders. The Joint Team of Local Government and PLN will use Independent Appraisal Consultant's assessment to conduct the assistance for non title holders.

Amendments or revisions to this LARAP will be conducted by PLN and submitted to World Bank for review. Any changes affecting peoples' entitlements will be made after consulting with PAPs and disclosing the proposed LARAP change in the project area for at least two weeks, for comment from PAPs.

1.2. Description of Upper and Lower Reservoirs

1.2.1. Upper Reservoir

The upper dam project is located at the Cirumamis river. It will inundate the part of villages Sukaresmi, Bojong Salam, the district of West Bandung. Reservoir will store water flow from small rivers of Cirumamis, Cipedes, Cipateungteung, Cilawang, and Cidongke river.

The development of upper reservoir would have surface water area of 80 ha which is inundating the village of Sukaresmi and the village of Bojong Salam. However, the total area needed to be compensated for the upper reservoir and other land used by the project (reservoir, potential land slide, disposal, dam area and green belt) is around 138.11 ha. In general, land uses inundated by the proposed reservoir are in the form of homegardens, mixed gardens, dry lands, and forests. The Settlements in the upper basin area are generally located in the valley around the Cirumamis and Cisokan rivers. The homegardens, in general, have a main function to supply the daily needs for the homegarden owner. These homegardens are planted with a variety of plant species that serve as food crops, fruits, industrial and building materials, and fuelwood. The mixed gardens, area out site of the resettlement, are mainly cultivated for annual plants, such as chili, ginger, banana, and others.

The rice is grown in a semi-irrigated land with a twice harvesting time in one year. The rice fields are mostly located by the rivers of Cirumamis, Cilengkong and Cisokan. The rice products are primarily used to meet the needs of the local communities. Apart from these agricultural products, the proposed project area is also covered by forest land managed by Perum Perhutani, a state-own forestry company. The forest consists of pine trees used for building materials and their latex/gum. In the forest, there are also areas cultivated by local people for planting agricultural crops.

The proposed project will affect local people in the form of lost of their agricultural lands, houses, perennial plants, their jobs, and other non-economic impacts. These affected people will also be forced to move out from their current homes. This displaced people could change their current jobs, and also face uncertainty as well, for their future life. There are some displaced people who already have their own land and jobs somewhere else. The impact might not be as severe as those who have no place to go and no place yet to work after losing their home and jobs following project

development. These are project-associated impacts that need to be considered and solved for the better.

1.2.2. The Lower Reservoir

The lower dam will be built at conjunction of Cisokan and Cilengkong rivers and located about 2 km from the upper reservoir. The lower reservoir has capacity to collect water around 63 million m³ with water level reaches +499.5 m above sea level. The proposed reservoir would have surface water area of 260 ha and will inundate settlements, agriculture lands, and forest areas of Cicadas village in Rongga sub-district of West Bandung district, Karangnunggal and Girmulya villages in Cibeber sub-district, and Margaluyu village in Campaka sub-district of Cianjur district. The total area needed to be acquired for the lower reservoir and other land used by the nearby project (reservoir, dam area, switchyard and green belt) is around 302.52 ha.

In general, agriculture land at the lower reservoir is larger than the upper reservoir. Mostly, the land function is for agriculture practices, horticulture plants, trees/wood, home industry, and etc. Rice field is using semi-irrigation system and some of them in a rain-fed agricultural system. Rice field is harvested twice per year, especially rice field close to the river side. The rice product is important to most of the farmers living in the area. Meanwhile, in the lower reservoir area, there is a nature forest area along the Cirumamis river side, Cilengkong river and east of Cisokan river. The status of the forest is a production forest. The forest planted with fast growing species of albasia trees (*Paraserianthes falcataria*) and kaliandra (*Calliandra calothyrsus*), and high economic value of teak (*Tectona grandis*).

As in the case of the upper reservoir, the lower reservoir development will relocate a lot of people as well. These people have land, house, and other assets on that lands that need to be compensated accordingly.

1.3. Purpose and Aim of LARAP Preparation

The purpose of the preparation of the Land Acquisition and Resettlement Action Plan (LARAP) of the Upper Cisokan Pumped Storage HEPP is to prepare a document relating to land acquisition and resettlement for people who their land will be used by PLN (Persero) in the project planning and decision-making as a tool for the prospective donor. The objective as follows:

1. To mitigate negative impacts of land acquisition activities, as a result the Project Affected People (PAP) will not decrease the level of their life.
2. To give opportunity to the PAP to participate in the development process.
3. To obtain accurate data about the PAP and other data in accordance with the guidelines applied in Indonesia and guidance of the prospective donors (World Bank), as consideration for the implementation of LARAP.
4. To disseminate LARAP to the public associated with the transfer of assets, with the aim to obtain the same perceptions and early get feedback from the PAP.
5. To develop guidance / general propose of the resettlement plan for displaced PAP.

6. To provide grievance redress mechanism and monitoring and evaluation procedure of the LARAP implementation.
7. To formulate policies on complying the needs between GOI's regulation and the World Bank.

1.4. Data Collection Method

Method of data collection in this project is divided into two, namely the secondary data collection that includes technical and non-technical data, and the primary data to inventory the people and their assets who are affected by the project.

1.4.1. Secondary Data Collection

Secondary data collection includes technical and non-technical data:

1.4.1.1. Technical Data

- Project design made by PT. PLN (Persero) which described the project development plan (detailed design, 2000-2001).
- Supplementary study (2006-2007) and additional supplementary study (2007).
- Environmental Impact Analysis document (EIA/ANDAL) of the Upper Cisokan Pumped Storage HEPP.
- Data and map of land/plot measurements (persil) carried out by PT. PLN.

1.4.1.2. Non-technical data

- Regulations related to the implementation of land acquisition and resettlement of project affected people (PAP).
- Letter from Kantor Pelayanan Pajak Bumi dan Bangunan (Land and Building Tax Office) which indicates estimated value of the land and building (Nilai Jual Objek Pajak) in the project area.
- Decree of the head of District where the project site is located on the price/value of crop compensation.
- The documents from PLN concerning the activities that have been conducted in order to socialize the project, and the process of agreement on compensation/compensation with landowners who might be affected by the project.

1.4.2. Primary Data Collection

Two methods were used to collect primary data, namely Census, and Focus Group Discussion (FGD).

1.4.2.1. Census

Census was carried out to inventory the Project-Affected People (PAP). Data collection in this census activity was conducted from house to house by interviewing the households. Data collected in this activity includes, among others, data on general information of the household, ownership of land, building and crop stands (questionnaire is attached in appendix 1.3).

1.4.2.2. Focus Group Discussion

Focus Group Discussion (FGD) was also carried out to disseminate idea/plan of the proposed project and to gather information that could not be obtained through census from the community. The FGD was conducted in village of In the area of Upper and Lower dam, socialization and FGDs conducted on October 8, 2009 in the Karang Nunggal village Cibeber Sub-District, Cianjur District, and date October 9, 2009 in Campaka sub-district, Cianjur District, with participants consisting of community leaders and residents in the villages affected by the project. The FGD for the upper dam together with FGD for the access road were carried out on 24 October 2008 in Rongga sub-district.

2

Inventory of the Project Affected Asset

2.1. Project Affected Asset

2.1.1. Project affected land assets

Construction of Upper Cisokan Pumped Storage project occupies two areas consist of the upper reservoir (including the reservoir, potential land slide, disposal, dam area and green belt) located in Sub-District Rongga of West Bandung District, and the lower reservoir (including the reservoir, dam area, switchyard and green belt) located in Sub-District Campaka and Cibeber of Cianjur District.

Land affected by the projects is about 2,263 plots. Based on the results of the census in 2010, there are 975 Households (HHs) who owned and/or occupied land plots are affected by the project. In addition, they are 21 HHs who neither owned nor occupied land in the project area, but they have assets in the project area (such as house, stable, and other buildings affected by the proposed project). In this study, they are included as residents affected by the project with the total of about 996 HHs.

Chapter 1 gives estimated land required based on engineering estimates, but Chapter 2 only includes land if it is owned, occupied or used by PAPs, Local government or Forest Department. Land to be compensated in Chapter 2 does not include land already owned by PLN, and it only includes State or Forest lands when clearly controlled by the owners or else occupied and used by PAPs.

Overall Total Land Required for the reservoirs & dams is 495.11 ha . PAPs are using or own 363.46 ha and an estimated 131.65 ha is expected to be required from Forest Land. However these categories overlap, and the extent of the overlap is uncertain, and can only be resolved by legal survey. This LARAP has estimated Forest land but some may also be either encroached or else unowned streams, paths etc. And the overlaps between all the ownership categories can only be resolved during the legal survey

The Table 2-1 shows that PAP lands are needed by the project for lower reservoir are relatively larger than that of in the upper reservoir. Out of the total land area owned or occupied by the PAP, is almost entirely (320.66 hectares) used for the reservoir. This area represents 88.22% of the total area of land to be used in these projects. This land consisting of 88.17 hectares will be used for the upper reservoir, and 232.49 hectares for the lower reservoir.

Table 2-1. Total of the plots of land affected by the project

Area	Sub area	Location	Village	Land plots affected by project ¹		Land be acquired	
				No. of Plot	Size (ha)	Size	(%) ²
(1)	(2)		(3)	(4)	(5)	(6)	(7)
Upper Reservoir	Reservoir	Upper Dam	Sukaresmi	566	74.14	72.99	98.44
		Upper Dam	Bojongsalam	130	15.18	15.18	100.00
	Disposal	-	Sukaresmi	69	6.87	6.87	100.00
		-	Bojongsalam	9	0.45	0.45	100.00
	Sliding	-	Sukaresmi	137	18.94	18.88	99.68
		-	Bojongsalam	46	5.93	5.85	98.65
Subtotal				957	121.52	120.22	98.93
Lower Reservoir	Reservoir	Surgetank, Tunnel and Power plant	Sukaresmi	37	2.26	2.18	96.46
		-	Bojongsalam	389	57.47	57.01	99.19
		-	Margaluyu	387	81.52	80.58	98.85
		-	Girimulya	32	4.82	4.82	100.00
		Lower Dam ⁴	Karangnunggal	184	36.96	36.85	99.72
		-	Cicadas	218	52.65	51.59	97.98
	Switch Yard	-	Sukaresmi	59	10.21	10.21	100.00
Subtotal				1,306	245.89	243.24	98.92
Total				2,263	367.41	363.46	98.92

Source; Primary data, 2010

¹ In some project sites, not all plot area of land is affected by the project; the owners can still occupy or use their remaining land for their activity as before

² The ratio between the column (6) and (5).

³ Upper dam location is in Sukaresmi and Bojongsalam villages, Lower dam location is in Karangnunggal villages (Cianjur), Powerplant, surgetank and Tunnel location is in Sukaresmi village

⁴ Lower dam location is in Karangnunggal villages (Cianjur), Powerplant, surgetank and Tunnel location is in Sukaresmi village

a. Project affected land use

In general, total lands that are affected by the project (2,263 plots) are mostly agricultural land. These agricultural lands consist of wet rice fields (189.74 ha) and garden (120.33 ha) (Table 2-2 column (5) and (7)). Most of the agricultural land that will be affected by the project is wet rice field, in the upper area reached 52.78 ha or 43.92% of the total land affected by the project, while in the lower area is 136.95 ha (56.30% of total land area affected by the project). The rest consist of the garden, dry land rice field, and other fields. This land asset of PAPs will be inundated or used by the project, and therefore should be acquired.

Table 2-2. Project affected land use

Area	Sub area	Village		Land use					
				Home garden	Wet rice field	Dry land rice field	Garden	Dry land and others	Total
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)
Upper Reservoir	Upper Reservoir	Sukaresmi	land plots	223	198	15	127	3	566
			size (ha)	12.11	31.94	3	25.36	0.49	72.99
		Bojongsalam	land plots	55	43	-	31	1	130
			size (ha)	3.33	6.57	-	5.27	-	15.18
	Disposal	Sukaresmi	land plots	22	27	3	17	-	69
			size (ha)	0.85	3.41	0.24	2.38	-	6.87
		Bojongsalam	land plots	3	4	-	2	-	9
			size (ha)	0.09	0.16	-	.20	-	0.45
	Sliding	Sukaresmi	land plots	50	52	4	30	1	137
			size (ha)	4.49	8.50	0.52	5.22	0.16	18.88
		Bojongsalam	land plots	17	14	-	14	1	46
			size (ha)	0.96	2.21	-	2.55	0.14	5.85
Subtotal			land plots	370	338	22	221	6	957
			size (ha)	21.83	52.78	3.76	40.97	0.79	120.22
Lower Reservoir	Lower Reservoir	Sukaresmi	land plots	20	12	1	4	-	37
			size (ha)	0.78	.84	-	.52	-	2.18
		Bojongsalam	land plots	137	163	11	78	-	389
			size (ha)	8.88	25.07	2.56	20.50	-	57.01
		Margaluyu	land plots	25	244	13	105	-	387
			size (ha)	4.03	40.60	2.75	33.20	-	80.58
		Girimulya	land plots	3	20	-	8	1	32
			size (ha)	0.11	2.57	-	2.10	0.04	4.82
		Karangnunggal	land plots	15	118	3	47	1	184
			size (ha)	1.12	23.27	0.91	11.47	0.08	36.85
		Cicadas	land plots	2	172	6	38	-	218
			size (ha)	0.65	37.49	2.61	10.84	-	51.59
	Switch Yard	Sukaresmi	land plots	30	26	-	3	-	59
			size (ha)	2.37	7.11	-	.74	-	10.21
Subtotal			land plots	232	755	34	283	2	1306
			size (ha)	17.93	136.95	8.87	79.36	0.12	243.24
Total			land plots	602	1,093	56	504	8	2,263
			size (ha)	39.76	189.74	12.59	120.33	0.92	363.46

b. The remaining project affected land

The affected land has to be compensated by the projects. Some of the remaining land still remains as the property of the resident but it could also be acquired due to the remaining land area is no longer effective or economic for residential or agriculture activities. These remaining lands should be compensated at the request of the owner, then the land which was originally estimated at the time of the compensation would become broader.

It has been noted that there are 28 plots that PAPs have remaining land plots after the project (Table 2-3 column 7), which means that only part of their land would be acquired. The remaining lands can still be used by local community, but if the remaining lands still uneconomical, it can be acquired by the project on the request of the PAP.

Table 2-3. Number and size of the remaining land plot

Area	Sub area	Village		Land Use			
				Lawn	Rice field	Estate	Total
(1)	(2)	(3)		(4)	(5)	(6)	(7)
Upper	Reservoir	Sukaresmi	Land plots	1	4	3	8
			Avg.size (m2)	1,600	359	2,840	1,445
	Sliding	Sukaresmi	Land plots	-	1	1	2
			Avg.size (m2)	-	2	600	301
		Bojongsalam	Land plots	1	-	-	1
			Avg.size (m2)	800	-	-	800
Subtotal			Land plots	2	5	4	11
			Avg.size (m2)	1,200	180,5	1,720	848,67
Lower	Reservoir	Sukaresmi	Land plots	-	1	-	1
			Avg.size (m2)	-	800	-	800
		Bojongsalam	Land plots	-	2	4	6
			Avg.size (m2)	-	1,275	523	773
		Margaluyu	Land plots	-	2	1	3
			Avg.size (m2)	-	2,200	5,000	3,133
		Karangnunggal	Land plots	-	2	-	2
			Avg.size (m2)	-	525	-	525
		Cicadas	Land plots	-	4	1	5
			Avg.size (m2)	-	2,201	1,845	2,130
Subtotal			Land plots	-	11	-	17
			Avg.size (m2)	-	1,400.2	791	1,472.2
Total			Land plots	2	16	10	28
			Avg.size (m2)	1,200	1,580.7	2,511	2,320.87

Land affected by the project is largely owned by PAP (Table 2-4 column 4), and partly owned by other parties that cultivated or used by the PAPs. Based on calculating from data processing these 1,486 plots of land are owned by the 664 households of PAPs, while the rest of 777 plots owned by the other parties. From 777 plots most of the lands, 566 plots owned by PT Perhutani, and the rest owned by individuals, village authority and PLN.

Table. 2-4. Land ownership status affected by the project

Area	Sub area	Village		Land ownerships				Total
				Own by PAP* (HH)	Own by village (carik)	Perhutani	Own by others**	
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)
Upper Reservoir	Upper Reservoir	Sukaresmi	land plots	274	32	217	43	566
			Size (ha)	38.17	1.71	31.65	1.46	72.99
		Bojongsalam	land plots	71	2	44	13	130
			Size (ha)	9.34	0.08	5.50	0.26	15.18
	Disposal	Sukaresmi	land plots	23	-	38	8	69
			Size (ha)	3.14	-	3.55	0.18	6.87
		Bojongsalam	land plots	3	-	6	-	9
			Size (ha)	0.20	-	0.25	-	0.45
	Sliding	Sukaresmi	land plots	83	4	42	8	137
			Size (ha)	12.29	0.29	6.09	0.21	18.88
		Bojongsalam	land plots	25	1	15	5	46
			Size (ha)	3.80	0.08	1.92	0.06	5.85
Subtotal			land plots	479	39	362	77	957
			Size (ha)	66.94	2.16	48.95	2.17	120.22
Lower Reservoir	Lower Reservoir	Sukaresmi	land plots	14	1	19	3	37
			Size (ha)	0.90	0.01	1.25	0.02	2.18
		Bojongsalam	land plots	265	4	75	45	389
			Size (ha)	44.38	0.02	11.79	0.82	57.01
		Margaluyu	land plots	287	12	80	8	387
			Size (ha)	59.61	2.57	18.09	0.32	80.58
		Girimulya	land plots	27	-	4	1	32
			Size (ha)	4.06	-	0.72	0.04	4.82
		Karangnunggal	land plots	160	2	13	9	184
			Size (ha)	33.52	0.12	2.12	1.09	36.85
		Cicadas	land plots	210	-	7	1	218
			Size (ha)	50.28	-	1.05	0.26	51.59
	Switch Yard	Sukaresmi	land plots	44	-	6	9	59
			Size (ha)	8.85	-	1.18	0.18	10.21
Subtotal			land plots	1007	19	204	76	1306
			Size (ha)	201.59	2.71	36.20	2.74	243.24
Total			land plots	1486(*)	58	566	153	2263
			Size (ha)	268.54	4.86	85.15	4.91	363.46

(*) Owned by 664 households of PAPs calculating from data processing (detailed di Table

Most of the land owned by the PAP is proven by ownership letter such as land certificates, letter from village authorities (desa)/ *kikitir* and receipt documents, and tax letter (SPPT), although both of receipt document and tax letter are legal as a proof of ownership. Out of 2,263 land plots, there are 786 plots without any proof of documents (Table 2-5 column 10), so the total numbers of plot that has any proof of ownership are 1,477 plots of land.

But just 82 plots of land that have legal proof of ownership like certificate, letter C, *Kikitir*, and village reference (Tabel 2-5), the rest or most of the land title are as tax billing letter (SPPT) which do not represent a proof of land ownership

Table 2-5. Proof of land property ownership of the PAPs

Area	Sub area	Plot location		Proof of land property ownership							
				C	LC	KK	VR	TL	R	ND	Total
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Upper	Reservoir	Sukaesmi	Land plots	10		5	16	256	1	278	566
			Size (ha)	1.24	-	0.38	0.52	35.55	0.05	35.24	72.99
		Bojongsalam	Land plots	1	-	1	2	64	-	62	130
			Size (ha)	0.04	-	0.08	8	8.66	-	6.32	15.18
	Disposal	Sukaesmi	Land plots	1	-	-	-	21	-	47	69
			Size (ha)	0.04	-	-	-	3.08	-	3.75	6.87
		Bojongsalam	Land plots		-	-	-	3	-	6	9
			Size (ha)		-	-	-	0.2	-	0.25	0.45
	Sliding	Sukaesmi	No.plot	2	-	-	2	75	-	58	137
			Size (ha)	0.08	-	-	0.13	11.26	-	7.41	18.88
		Bojongsalam	Land plots	1	1	-	1	21	-	22	46
			Size (ha)	0.52	0.07	-	0.08	3.06	-	2.12	5.85
Subtotal			Land plots	15	1	6	21	440	1	473	957
			Size (ha)	1.93	0.07	0.46	8.73	58.53	0.05	51.09	120.22
Lower	Reservoir	Sukaesmi	Land plots	-	-		1	13	-	23	37
			Size (ha)	-	-		0.01	0.89	-	1.28	2.18
		Bojongsalam	Land plots	1	-	2	7	263	-	116	389
			Size (ha)	0.56	-	0.04	0.62	43.38	-	12.41	57.01
		Margaluyu	Land plots	5	-	-	9	271	2	100	387
			Size (ha)	0.28	-	-	1.41	53.8	4	21.09	80.58
		Girimulya	Land plots	2	-	-	-	24	-	6	32
			Size (ha)	0.22	-	-	-	3.75	-	0.85	4.82
		Karangnunggal	Land plots	2	-	-	2	151	-	29	184
			Size (ha)	0.36	-	-	0.12	32.23	-	4.14	36.85
		Cicadas	Land plots	-	-	8	-	194	-	16	218
			Size (ha)	-	-	9.7	-	38.17	-	3.72	51.59
	Switch Yard	Sukaesmi	Land plots	-	-	-	-	36	-	23	59
			Size (ha)	-	-	-	-	8.44	-	1.77	10.21
Subtotal			Land plots	10		10	-	952	2	313	1306
			Size (ha)	1.42		9.74	-	180.66	4	45.26	243.24
Total			Land plots	25	1	16	40	1392	3	786	2263
			Size (ha)	3.34	0.07	10.2	10.89	239.19	4.05	96.35	363.46

Note: C stands for certificate; LC: *leter-C* (Purchase deed), KK : *kikitir*, VR : village reference, TL : tax letter, R : receipt, and ND without documents (No Documents).

e. Condition of Infrastructure and Environment

There are eight types of public facilities affected by the project and should be relocated because it was in the area to be inundated, i.e. mosques, *madrasah*, *mushola*, schools (elementary and middle schools), cemetery/graves, land field, bridges and land owned by the village authorities. Land areas for public facilities affected by the project reached 8,210 m² (Table. 2-6 with bridge excluded). Public facilities area most affected by the project is the land for school, which is 3,053 m².

Table.2-6. Project affected public facilities

Area	No / size	Mosque	Madrasah	Mushola	Graves	School	Open field	Bridge
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Upper	(Unit)	6	1	14	196	2	2	4
	(m ²)	672	52	362	184.78	3,053	1,332	102
Lower	(Unit)	1	3	14	490	0	0	4
	(m ²)	90	404	643	1,417	0	0	120
Total	(Unit)	7	4	28	686	2	2	8
	(m ²)	762	456	1,005	1,602	3,053	1,332	222

Most number of public assets affected by the project are mosques and *mushola*, and land owned by the village authorities used for public facilities.

2.1.2. Project Affected Building

Project affected buildings in the upper and lower reservoir are about 1,035 units comprise of 433 units are located in lower, and 602 units are in upper reservoir (Table 2-7).

a. Size/area of the project affected building

The project affected buildings are 1,035 units, with a total area of about 50,749 m² (Table 2-7 column 11). The project affected buildings mostly consist of houses and business places. In addition, there are also found building for social facilities owned by individuals, and non-building assets such as wells, fences, graves, bathrooms and others.

The average building area is 54.3 m² per unit, there are 312 units are the building with floor area that less than 21 m² (30.14%).

Table 2-7. The type and size/area of the project affected building

Area	Sub area	Village	Type of building								
			Housing	House & Business Place	Business Place	Home industry	Stables	Public Facilities owned by PAP	Others	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Upper	Reservoir	Sukaresmi	Num	306	4	1	2	34	2	14	363
			Size (m2)	16,995.0	126.0	9.0	141.0	447.0	70.0	225.0	18,013.0
		Bojongsalam	Num.	69	9	1	-	6	2	9	96
			Size (m2)	4,073.0	333.0	13.0	-	73.0	342.0	93.0	4,927.0
	Disposal	Sukaresmi	Num.	33	-	-	-	1	1	-	35
			Size (m2)	2,566.0	-	-	-	6.0	24.0	-	2,596.0
		Bojongsalam	Num.	4	-	-	-	-	-	-	4
			Size (m2)	238.0	-	-	-	-	-	-	238.0
	Sliding	Sukaresmi	Num.	63	-	1	1	8	3	-	76
			Size (m2)	4,010.0	-	24.0	45.0	156.0	176.0	-	4,411.0
		Bojongsalam	Num.	26	-	-	-	1	1	-	28
			Size (m2)	1,343.9	-	-	-	6.0	20.0	-	1,369.9
Subtotal			Num.	501	13	3	3	50	9	23	602
			Size (m2)	29,225.9	459.0	46.0	186.0	688.0	632.0	318.0	31,554.9
Lower	Reservoir	Sukaresmi	Num.	21	-	-	-	2	1	1	25
			Size (m2)	1,470.0	-	-	-	40.0	30.0	4.0	1,544.0
		Bojongsalam	Num.	210	2	-	2	5	10	20	249
			Size (m2)	9,097.0	100.0	-	134.0	88.0	354.0	1,390.0	11,163.0
		Margaluyu	Num.	12	-	4	-	4	-	27	47
			Size (m2)	467.0	-	87.0	-	123.0	-	483.0	1,160.0
		Girimulya	Num.	2	-	-	-	1	1	1	5
			Size (m2)	48.0	-	-	-	6.0	80.0	2.0	136.0
		Karangnunggal	Num.	16	2	1	-	3	1	15	38
			Size (m2)	946.0	76.5	64.0	-	23.0	24.0	629.0	1762.5
		Cicadas	Num.	2	-	-	-	-	2	8	12
			Size (m2)	30.0	-	-	-	-	40.0	119.0	189.0
	Switch Yard	Sukaresmi	Num.	52	3	-	-	-	-	2	57
			Size (m2)	3,093.0	111.0	-	-	-	-	36.0	3240.0
Subtotal			Num.	315	7	5	2	15	15	74	433
			Size (m2)	15,151	287.5	151.0	1,34.0	280.0	528.0	2663	19,194.5
Total			Num.	816	20	8	5	65	24	97	1035
			Size (m2)	44,376.9	746.5	197.0	320.0	968.0	1,160.0	2981	50,749.4

b. Building Use

The use of the building is grouped into six forms of use, consisting of: (1) residential/house, (2) residential and place of business, (3) place of business, (4) home industry (factories, processing of agricultural products), (5) social and public facilities, and (6) others. There are 1,035 units of project affected buildings, most of them are residential 816 units (78.84%) (Table 2-7 column 4). Buildings around the location are mostly owned by residents and will be entirely displaced, subsequently, the occupants must also be relocated.

c. Building Type

The condition of the project affected building is divided into four categories, based on the condition of the building materials used. Out of the total 1,035 project affected building, there are 931 units (89.95%) of wood based building (Table. 2-8 column 7).

The building of semi-permanent and permanent (brick wall) are identified as many as 69 and 18 units, respectively.

Table 2-8. The types of Project affected building

Area	Sub area	Village		Building Type					Total
				one floor permanent building	two floor permanent building	semi permanent	wooden house	others	
(1)	(2)	(3)		(4)	(5)	(6)	(7)	(8)	(9)
Upper	Reservoir	Sukaresmi	Num.	6	1	18	333	5	363
			Size (m ²)	375	15	2,035	15,441	147	18,013
		Bojongsalam	Num.	1	-	12	81	2	96
			Size (m ²)	234	-	1,116	3,535	42	4,927
	Disposal	Sukaresmi	Num.	-	-	1	34	-	35
			Size (m ²)	-	-	1,200	1,396	-	2,596
		Bojongsalam	Num.	-	-	1	3	-	4
			Size (m ²)	-	-	150	88	-	238
	Sliding	Sukaresmi	Num.	1	-	11	63	1	76
			Size (m ²)	55	-	822	3,532	2	4,411
		Bojongsalam	Num.	-	-	4	24	-	28
			Size (m ²)	-	-	299	1,071	-	1,370
Sub Total			Num.	8	1	47	538	8	602
			Size (m²)	664	15	5,622	25,063	191	31,555
Lower	Reservoir	Sukaresmi	Num.	1	-	3	21	-	25
			Size (m ²)	200	-	330	1,014	-	1,544
		Bojongsalam	Num.	5	1	14	226	3	249
			Size (m ²)	873	72	725	9,331	162	11,163
		Margaluyu	Num.	1	-	2	43	1	47
			Size (m ²)	50	-	76	962	72	1,160
		Girimulya	Num.	-	-	1	4	-	5
			Size (m ²)	-	-	80	56	-	136
		Karangnunggal	Num.	-	-	-	35	3	38
			Size (m ²)	-	-	-	1,411	352	1,763
		Cicadas	Num.	-	-	-	11	1	12
			Size (m ²)	-	-	-	117	72	189
	Switch Yard	Sukaresmi	Num.	1	-	2	53	1	57
			Size (m ²)	5	-	175	3,057	3	3,240
Sub Total			Num.	8	1	22	393	9	433
			Size (m²)	1,128	72	1,386	15,948	661	19,195
Total			Num.	16	2	69	931	17	1,035
			Size (m²)	1,792	87	7,008	41,010	852	50,749

2.2. Project Affected People According to Their Assets

Based on the ownership of land, the PAPs can generally be divided into the following two major groups, who own land and do not own land. As mentioned in section 2.1.1. based on the plot ownership, there are 975 households of PAPs who actually owned and/or occupied the plot of land, and 21 PAP who neither owned nor occupied land, but they have assets such as house, stable, and other buildings affected by the proposed project.

PAPs who do not have the land are almost entirely residing or cultivating on land owned by someone else (such as PT Perhutani). This category of PAP will receive the compensation for building and plants assets only, but will not receive land assets compensation.

2.2.1. PAP according to their plot of land assets

There are 996 HHs of PAP which consist of the owners or occupiers land in the upper reservoir as many as 368 HHs of PAP, and 628 HHs of PAP in the lower reservoir (Table 2-9).

Table 2-9. The number and distribution of Project Affected People

Area	Sub area	Plot location	PAP	Land plots affected by project	
			(HH)	No. of Plot	Size (ha)
(1)	(2)	(3)	(4)	(5)	(6)
Upper	Reservoir	Sukaresmi	221	566	74
		Bojongsalam	55	130	15
	Disposal	Sukaresmi	21	69	7
		Bojongsalam	4	9	0
	Sliding	Sukaresmi	50	137	19
		Bojongsalam	17	46	6
Subtotal			368	957	121.52
Lower	Reservoir	Sukaresmi	18	37	2.26
		Bojongsalam	155	389	57.47
		Margaluyu	252	387	81.52
		Girimulya	13	32	4.82
		Karangnunggal	62	184	36.96
		Cicadas	90	218	52.65
	Switch Yard	Sukaresmi	38	59	10.21
Subtotal			628	1,306	245.89
Total			996	2,263	367.41

2.2.2. PAP according to land ownership

a. Total project affected people and plots of land

The Project affected people who have assets in the Lower Reservoir are 628 households (63% of total PAP). The land area in the lower reservoir is about two-thirds of the total area of land to be acquired by the project.

There are 816 houses in the project area, this number is lower than the total PAPs (996 HHs), because around 160 households of PAPs are living outside the project area, but still in the surrounding project area (Table 2-10). The domiciles of these PAPs are spread out in the following six villages: Sukaresmi, Bojongsalam, Cicadas, Margaluyu, Girimulya, and Karangnunggal (Table 3-5). These PAPs are also included in the census.

Table 2-10. Total project affected people and land ownership

Area	Sub area	Plots of land	Total PAP (HH)	Number of assets acquired Project	
				Land (hectare)	Residential ¹ (units)
(1)	(2)	(3)	(4)	(5)	(6)
Upper reservoir	Reservoir	589	276	68.98	388
	Disposal	69	25	10.86	37
	Sliding	178	67	27.02	89
	SubTotal	836	368	106.85	514
Lower reservoir	Reservoir	1,373	590	250.52	267
	Switch Yard	54	38	5.26	55
	SubTotal	1,427	628	255.78	322
Total		2,263	996	362.63	836

Note: ¹Residential units and the residential use as a place of business

From total plots of land (2,263 plots) will be affected by the project, 1,486 plots of land owned by 664 households of PAPs (Table 2-4). This indicates that there are some of PAPs who owned more than one plots of land.

b. PAP according to land occupied

As mentioned earlier, only 975 households of PAPs who owned and/or occupied of land assets. Based on the census of project affected people and assets, the average of land owned and/or occupied by PAPs is 2.27 plots of land. This is equivalent to 0.36 hectares of land per household head. The number of plot of land occupied by PAPs varied from 1 to 8 plots (Table 2-11).

Table 2.11. PAP Categories based on the amount of land owned and/or occupied

No.	PAP category (based on the amount of land occupied)	Number of PAP (HH)	Total (plots of land)
(1)	(2)	(3)	(4)
1	1 plot of land	406	408
2	2 plots of land	224	448
3	3 plots of land	156	468
4	4 plots of land	95	380
5	5 plots of land	47	235
6	6 plots of land	17	102
7	7 plots of land	18	126
8	8 plots of land	12	96
	Total	975	2,263 (362.63 ha)

c. Number of Land’s Occupiers

There are 566 plots of forested land (owned by PT Perhutani) were cultivated by the PAP, this plot of forested land represents 25% of the total number of land affected by the project. Similarly, there are 58 plots of land owned by village’s authorities, and 153 plots of land owned by other villagers. When the project is implemented, then they will lose their jobs as sharecroppers (Table 2-4).

2.2.3. PAP according to houses/buildings ownership

The total of project-affected house building is 816 units, which owned by 583 households of PAPs. Thus, according to the total unit, there are many households of PAPs who have more than one unit of house building (see Table 2-12). In fact, there are PAPs who have four buildings (column 9 Table 2-12). In the project area (upper and lower dam), Sukaresmi and Bojongsalam village are two sites that has the most number of house-building affected by the project, as well as the PAP’s.

Table 2-12. PAPs according to house/building ownership

Project area	Sub area	Vilage ¹	Number of house building	Total PAP	House building ownership (PAP)			
					1 building	2 buildings	3 buildings	4 buildings
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Upper Dam	Upper Reservoir	Sukaresmi	306	218	149	51	17	1
		Bojongsalam	69	55	43	10	2	-
	Disposal	Sukaresmi	33	22	12	9	1	-
		Bojongsalam	4	2	1	1	-	-
	Sliding	Sukaresmi	63	63	50	10	3	-
		Bojongsalam	26	18	12	4	2	-
Subtotal			501	378	267	85	25	1
Lower Dam	Lower Reservoir	Sukaresmi	22	18	15	2	1	-
		Bojongsalam	211	132	74	40	15	3
		Margaluyu	12	10	6	2	2	-
		Girimulya	2	1	-	1	-	-
		Karangnunggal	14	10	7	2	1	-
	Cicadas	2	1	-	1	-	-	
	Switch Yard	Sukaresmi	52	33	18	10	3	2
Subtotal			315	205	120	58	22	5
Total			816	583	387	143	47	6

2.3. Plant Assets

2.3.1. Number and Type of Crops

The plants inventoried as assets only for perennial plants, whereas for annual plants are not included as asset due to these annual plants have probably been harvested when the project implemented. To ease the assessment, the plants assets divided into two groups namely:

- (1) **Non timber plants:** it defined as various plants that are normally harvested as plant parts of flower, fruit, leave, sap and so on. For example, mango (*Mangifera indica*), clove (*Syzigium aromaticum*), rubber (*Hevea brasiliensis*), and palm sugar (*Arenga pinnata*).
- (2) **Timber plants:** it defined as various wood plants that are mainly harvested as wood, such as bamboo (*Gigantochloa* spp, *Bambusa* spp, hardwood tree (*Tectona grandis*), mahogany (*Swietenia mahagony*), and albizia (*Paraserianthes falcataria*).

The total number of project-affected plants in the upper and lower reservoirs were 592,941 trees consisting of 416,861 trees (70.3%) of non timber plant, and 29.7% (176,080 trees), of timber groups (Table 2-13).

Table 2-13. Number of Plants Affected by the Project based on the Location and Groupings

Project Area	Villages	Group of Plants		Number of trees
		Non timber plants	timber plants	
Upper Reservoir	Bojong Salam	52,674	1,928	54,602
	Sukaresmi	21,712	11,611	33,323
	Sub Total	74,386	13,539	87,925
Lower Reservoir	Bojong Salam	149,487	50,076	199,563
	Sukaresmi	23,317	6,458	29,775
	Cicadas	28,358	32,651	61,009
	Karang Nunggal	47,105	20,201	67,306
	Girimulya	5,772	1,228	7,000
	Margaluyu	88,436	51,927	140,363
	Sub Total	342,475	162,541	505,016
Total		416,861	176,080	592,941

Source: Primary Data 2010

Overall the project area in both the upper and lower reservoirs, non timber crop group larger than the group of timber plants. But when viewed as rural areas, there are several villages (Cicadas and Margaluyu) that the number of timber plants to have larger than the fruits and other trees.

Perennial crops usually cultivated in dry land such as home garden, gardens, and fields, in area of upper and lower reservoir is 175,69 ha. The number of plants each area associated with the number of PAP to obtain ratio of average perennial crops ownership per PAP, as presented in Table 2-14. Overall, the average ownership of crop is 5380 trees per HH that consists of 3933 fruits and other trees and 1446 timber trees.

Table 2-14. Average Perennial Trees Ownership by Location

Project Area	Villages	Average Perennial Plant ownership per HH		
		Group of Plants		Total number
		Non timber plants	timber plants	
Upper Reservoir	Bojong Salam	693	25	718
	Sukaresmi	73	39	112
	Sub Total	766	64	830
Lower Reservoir	Bojong Salam	946	317	1.263
	Sukaresmi	416	115	532
	Cicadas	305	351	656
	Karang Nunggal	725	311	1.035
	Girimulya	444	94	538
	Margaluyu	331	194	526
Sub Total	3167	1382	4550	
Total		3933	1446	5380

Source: Primary Data 2010

Dominant plant species from both non timber or a group of timber plants can be seen in Table 2-15. Banana plants, coffee and palm sugar and kapolaga found on many areas, both in the upper and lower reservoirs. Banana plants grow in the location with several types such as banana, jackfruits, plantain cere, muli banana are ordinary

banana harvested for its fruit, whereas the banana manggala (kelutuk) is harvested for its leaf. Banana plant is one of the cash crops for the communities.

Table 2-15. Dominant Types of Plants Affected by the Project based on the location and groupings

Project Area	Group of plants	
	Non timber plants	Timber plants
Upper Reservoir	Banana, Coffee, Pineapple, Palm sugar	Albizia, Bamboo, Sopsis, Kaliandra
Lower Reservoir	Banana, Coffee, Pineapple, Palm sugar, Kapolaga,	Albizia, bamboo, pine, teak, Kalindra

The number of non timber plants were affected by the project can be seen in Table 2-16.

Table 2-16. Type and number non timber plants on the Project Site

Plant Species	Size			Total Number
	Big	Medium	Small	
Coffee (<i>Coffea</i> sp)	72,315	45,056	73,348	190,719
Banana (<i>Musa paradisiacal</i>)	53,632	33,043	55,253	141,928
Cardamom (<i>Amomum</i> sp)	4,910	5,210	5,789	15,909
Palm sugar (<i>Arenga pinnata</i>)	5,127	2,890	5,604	13,621
Pineapple	5,817	3,095	4,162	13,074
Coconuts (<i>Cocos nucifera</i>)	2,163	969	3,392	6,524
Durian (<i>Durio zibethinus</i>)	1,521	958	3,555	6,034
Salak (<i>Salacca edulis</i>)	2,219	874	989	4,082
Citrus (<i>Citrus</i> sp)	3,249	298	193	3,740
Rambutan (<i>Nephelium lappaceum</i>)	664	759	1389	2.812
Petai (<i>Parkia speciosa</i>)	349	1451	476	2.276
Rubber (<i>Hevea brasiliensis</i>)	30	3	2091	2.124
Mango (<i>Mangifera indica</i>)	541	528	838	1.907
Jackfruit (<i>Artocarpus heterophylla</i>)	818	314	580	1.712
Kapok (<i>Ceiba petandra</i>)	475	107	951	1.533
Soursop (<i>Annona muricata</i>)	664	274	538	1.476
Bangkok guava (<i>Psidium guajava</i>)	489	80	234	803
Chinese Petai (<i>Leucaena leucocephala</i>)	188	182	352	722
Limus (<i>Mangifera foetida</i>)	191	138	359	688
Picung (<i>Pangium edule</i>)	324	61	272	657
Melinjo (<i>Gnetum gnemon</i>)	401	75	102	578
Pisitan (<i>Lansium domesticum</i>)	171	165	232	568
Kokosan	10	32	516	558
Jengkol (<i>Pithecelobium jeringa</i>)	228	112	120	460
Pecan	200	70	100	370
Jambu Air (<i>Syzigium aquae</i>)	183	58	73	314
Avocado (<i>Persea americana</i>)	90	95	110	295
Kacapi (<i>Sandoricum koetjape</i>)	39	30	167	236
Castor	18	120	0	138
Kupa (<i>Syzigium polycephalum</i>)	45	43	30	118
Kweni mango	19	9	79	107
Asem (<i>Tamarindus indica</i>)	15	62	7	84
Papaya (<i>Carica papaya</i>)	35	22	23	80
Duku (<i>Lansium domesticum</i>)	23	13	42	78
Cloves (<i>Syzigium aromaticum</i>)	11	64	0	75
Tea (<i>Camellia sinensis</i>)	0	71	1	72
Cacao (<i>Theobroma cacao</i>)	46	18	7	71
Salam (<i>Syzigium polyanthum</i>)	27	16	9	52
Huni	1	35	6	42

Plant Species	Size			Total Number
	Big	Medium	Small	
Jambe (<i>Areca cathecu</i>)	20	13	9	42
Cotton (<i>Gossipium sp</i>)	14	0	15	29
Breadnut (<i>Hibiscus sp</i>)	13	2	9	24
Carambola	15	4	0	19
Jambu Bol (<i>Syzygium malascense</i>)	6	0	9	15
Kedondong (<i>Spandias pinnata</i>)	8	1	6	15
Jeruk Bali (<i>Citrus grandis</i>)	7	0	3	10
Sukun (<i>Artocarpus sp</i>)	7	1	2	10
Jeruk nipis (<i>Citrus aurantifolia</i>)	5	0	2	7
Lada/Pedas	6	1	0	7
Sawo (<i>Achras zapota</i>)	7	0	0	7
Ceremai (<i>Phyllantus javanicus</i>)	1	0	5	6
Jeruk garut	0	5	0	5
Tangkalak	5	0	0	5
Manggis (<i>Garcinia mangostana</i>)	1	1	2	4
Campoleh (<i>Madhuca cuneata</i>)	0	1	2	3
Comrang	3	0	0	3
Jambu Monyet	3	0	0	3
Nona (<i>Ammonia sp</i>)	0	0	3	3
Delima (<i>Punica sp</i>)	2	0	0	2
Mengkudu (<i>Morinda citrifolia</i>)	0	2	0	2
Peundeuy	0	2	0	2
Lengkeng (<i>Nephelium longanum</i>)	1	0	0	1
Total	157,372	97,433	162,056	416,861

Source: Census data 2010

Coffee, bananas, kapolaga, palm sugar and pineapple provide income to farmers. While other types of non timber plants provides additional revenue, the harvest is only to satisfy their own needs and for neighbors. These types of plants such as mango, cashew rocks, pisitan, breadfruit, kweni, etc. are not economically meaningful because at the moment the production of non timber and other are limited.

Groups of dominant timber plants are bamboo and albizia, kaliandra and mahogany. Bamboo plants consist of several types including bamboo rope, aur bamboo, bamboo Gombong, etc. Bamboo species that have economic value are bamboo and bamboo rope Gombong. Timber plants are a significant source of revenue for the community, especially for local communities in the lower reservoir. Type of timber plants that grow all over the project area are Mindi, Sobsis, Teak, etc. For more details, amount and type of timber crops affected project can be seen in Table 2-17.

Table 2-17. Type and number of timber plants in the Project Location

Plant Species	Size			Total Number
	Big	Medium	Small	
Albizia (<i>Paraserianthes falcataria</i>)	11,649	20,188	28,439	60,276
Bambu (<i>Bambusa</i> sp)	21,391	14,084	22,628	58,103
Kaliandra (<i>Calliandra haematocephala</i>)	2,688	5,928	17,995	26,611
Mahoni (<i>Switenia mahagony</i>)	1,461	6,145	2,354	9,960
Mindi (<i>Melia azederach</i>)	159	1351	2,676	4,186
Sobsis (<i>Maesopsis eminii</i>)	399	1434	1,990	3,823
Jati (<i>Tectona grandis</i>)	567	1,367	1,406	3,340
Mini	646	1,143	606	2,395
Pinus (<i>Pinus mercurii</i>)	10	2,050	55	2,115
Mara (<i>Macaranga tanarius</i>)	8	50	1,000	1,058
Seuseureuhan	613	140	10	763
Tisuk (<i>Hibiscus macrophyllus</i>)	9	386	141	536
Ki Hiang (<i>Albizia procera</i>)	66	35	399	500
Kasongket	0	0	433	433
Hanjuang (<i>Cordyline</i> sp)	168	152	80	400
Suren (<i>Toona sureni</i>)	14	65	301	378
Kopo	149	24	56	229
Ki Bayur	26	49	85	160
Ki hujan (<i>Samanea saman</i>)	6	0	142	148
Ki Bungur	35	18	51	104
Malanding	15	26	55	96
Kisureuh	0	0	78	78
Bangbara	0	2	66	68
Waru (<i>Hibiscus tiliaceus</i>)	18	22	24	64
Teureup	5	6	20	31
Bintinu	0	0	30	30
Bisoro	6	17	4	27
Honje	0	0	20	20
Juar	6	2	10	18
Lame	0	1	17	18
Puru	8	3	4	15
Talingkup	1	7	5	13
Bungbulang	1	2	9	12
Misoro	1	4	4	9
Kitare	0	2	6	8
Kinyere	0	0	7	7
Beringin	4	0	2	6
Cangcaratan	6	0	0	6
Ki Pahit	0	0	6	6
Bini	5	0	0	5
Ki Rai	3	1	0	4
Berenuk	0	0	3	3
Kamerang	3	0	0	3
Kanyere	3	0	0	3
Kayu loak	2	0	1	3
Kondang	3	0	0	3
Simpeureum	0	0	3	3
Bena	1	0	0	1
Keledog	0	0	1	1
Mora	0	1	0	1
Total	40,155	54,705	81,222	176,080

Source: Primary Data 2010

Based on the types of perennial plants that are affected by the project, then determine the compensation of the plants based on the following considerations:

1. Compensation value of fruit plants is different from timber plants, because fruit plants are generally maintained more intensive and require higher costs. The fruit plants, for example petai can be harvested each year, coconut can be harvested each month, sugar palm can be tapped repeatedly, in one period of each tap can produce in 2 to 3 weeks. Timber plants are not intensively maintained, often poorly maintained, so that a small maintenance fee does not even exist, and the production can produce only once. For example, bamboo plants are usually not maintained, if there is only a cleaning seedling/bamboo shoots. Similarly Albizia plants usually only costs for the purchase of seeds, planting, and then usually spontaneously grown.
2. The value of compensation should be distinguished between the types of plants viewed from the economic value of these crops. The compensation of petai should be higher than the compensation value of guava, because petai has more economic value than guava. Value of compensation of Albizia should be more than tisuk although these plants are relatively the same diameter of trunk.

2.3.2. Plant Condition

Regarding such variations plants growing on the site, whether viewed from the type of growth, growth rate and life cycle, the condition of the plant divided into 3 groups, namely large, medium and small. This is in accordance with the grouping of plant condition from West Bandung district government. However, to give the same picture of the plants, then grouping is limited to matters as follows:

1. Non timber plants
 - Little: the non timber plant that have not been harvested, from planting until the end of the vegetative growth.
 - Medium: the non timber plants that bear fruit only once to 3 times are harvested in a year.
 - Large: the non timber plant that have been harvested for more than 3 times in a year.
2. Timber plants
 - Small: timber that has diameter less than 20 cm (diameter at a height of 1 m)
 - Medium: timber with diameter 21 to 30 cm (diameter at a height of 1 m)
 - Large: timber with diameter of more than 30 cm (diameter at a height of 1 m).

2.3.2.1. Non timber Plant Group

The number of non timber plants group according to its condition can be seen in Table 2-18. Overall, from 416,861 plants of non timber there are 37.8% or 157,372 large plants trees, 23.4% or 97,433 medium trees and 38.6% or 162,056 plants of small trees. The number of small plants more abundant than the large plants, this happens almost in every village, except in the village of Salam and Sukaresmi Bojong.

Table 2-18. Number of non timber plants Affected by project based on location

No.	Villages	Size			Number of trees
		Big	Medium	Small	
Upper Reservoir	Bojong Salam	28,344	11,894	12,436	52,674
	Sukaresmi	10,901	5,558	5,253	21,712
	Sub Total	39,245	17,452	17,689	74,386
Lower Reservoir	Bojong Salam	45,303	36,958	67,226	149,487
	Sukaresmi	10,830	3,684	8,803	23,317
	Cicadas	8,645	9,910	9,803	28,358
	Karang Nunggal	24,181	10,898	12,026	47,105
	Girimulya	1,057	1,500	3,215	5,772
	Margaluyu	28,111	17,031	43,294	88,436
	Sub Total	118,127	79,981	144,367	342,475
Total	157,372	97,433	162,056	416,861	

Source: Primary Data 2010

2.3.2.2. Timber plants group

Timber trees are considered as one of the sources of income for communities in the project site. This is because the price of wood is considerably high throughout the year and is easy to sell. The number of timber trees and their location can be seen in Table 2-19.

Table 2-19. Number of timber plants Affected by project based on location

Project Area	Villages	Size			Number of trees
		Large	Medium	Small	
Upper Reservoir	Bojong Salam	590	175	1,163	1,928
	Sukaresmi	1,435	7,298	2,878	11,611
	Sub Total	2,025	7,473	4,041	13,539
Lower Reservoir	Bojong Salam	9,936	13,298	26,842	50,076
	Sukaresmi	1,970	1,455	3,033	6,458
	Cicadas	7,599	4,271	20,781	32,651
	Karang Nunggal	10,668	4,538	4,995	20,201
	Girimulya	130	100	998	1,228
	Margaluyu	7,827	23,568	20,532	51,927
	Sub Total	38,130	47,230	77,181	162,541
Total	40,155	54,703	81,222	176,080	

Source: Primary Data 2010

In the project affected area, the total of timber trees are 81,222 trees or 41.6% of the total timber trees recorded during census. For compensation considerations, timber trees in medium and large size will refer to the price of timber per m³, the timber prices and timber species. Meanwhile for the reference of compensation for timber trees with small size will refer to volume in m³ and firewood prices. To see how much the overall amount of fruit and timber plants under conditions at each location can be seen in Table 2-20.

Table 2-20. Number of Groups of Non Timber Plant and Timber Plant Affected Project based on Location

Project	Villages	Non timber plant + Timber Plant			Number of trees
		Big	Medium	Small	
Upper Reservoir	Bojong Salam	28,934	12,069	13,599	54,602
	Sukaresmi	12,336	12,856	8,131	33,323
	Sub Total	41,270	24,925	21,730	87,925
Lower Reservoir	Bojong Salam	55,239	50,256	94,068	199,563
	Sukaresmi	12,800	5,139	11,836	29,775
	Cicadas	16,244	14,181	30,584	61,009
	Karang Nunggal	34,849	15,436	17,021	67,306
	Girimulya	1,187	1,600	4,213	7,000
	Margaluyu	35,938	40,599	63,826	140,363
	Sub Total	156,257	127,211	221,548	505,016
Total		197,527	152,136	243,278	592,941

Source: Primary Data 2010

3

Socioeconomic Condition

3.1. Location of Upper and Lower Reservoir

Areas affected by Upper Reservoir development are located in the village of Bojong Salam and Sukaresmi, Sub-District Rongga, West Bandung District, and the Lower Reservoir development are located in the Village Cicadas, Sub- District Rongga, West Bandung District, and Karangnunggal Villages and Girimulya villages, Cibeber sub-District, and Margaluyu Villages, Sub- District Campaka, Cianjur District.

3.2. Population (head of household who are affected by the project)

Number and Composition of Population Based on Age

Number of head of household that is found in the upper and lower reservoir has been recorded as 996 HHs which distributing in the upper area of 368 HHs, and Lower 628 HHs. The age composition of head of households in the upper and lower reservoirs can be seen in Table 3-1. The table shows that this proportion of head of households is mostly between 35 to 54 years old. This range of age is considered as productive age, which could be qualified for project jobs (qualification as required by contractors) for supporting their economic families. Therefore, with the proposed project, effort to be made to avoid the loss of these jobs, by generating jobs associated with the project. As for the head of households with age more than 70 years old (86 HHs), generally, they are not economically active people who need to be given special attention.

Table 3-1. Age of households head based on age

Age	Upper			Lower		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
≤ 24	9	-	4	17	-	30	3.01
25 - 29	31	-	5	43	8	87	8.73
30 - 34	32	1	10	53	6	102	10.24
35 - 39	28	3	9	78	1	119	11.95
40 - 44	26	3	7	71	7	114	11.45
45 - 49	31	1	7	68	3	110	11.04
50 - 54	31	2	8	56	3	100	10.04
55 - 59	19	7	2	55	2	85	8.53
60 - 64	22	3	5	53	5	88	8.84
65 - 69	17	1	2	53	2	75	7.53
≥ 70	30	4	8	43	1	86	8.63
Total	276	25	67	590	38	996	100.00

Source: Census Data 2010

Based on the data undertaken in the project locations in 2010, the number of HHs in the upper reservoir and lower reservoir areas are 996 HHs. The structure of PAPs based on age for each location can be seen in Table 3-2. According to this demographic figure, the majority of PAPs considered as productive (age 15-69 years old) is about 2,292 people of the total PAPs, where 924 people are less than 15 years old. The number of PAPs with more than 70 years of age is about 105 people.

Table 3-2. Age Composition of PAP

Age	Upper Reservoir			Lower Reservoir			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	47	45	92	72	65	137	119	110	229
5 - 9	79	75	154	89	76	165	168	151	319
10 - 14	91	74	165	118	93	211	209	167	376
15 - 19	53	53	106	97	76	173	150	129	279
20 - 24	56	55	111	67	82	149	123	137	260
25 - 29	52	58	110	69	87	156	121	145	266
30 - 34	52	50	102	73	83	156	125	133	258
35 - 39	41	46	87	84	99	183	125	145	270
40 - 44	36	34	70	78	73	151	114	107	221
45 - 49	36	45	81	70	52	122	106	97	203
50 - 54	39	24	63	56	68	124	95	92	187
55 - 59	25	21	46	51	38	89	76	59	135
60 - 64	25	14	39	56	31	87	81	45	126
65 - 69	17	10	27	52	8	60	69	18	87
70 - 74	17	9	26	17	12	29	34	21	55
75 - 79	6	5	11	8	5	13	14	10	24
80 +	7	6	13	7	6	13	14	12	26
Jumlah	679	624	1303	1064	954	2018	1743	1578	3321

Source: Census Data 2010

3.3. Marital Status

Most of head of household affected by project (PAP) recorded as married status (90.76%), and only small number as widower or widow. The family head widow status certainly require special attention, especially for old widow (more than 70 years) due to vulnerable people.

Resettlement policy should consider the status of widows who have poor socio-economic condition and very much depending economically on others, these people should be given greater attention. The number of widows with role as head of household is considered to be moderately high (see Table 3-3).

Tabel 3-3. Marital status of the censuses head of household of the PAPs [N=996]

Marital status	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Not Married	-	-	-	1	-	1	0.10
Married	239	21	65	545	34	904	90.76
Widower	10	1	-	13	1	25	2.51
Widow	27	3	2	31	3	66	6.63
Total	276	25	67	590	38	996	100.00

Source: Census Data 2010

3.4. Residency Duration

The residency duration of people in certain area has been considered important to be identified. This information can be used as consideration in resettlement plan. Sociologically, the longer people live in one location psychologically, the more difficult to move to another area.

Information on the residency duration of the head of project affected people (PAP) can be seen in Table 3-4. Table 3-4 shows that majority of the PAP (93.07%) in the Upper-Lower Reservoir areas have been living for more than 24 years. Only small numbers of people are living in the project affected area between 6 to 11 years. The data indicates that the emotional bond among members of community is strong.

Table 3-4. Head of households based on residency duration [N=996]

Residency Duration	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
1 - 5	3	-	1	16	1	21	2.11
6 - 11	4	-	2	13	-	19	1.91
12 - 17	6	-	3	4	-	13	1.31
18 - 23	6	1	-	8	1	16	1.61
24 years +	257	24	61	549	36	927	93.07
Total	276	25	67	590	38	996	100.00

Source: Census Data 2010

In the Upper reservoir area, the households with the duration of stay more than 24 years are living in Sukaresmi and Bojongsalam villages, while in the lower reservoir area, most people with more than 24 years of stay is living in Margaluyu and Bojongsalam villages.

Table 3-5. Head of households based on residency duration by village [N=996]

Project area		Village	1-5	6-11	12-17	18 - 23	24 years +	Total	
			HHs	HHs	HHs	HHs	HHs	HHs	
Upper Reservoir	Reservoir	Sukaresmi	2	4	5	4	206	221	
		Bojong Salam	1	-	1	2	51	55	
	Disposal	Sukaresmi	-	-	-	1	20	21	
		Bojong Salam	-	-	-	-	4	4	
	Sliding	Sukaresmi	1	1	2	-	46	50	
		Bojong Salam	-	1	1	-	15	17	
	Sub Total	Sukaresmi	3	5	7	5	272	292	
		Bojong Salam	1	1	2	2	70	76	
	Lower Reservoir	Reservoir	Sukaresmi	-	-	-	-	18	18
			Bojong Salam	7	7	2	3	136	155
Margaluyu			4	-	-	2	246	252	
Girimulya			-	-	-	-	13	13	
Karang Nunggal			2	2	1	2	55	62	
Cicadas			3	4	1	1	81	90	
Switch Yard		Sukaresmi	1	-	-	1	36	38	
Sub Total		Sukaresmi	1	-	-	1	54	56	
		Bojong Salam	7	7	2	3	136	155	
		Margaluyu	4	-	-	2	246	252	
		Girimulya	-	-	-	-	13	13	
		Karang Nunggal	2	2	1	2	55	62	
		Cicadas	3	4	1	1	81	90	
Total			21	19	13	16	927	996	

Source: Census Data 2010

3.5. Nuclear Family and Joining Family

In the Upper and Lower Reservoir area, it was found that 1,025 heads of household, consisting of 996 nuclear families and 29 joining in other families. Table 3-6 shows the majority of joining families has resided in the Lower Reservoir area.

Psychologically, those families who are joining/living together with other/host family provide them with certain comfort, because they can share happiness and difficulties among family members. Families who join with other household, are varies, mostly dominated by one join family. There is a small portion of the number of families found to have more than four join families. Most of joining families still have family connections with the nuclear family as relatives.

If the nuclear family (family who hosted another family) must be relocated, this impact will also be felt by families who are living with the nuclear families, because they have no other place to go. These joining families would probably lose their access to their work (cultivated land/business).

Table 3-6. Number of nuclear and joining families [N=1,025]

Family Status	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Household (Nuclear Family)	276	25	67	590	38	996	97.17
Joining Family	5			24		29	2.83
Total	281	25	67	614	38	1,025	100.00

Source: Census Data 2010

3.6. Education

Participation of society in education has influenced in the advancement of a society, higher average education of a society so the society will be more advanced because the education is a basic prerequisite that has effect on various dimensions of life. In the upper-lower reservoir location planned, average of participation of the heads of household in education has been recorded low; even some of the people have never obtained formal education (never attending school). The detail of the education level of heads of household in the project can be seen in Table 3-7.

Table 3-7. Education of head of households [N=996]

Education	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch Yard		
No School	18	3	2	22	3	48	4.8
Not Completed Elementary School	87	5	25	148	10	275	27.1
Completed Elementary School	154	15	40	393	25	627	62.9
Not Completed Junior High School	6	1	0	5	0	12	1.2
Not Completed Senior High School	8	1	0	11	0	20	2.0
Completed Senior High School	0	0	0	7	0	7	0.7
Diploma 1 - 3	2	0	0	2	0	4	0.4
The First Degree/S1	1	0	0	2	0	3	0.3
Total	276	25	67	590	38	996	100.0

Source :Census data 2010

Education level of heads of the household has been considered to be important to identified, in relation to the project socialization process and various efforts to improve the life of PAP. The education level of heads of household recorded that most HHs (902 HHs) has attended the primary school. While 48 HHs who have never attended school, can be categorized as illiterate. Moreover, the illiterate people will get difficulty if they must read letters or documents in relation to the implementation process of the compensation between PAP and the PLN. Therefore, when the

compensation process implemented, for the illiterate people must be accompanied by an inspector (Table 3-7).

3.7. Occupation

The census data undertaken in 2010 indicates that out of 996 identified families, 971 heads of family have a job and 25 heads of family do not have a job. Table 3-8 shows the number of head of family, mostly are working in the agricultural sector 844 HHs, followed by trade sector 63 HHs. This phenomenon is similar to the condition found in the access road case that most PAPs are depending on the agricultural activities.

Tabel 3-8. Households that have job based on job sector [N=971]

Jobs sector	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Agriculture	241	24	62	490	27	844	86.92
Industry	2	-	-	3	-	5	0.51
Building/Construction	4	1	-	13	4	22	2.27
Trade	12	-	3	46	2	63	6.49
Transportation	6	-	2	8	-	16	1.65
Government Official	3	-	-	11	-	14	1.44
Services	-	-	-	7	-	7	0.72
Total	268	25	67	578	33	971	100.00

Source: Census Data 2010

Based on the field identification, there were several dominant types of work performed by the head of family in the project site (Table 3-9). Head of family engaged as farmer of owning land recorded 578 HHs; they reside mostly (347 HHs) in the lower reservoir. While, the number of head family who work as sharecropper is 176 HHs.

Table 3-9. Various jobs held by head of household (N=971)

Various jobs	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Motor bicycle for Passenger service	6	-	2	8	-	16	1.65
Labour	5	1	1	19	6	32	3.30
Trade	15	-	3	53	2	73	7.52
Civil servant	3	-	-	2	-	5	0.51
Household servant	-	-	-	1	-	1	0.10
Official village	-	-	-	7	-	7	0.72
Teacher	-	-	-	3	-	3	0.31
Farmer own land	159	19	36	347	17	578	59.53
Sharecropper	63	3	19	84	7	176	18.13
Labour Farmer	17	2	6	32	1	58	5.97
Farmer own land and tenure	-	-	-	22	-	22	2.27
Total	268	25	67	578	33	971	100.00

Source: Census Data 2010

3.8. Income

One of the indicators to measure economic condition of community is income level. For village condition, a measurement is usually used is Sayogyo parameter that is measured by equivalent to price of rice. Based on Sayogyo parameter poverty may be defined as if the income per capita less than worth the price of hulled rice 480 kg hulled rice/capita/year. Therefore, based on this parameter, with assumption that price of hulled rice at the time of conducting survey is Rp 4,000/kg, so the poverty line has been considered as Rp 160,000/capita/month.

Table 3-10 shows that most of the project affected people (PAPs), that is 672 HHs, has income higher than Rp 160,000/capita/month and the rest (324 HHs) has income equal to or less than Rp 160,000/capita/month. Based on Table 3-10, it can be inferred that 67% out of the 996 HHs in the Upper Lower Reservoir area has been categorized as above the poverty line. Capacity building will be prioritized for the PAP's below the poverty line.

Table 3-10. Proportion of PAPs based on poverty line [N=996]

Income	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Income<= Rp160.000/cap/month	99	8	26	185	6	324	32.53
Income> Rp160.000/cap/month	177	17	41	405	32	672	67.47
Total	276	25	67	590	38	996	100.00

Source : Census data 2010

3.9. Vulnerable People

The criteria for vulnerability are usually based on criteria developed by World Bank and ADB. Based on this criteria and considering the local government concerns, this project use the following criteria for vulnerable people classification: (1) demography aspect (elderly citizen more than 70 years old), (2) Female household head, (3) economy aspect (poor); and (4) Disabled people.

Based on demography concept, the productive age is between 15-64 years old. However, in the case for Indonesia there are many people who are still doing economic activities, in several cases up to 70 years old. But in general, for most people who are than 70 years old, their economic activities have been greatly reduced.

The economic condition is closely associated with the status of employment. The people who do not work or jobless are difficult to fulfill their living, and economically they are usually depending on other people.

One of the indicators to measure economic condition income level for rural people is poverty line defined by "Sayogyo parameter". According to the Sayogyo parameter, someone is said to be below poverty line if he/she has income per capita/year equal to less than 480 kg of rice. Judging from the current (2009) price of rice of around

Rp4.000/kg, any person earning less than Rp160,000/capita/month is considered below the poverty line.

According to the World Bank Policies, widow as head of family is considered also as a vulnerable criterion because she has limited access to job market and/or economic activities. In many resettlement cases, widows as head of family are often neglected. People with physical disability are also regarded to have limited access to job market and/or economic opportunities.

Based on the above criteria (demography, poverty level, widow household head, and disability), the total identified vulnerable affected families are 7 HHs (Table 3-11). These families are eligible to get special economic assistance due to their vulnerability. According to their residency, these vulnerable people, 5 HHs are in Sukaresmi village (upper reservoir), While in the lower reservoir is 1 HH in Bojongsalam and 1 HH in Cicadas village.

Table 3-11. The vulnerable people [N=7]

Vulnerable Criteria	Project location		Total
	Upper Reservoir	Lower reservoir	
Elderly (≥ 70 year and jobless), widow, poor, and disable	5	2	7

Source :Census data 2010.

3.10. Social Institution

Social institutions have been identified in the village are mainly community institutions that are related with village government, such as LKMD, BPD, PKK and Karang Taruna. These local institutions are carrying out their activities according to their function. For example, the LKMD has function as the implementation of the government programmes, such as poverty alleviation programs, distribution of the government rice subsidy (raskin), and application of economic empowerment programs (PNPM, PKK). In addition, for accommodating female activities, it has been accommodated to establish the family welfare education (PKK), and activities have been proposed to enhance or empower female community through various social and economic activities.

The institution of youth activities (Karang Taruna) has been established to accommodate and give appreciation and providing positive activities of adolescents or young generation in the village. Various activities have been undertaken, such as sports, arts, and other activities as considered as assisting implementation of the village government activities. For example, they participate in joining the village security guard by participating in village patrol (siskamling) and participation in various

village government activities and/or religion activities and collecting electricity bill payment.

The upper and lower reservoir area covers the sub-district of Rongga, district of Bandung Barat, sub-district Haurwangi and Cibeber district of Cianjur. In the district of Cianjur, there are some non-government organization such as WALHI Cianjur and Serikat Petani Cianjur, which are concerned about the Upper Cisokan Project. These non-government organizations are monitoring closely the project activity.

3.11. Aspirations and Perceptions of Family Head to be relocated

3.11.1. Aspirations and Perceptions of Family Head

The information on aspiration and perception are obtained from interviews with head of household, with the reason that the head of household play an important role in the decision making on family matters. Information about the upper and lower reservoir planning at the project site, have spread out within society. Planning of development that have been initiated through several surveys have caused the population to familiar with the plan, although knowledge of project residents are limited to a few aspects.

The FGD conducted women perception collection regarding the Upper Cisokan Pumped Storage Project through Rural Women Association (PKK, Pengajian, Arisan) are resulted as follows:

1. Most women acknowledged the existence of project plan.
2. They have no objection with The Upper Cisokan Pumped Storage HEPP project plan.
3. Most women expects their access to clean water source, access to weekly market and to mosque (location of pengajian) should not be disturbed.
4. Women's groups concerned that school children are immersed in school, so they still can go to school.
5. There was concern from the women group about the impact on sharecropper of forestry land.
6. There was concern to set up 'Puskesmas' to handle health impacts at the time of impounding.

As mentioned earlier that the number of head of family affected by the project, are 996 households (not included the joint families). Out of these 996 households, there are 583 households who must be relocated. In determining the number of PAPs to be relocated, the status of house ownership was not considered, but only refers to the PAPs in the project area who their houses affected by the project. Out of the 583 households, 295 households are recorded in the upper reservoir, and 288 households in the lower reservoir. Their socio-economic conditions can be seen in Table 3-12.

Table 3-12 shows that most of the PAPs who have to be resettled are in productive age, with educational background mostly only up to primary school level, and the majority

of livelihoods in the agricultural sector. Average numbers of inhabitants in most of the PAPs are less than four people. This information should be considered for finding a better new life after project completed.

Table 3-12. Socio-economic condition of HHs who should be re-settled [N=583]

Variable	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Age							
15 - 64	189	16	38	215	31	489	83.88
65 +	40	5	7	40	2	94	16.12
Total	229	21	45	255	33	583	100.00
Average family size							
<= 4	170	16	33	231	26	476	81.65
5 - 6	51	5	10	22	4	92	15.78
>=7	8	-	2	2	3	15	2.57
Total	229	21	45	255	33	583	100.00
Education							
No School	15	2	1	17	1	36	6.17
Not Completed Elementary School	71	4	15	86	9	185	31.73
Completed Elementary School	130	13	29	146	23	341	58.49
Not Completed Junior High School	5	1	-	-	-	6	1.03
Completed Junior High School	5	1	-	4	-	10	1.72
Completed Senior High School	-	-	-	2	-	2	0.34
Diploma 1 - 3	3	-	-	-	-	3	0.51
Total	229	21	45	255	33	583	100.00

Source: Census Data 2010

Knowledge of residents on the project plan affect the perception of residents related to the impact caused by the project, whether it's negative impacts/ losses as well as positive impacts/ benefits of the project. Table 3-13 shows that the majority of PAPs (256 HHs) mentioned that the risk of the project namely loss of job, and 72 HHs believed that they have to move from his/her homeland.

Table 3-13. Perceptions of head of household on project negative impact [N=996]

Risks	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch Yard		
Loss of Job	95	9	25	120	7	256	25,70
Loss of livelihood	16	1	3	28	4	52	5,22
Must move from homeland	34	2	9	24	3	72	7,23
At the new location is not convenient fear	9	1	2	24	1	37	3,71
Fear of compensation out of tune	12	1	3	12	7	35	3,51
Access restricted	0	0	0	32	0	32	3,21
Difficult to find land to relocate	6	1	2	1	2	12	1,20
No Risk	104	10	23	349	14	500	50,20
Total	276	25	67	590	38	996	100,00

Source : Census Data 2010

However, they also mentioned about the benefit which will be provide by the project for the community (Table 3-14). The perception of 259 HH shows that development projects will create employment opportunities/new business. Only small number of households (3.5%) who mentioned that the construction of project will not generate benefit to them.

This information is important because if the project does not provide benefit to residents would be a problem in the future because the head of the family who said there was no benefit may be an impediment to the sustainability of the project development. For example, it will affect the people associated with the implementation/process of compensation.

Table 3-14. Perception of head of household concerning project benefits [N=996]

Perception	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Employment Opportunities/ New Business	64	5	21	150	19	259	26
Expect compensation	41	3	6	108	-	158	15,9
Electricity resources	45	2	11	112	9	179	17,9
Development of their area	76	7	14	124	6	227	22,8
High price land	3	-	-	40	-	43	4,3
No Benefit	12	2	7	13	1	35	3,5
Not Imagine	35	6	8	43	3	95	9,6
Total	276	25	67	590	38	996	100

Source : Census Data 2010

3.11.2. Perception of the Heads of Household on the Moving Process

Out of 996 households, there are 583 households who have to be relocated because their houses are located in the project area.

Based on survey regarding the perception of the heads of affected household on the people moving process, recorded from 583 HHs of the affected project of Upper Lower reservoir, 471 HHs mentioned they do not agree to move by government's program, 98 HHs choose to move following the government's program and 14 HHs not respond (Table 3-15).

Table 3-15. Perception of HH on the Moving Process [N=583]

The government's attitude toward Move	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
To move following the government program.	50	6	8	28	6	98	16,8
Not agree to move by government's program	171	15	36	223	26	471	80,8
Not Respon	8	-	1	4	1	14	2,4
Total	229	21	45	255	33	583	100

Source : Census Data 2010

Some reasons of the respondent why they do not agree to follow the government resettlement plan because they want to move by themselves (255 HHs), and they are worried that the new location does not comply with their desire (119 HHs; Table 3-16).

Table 3-16. The reason does not agree to be relocated by the government [N=471]

Reason	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Move their own	87	5	16	135	12	255	54,1
Gathered with family	27	8	9	28	6	78	16,6
Worry with not suitable new land expectation	46	2	8	56	7	119	25,3
Prefer to be compensated by cash	10	-	2	1	-	13	2,8
They do not have their own plan	1	-	1	1	-	3	1,2
Total	171	15	36	223	26	471	100

Source : Census Data 2010

It has been predicted that low interest of most affected people to move regulated by the government/PLN because they do not know yet the new resettlement location and compensation that will be received by them. In addition, the socialization on the resettlement programme is still rarely undertaken by the project.

Of the 98 families who agreed to move by the government, they pointed out various reasons, including 32.6% of the opinion provided the moved government agrees place in accordance with the wishes of the people, 20.4% provided that the opinion is still depends on the discussion with family (Table 3-17).

Table 3-17. Reasons of (HH) Agree to move managed by the Government [N=98]

Reasons	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
No hassle	6	2	1	-	-	9	9,1
Original village	5	1	-	1	-	7	7,1
Up to government	3	1	-	-	2	6	6,1
Decent place to move	5	-	2	5	-	12	12,2
Gathered with neighbors	12	1	1	4	2	20	20,4
Accordance with the wishes of the people	13	-	4	14	1	32	32,6
Balanced compensation	6	1	-	4	1	12	12,2
Total	50	6	8	28	6	98	100

Source: Census Data 2010

From 98 head of household who prefer to be relocated by government, both from the Upper and Lower, want their new settlement still within the same village, some of them are willing to be relocated to Village Sukaresmi Sub District Rongga (43,9%; Table 3-18).

Tabel 3-18. Relocation Housing Options [N=98]

Location	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Around Margaluyu village, Sub district of Rongga	2	1	-	6	3	12	12,2
Around Bojongsalam village, Sub district of Rongga	6	-	1	11	-	18	18,4
Around Sukaresmi village, Sub district of Rongga	33	3	5	-	2	43	43,9
Agree to move but not choose location	9	2	2	11	1	25	25,5
Total	50	6	8	28	6	98	100

Source: Census Data 2010

The perception on price of building, the majority households express the desire that the project to implement the agreement between the government and community consultation. The second desire is the Government follows the price decided by community (Table 3-19).

Information on the benchmark pricing of the buildings should be based on the PAPs who will be relocated, because they have an interest, in relation to their assets affected by the project. While, for the PAPs who do not have to be relocated do not have the interest on the price of the building. Information on the benchmark pricing other than the PAPs was also collected from residents other than the PAPs through FGD.

Table 3-19. Perception of head of household on building price [N=633]

Price Standard	Upper Reservoir			Lower Reservoir		Total
	Reservoir	Disposal	Sliding	Reservoir	Switch yard	
NJOP price	4	1	3	-	-	8
Local Market Price	21	2	1	35	3	62
Government follows the price decided by community	68	7	21	37	19	152
Agreement of the government and community consultation	150	12	28	206	14	410
District Head Decree	-	-	-	1	-	1
Total	243	22	53	279	36	633

Source: Census Data 2010

Concerning the land compensation rates, there are 109 households wanted the benchmark prices using the standard market price agreed between the government and community consultation (619 HHs) and 231 HHs wanted the Government follows the price decided by community (Table 3-20).

Table 3-20. Perception of Household on Land Price Standard [N=980]

Price Standard	Upper Reservoir			Lower Reservoir		Total
	Reservoir	Disposal	Sliding	Reservoir	Switch yard	
NJOP price	1	1	2	17	0	21
Local Market Price	35	2	14	58	0	109
Government follows the price decided by community	95	11	26	80	19	231
Agreement of the government and community	140	11	25	429	14	619
Total	271	25	67	584	33	980

Source: Census Data 2010

The information on the way of compensation is based on the opinion from 996 HHs who will be affected by the proposed project. Most PAPs want their compensation in the form of cash and paid directly to them, while the rest of PAPs want their money compensation paid through the bank (Table 3-21).

Table 3-21. The way the compensation should be carried out [N=996]

The way	Upper Reservoir			Lower Reservoir		Total
	Reservoir	Disposal	Sliding	Reservoir	Switch yard	
Directly paid without middle man	220	18	58	240	22	558
Directly paid through the bank	56	7	8	350	16	437
No respond	-	-	1	-	-	-
Total	276	25	67	590	38	996

Source: Census Data 2010

3.11.3. Aspiration of Head of joining family

As mentioned previously, there are 29 HHs the joining family. They comprise of 5 households in the Upper reservoir, and 24 households in the lower reservoir. The 28 HHs claimed to know the project plan and 1 HH is not aware of the project (table 3-22).

Table 3-22. Awareness of the PAPs on the proposed project development plan [N=29]

Awareness	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Aware of the project	5	-	-	23	-	28	96.55
Not aware of the project plan		-	-	1	-	1	3.45
Total	5	-	-	24	-	29	100.0

Source: Census Data 2010

The Information sources come from Community leaders (replied by 17 HHs), 3 households obtained information comes from village officials, and 5 households from family. Most of these families are working outside of the village, where they get more information. (See table 3-23).

Table 3 -23. Source of information for joining families project development plan [N=29]

Source of information	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Community leaders	1	-	-	16	-	17	58.6
Worker project	3	-	-	-	-	3	10.3
Village officer	-	-	-	3	-	3	10.3
Family	1	-	-	4	-	5	17.2
No information	-	-	-	1	-	1	0.6
Total	5	-	-	24	-	29	100.00

Source: Census Data 2010

Some of joining family has the negative perception of the project. They thought that the proposed project result in negative impact due to loss of their current jobs and/or that the project make them to be displaced (Table 3-24).

Table 3-24. Perception of head of joining household on negative impact of the project [N=29]

Perception	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding	Reservoir	Switch yard		
Forced to move out	1	-	-	-	-	1	3.4
Job loss	1	-	-	3	-	4	13.8
Live style changed and loss of jobs	1	-	-	1	-	2	6.9
Access disturbed	-	-	-	3	-	3	10.3
Others	-	-	-	1	-	1	3.4
No Risk/ No negative impact	2	-	-	16	-	18	62.1
Total	5	-	-	24	-	29	100

Source: Census Data 2010

But, apart from the negative perception, most joining family have the perception that the project will improve their life, through increased availability of employment, improvement of rural infrastructure, increasing electricity supply and the formation of a recreational area. Some PAPs also acknowledged the positive impact of the project. Around 29 households thought that the project will open up new jobs. Nevertheless, almost all agreed to the project because their villages will become more developed (Table 3-25).

Table 3-25. Perception the head of joining household on project positive impact

Perception	Upper Reservoir			Lower Reservoir		Total	%
	Reservoir	Disposal	Sliding Area	Reservoir	Switch yard		
Progress of the village	1	-	-	4	-	5	17,2
New jobs	3	-	-	12	-	15	51,7
Available electricity	-	-	-	3	-	3	10,3
No benefit	1	-	-	1	-	2	6,8
New road, price of land increased, available electricity	-	-	-	3	-	3	10,2
No response	-	-	-	1	-	1	3,4
Total	5	-	-	24	-	29	100

Source: Census Data 2010

4

Eligibility and Entitlement

4.1 Legal Basis

The Legislation that underlies the implementation of the land acquisition and resettlement plan of the Upper Cisokan Pumped Storage project, among others are;

- Act No. 5/1960 concerning Basic Agrarian affairs.
- Act No. 26/2007 concerning Spatial Arrangement
- Act No. 15/1997 concerning Basic Transmigration affairs
- Act No. 19/2003 concerning State Enterprises
- Act No. 32/2004 concerning Local Government
- President RI Regulation No 36/2005 concerning Land Acquisition for Public development Implementation and No 65/2006 concerning the amendment of President RI Regulation No 36/2005.
- President RI Regulation No 4/2010 concerning Assignment of PT Perusahaan Listrik Negara (Persero) to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.
- Ministry of Energy and Mineral Resources Regulation No. 2/2010 concerning List of Projects to Accelerate the Development of Power Plant Using Renewable Energy, Coal, and Gas.
- Head of National Land Agency No 3/2007 concerning Implementation Regulation President RI Regulation No 36/2005 and No 65/2006 concerning the amendment of President RI Regulation No 36/2005.
- West Java Province Regulation No. 2/2003 concerning Spatial Planning of West Java area.
- West Java Province Regulation No. 2/2006 concerning Management of Reserved Area.
- West Bandung District Regulation No 1/1994 concerning Spatial Planning of Bandung District
- Cianjur District Regulation No 1/1994 concerning Spatial Planning of Cianjur District.
- The World Bank Operation Manual, Operation Policies 4.12.
- Upper Cisokan Pumped Storage HEPP Loan Agreement Signed by the Government of Indonesia and the World Bank. Differences between Indonesia regulations and WB policy summarizes in Appendix 9. The Loan Agreement includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP.

4.2. The Rights to Land and Physical Asset

In Indonesia, rights over land is regulated by Act No. 5/1960. Land title, also called land certificate issued by the National Land Agency ('Badan Pertanahan Nasional'/BPN), includes:

- 'hak milik' or rights of ownership which indicate full ownership rights over land;
- 'hak guna bangunan' or rights to build title on the state-owned land for building¹ ;
- 'hak pakai' or rights to use title the land for any purpose;² and
- 'hak guna usaha' – rights to cultivate the state-owned land for agricultural purposes.³

In proposed projects, the following persons and communities will be considered "holders of land rights", i.e., persons or communities with rights to the land affected by a project:

- PAPs holding land rights titles or certificates issued by the local office of the National Land Agency or 'Badan Pertanahan Nasional' (BPN), including full ownership titles ('hak milik'), right to build titles ('hak guna bangunan'), right to use titles ('hak pakai'), or right to cultivate titles ('hak guna usaha').
- PAPs holding documents issued by local officialsⁱ that demonstrate ownership (normally a property tax receipt -SPPTⁱⁱ, accompanied by other documents such as the contract of sale of the land in question and receipts of payment of public services, such as water and electricity);
- communities with traditional land rights ('hak ulayat');
- PAPs (individuals) with traditional rights ('hak adat'); and the Nazhir or recipient of donated 'wakaf' land

In Indonesia, there are many lands that have been dominated by the public without proof of the letter comes with ownership. In addition, people generally assume that SPPT can also be regarded as proof of ownership.

Based on the recognition of PAPs related to land ownership, mostly owned plots of land in the upper reservoir, 440 plots of land with the SPPT proof of ownership, 6 Plots of land with the proof of ownership in the form of 'kikitir', 1 letter C, 1 Receipts, 21

¹ A right to use title is typically granted to Indonesian citizens or legal entities for a maximum period of 30 years, and has to be renewed every 20 years. It can be converted into full a full ownership title ('Hak Milik').

² A right to use title ('Hak Pakai' – HP) is normally granted for a period of 25 years and can be renewed every 20 years.

³ The Land Cultivation Title ('Hak Guna Usaha' – HGU) is granted to Indonesian citizens or legal entities for periods of 25 to 35 years, and can be renewed every 25 years if the land is deemed to be managed and utilized properly.

⁵ National Land Agency ('Badan Pertanahan Nasional – BPN) of West Java District and Cianjur District.

⁶ Property tax receipt (Surat Pemberitahuan Pajak Terutang – SPPT) is a letter used by the Directorate General of Taxation to inform the land and building tax is payable to the taxpayer.

village reference, and certificate 15 plots and without any evidence is as many as 473 plots.

Description of land ownership in the lower reservoir consists of 952 plots of land with tax letter (SPPT) proof of ownership, 10 Plots of land with the proof of ownership in the form of 'kikitir', 2 Receipts, 19 village references, and 10 plots certificate and without any documents 313 plots.

All lands affected by the project will be compensated according to available regulations (President RI Regulation No 36/2005 concerning Land Acquisition for Public development Implementation, No 65/2006 concerning the amendment of President RI Regulation No 36/2005), and Regulation of Head of National Land Agency No 3/2007 concerning Implementation Regulation President RI Regulation No 36/2005 and No 65/2006 concerning the amendment of President RI Regulation No 36/2005.

For buildings, the available regulations for compensation are Government Regulation No.40/1988 about 'Hak Guna Usaha', 'Hak Guna Bangunan', 'and 'Hak Pakai' and Act No. 4, 1992 about Housing and Settlements. These regulations and Act do not provide an authorization to compensate affected persons for physical asset constructed illegally in the state-owned land. OP 4.12, however, explicitly states that those without legal title to affected land may be compensated for their asset and may qualify for other resettlement and rehabilitation assistance (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 85). Squatters and encroachers may have a personal investment in asset or agricultural crops. Under OP 4.12, they are entitled to compensation at replacement cost (or an equivalent amount of rehabilitation assistance) for these lost assets (OP 4.12 World Bank Involuntary Resettlement Sourcebook Chapter 5 page 86). The entirety of OP4.12 as it applies to this project is reflected in this LARAP. The Loan Agreement between the Republic of Indonesia and the World Bank includes this LARAP as a project implementation arrangement and provides the basis for implementation of this LARAP, including those provisions deriving from OP4.12 rather than solely from Government Regulation. The Loan Agreement will be signed prior to implementation of this LARAP

4.3. General Compensation Policy

In accordance with the President RI Regulation No 36/2005 and No. 65/2006, one of the task for Land Acquisition Committee to determine form and value of compensation (ganti rugi)⁴ which proposed by Independent Appraisal Consultant in consultation with the land owners and the project within less than 120 days since the first invitation letter of negotiation is issued. In general, land acquisition activities and compensation will be conducted through several stages of activity as outlined in Figure 4.1. Based on regulation of The Head of BPN No. 3 /2007, the second announcement of valuation result is not required because the decision will be directly discussed (musyawarah) with the PAPs for compensation price agreement.

⁴ See Presidential Regulation 36/2005, Presidential Regulation 65/2006, and Head of BPN Regulation 3/2007

The results of the assets valuation and compensation received from the independent appraiser will be used as standard value by the LAC to negotiate with the PAPs and PLN. The results of the negotiations with PAPs on the compensation should be mutually agreed upon before the Land Acquisition Committee finalized the form and value of the project-affected assets.

In terms of compensation options desired by the PAP, the owner of affected buildings or land can choose to receive cash compensation, relocation / resettlement or other options. Other options include ready to build lots, land exchanges with same size and productivity, simple houses, developers built housing with credit facilities or other schemes. PAP who chooses land for land compensation (if available) will get a piece of land with the same value as their previous land asset within the resettlement area. planned by the project. The compensation principle applies that the livelihood of PAP should be improved or at least to be restored as the level before the project.

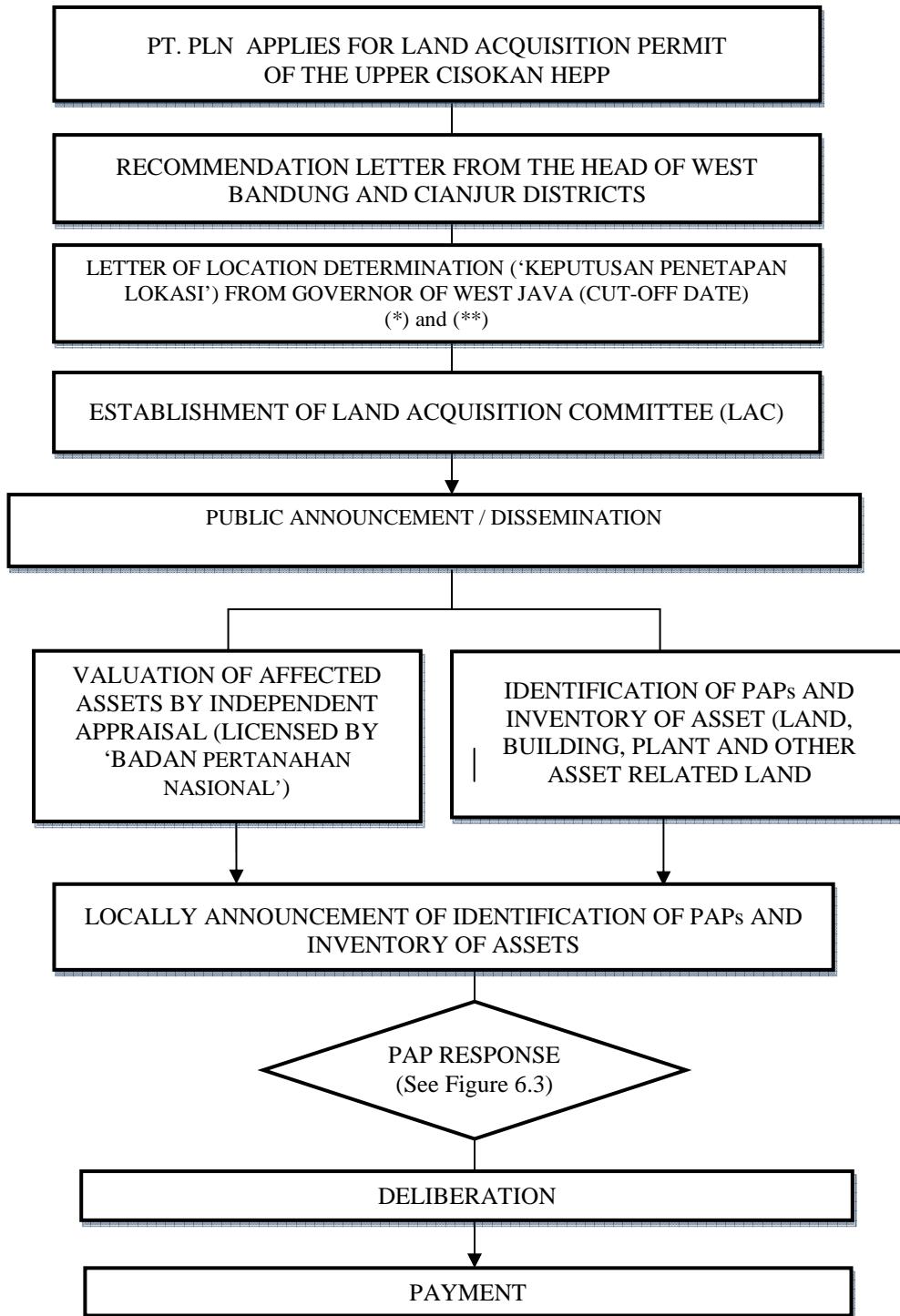
For public and social facilities, including privately owned, like the mosque, boarding schools, schools, water collecting and other utilities affected by the project, the form of compensations will be adjusted with policy related institutions, and also discussed with the community.

PLN and Local Government (Provincial and Districts) conduct socialization to disseminate project information both directly in the project area, and indirectly channeled through electronic and print mass media, within 14 days after the project location determination from West Java Governor is endorsed. The Project Land Acquisition Committee with PLN conduct a public consultation meeting with PAPs in the project area regarding the project risks and benefits, including, project entitlement and compensation, before conducting land and asset inventory and verification.

Final lists of affected land and asset inventory of the PAP from the LAC will be disclosed locally in village office.

The Upper Cisokan Pumped Storage project required to provide land for the forest land replacement and resettlement sites. Selection for forest land replacement follows the Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement. According to Pre-FS study, resettlement sites were chosen based on geological, infrastructures, agro-ecosystem condition and socio-economic aspect (see LARAP's Appendix 1). Both forest land replacement and resettlement sites will go through screening referring the criteria as mentioned in LARAP's Appendix 10. If based on regulations and screening reveals that the people living in forest land replacement and resettlement sites are categorized as involuntary resettled people according to World Bank's OP 4.12, then policies in this LARAP will be applied to them. But if those people are not categorized as resettled people according to World Bank's OP 4.12, then policies in this LARAP will not valid for them, instead the compensation will be based on agreement between the project and the land owner.

Figure 4-1. Land acquisition procedure for public purpose project



Source: Regulation of the Head of Badan Pertanahan Nasional No 3/2007

*) Pinjam Pakai Kawasan Hutan (PPKH) based on PerMenhut no 43/2008

***)Tukar Menukar Kawasan Hutan (TMKH) based on PerMenhut no 32/2010

The general principles regarding land acquisition and resettlement plan that will be applied in this project are as follows:

- 1) Land Acquisition causing displacement will be avoided/minimized,
- 2) Land Acquisition will be done based on President RI Regulation No 36/2005, No 65/2006, and Regulation of the Head of 'Badan Pertanahan Nasional' No 3/2007,
- 3) Payment of compensation, relocation and resettlement will be done prior to commencement of the construction.
- 4) Project will provide options of compensation such as cash compensation, land to land compensation (if available), housing compensation, etc. to PAPs.
- 5) Members of 'Tim Perumus Kebijakan Permukiman Kembali'⁵ (the Resettlement Policy Formulating Team), the PAPs and their representatives, including women and other vulnerable groups among those affected, will be involved in the resettlement planning and implementation.
- 6) No one will be deprived off their land and other movable assets required for the project unless they are compensated for their losses.
- 7) No construction works will be initiated on such affected land before PAP having received their compensation for loss of land and other properties and Resettlement & Rehabilitation entitlements.
- 8) Consultation will involve stakeholders and PAPs will be provided opportunity to participate in planning and implementation of LARAP
- 9) The project will assist in providing opportunity to improve or at least to restore the livelihood the affected people to the level before the project.
- 10) The PAPs will be provided with resettlement assistance such as moving cost, transition cost given once for the affected HH and rehabilitation assistance such as income restoration.
- 11) Assistance (bantuan, tali asih, kadeudeuh) and compensation (ganti rugi) will be given sufficiently for affected people to replace assets or land acquired by the project with land or assets of equivalent value.
- 12) The monitoring will focus more to measure livelihood results, particularly for those most severely affected or most vulnerable

Paragraph 3 of OP 4.12 describes the coverage of the policy: "direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by the involuntary taking of land resulting in: (i) relocation or loss of shelter;(ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location.

⁵ Keputusan Bersama Bupati Bandung Barat Dan PT PLN (Persero) Pembangkitan Hidro Jawa Nomor: 800/Kep.337-1304 Pemb/2009 Nomor: 001.K/PHJ/2009 Tentang Tim Terpadu Perumus Kebijakan Pembangunan Infrastruktur Dan Lingkungan Terkait Pembangunan PLTA Upper Cisokan Pumped Storage Di Wilayah Kabupaten Bandung Barat

4.4. Considerations of Compensation

The amount of compensation (ganti rugi) and assistance (kompensasi/bantuan/tali asih/kadeudeuh) needed to replace an asset at current value including overhead expenses of the transaction, tax and registration charges, but excluding depreciation, as follows:

- (a) Agricultural land based on its productive potential;
- (b) Residential land based on actual market value;
- (c) Houses and other structures based on current market prices of building materials and labor, plus transaction costs (such as administrative charges, registration and titling costs), without deductions for salvaged building materials;
- (d) Trees, crops and plants on current market value; and;
- (e) Other productive assets like shops and commercial assets based on value of similar location with equivalent commercial market attributes.

This compensation and assistance in this report are also known as replacement cost.

According to the OP 4.12, "Replacement cost" is the method of valuation of assets that helps to determine the amount sufficient to replace lost assets and cover transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account (for a detailed definition of replacement cost, see Annex A, footnote 1) For losses that cannot easily be valued or compensated for in monetary terms (e.g., access to public services, customers, and suppliers; or to fishing, grazing, or forest areas), attempts are made to establish access to equivalent and culturally acceptable resources and earning opportunities. Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard. Such additional assistance is distinct from resettlement assistance to be provided under other clauses of para. 6. If the residual of the asset being taken is not economically viable, compensation and other resettlement assistance are provided as if the entire asset had been taken. The alternative assets are provided with adequate tenure arrangements. The cost of alternative residential housing, housing sites, business premises, and agricultural sites to be provided can be set off against all or part of the compensation payable for the corresponding asset lost. Such support could take the form of short-term jobs, subsistence support, salary maintenance or similar arrangements

The compensation associated with this project is based on the following considerations:

- i. **Land:** the land value of compensation will be determined by LAC which the initial value is proposed by Independent Appraisal Consultant in consultation with the land owners and the project. As a reference for the process of consultation/negotiation, initial reference values will be set. The initial reference values are considered for use in the process of consultation with the community include market prices, the value of the last transaction that occurred in the regions concerned, and the value of the Independent Appraisal Assessment Team.

Based on World Bank policy (OP 4.12) all management fees and taxes associated with land compensation will be paid by the project⁶.

- ii. **House and other buildings/structures:** 1) assessment of the compensation cost of buildings and other assets will refer to a decree or local government regulation and also consider the value of issued by the Independent Appraisal Team, 2) Another approach in assessing the compensation price is the price of building materials to build a replacement building (or to repair the affected part of the building), plus the cost of transporting building materials to the site and the cost of labor or services contractors, plus the costs of registration, and fees to reverse the name and tax. Based on World Bank policy in the case of replacement cost asset affected, depreciation of the assets and benefit caused by the project should not be included in the calculation.

Under normal GOI procedures for calculating compensation, the older structures are depreciated and the value after depreciation is therefore lower than for new structures. However, while this is equitable for market transactions when sellers can use the money as they wish, for involuntary acquisition the value after depreciation may be too low to replace lost structures. Most PAPs are expected to purchase or build new structures since the number of PAPs is very large, exceeding the existing supply of the structures for sale.

A decree related to compensation value of buildings and other assets will be issued by the Government of West Bandung District and Cianjur District. Based on World Bank policy (OP 4.12) all management fees and taxes on buildings associated with the compensation will be paid by the project⁷.

- iii. **Plants:** compensation based on the standard tree pricing in accordance with the local government regulation. In case the lost production have not been harvested, plant owners will be given one-time harvest compensation.

In addition to the above consideration, according to the World Bank Policies (OP 4.12), the remaining project affected lands and buildings are eligible to be acquired by the project if :

- i. The remaining land is less than 72 m² (based on Minister of Public Work Decree 403/KPTS/M/2002 concerning Technical Guidelines Development Simple Healthy House); or
- ii. The remaining building is less than 7.2 m²/person (Minister of Public Work Decree No.403/KPTS/M2002 concerning Technical Guidelines Development of Simple Healthy House); or

⁶ For houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labor and contractors' fees, plus the cost of any registration and transfer taxes.(OP 4.12 - Annex A p. 3 Footnote 1)

⁷ See OP 4.12 - Annex A p. 3 Footnote 1

- iii. Remaining agricultural land area affected is less than 70% of the previous area (economically can be considered to be disadvantageous); or
- iv. For the house built on stilts ('rumah panggung'), the project will compensate the whole house.

The project will relocate and reconstruct the affected infrastructures such as mosque, school, village office, water supply, road, bridge, sewerage/drainage system, cemetery, etc., in consultation with the community. Specifically for the grave, the project will also provide relocation cost given to the PAPs.

The project will also compensate the forestland affected by the project in accordance to the Government Regulation No. 10/2010 concerning 'Tata Cara Perubahan Peruntukan dan Fungsi Kawasan Hutan'. Based on this regulation, among others, the project will allocate non-forestland to substitute two times of the affected forestland ('clause 12 sub clause 2') and will conduct a reforestation of the proposed substitute land ('clause 17 sub clause 1 item a'). The Screening procedure to select the forest replacement area will follow the mechanism as mentioned in appendix 10.

4.5. Category of the Project Affected People (PAP) and other entities to receive compensation

PAP and other entities eligible to receive compensation when meet the criteria of the cut-off date. The cut-off date is defined as the date of the West Java Province Governor issues a Decree of Location Determination for the Upper Cisokan Pumped Storage Project HEPP. The asset inventory announcement on affected people who have title holders within the project location will be conducted by LAC and for the PAPs who have no title will be conducted by the joint team PLN and local government. Cut-off date will be done in one date both for titled and non-titled PAPs. Argument for this cut-off date arrangement is first of all will reduce potential social conflict considering that if the cut-off date announcement will be done in two separate dates, it will likely result in rumors on compensation issues, distrust from local people to the proposed project, the possibility that PAPs titled holders will complaint why do the non-titled holders get compensation while the titled holders did not, and other negative impacts. All of these potential conflict will pose a serious challenge to the proposed project is not carefully handled by deciding that the cut-off date is the date. The Land Acquisition Committee will have to verify ownership status of Project Affected Peoples (PAPs) during implementation and announce its inventory result and redress its grievances. The normal practice of LAC to assess the ownership status of the asset for those PAP who does have legal land ownership, the head village will issue letter to prove its ownership status (using the land transaction, *leter-C*, or using village book which register the land in that village). In case that the land has not been registered in the village book, the neighborhood need to prove that the land ownership. The physical asset and crops will be physically checked by the LAC.

Inventory conducted by LAC will produce a list of titled holder PAPs who will receive compensation (ganti rugi). The inventory conducted by Joint team (PLN and local government committee) will produce a list of non-titled holder PAPs who will receive assistance (bantuan, tali asih, kadeudeuh). For the non-titled holders PAPs, Independent Appraisal Consultant will assess the assistance eligibility for them, and then the Joint Team of Local Government and PLN will deliver assistance in the form of cash and/or technical assistances. In anticipating the number of illegal non-titled holder PAPs who want to be assisted, before the announcement of list of inventory result, the PLN (through Independent Appraisal Consultant) will reconfirm the number of eligible non-titled holder PAPs. For legality purpose, the local government, in this case represented by the Bappeda [district-level planning board], will issue a Surat Keputusan [legal letter] as a legal basis for the PLN and the local government to carry on the identification of the PAPs with no legal asset ownership [non-titled PAPs]. In most cases, the local government will be represented by government officers from sub-district level. There is also possibility that the persons acting as LAC member to handle the titled holder PAPs will be the same persons working with the PLN to handle the non-titled holder PAPs. The LAC membership and its working mechanism are arranged in accordance with government regulation.

The PLN's efforts to prevent either new encroachment or early evictions before LAC announce the cut-off date can be done in the PLN and Perhutani's lands. The mechanism for which PLN and Perhutani carry on monitoring program to identify new encroachers in the PLN and Perhutani's lands will be done by signing a memorandum between PLN and Perhutani. The date for memorandum signing will be decided by an agreement made by PLN and Perhutani. The memorandum will cover tasks such as identification of the PAPs who are already there before cut-off date, and those who are arriving after the cut-off date announcement. Before signing the MoU, the PLN will carry on re-census to make sure the number and names of PAPs who are already in the PLN and Perhutani's lands. The PAPs on this re-census list will be assisted according to the World Bank's assistance policies. The World Bank assistance policies will be implemented after the memorandum has been signed. Those PAPs who come in after the MoU signing will not be assisted, even though they can still utilize the PLN and Perhutani lands.

For the PLN and Perhutani's lands, a monitoring system will be established to identify the new occupiers [up-dating the PAPs data base on state lands]. These new occupiers [after MoU signing] will then together with PLN and Perhutani make an agreement that they can not demand any assistance should the land be used by the project. While for the private lands, the PLN will re-identify the number of non-titled holders prior to the cut-off date announcement. These non-titled holders will be eligible for assistance in the form of technical assistances.

Based on the study, category of the PAPs that will receive compensation and assistance is presented in Table 4.1.

Table 4-1. Category of PAP and Entitlement Matrix⁸

Asset Loss	Category of PAP*	Compensation Type	Description
1. Land	1. Those who have land with letters of ownership.	Obtaining cash and Non Cash	<ul style="list-style-type: none"> • Cash: <ul style="list-style-type: none"> a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes • Non cash (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	2. Those who have land without letters of ownership.	Obtaining cash and Non Cash	<ul style="list-style-type: none"> • Cash: <ul style="list-style-type: none"> a. cash for Land compensation to be determined by LAC which is proposed by Independent Appraisal Consultant in consultation with the land owners and the project b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes • Non cash (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or a. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	3. Sharecroppers, squatters and encroachers who Cultivate Land/ Reside on PLN's/ Perhutani's land	Obtain Non Cash Only	Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given once for the affected HH
	4. Tenant	Obtain Non Cash Only	<ul style="list-style-type: none"> • Cash: Assistance in transition cost given once for the affected HH and • Non cash (Assistance refers to item 4.6): Capacity building in a form of Assistance in enhancing skill given once for the affected HH
2. Buildings / Houses	5. House Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> • Cash: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For HHs who want to be resettled by themselves, receive cash compensation (<u>ganti rugi</u>) • For HHs who want to be resettled by project,

⁸ Resettlement Options refers to Table 7-1

Asset Loss	Category of PAP*	Compensation Type	Description
			<p>receive the building/house (non cash)</p> <p>b. Assistance in transition cost given once for the affected HH</p> <p>c. Assistance in administration cost and taxes</p> <p>d. Assistance in moving allowance</p> <ul style="list-style-type: none"> • Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	6. Small Shop/ Workshop Owners	Obtaining Cash and Non Cash	<ul style="list-style-type: none"> • Cash will be given to building owners who have small shops/workshops separated from their houses: <ul style="list-style-type: none"> a. Compensation of building based on Local Government regulation and based on World Bank policies (OP 4.12). <ul style="list-style-type: none"> • For building owners who want to be resettled by themselves, receive cash compensation (ganti rugi) • For HHs who want to be resettled by project, receive small shops/workshops with the same value of their previous small shops/workshops (non cash) b. Assistance in transition cost given once for the affected HH c. Assistance in administration cost and taxes d. Assistance in moving allowance • Non Cash: (Assistance refers to item 4.6): <ul style="list-style-type: none"> a. Capacity building in a form of Assistance in enhancing skill given once for the affected HH and/or b. Assistance in enhancing capital in a form of Starting Micro Business Package given once for the HHs who should be resettled who can choose one of the packages refer to item 4.6
	7. Tenant	Obtaining cash and Non Cash	<ul style="list-style-type: none"> • Cash : Assistance in moving allowance and • Non Cash : Capacity building in a form of Assistance in enhancing skill given once for the affected HH
3. Plants	8. Plant owners,	Obtaining cash for plants compensation	<ul style="list-style-type: none"> • Cash : <ul style="list-style-type: none"> a. Cash compensation for Perennial plants based on Local Government standard, and b. in case the lost productions have not been harvested, plant owners will be given one-time harvest compensation
4. Public Facilities/ infrastructure (School, mosque, water source, road, bridge, sewage water system etc)		Protection, relocation, rehabilitation	<ul style="list-style-type: none"> a. Public facilities affected by the project impact will be repaired or relocated with consultation to resettled communities. b. Detailed Management of affected public can be seen in EMP report
5. Forest land	9. Perhutani	Land to land substitution and re-vegetation cost	<ul style="list-style-type: none"> • Land substitution will be conducted two times area of land affected by the project. • Revegetation cost for the new forest land will be born

Asset Loss	Category of PAP*	Compensation Type	Description
			from the project.
Refer to above description (item 1,2 and 3)	Vulnerable PAP	• Refer to above description (item 1,2 and 3)	- Cash and non cash: category of asset lost item 1, 2 and 3 - Additional Assistance by the project: a. assistance in acquiring certificate service b. assistance in moving service to new settlement site c. other assistance resources will be determined by the RIT during the implementation.
	Severely Affected People	• Refer to above description (item 1,2 and 3)	- Cash and non cash: category of asset lost item 1, 2 and 3 - Additional Assistance by the project: a. assistance in acquiring certificate service

Note:

* See The World Bank Policies (OP 4.12).

Elaboration of the description shown in this table can be seen in Sub-Chapter 4.6 Assistance

4.6. Assistance

4.6.1. Assistance in Training of Technical and Financial Administration Skill

PAP who lost their jobs/source of income will receive assistance to the same living conditions as before affected by the project and even increased. Types or forms of assistance such as development of motivation, skills training and specific job types, the guidance to start and develop micro business, micro business credit, marketing development, assistance during the transition period given once for the affected HH, and strengthening of community organizations and other services.

This technical and/or financial assistance should be monitored and evaluated by the IMA⁹ to make sure that the increasing economic condition of the PAPs can be realized.

In addition to either cash compensation for lost assets and relocation sites, PAPs will also be eligible for additional rehabilitation assistance, tailored to their preferences, from one of the six assistances in enhancing skill options described below:

1. Agriculture intensification, or
2. Diversified land-based activities, or
3. Business/ Marketing Incubation, or
4. Training of production and processing techniques, or
5. Facilitating micro business development, or
6. Training of animal husbandry technique

⁹ Independent Monitoring Agency

4.6.2. Assistance in Cooperation with the Local Government

Apart from those technical and financial assistances provided by PLN, these PAP's will also be integrated and prioritized into Government Programs on increasing small scale economic programs (UKM/small enterprises programs). This program will maintain and increase the PAP's economic condition in long run. The relocated PAPs will be provided with resettlement assistance such as moving allowance, transition cost given once for the affected HH (for 2 months) and rehabilitation such as assistance for income restoration.

4.6.3. Resettlement Assistance

For PAPs who should be resettled, they are eligible to acquire assistance in enhancing capital. The PAPs will be given one of these following Starting Micro Business Packages:

- a. Livestock Package
Raising Livestock Package consisting of Lambs and Poultryes, or
- b. Farming Associated Business Package
Food processing package from farming products such as banana, cassava, taro chips, and yams including their seedlings, or
- c. Small Shop Package
Shops of daily needs selling sugar, rice, egg, palm oil, meat (beef and chicken), milk, corn, kerosene, salt, etc.

If it is applicable the resettlement assistance for vulnerable will follow the other PAP, such as capacity building and starting micro business packages, and also other assistances will be given such as assistance in acquiring certificate service, assistance in moving service to new settlement site

Other resources will be determined by the RIT during the implementation, so this proposed additional assistance will be sufficient to restore their livelihoods.

4.7. Affected Asset

Based on the category of the PAPs and entitlement matrix presented in Table 4-1, the study identified number of PAP in relation to their asset loss. As indicated in Table 4-2, for instance, 55 households who own lands with letters of ownership are potential to be affected by the project, whilst those who have land without letters of ownership is 920 households.

With this tabulation approach, there will be some PAPs who were included into several categories, for example, house owner may also have a land with letters of ownership but also encroach on Perhutani's land. One HH can be counted more than once because he can be counted for several categories according to legal status of land

ownership, land tenure, legal status of building ownership, residence status, plant ownership. So, the numbers of HH on Table 4-2 cannot be summed.

With regard to the buildings, the LARAP study identified a number of households which will be indirectly affected by the project; they are families who lived in others houses affected by the project. Potential impact that might affect these families is the lost of access to the house they usually reside. Number of this PAP category is 583 households.

Table 4-2. Number of PAPs by Category

Affected Asset	Category of PAPs	Number of PAPs ³⁾ (HHs)	Number of asset
Land	Those who occupy land with letters of ownership ⁴⁾ .	55	82 plots
	Those who occupy land without letters of ownership.	920	2,181 plots
	Sharecroppers, squatters and encroachers who Cultivate Land/ Reside on PLN's/ Perhutani's land	418	776 plots
Buildings/houses	House Owners ⁵⁾ .	583	816 unit
	Joining family	29	-
	Small Shop/ Workshop Owners/Small Industry	33	33 units
Plants	Plant owners,	880	592,941 trees
Public Facilities/ infrastructure :	Community/related government		
Mosques (Mesjid & Mushola)		-	35 unit
School		-	6 unit
Village Office		-	-
Bridge ¹⁾)		-	8 unit
Grave		-	686 unit
Open Field		-	2 unit
Water Sources/Spring		-	-
Forestland ²⁾)	Perhutani	-	566 plots

¹⁾ including some temporary/small bridges

²⁾ number of forest land plots needs to be further identified

³⁾ based on field data census

⁴⁾ explained in Table 2-5 page 2-5.

⁵⁾ explained in Tabel 2-10 page 2-10.

Table 4-2 describes the number of PAPs who potentially affected by the proposed project. In reality, there are many households who are potentially lost several assets in the same time, e.g. they might lose their house, home garden, agricultural land, and or other buildings.

Categorizing asset lost into combination of house, home garden, agricultural land, and other buildings, the census carried out to identify the potential asset loss indicates that there are 14 categories of PAPs according to their affected assets. As indicated in Table

4-3, for instance, there are 184 households who might lose their house, home garden, agricultural land, and other buildings. Most of the affected households are those whose agricultural lands or whose access to land are potentially affected by the project.

Table 4-3. Number of household by affected assets in Upper – Lower Reservoir Area (N = 996)

No	Affected Assets	Upper Reservoir			Lower Reservoir	
		Reservoir	Disposal	Sliding	Reservoir	Switchyard
1	House, Homegarden, agric land, other buildings	64	7	16	92	5
2	House, Homegarden, other buildings	29	0	6	24	6
3	House, Homegarden, agric land	69	11	21	85	4
4	House, Homegarden	42	0	3	38	12
5	House, agric land, other buildings	7	1	0	7	1
6	House, agric land	5	1	0	12	1
7	House, other building	0	0	0	1	1
8	House	4	0	0	5	3
9	Homegarden, agric land, other building	4	0	1	3	1
10	Homegarden, other buildings	1	0	1	0	0
11	Homegarden, agric land	2	0	2	5	2
12	Homegarden	0	0	0	3	0
13	Agric. land, other buildings	11	1	7	20	0
14	Agric. land	38	4	10	295	2
	Total	276	25	67	590	38

To avoid negative impacts on the affected households (PAPs), in line with the Indonesian Government and the World Bank policies, the project will compensate the affected households with compensation that at least enable them to own similar assets in other places. Applying this principle, the compensation value will be consulted or negotiated with the affected households by the LAC.

For the severity category, in the reservoir area, based on OP 4.12 categorization all of the PAPs are severely affected. The LARAP approach is emphasizing more on the tenure status and access to productive assets. The OP 4.12 category of severely affected has not taken into consideration (for those who may have lost more than 10% of their productive assets and 20% or more of their land) with the assumption that lost assets will be replaced appropriately. The tenure status and access to productive assets are more important since the PAPs who are not the asset owner only have the access to asset (for example sharecropper). By the time affected asset is compensated by the project, those PAPs will loss of access to asset, in the other hand they will not be compensated because the compensation is only eligible for the asset owner.

In spite of the majority of the affected households which will be fairly compensated or assisted by the project and in relation to ownership of the affected lands, a part of potentially affected households might be severely affected by the project due to loss of access to the land within the project area. They are:

1. the affected households who have only access to land within the project site for cultivation and/or other economic activities; the land they cultivate or occupy belongs to other people (these households will lose their source of income since the land that they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners/project and will be used for the project);
2. the affected households who have only houses erected on land within the project site but the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area);
3. the affected households who have only houses erected on land within the project site and only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people (these households will get fairly compensation for the houses but they would probably experience difficulties to reconstruct their houses because they have no land outside the project area and they will lose their source of income because the land they cultivate or occupy for other economic activities, such as kiosk, will be taken back by the landowners and used for the project).

In accordance with the above three categories, Table 4-4 indicates that out of 996 affected households (excluding 29 joining families), approximately 137 households can be categorized as those who might be severely affected by the project commencement; including in this number 8 households which are categorized as vulnerable households. Considering this, the project will give special attention to these affected households in the form of assistances as outlined in section 4.5 (Table 4-1) and section 4.6.

For those without land title who are also losing shelter, assistance for livelihoods will include in-kind shelter assistance, including options such as credit terms or leases for relocation sites (either provided by the village or PLN) and facilitation assistance to groups of PAPs in finding affordable locations.

Table 4-4. Number of severely affected households (N=137 HHs)

Category of affected households	Upper Reservoir			Lower Reservoir	
	Reservoir	Disposal	Sliding	Reservoir	Switch Yard
Households who have only access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	7	1	10	14	3
Households who have only houses erected on land within the project site but the land belongs to other people	19	-	-	23	5
Households who have only houses erected on land within the project site and access to land within the project site for cultivation and/or other economic activities; the land belongs to other people	15	-	6	34	-
Total	41	1	16	71	8

5

Consultation and Discussion

Based on the LARAP study, the activity of consultation and discussion with the PAPs is divided into two parts. The first part was already done. The second part is the discussion and consultation that will be done later on. Apart from that, this chapter will also mention about the location and options of resettlement and steps need to be taken in relation with the resettlement.

5.1. Consultation and Discussion that have already been done

In the area of Lower dam, socialization and FGDs conducted on October 8, 2009 in the Karang Nunggal village Cibeber Sub-District, Cianjur District, and date October 9, 2009 in Campaka sub-district, Cianjur District. The FGD in the upper dam was carried out on 24 October 2008 in Rongga sub-district. The detail of Public Consultation and FGDs can be seen in Appendix 12.

Theme of socialization is the general project information, and discussed issue in the FGD is about compensation, the payment process and the relocations.

Socialization and FGD facilitated by LPPM UNPAD in the presence of PT PLN, representative of community affected by the project, representatives of community leaders from the inundated village, representatives of women's groups, officials of village, sub-district officials, Muspika sub district and NGO representatives.

Implementation of FGD conducted after Socialization of the project, undertaken by the LPPM UNPAD Tim. Participant divided into small groups to facilitate the process of discussion, next each other group discussing the same issues, and the results were presented by the representative participants before the forum. The FGD results agreed forum as an agreed conclusion (List of Participants see Appendix 8a).

In the socialization of PT PLN (Persero) West Java Generation and Transmission Project as the previously initiator of the project describes the objectives and benefits particularly those involving the land acquisition and construction of the Upper Cisokan HEPP. PLN also explained that the staking-out marking, measurement and inventory of land, buildings and plants conducted by LARAP team is as input for the Committee for Land Acquisition (LAC or P2T), LAC will further re-inventory the measurements and calculations.

As for socialization on resettlement, there has been 1 FGD meeting for upper dam carried out on 6 February 2011 in Rongga sub-district. The theme raised in this FGD is about information on resettlement plan. The plan is presented in Appendix 1 on Pre-Feasibility Site of Resettlement Area. Socialization discussed the design resettlement

plan for the resettlement program arranged by the project and identification of public facilities and social infrastructures required by the PAPs at the resettlement site.

Socialization and FGD facilitated by PT Kwarsa Hexagon in the presence of PT PLN, representative of community affected by the project, representatives of community leaders from the inundated village, representatives of women's groups, officials of village, sub-district officials and Muspika sub district. The FGD results agreed forum as an agreed conclusion (List of Participants see Appendix 8b).

In the area of upper dam and Access Road, socialization and FGDs for income restoration conducted on 1 March, 2011 in the Sukaresmi village Rongga Sub-District and Cijambu Village Cipongkor Sub-District, West Bandung District. The FGD in lower dam was carried out on 4 March, 2011 in Margaluyu Village Campaka sub-district, Cianjur District. The aim of the consultation and discussion is to identify and determine types of income restoration that need to be carried out including its associate trainings.

In the socialization of PLN describes the objectives and benefits of each type of Starting Micro Business Packages as income restoration program and Assistance in Training of Technical and Financial Administration Skill particularly for PAPs who need to be resettled either by the project or move by themselves. Elaboration of the description for income restoration can be seen in Sub-Chapter 4.6 Assistance. The FGD results agreed forum as an agreed conclusion (List of Participants see Appendix 8c).

Public Aspirations of the Project, Compensation, Resettlement and Income Restoration.

Result Socializations and FGDs are:

1. The people accept the development of the Upper Cisokan project
2. In general people accept the compensation of land and other assets affected by the project, considering this project is for the public interest.
3. The process determining of compensation of asset, should be discussed and consider the market price's standard.
4. Payment method should be conducted directly by PLN without intermediary or brokers and it will be made through transfer to the account of each HHs or PAPs.
5. The PAP expected that compensations received, will be able to recover the lost asset.
6. The majority people are not interested to be relocated by the PLN, because new locations may not suitable for them, they prefer to move by themselves.
7. Moving expenses to be borne by the PLN.
8. The PAP expect time span from the start of compensation payment until the resettlement approximately three month.
9. The relocation cost of public facilities and infrastructure (including graveyard) affected by the project are the expense of PLN.
10. PLN was asked to give attentions for the sharecropper who is working in the forestry land.

11. Representations of women suggested that PLN consider the relocation of school to arrange their children remain to go to schools as usual.
12. Assistance of poultries and agriculture crops disease prevention and treatment and compost processing technique should be added in assistance in training of technical and financial administration skill.
13. Independent Monitoring Agency should have posts in each resettlement sites to monitor and directly serves as the implementing agencies for income restoration assistance.
14. Women's group expected the formed agency/institutions to handle complain of negative impact from the project.
15. Institutions for grievances handling will be formed after the recommendations of LARAP.
16. Socializations and meeting with the residents still be required before the compensations process.

The results of socialization and consultation with the community using FGD approaches showed that the results were consistent with the survey results, which most of the people affected want to move on their own. Meanwhile, when viewed from the location where the desired move, most people choose to move in the same village.

5.2. Consultation and Discussion that Need to be Done

Consultation will be continued with the disclosure of this LARAP, and to be discussed in public meeting:

- For the benefit of the affected community, the executive summary of LARAP and its entitlement framework will be translated into Bahasa Indonesia and its availability at local village offices advertised for easy access to LARAP related information
- Key features of the entitlements will be displayed in billboards along the project corridor
- Together with the village administration, PLN will conduct information dissemination sessions in villages and ensure involvement of local community/traders and encourage their participation in implementation
- Focused attention will be made for consultation with vulnerable groups to ensure that their specific needs are addressed

The stakeholders usually play important role to succeed such program, by this consideration, they will also be informed to acquire their concerns. This activity will be conducted by PLN Project with the assistance of consultant and the road contractors. The stakeholders to be involved in consultation other than the PAPs among others are:

- Forestry Agency
- Village Office
- Sub District Office

- West Bandung District Office and Cianjur District Office
- Agriculture Agency of West Bandung District and Cianjur District
- Public Works of West Bandung District and Cianjur District
- Educational Office of West Bandung District and Cianjur District
- PAPs
- Community around the new resettlement areas
- Local NGO

To make sure that the implementation of compensation and resettlement can be carried out smoothly and effectively, an appropriate strategy of consultation and discussion need to be done as outlined in Table 5-3. The focus, time scale, and strategy of consultation and discussion will cover the following aspects:

1. Consultation and Discussion on Asset Lost;

Two things that should be covered in the consultation and discussion:

- a. The information resulted from the inventory done by P2T (LAC) on lands and assets associated with the land. These information should be publicly announced at village and sub-district level.
- b. Grievances from PAPs. Based on the inventory results, PAPs may be able to confirm and/or complain on the content of the published list. Within 14 (fourteen) days, the PAPs have opportunity to make grievances to the Grievance Handling Team. Based on these grievances, the P2T (LAC) will clarify the subject matters, including any ground check on land and assets on the land being subjects of the grievance.

2. Consultation and discussion on asset compensation;

There are three activities on asset compensation as follows:

- a. The objective of consultation and discussion is to obtain information on the price of land as desired by the PAP and Independent Appraisal's value.
- b. Discussion leading to the determination of price for land and asset compensation. This activity is to negotiate the price for land compensation base on Independent Appraisal's value, desires by the PAPs and agreed by the PT PLN.
- c. Socialization of the timing and mechanism of compensation payment. This activity will be carried out only after the decision on price has been made by the P2T (LAC).

Table 5-2. Strategies for consultation and discussion

Item for consultation	Parties involved	Location	Time Frame	Strategies of consultation
Asset Lost:				
The announcement of the inventory result on land and asset by LAC	LAC, National Land Agency Village Office; Sub District Office; PLN, PAPs	Village and sub-district offices	After LAC finishing its inventory	Dissemination via public boards and other printing and electronic media
PAP's grievances on land size, size of building, number of plants, status of ownership	LAC, Grievance handling team, Village Officer; Sub District Officer; Bandung District Officer; Cianjur District Officer; Agriculture Agency of West Bandung District, Agriculture Agency of Cianjur District, PAPs, Local NGO and PLN.	Project site offices	One month after the announcement of inventory result	Grievance handling mechanism
Compensation:				
Obtaining land price desired by PAPs and actual market price and Independent Appraisal's price.	LAC, PLN, Village Officer; Sub District Officer; West Bandung District Officer, Cianjur District Officer; Local NGO.	Village Offices	After announcement of inventory result	Obtaining price of land desired by PAPs through FGD
Negotiation (<i>Musyawaharah</i>) to make an agreement on price of land	LAC, PLN, PAPs, IMA, Village Officer; Sub District Officer; West Bandung District Officer; Agriculture Agency of West Bandung District; Public Works of West Bandung District; Cianjur District Officer; Agriculture Agency of Cianjur District; Public Works of Cianjur District, Police	Village Offices	Before the price of land has been decided by LAC	Land Acquisition Committee to determine form and value of compensation based on negotiations with the PAPs and the negotiations with the PLN
Dissemination on price for compensation, time and mechanism of the payment	LAC, Village Officer; Sub District Officer; West Bandung District Officer; Agriculture Agency of West Bandung District; Public Works of West Bandung District; Cianjur District Officer; Agriculture Agency of Cianjur District; Public Works of Cianjur District, PLN, Bank, PAPs, POLRI, Local NGO	Village Offices	After LAC decided the price of land compensation and after local government decided the price of buildings and plants	Dissemination to PAPs

5.3. Location of Resettlement and Steps Needed

5.3.1. Location of Resettlement

The PLN has consulted with PAPs on project plan, compensation, and the possibility of relocation of the PAPs. Based on this consultation, the majority of the PAPs have decided that they want to move out around their current houses. Considering that the PAPs desired for resettlement site and considering the existing condition of the site, therefore the PLN proposed that for PAPs from Upper and Lower Reservoir of West

Bandung District to be moved to - Munjul in Bojong villages and Ginaya in Cibitung Villages, while those PAPs from Cianjur District is to be moved out to Pasir Taritih in Margaluyu village. Pre Feasibility site assessments are underway and their results will be summarized in that section before LARAP finalization

5.3.2. Community response to resettlement plan

As already mentioned in Chapter III concerning the PAPs aspiration on the resettlement plan, out of 583 head of household, who is potentially should be moved out, 471 head of households want to move out on their own, while 98 head of household would like to be moved out by the government.

Those who want to resettle by the government, 12 head of household want to move to surrounding village of Margaluyu, 18 head of household want to move to the surrounding village of Bojongsalam, 43 head of household prefer Sukaresmi village, and the rest (25 head of household) have not decided yet where to move.

5.3.3. Steps need to be taken

A. Resettlement site managed by the government/project

Steps to determine the resettlement are as follows:

1. PLN propose a permit to the District of Bandung Barat, Cianjur District and Province of West Java to use Munjul, Pasir Taritih, Ginaya and Nagrak Hamlets as a proposed resettlement sites.
2. After the government permit has been granted, PLN conduct a feasibility study and environmental carrying capacity for those two resettlement sites.
3. Site visit and consultation regarding location and perception of the PAPs.
4. Decision of resettlement site based on study result.
5. Consultation with PAPs on early design on resettlement plan and associated economic measures based on local characteristics.
6. Design and physical construction of resettlement including other facilities required by the PAPs if the community have more than 30 HHs.
7. Relocation of the PAPs to the resettlement site.
8. Monitoring and "treatment" to new settlers, covering socio-psychological aspects, and economic development

B. Resettlement on their own

1. The government should provide the PAPs with information on the development plan of the sites that desired by the PAPs (in the surrounding project area).
2. Guiding and giving assistance to the PAPs who want to move out on their own with small scale economic development.

3. The PAPs who want to move out by group (minimal 30 head of household) will be provided with facilities such as road, drainage, and other necessary public facilities supported financially by the PLN. To realize this promise, the PLN will establish a resettlement unit with close working coordination with the resettlement implementing team.
4. Monitoring on economic development.

6

LARAP Institution and Procedure of Grievance Handling

6.1. Institution in implementing LARAP

In addition to the Unit of Project Implementation (PIU) as a task force within the structure of PLN Hydro Java Generation, some institutions will be involved in implementation activities of LARAP of the Upper Cisokan Pumped Storage Project namely (1) Land Acquisition Committee (LAC/P2T); (2) Joint Team of Local Government and PLN for Non Title Holders. (3) Independent Appraisal Agency licensed of the National Land Agency (BPN), (4) Team of Policy Formulation and Resettlement Implementation; (5) Grievance Task Force, and (6) Independent Monitoring Agency.

6.1.1. Land Acquisition Committee (LAC/P2T)

Location of the upper reservoir is situated in district of West Bandung, Lower reservoir situated in West Bandung district and Cianjur District. But as an inseparable part of the Upper Cisokan Pumped Storage Project located in two regencies, namely District of West Bandung and District of Cianjur. In case the needed land for public purpose development located in 2 (two) districts/cities or more, Land Acquisition Committee will be established by the Governor's Decree. This is in accordance with Presidential Regulation No. 36 of 2005 and Presidential Regulation No. 65 of 2006 on Land Acquisition for Development for Implementation of Public Interest and the Head of BPN Regulation No. 3 of 2007 on the implementation of two those regulations. Thus, LAC of Province of West Java will involve in this project since the land acquisition plan for the location of reservoir and access road construction and carrying materials up the completion of the acquisition of land for project activities of the Upper Cisokan Pumped Storage as a whole. Aside from the LAC, Joint Team of Local Government and PLN for Non Title Holders will do tasks to comply with the World Bank OP 4.12. Joint Team will inventory personal investment of non title holders who may have asset in the form of physical structures or agricultural crops.

6.1.1.1. Membership, functions and tasks of LAC/P2T of West Java Province

In accordance with Article 15 Head of BPN Regulation No. 3 of 2007, membership at the provincial level LAC/P2T mostly consists of nine people, organized as follows:

- a. Secretary of West Java Regional as Chairman and concurrent member;
- b. Local officials in the province of the echelon II level designated as Vice Chairman
- c. Head of Regional Office of the National Land Agency of West Java Province or official appointed as Secretary and concurrent Member; and
- d. Head Office / Officer / Agency in the province related to the implementation of land acquisition or the official appointed as a Member.

West Java Province LAC served as follows :

- a. Provide direction, guidance and direction for the implementation of land acquisition in the district, in this case is Land Acquisition Committees of West Bandung district and Cianjur District;
- b. Combine coordinating and implementing land acquisition in the district;
- c. Giving consideration to the Governor for decision making solution form and amount of compensation proposed by the Head of District, and
- d. To supervise and control the implementation of land acquisition and compensation.

6.1.1.2. Membership, functions and Tasks of Land Acquisition Committee (LAC/P2T) West Bandung and Cianjur Districts

In accordance with Article 14 Head of BPN Regulation No. 3 of 2007, membership at the district level LAC/P2T mostly consists of nine people, organized as follows:

- a. Regional Secretary as Chairman and concurrent Member;
- b. Officials from the device element area echelon II level as Vice Chairman and concurrent Member;
- c. Head of Land Office District / City or official appointed as Secretary and concurrent Member; and
- d. Head Office / Office / Agency in the County / City related to the implementation of land acquisition or the official appointed as a Member.

District Land Acquisition Committees of West Bandung and Cianjur have a duty as follows:

- a. Giving an explanation or information to the public;
- b. Conduct research and inventory of land areas, buildings, plants and other objects relating to land, the rights to be released or transferred;
- c. Conduct research on the legal status of land areas due to be released or transferred and the supporting documents;
- d. Announcing the results of research and inventory as referred to in point b and c;
- e. Hiring a licensed Appraiser to appraise value of affected land
- d. Estimating the land price appraisal, buildings, plants and other objects relating to land from a licensed Independent Appraisal Agency of Agrarian Office and related agencies responsible for assessing the land, buildings, plants and other objects relating to land;
- f. Hold a meeting with the owners with government agencies that require land in order to determine the form and amount of indemnification;
- g. Determine the amount of compensation for the land rights to be released or transferred.
- h. To see the delivery of compensation to the owners.
- i. Making the news release or transfer of rights.

- j. Administer and document all land acquisition and the file handed to PLN that require land and Agrarian District Office; and
- k. Delivering the consideration of the problems with land acquisition resolution to the mayor if the council did not reach consensus for decision making.

6.1.2. Licensed Independent Appraisal Agency of BPN

Land Price Appraisal Agency (licensed by BPN) is appointed to conduct the assessment of land prices in this project. The appointment made by the LAC of Districts of West Bandung and Cianjur through Assessment Letter of District's Head, in this case Districts of West Bandung and Cianjur in accordance with their respective locations affected the Upper Cisokan Pumped Storage project.

Land Price Appraisal Agency is a professional institution/team and independent to determine the land value/price that further will be used by the LAC as base to achieve agreement on land compensation with the PAP. Once appointed, the Appraisal team will conduct survey to PAPs, and institutions involved in land acquisition process in project area for determining the land price.

As for determining the value of buildings and the establishment of plants/other stands are attached to the land will be referred to the Regional Regulation or other regulations issued by the Government of West Bandung District and Cianjur District. PLN will communicate and socialize with both the district government, including giving information to the Government of West Java province (before land compensation conducted) to publish recent legislation or other regulations such as Head of District Regulation which can become the reference in the pricing structure and plant affected by the Upper Cisokan Pumped Storage Project.

The independent appraisal consultants will determine eligibility by following the LARAP criteria in chapter 4, of non title holders who may have asset in the form of physical structures or agricultural crop of personal investment and appraising their asset values. They will also assess the assistance eligibility for them.

6.1.3. Resettlement Policy Formulation Team (RPFT) and Resettlement Implementation Team (RIT)

Resettlement Policy Formulating Team is an institution, which review resettlement formula produced by consultants of LARAP to appropriate local government policy. Resettlement Policy Formulating Team tasks to formulate resettlement policies that to be implemented in accordance with the conditions of each region by Resettlement Implementing Team.

The Resettlement Implementation Team will coordinate all resettlement implementation activities, including through setting up assistance and restoration of social and economic life/income of PAP after developing project. This team set by the Governor decree of cross-sector by involving local governments and groups of experts and PLN.

6.1.4. Grievance Task Force

A grievance redress procedure (Figure 6-1) will be the guidance to answer to various queries and to address grievances and issues that the PAPs are likely to bring, with regard to disputes over ownership and inheritance of the affected assets, distribution of compensation among the heirs, missing affected assets and persons in the census, etc. The procedure will not replace the existing legal process; based on consensus, the procedure will seek to resolve the issues quickly in order to expedite the receipt of compensation, without resorting to expensive and time-consuming legal actions.

The institution to handle grievance redress is the Task Force developed in Project Implementation Unit (PIU). The Task Force consists of PLN Officers and the hired experts. It has two main tasks namely the first as an accompaniment to the people or PAP during this project; and the second to accommodate and facilitate the public grievances related to the implementation of this project. The grievances submitted to Grievance Task Force in PIU should be in writing (see sample form below).

AN EXAMPLE OF THE FORM OF GRIEVANCES OF THE PEOPLE WHO ARE AFFECTED BY THE UPPER CISOKAN PROJECT	
TYPE OF GRIEVANCES :	
1) List of Impacted Asset Inventory	
2) Implementation of Asset compensation and Resettlement	
3) Other grievances	
Name Reporter /PAP : _____	
Village / Sub-District : _____	
Description of grievance : _____	
Date: _____, 2010	
Recipient Grievance s Officer,	Reporter,
_____	_____
Description of Response : _____	
Date: _____, 2010	
Personnel who provide response,	

Personnel who will be assigned to this Task Force and advocacy of this grievance handling are originated from non-profit institution or university and/or experts who have the commitment and experience in community development. This Task Force will be established by PLN as part of project implementation overall of the Upper Cisokan Pumped Storage Project.

The main task of this Task Force serves assurance of PAP's right and interest in this project. The PAPs need two kinds of project assurances. The first is the assurance of the timeframe of grievance redress, so the PAP will have the certainty of his/her grievance to be handled by this institution during the agreed time frame (i.e. 3 weeks he/she has received the solution answer). The second assurance is law assistance (advocating) by this Task Force to advocate PAP's interest.

The work mechanism of this Task Force is follows:

- Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for Advocating and Grievance Handling.
- The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions LAC or RIT for further action. The action should be handled one week after receiving the grievances.
- Institutions relevant LAC or RIT to the grievance handling should give response/way out to the Task Force within 14 calendar days.
- The Task Force for Grievance Handling should give a response/way out to PAP within 21 calendar days.

The member of this Task Force is independent and the work mechanism as depicted in picture 6-1, so it will serves assurance that any grievance raised by the PAP will be properly handled. In other hand the project will receive the periodic report that submitted by this Task Force.

6.1.5. Independent Monitoring Agency

During the implementation process of LARAP both at the time of the land acquisition and its property the implementation of the resettlement needs of an independent monitoring agency. This team has function to monitor and directly serves as the implementing agencies and monitors the impact evaluation of the overall project implementation.

Monitoring and Evaluation are critical activities in the implementation of any plan. This assumes significance if the plan is related to Land Acquisition and Resettlement & Rehabilitation. Monitoring involves periodic assessment of plan implementation to ascertain whether the activities are progressing as envisaged and provides feedback on how to keep the plan on schedule and at the same time maintain quality. By contract evaluation is the impact of plan in terms of achieving its intended objectives. This

focuses more on results than the processes. The monitoring indicators are presented in Table 6-2.

Benchmarks for measuring restoration of livelihoods (improving or at least restoring livelihood) of the PAP will be the following parameters.

- a) **Family income** – defined as the annual family income before and 2 years after relocation
- b) **Replacement of lost assets with assets of comparable value** – defined as the market value of replacement assets compared with that of the assets lost
- c) **Shelter condition** – qualitative assessment by PAPs and quantitative assessment of size and quality of structures
- d) **Family Infrastructure access (clean water, sanitation facilities, electricity)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)
- e) **Public Services access (road, market, education facility, praying facility)** defined as condition before and after relocation for basic infrastructure, social and public services (both quantitative assessment by PAPs and qualitative assessment of efficiency, capacity and reliability of services)

Assisted by an independent monitoring agency, the project staff will directly liaise with the Resettlement Implementation Team (RIT) and Land Acquisition Committee (LAC) and monitor progress in both land acquisition and resettlement implementation. Monitoring will consist of an array of steps related to LARAP preparation and implementation, as well as those involved in the process leading to commencement of the civil works. The independent monitoring agency will be responsible for setting up and operating an integrated system by using verifiable indicators to monitor and report progress and performance in terms of the integrated schedule of these tasks. The following format will be used for monitoring task:

- Format for monitoring progress in the legal land acquisition process (Table 6-3)
- Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land (Table 6-4).
- Format for summary information on compensation payment for private lands and public lands (Table 6-5).
- Format for summary information on assistance payment by PLN to affected properties (Table 6-6).
- Format For Summary Information of Resettlement on Housing Colony Prepared By PLN (table 6-7)
- Format for information on grievance redress activities, by project location (Table 6-8).

6.2. Report Submission of Involved Institution

Also as a form of accountability by the activities of each institution mentioned above, then all the institutions involved in this LARAP implementation required to provide monthly reports, quarterly and annual reports to the hand-related parties (Table 6-1).

Each project report will be prepared in accordance with the needs of the report itself, but as general guidelines for preparing reports of systematic reporting is at least contained:

Table 6-1. Matrix of project activity report delivery

No	Institution	Report Kind	Submitted to	Note
1.	Land Acquisition Committee (LAC/P2T) of West Java Province	Implementation of Function and its Duty	Governor of West Java	Monthly/Quarterly/ Yearly
2.	Land Acquisition Committees (LAC/P2T) of West Bandung/ Cianjur District	Implementation of function and its duty	Districts of West Bandung/ Cianjur	Monthly/Quarterly/ Yearly
		Asset Inventory List	Public Information	Attached in village, District, and PLN office
3.	Licensed Appraisal	Valuation Result of land price	LAC/P2T District	Finishing undertaking asset valuation
4.	Resettlement Policy Formulating Team	Implementation of function and its duty	PLN cq. PIU of the Pumped Storage Upper Cisokan Project	Monthly/Quarterly/ Yearly
5.	Task of advocating and grievance handling of PAP	Implementation of function and its duty	PLN cq. PIU of the Pumped Storage Upper Cisokan Project	Monthly/Quarterly/Yearly
		PAP grievances	Involved bodies with PAP grievance	Each of occurring grievance
6.	Independent Monitoring Agency	Implementation of function and its duty	PLN cq. PIU of the Pumped Storage Upper Cisokan Project	Monthly/Quarterly/ Yearly
7	PLN PIU	RAP program, monitoring *)	World Bank	Reports to plan for follow-up on any failures to replace lost assets or restore livelihoods

*) If by the end of the each RAP program, monitoring demonstrates that livelihoods have not been restored to at least pre-project levels, the project will commit extra funds to conclude livelihood restoration for all PAPs. The reports will:

- 1) determine whether the main objectives of the LARAP have been realized,
- 2) verify the delivery of all agreed forms of compensation and assistance,
- 3) assess whether these have been sufficient to replace lost assets, and to restore livelihoods, and
- 4) if the assessment reveals that these objectives may not be realized (that assets are not replaced or incomes or living standards have not been restored -or are not likely to be- for a significant proportion of the affected population), then

completion reports will include proposed follow-up measures for PLN to agree with the Bank.

6.3. Prevention of Land Speculation

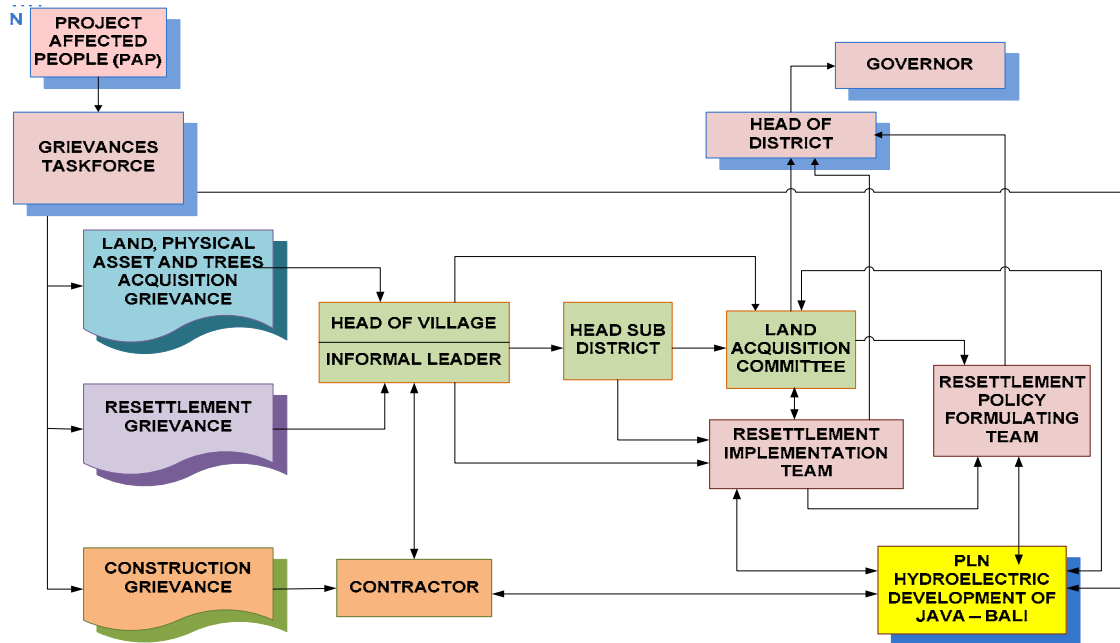
After the establishment of the Location Determination Decree issued by the Governor, it will be noticed to the public, especially the owners of assets located in the location of the project plan (Upper-Lower), no transaction should be allowed except for PAPs who has a prior permit from the Regent or Governor.

Socialization of and supervision of these efforts will be made widely and continuously until the resettlement activity is completed. Socialization will be carried out by PLN together with (officials) district, sub district and village. Prospective environmental surveillance of the project location and potential location of settlements that will be used for resettlement of PAP will also be conducted to prevent the transfer of cultivation, occupancy or utilization of land and physical assets are placed. These activities will be conducted in order to avoid domination / exploitation by people who are not entitled, which will disadvantage people affected by the project.

Besides, PLN will encourage undertaking payment for the land, physical assets, and trees implemented as quickly as possible and directly to the owner for the project-affected communities do not experience losses due to speculative activities.

In accordance with the elaboration of the above institution, the LARAP working mechanism should cover: (1) land acquisition mechanism (2) compensation payment mechanism, and (3) resettlement working mechanism, as shown in Figure 6-2, 6-3, and 6-4.

**Figure 6-1.
MECHANISM OF GRIEVANCE HANDLING FOR
THE UPPER CISOKAN PUMP STORAGE PROJECT**



Project Affected People [PAP] submit all grievance documents to the Grievance Task Force for advocating and solution.

PAP's grievance regarding to the land acquisition, should submit their grievance to the Task Force within **14 calendar days** after the announcement of the asset inventory by the LAC (Article 41 Clause 1 Regulation of Head of National Land Agency No.3/2007)

The Governor should response not more than **30 calendar days** (Article 41 Clause 3 Regulation of Head of National Land Agency No.3/2007)

The Task Force will classify any grievance for action. The grievances can be handled here or sent to other institutions for further action. The action should be handled **7 calendar days** after receiving the grievances.

Institutions relevant to the grievance handling should give response/way out to the Task Force within **14 calendar days**.

The Task Force for Advocation and Grievance Handling should give a response/way out to PAP within **21 calendar days**.

Figure 6-2.

INSTITUTIONAL SCHEME OF RESETTLEMENT
ACTIVITY OF UPPER CISOKAN PUMPED STORAGE

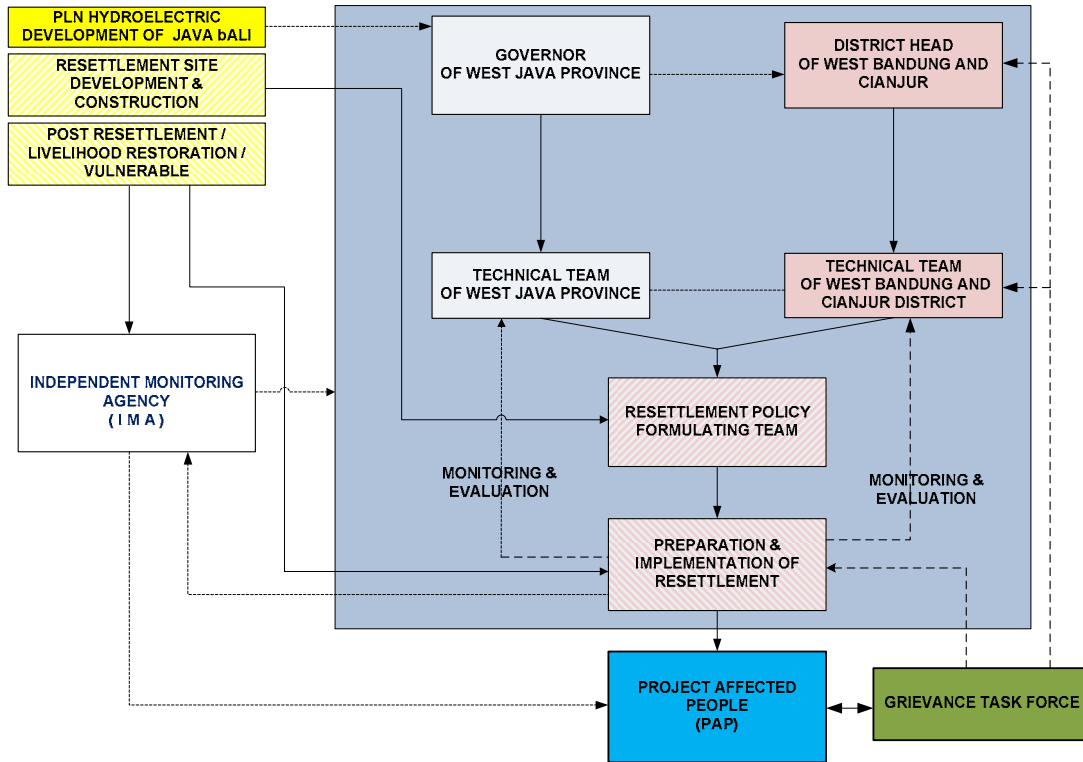
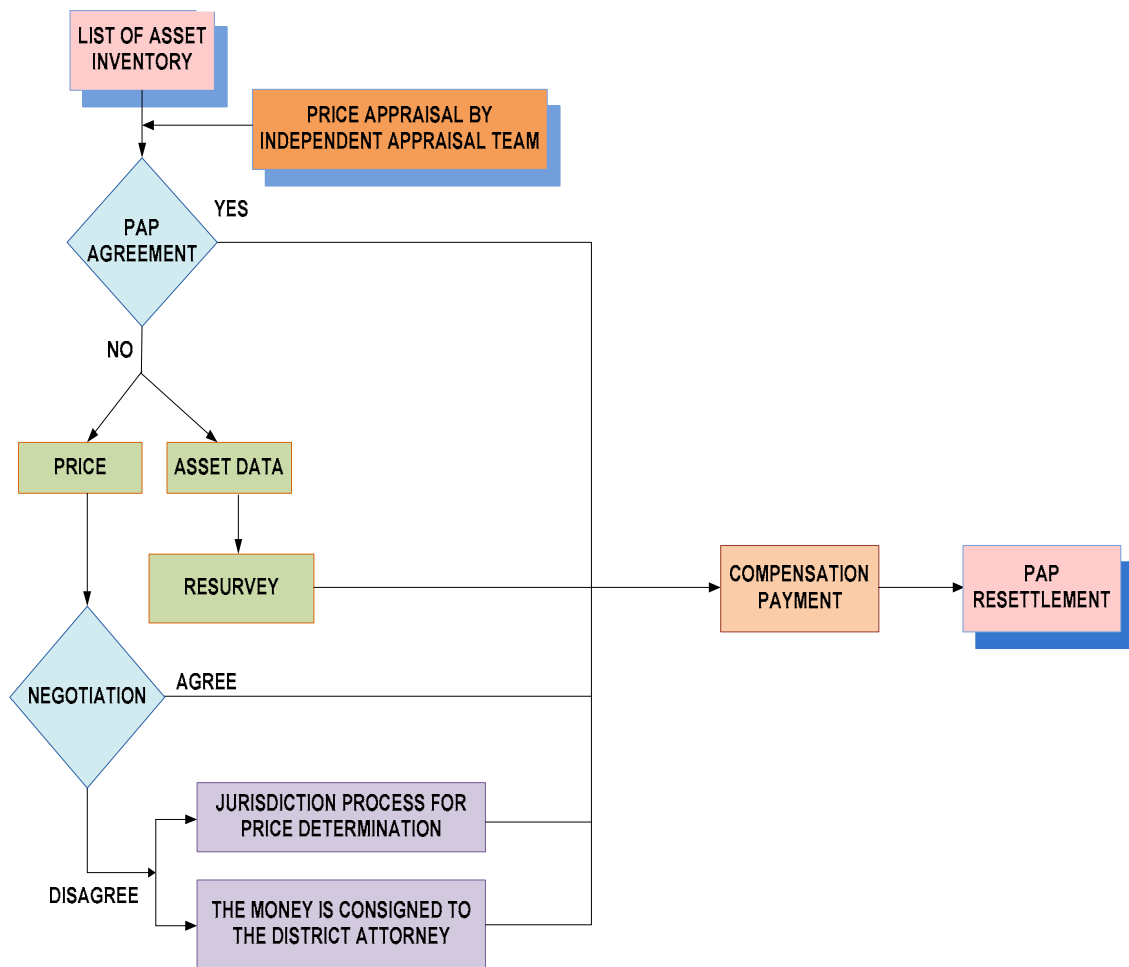


Figure 6-3.

COMPENSATION PAYMENT SCHEME



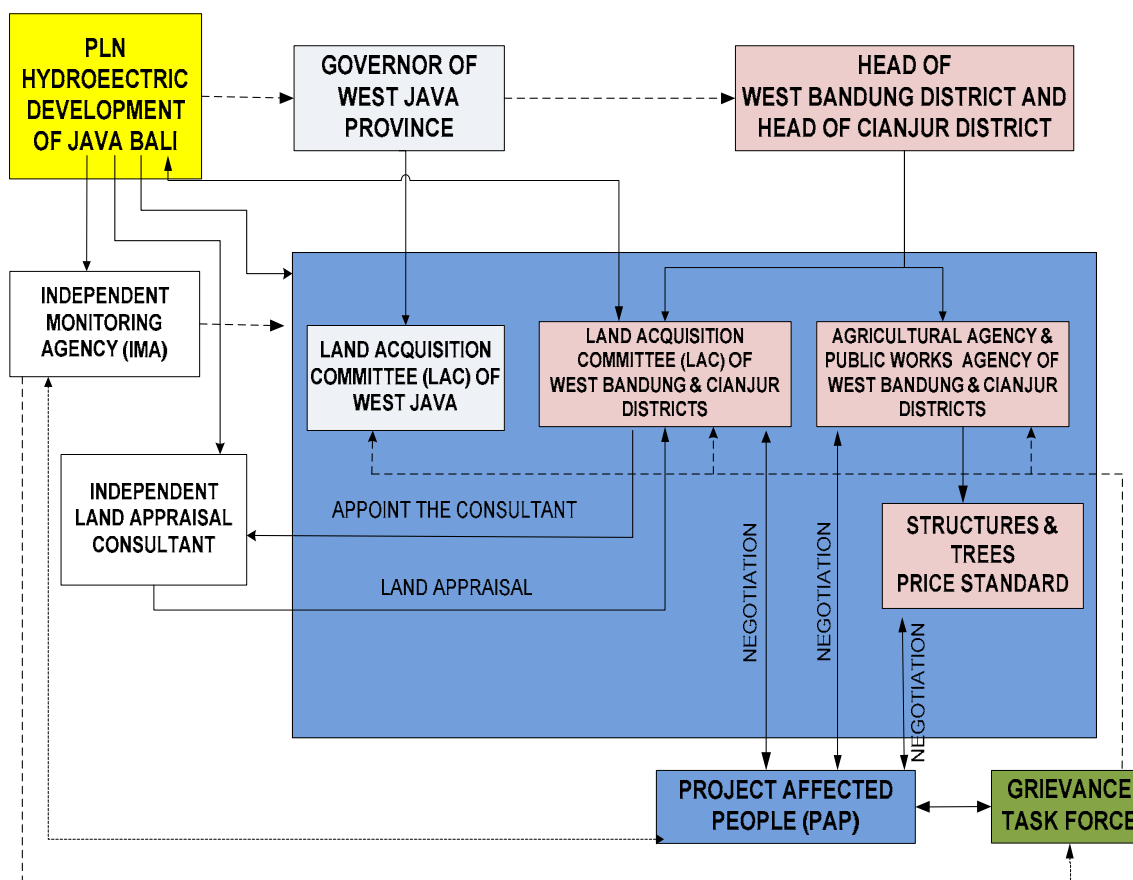
Note:

Jurisdiction process for price determination: Based on Presidential Regulation No 36 year 2005, Presidential Regulation No 65 Year 2006 and Head of National Land Agency Regulation No 3 Year 2007 concerning Land Acquisition that the land owner who disagree with the decision of Land Acquisition Committee (LAC) concerning land price, may submit the objection to Bupati (Head of Regency/District) of West Bandung/Cianjur or to Governor of West Java or Minister of Home Affairs.

The Bupati/Governor/Minister will scrutinize the argumentation and consideration of the Land owner and the consideration of the LAC and then make decision on land price.

Figure 6-4

INSTITUTIONAL SCHEME OF LAND ACQUISITION



6.4. Execution of LARAP

The activity execution of this LARAP will be conducted by the PIU of Upper Cisokan Pumped Storage HEPP under the coordination of PLN Principal Project of Hydroelectric Power Development of Java and Bali. In executing the compensation and resettlement plan the PIU establish Resettlement and Compensation Manager to execute the following activities :

1. Administration and Legal Aspect of the project activities which involve the following: legal counseling staff, general services staff, external compliance monitoring agency, financial auditing team, grievance officer, and mediating committee.
2. Survey/Census/Data management;
3. Site Resettlement Development and Construction
4. Post Resettlement Handling and Restoration
5. Monitoring and Evaluation.

The overall working mechanism of compensation and resettlement plan as outlined in figure 6-5. To speed up the process of compensation and resettlement program smoothly and effectively, the capacity building will be conducted as outlined in Appendix 11. The description of this mechanism of compensation and resettlement program is as follows:

1. Administration and Legal Aspects

- a. Legal aspect of Upper Cisokan project. This activity helps the project in various matters associated with legal aspects. The team in charge with this activity will be formed out of PLN (outsourcing) and consisting of resource persons with competency in Indonesian laws and regulations.
- b. General services aspects. This activity helps the project for handling general administrative and human-related aspects in the implementation of compensation and resettlement. This activity will be carried out by PLN administrative staffs.
- c. External monitoring grievance aspects. This activity will be handled by an independent team outside of the compensation and resettlement management team. The independent team called Independent Monitoring Agency (IMA), where it's monitoring and evaluation results will then be reported to internal grievance handling officer for further resolution by the Grievance Task Force.
- d. Financial auditing aspect. This activity will be done by the third party, which is a certified public accountant.
- e. Grievance handling officer. This officer task is to coordinate with the Grievance Task Force for solving any grievances related with project implementation.

2. Data Management/Survey/Census.

Data and information collected from survey/ census will be managed by special agency established by local government, called Land Acquisition Committee (LAC/P2T). This agency, in doing its job, will be working together with National Land Agency (BPN) and independent Land Appraisal. Activities that need to be carried out are as follows:

- survey of physical assets;
- survey of socio-economic data;
- data processing through PAP's information system;
- deciding rights that should be given to the PAPs according to entitlement criteria set up by PLN.

The collected data and information will be organized in the form of PAP's data and information. The data and information will be made available in hard and soft copies. All collected data and information will be organized by special staff, who will report to the compensation and resettlement manager. To modify the data and information collected from the survey, one should have written permission from PLN through the Compensation and Resettlement Manager.

3. The development of Resettlement Sites and Construction.

The development of resettlement sites and construction activities consists of the following three activities: (1) Site survey, design and architecture plan; (2) Construction works monitoring; and (3) Monitoring of environmental consequences resulting from construction work. All activities will be done in collaboration with the third party in accordance with government regulation (Contractor firm for physical works and Consultant firm for design and monitoring).

4. Recovery After Resettlement

The recovery programs after resettlement are carried out in the following:

- a. livelihood restoration, which is part of PAP's economic restoration;
- b. business resettlement, which is part of small scale economic development for those who lost their economic earning; and
- c. monitoring and evaluation of resettlement programs.

Points a) and b) will be done by working together with the third party, especially the consultant with experience in economic recovery and community development programs.

5. Monitoring and Evaluation.

Monitoring and evaluation activities will be covering the following:

- (1) monitoring of infrastructure and other facilities in the resettlement sites; and
- (2) monitoring of PAP's economic restoration and business resettlement, which is part of small scale economic development for those who lost their economic earning .

It is also necessary to note that the implementation of these program activities will result in some forms of agreements. Therefore, all of these agreements including agreement with the third party should be in accordance with current government regulations.

The job description of PLN PIU personnel is presented in Appendix 12.

Figure 6-5.

INSTITUTION OF LAND ACQUISITION AND RESETTLEMENT ACTIVITY

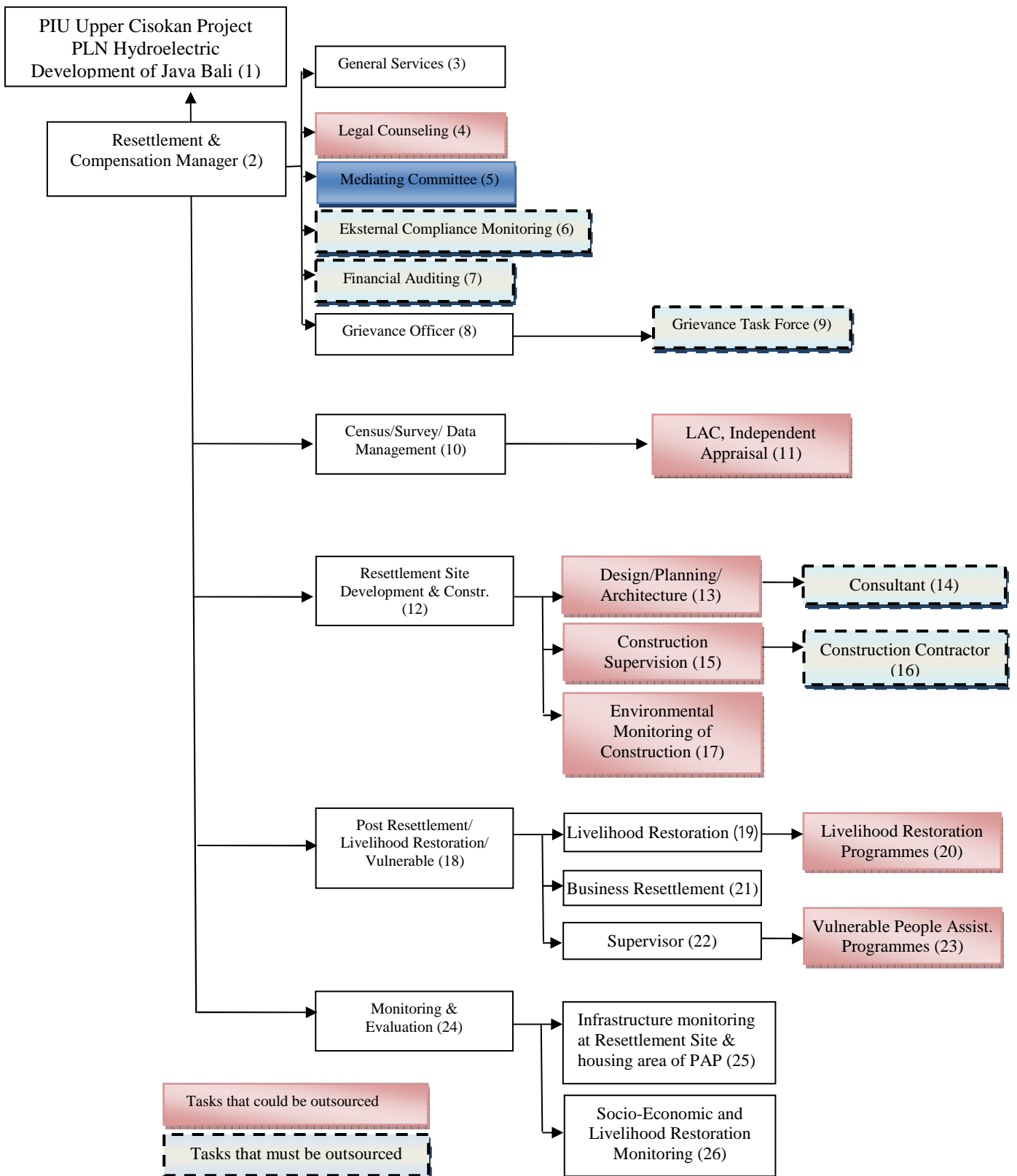


Table 6-2 Monitoring indicators

Project Location : Upper and Lower Dam

Reporting Date :

Monitoring Indicators	Total				Villages																			
					Sukaesmi				Bojong Salam				Margaluyu				Girimulya				Krg Nunggal			
	Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring		Base-line		Monitoring	
	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable	Non Vulnerable	Vulnerable
1. PHYSICAL																								
a) Extent of land acquired																								
b) Number of structures demolished																								
c) Number of land owner and private structure owners paid compensation																								
d) Number of families affected moved out																								
e) Number of PAPs receiving assistance/compensation																								
f) Number of PAPs provided transport facilities/shifting allowance																								
g) Number of PAPs allotted house under PLN housing scheme																								
h) Area and quality of land purchased compared with former holdings																								

Table 6-3. Format for monitoring progress in the legal land acquisition process

Project Location : Upper and Lower Dam

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish			Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Land	Structure	Vegetation				
UPPER DAM (Construction areas)	Plan									
	Monitoring									
UPPER DAM (Rest of Reservoir area)	Plan									
	Monitoring									
LOWER DAM (Construction areas)	Plan									
	Monitoring									
LOWER DAM (Rest of Reservoir area)	Plan									
	Monitoring									
TOTAL										

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-4. Format for monitoring of structure and vegetation acquisition progress payment of squatters and sharecroppers on public land

Project Location : Upper and Lower Dam

Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Dates of LAC survey and data compiling finish		Negotiation and nomination data confirmation	Payment	House/ Structure Relocation	House/ Structure/ Trees demolition
				Structure	Vegetation				
UPPER DAM (Construction areas)	Plan								
	Monitoring								
UPPER DAM (Rest of Reservoir area)	Plan								
	Monitoring								
LOWER DAM (Construction areas)	Plan								
	Monitoring								
LOWER DAM (Rest of Reservoir area)	Plan								
	Monitoring								
TOTAL									

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-5. Format for summary information on compensation payment for private lands and public lands

Project Location : Upper and Lower Dam
 Reporting Date :

Project Component	Plan/ Monitoring	Date Civil Works Begin	Extent of Lands Required	Number of PAPs	Number & Percentage of Entitled PAP Paid (cumulative)							
					Land		Structure		Vegetation		Other Assets	
					Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number of PAPs	Number of PAPs	Number and percent of PAPs Paid	Number of PAPs	Number and percent of PAPs Paid
UPPER DAM (Construction areas)	Plan											
	Monitoring											
UPPER DAM (Rest of Reservoir area)	Plan											
	Monitoring											
LOWER DAM (Construction areas)	Plan											
	Monitoring											
LOWER DAM (Rest of Reservoir area)	Plan											
	Monitoring											
TOTAL												

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-6. Format for summary information on assistance payment by PLN to affected properties

Project Location : Upper and Lower Dam

Reporting Date :

Project Location	Total No. of PAPs	No. of PAPs Eligible for Assistance	Number & (Percentage) of PAPs Paid by PLN for			
			Enhancing Remaining Land Productivity	Enhancing Skill And Capital	Business/Marketing Incubation	Others
UPPER DAM (Construction areas)						
UPPER DAM (Rest of Reservoir area)						
LOWER DAM (Construction areas)						
LOWER DAM (Rest of Reservoir area)						
TOTAL						

Notes : monitoring activity will be done by IMA (Independent Monitoring Agency); see point 6.1.5

Table 6-7. Format for summary information of resettlement on housing colony prepared by the PLN

Project Location : Upper and Lower Dam

Reporting Date :

Project Location	Total No. of PAPs	No. of PAPs Eligible for housing assistance	Date of house ready	Date of inspection by RIT	Date of inspection by PAP	Date of PAP move in
UPPER DAM (Construction areas)						
UPPER DAM (Rest of Reservoir area)						
LOWER DAM (Construction areas)						
LOWER DAM (Rest of Reservoir area)						
TOTAL						

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

Table 6-8. Format for information on grievance redress activities by project location

Project Location : Upper and Lower Dam
 Reporting Date :

Project Location	Number of meetings (cummulative)	Number of Grievances submitted, By Reasons and Affected Groups (Cumulative)									Number of Grievances Reviewed, By Reasons and Affected Groups (Cumulative)									Number of Grievances Accepted for Redress (Cumulative)			
		Reasons						Number Submitted by			Reasons						Number Reviewed For			Legal PAPs	Squatter, Sharecropper	Others	
		1	2	3	4	5	6	Legal PAPs	Squatter, Sharecropper	Others	1	2	3	4	5	9	Legal PAPs	Squatter, Sharecropper	Others				
UPPER DAM (Construction areas)																							
UPPER DAM (Rest of Reservoir area)																							
LOWER DAM (Construction areas)																							
LOWER DAM (Rest of Reservoir area)																							
TOTAL																							

Reasons: 1-5 for Five Major Reasons, and 6 for all other reasons (Name the major reasons listed under the codes).

Affected Groups: Legal PAPs - Owners recognized by law; Squatter, Sharecropper – persons use public land for agriculture of dwelling purposes; Others - persons not identified by socioeconomic survey, or persons and community groups acting independently or on behalf of the PAPs.

Notes: Monitoring activity will be done by IMA (Independent Monitoring Agency); see Point 6.1.5.

7.1 Land Acquisition Action Plan

The LARAP study found that there are some disagreement between Government of Indonesia's regulations on land acquisition and the World Bank policies. For example, the compensation for building assets, the World Bank policies insists that new and old building should not be compensated differently, the new building should get more cash compensation compared to that of old building. Other gaps between the GOI's regulation and World Bank Policies are the treatments for squatters, encroachers, vulnerable and severely affected people. While according to the Indonesia's regulation, squatters, encroachers should not get any compensation (and even should be evicted from state owned land). As for vulnerable and severely affected people, there are no regulations covering their assistances. The World Bank Policies mention that squatters, encroachers, vulnerable and severely affected people should be compensated and get assistance for their assets according to the OP 4.12. Therefore, it is recommended that the solution to this problem would be that the compliance to the World Bank policies on land acquisition should be within, and not against, the Indonesia's formal regulations. By this reason, all land acquisition implementation should be carried out in accordance with the process and standards outlined in the LARAP, after the loan agreement between Indonesian Government and the World Bank is signed.

7.1.1. Assets inventory (Land, Buildings & Plants)

Based on Regulation of the Head of National Land Agency No. 3/2007 on The Implementation of Presidential Regulation No 36/2005 and Presidential Regulation No 65/2006, therefore the activity of inventory asset (land, building & plant) will be conducted with the mechanism as follows:

- Based on Permit Letter of Determination of Location issued by Governor of West Java, the PLN propose land acquisition to the District of West Bandung and District of Cianjur.
- Based on the letter of land acquisition proposed by the PLN, the District of West Bandung and District of Cianjur will establish the Land Acquisition Committee (LAC/P2T). Considering that the project location is in two districts, therefore, at the provincial level should also be formed provincial-level LAC/P2T.
- LAC and National Land Agency at each district will make inventory affected assets (lands, buildings, and plants) including to review legal status of the affected land, referring to the available data as described in the LARAP assisting by PLN and UNPAD.
- In carrying out assets inventory, LAC/P2T will be coordinating with:
 - National Land Agency (BPN) for verifying and mapping each of PAP's land;

- Public Work Agency for verifying building and other physical objects on lands which is affected by the project;
- Agriculture Agency for verifying plant asset on the land affected by the project;
- Task Force that can be established by LAC/P2T in assisting them in identification of PAPs and inventory of affected assets.
- Joint Team of Local Government and PLN will make inventory affected assets for the non title holders
- The LAC/P2T will announce the result of investigation and inventory on assets (lands, buildings, and plants) for the title and Joint Team of Local Government and PLN will announce the result of investigation and inventory on assets for the non title holders, for about one month at each village and sub-district offices where the project located;
- The LAC/P2T and Joint Team of Local Government and PLN will accommodate and follow-up on grievances and improving the lists accordingly.

7.1.2. Negotiation

- Prior to negotiation, the Independent Appraisal Consultant that appointed by the LAC will valuate affected land (refer to Article 27 BPN No. 3/2007). Independent Appraisal Consultant will assess land compensation value/replacement cost (*ganti rugi*) for the title reporting to the LAC. The Independent Appraisal Consultant will also assess assistance (*bantuan/tali asih/kadeudeuh*) for non title holders with regard to the World Bank Policies (OP 4.12) reporting to the Joint Team of Local Government and PLN.
- While affected structures, plants and other assets (non-land) will be valuated by relevant institution in the district (refer to Article 29, BPN No. 3/2007). The valuation of the affected assets shall reflect to Article 1 (11) Presidential Regulation No. 36/2005 that compensation shall be able to provide the continuation of life of PAPs better than the social and economic life before the provision of land.
- The valuation result of land compensation value/replacement cost (*ganti rugi*) will be submitted to the LAC and will be decided by local government based on the result of negotiation between the land owner and PLN mediated by the LAC.
- In each village the LAC will facilitate the land price negotiation with the PAP and PLN. It might be conducted once in most cases, or more than once in other cases.
- When the land price negotiation has been agreed between the PAP and the Project, then the LAC will initiate the nomination payment list.
- When the value of compensation cannot be reached, the case will be reported to District Head. If the district cannot reach agreement with the PAPs, the case might be taken as an agenda meeting in the Policy Formulating Team of West Java Province before conveying it to Governor of West Java for solution decision.
- Where possible, repeat negotiation with the PAP will be taken using above formulating Head of District/Governor policy
- The last option to solve the disagreement between the parties is to go to court for consignment. However the objective of preparing the LARAP is to do land

acquisition and resettlement well approach and solution as social economy condition of the affected peoples.

7.1.3. Preparation of draft of nomination payment list

- The LAC will prepare three kinds of draft of nomination payment list of Land, buildings and Plants/Trees
- These lists will be published in Village office. The PAP will have the chance to check their affected assets belonging.
- Based on the revised payment proposed by the PAPs, LAC should make field verification together with the PAPs.
- Based on the LAC verification result, LAC will issue the revised list of payment and this list will be used as the final compensation payment list.

7.1.4. Compensation Payment

- After getting cash transfer from PLN Head office, PLN PHJ will proceed the compensation payment
- Compensation payment will be conducted in the affected village office by the project.
- Compensation will be given in cash through bank transfer
- Three kind of payment list of Land, buildings and Plants/Trees should be signed or finger print by the legal owner
- The photograph of payment receiving PAP will be taken and put in the payment list.

7.2 Resettlement Action Plan

7.2.1. Minimizing the Resettlement

The most feasible alternative is the power scheme comprises two reservoirs, each with an active volume of 10,000,000m³. The upper reservoir will be 80ha when full, and the lower reservoir will be 260Ha when full. The upper reservoir discharges water to generate electricity during peak load. The stored water from the lower reservoir is pumped to the upper reservoir during off peak demand using energy supply from the base load power plants. In addition, the proposed project will provide spinning reserves and reactive power, as well as other auxiliary services to the power system. A pumped storage scheme will allow more flexibility in the power network, and provide PLN with a cheaper method of meeting daily peak loads and demand of auxiliary services.

This scheme is in compliance with the World Bank policies OP 4.12 Involuntary Resettlement Policy that Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs. In generation or installed capacity point of view, this scheme occupies land area much smaller than those other types of nearby hydro electric power plant, thus it would be less resettlement problem. For example, reservoir of Cirata HEPP (1000MW) required land 6300Ha; reservoir of

Saguling HEPP (700MW) required land 5600Ha, while the total Upper Cisokan Pumped storage HEPP (1040MW) will require land less than 800Ha.

7.2.2. Action Plan

Resettlement Implementation Team will develop various resettlement and rehabilitation options that people can choose form of resettlement, and provide references where readers can find each package defined, and contact persons for delivering each option. This information will be publish and available in each affected village offices.

Action that needs to be done in relation with resettlement and economic restoration program are as follows:

7.2.2.1. Project Managed-Resettlement Program

Steps to determine the resettlement are as follows:

1. The pre feasibility study of resettlement sites has been conducted as presented as a supplement document of this LARAP (Appendix 1). The 50HH (200 people) which resided in BantarPicung, Pamipiran Kp Ciawitali and kp Sindanghayu (Pamipiran) mentioned in the Physical & Cultural Resources (PCR) report (EIA appendix E have been included in LARAP, since they will be inundated. The three bridges found near that area will be replaced with two new permanent bridges.
PLN will seek the government endorsement to use three locations are Kampung Munjul, Kampung Pasir Taritih and Kampung Nagrak. Institutions/parties to be involved in this activity are PLN, the West Bandung district, Cianjur district and Province of West Java. To assess the environmental and social impact, the UKL-UPL¹ (short EIA/EMP) will be prepared.
2. After the government permit has been granted, PLN conduct a feasibility study and environmental carrying capacity for those three resettlement sites covering:
 - a. Geological condition and potential natural hazard,
 - b. Clean water availability,
 - c. Agro ecosystem study,
 - d. Physiographic and land suitability,
 - e. Accessibility to economic and social facilities such as market, education, and health.
 - f. Socio-economic aspects of the proposed site such as land ownership, perception of local community regarding the proposed resettlement plan, etc.Institutions/parties to be involved in this activity are PLN, Consultant and PAPs.
3. Inventory of PAPs who want to be moved to the new settlement site. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District office, Cianjur district Office, and Local NGO.

¹ UKL-UPL (Upaya Pengelolaan Lingkungan dan Upaya Pemantauan Lingkungan)

4. Resettlement site visit and consultation regarding location and perception of the PAPs. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, and Local NGO.
5. Decision of resettlement site based on study result. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District office, Cianjur district Office, and Local NGO.
6. Consultation with PAPs on preliminary resettlement plan design and associated economic restoration programs that will be developed in accordance to local resources. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District office, Cianjur district Office, and Local NGO.
7. Design and physical construction of resettlement including other facilities required by the PAPs. Institutions/parties to be involved in this activity are PLN, Resettlement Team, and Contractor.
8. Relocation of the PAPs to the resettlement site.
 - a. Decision on house ownership including administration status of assets in their new settlement site.
 - b. Moving out the PAPs to their new settlement site.

Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung District office, Cianjur district Office, and Local NGO.

9. Monitoring and “treatment” to new settlers, covering socio-psychological aspects, and economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Consultant, Village Office, Sub District Office, West Bandung District office, Cianjur district Office, and Local NGO.

7.2.2.2. Resettlement on Their Own

1. The government should provide the PAPs with information on the Spatial Planning of the area desired by the PAPs (in the surrounding project area).
Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung and Cianjur Districts Office, and Local NGO.
2. Interview a sample of PAPs will be taken to discover how they plan to invest compensation, prepare procedures to assist. Institutions/parties to be involved in this activity are PLN, Resettlement Team.
3. Guiding and giving assistance to the PAPs who want to move out on their own with small scale economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung and Cianjur Districts Office, and Local NGO.
4. The PAPs who want to move out by group (minimal 30 head of household) will be provided with facilities such as road, drainage, and other necessary public facilities. Institutions/parties to be involved in this activity are PLN, Resettlement Team,

PAPs, Village Office, Sub District Office, West Bandung and Cianjur Districts Office, Independent Monitoring Agency, and Local NGO.

5. Monitoring on economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, West Bandung and Cianjur Districts Office, Independent Monitoring Agency, and Local NGO.

7.2.2.3. Action Plan of Resettlement

The Resettlement Implementation Team will play the most important role for the success of resettlement. There will be Resettlement Implementation Team (RIT) in each district/regency (Districts of West Bandung and Cianjur). To synchronize the operation mechanism of resettlement between two teams will be facilitated by the Resettlement Policy Formulating Team. The following table 7.2.1 describes the key issues and brief action plan.

In supporting the program action of relocation of those PAPs who would like to be relocated by the PLN/local government, in the appendix is a pre-study of site assessment for the potential resettlement sites. The result of the pre-site assessment for the resettlement program of the UCPS Project recommends that considering that most PAPs are preferred to be relocated in the surrounding areas where they are living, and considering that most PAPs are working on land-based economic activities, this study initially come up with nine potential sites. Based on consideration of the biophysical characteristics and aspects of the natural hazard, and agro ecosystem, of the nine potential sites required for resettlement, this study determined the three locations, namely Kampung Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampung Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampung Nagrak, Girimulya village, Cibeber sub-district, Cianjur district. These three sites are relatively possible based on basic criteria for resettlement sites, especially geological and clean water availability.

As part of the economic recovery for those PAPs who have to relocate, there will be some models of agriculture-based economic activities. First, agriculture-based activity in the form of home garden-based agricultural practice with market-oriented fruits as main components. Second, livestock-based small scale economic activities with goats as main component. Thirdly, chicken-based small scale economic activities, with local chicken as main component, and fourthly, after harvest fruit processing with banana and cassava as the main components. Fifthly, the combination of agriculture, animal husbandry and home industry.

As for the housing design for each of the proposed site for resettlement, it was recommended that considering that in Kampung Nagrak, the geological characteristics and conditions are not “sensitive” to mass movement and/or landslide, the housing design and construction could be permanent house (house with full cement construction), semi-permanent (a combination of cement and wood construction), and

sundanese traditional house (rumah panggung = fully wood/bamboo construction). While, for Kampung Nagrak and Kampung Pasir Taritih, considering that these two locations are relatively with steep and very steep slope, the rumah panggung will be more suitable. All of these housing design will be completed with sanitary and accessibility to water and electricity. More elaborated information to the site assessment results can be learned from the separate report, titled “a pre-feasibility Site Assessment for the Resettlement Program of the UCPS Project” in the Appendix 1 of this report.

7.2.2.4. Land Acquisition on Forest replacement and Resettlement sites

Based on Government Regulation No. 43 Year 2008 on Guidance of Lending-Using of Forest Area and Government Regulation No. 32 Year 2010 on Forest Area Land Replacement, there are 6 candidate areas to be forest land replacement, which are: Bojongsalam village, Rongga sub-district; Sirnaraja village, Cipeundeuy sub-district; Gununghalu village, Gununghalu sub-district; Cinengah village, Rongga sub-district; Bunijaya village, Gununghalu sub-district and Ciptaharja village Cipatat sub-district located in West Bandung district. As for the location of Cianjur district, there are 2 candidate areas to be forest land replacement, which are: Mekarjaya village, Campaka sub-district and Cibadak village, Cibeber sub-district.

According to Minister of Environmental Decree No. 13 Year 2010 on Environmental Management and Monitoring Efforts and Commitment Letter to Perform Environmental Management and Monitoring, the using areas for forest replacement and resettlement sites must conduct study on Environmental Management and Monitoring Efforts (UKL-UPL) or short EIA/EMP.

Table 7.1 Resettlement Options

No	Resettlement Option	Assistance	Schedule	Responsible entities
1	PAPs to be moved by PLN.	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	Resettlement Implementing Team (RIT), PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity, musholla) 	Ready after being paid of asset compensation	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	<ul style="list-style-type: none"> 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	<ul style="list-style-type: none"> After moving in After moving in After moving in 	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
2	PAPs who wish to move by themselves with more than 30 HHs	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Infrastructure (Road, Water supply, electricity) 	During housing development	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
3	PAP who wish to move in to existing villages (individual HH, in the existing of non affected housing area)	<ul style="list-style-type: none"> • Assistance in moving allowance for each Project Affected Household 	After being paid of asset compensation	RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	Provided for 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation 2 months after compensation	Coordinator: RIT, PLN <ul style="list-style-type: none"> • Livestock agency • Agriculture Training Station • Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station •
		Assistance in enhancing capital for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package ✓ Small Shop Package 	After moving in After moving in After moving in	<ul style="list-style-type: none"> • RIT, PLN • RIT, PLN • RIT, PLN

No	Resettlement Option	Assistance	Schedule	Responsible entities
4	Stay in the existing house The PAP whose house is not acquired by the project	<ul style="list-style-type: none"> • Assistance in moving allowance is not eligible 		RIT, PLN
		<ul style="list-style-type: none"> • Assistance in transition cost 	For 2 month at the time of moving in	PLN
		<ul style="list-style-type: none"> • Capacity Building in a form of assistance in enhancing skill for each family entitle one type of the following: <ul style="list-style-type: none"> ✓ Training of animal husbandry technique ✓ Training of production and processing techniques ✓ Facilitating micro business development ✓ Business/ Marketing Incubation ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation	Coordinator: RIT, PLN Livestock agency
		<ul style="list-style-type: none"> ✓ Business/ Marketing Incubation 	2 months after compensation	• Agriculture Training Station
		<ul style="list-style-type: none"> ✓ Agriculture intensification ✓ Diversified land-based activities 	2 months after compensation 2 months after compensation	• Industrial Training Station • Industrial Training Station • Agriculture Training Station • Agriculture Training Station
<ul style="list-style-type: none"> • Assistance in enhancing capital for severily affected family entitle one type of the following: <ul style="list-style-type: none"> ✓ Livestock package ✓ Farming Associated Business Package 	In paralel with the PAP in no 2 and 3	• RIT, PLN		

Table 7-2. Action Plan of Resettlement

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
1	Dispensing of Information				
	a) Information of resettlement policy	<ul style="list-style-type: none"> • Coordination Resettlement Policy Formulating Team (RPFT), Resettlement Implementing Team (RIT), Land Acquisition Committee (LAC) and PLN Project Implementing Unit (PIU) to redress the issues of resettlement 	Bandung, or West Bandung or Cianjur	Monthly	- RPFT - RIT West Bandung - RIT Cianjur
	b) Information of resettlement implementation	<ul style="list-style-type: none"> • Announcement and socialization of resettlement policy and implementation for the PAP, including various resettlement and rehabilitation options. The RIT develop information dissemination for the PAP through direct meeting conducted in the village meeting hall and by distributing leaflet for the PAP. • Consultation with PAP and Villages Officers will be conducted on several issues such as: <ul style="list-style-type: none"> - Resettlement Location and infrastructures - Assistance - Grievance redress mechanism 	Affected Villages	Monthly	- RIT West Bandung - RIT Cianjur
2	Managing of PAP resettlement				
	a) Data of PAP	<ul style="list-style-type: none"> • Data of PAP who own asset and have received compensation will be adopted from the Land Acquisition Committee. 	Affected Villages	Monthly	Each Regency (West Bandung and Cianjur): LAC to provide data for RIT
		<ul style="list-style-type: none"> • Data of PAP who own no asset that gathered through previously census will be reconfirmed with the village authority 	Affected Villages	After Cut-off date	- RIT West Bandung - RIT Cianjur
	b) Non Vulnerable PAP	<ul style="list-style-type: none"> • Facilitating the PAP who chooses to move out by their own by providing Assistance in moving allowance and identifying when they need economic restoration and assistance 	Affected Villages	After Assets compensation payment	- RIT West Bandung - RIT Cianjur
c) Vulnerable PAP	<ul style="list-style-type: none"> • Facilitating the PAP who opts to move out by their own by providing Assistance in moving allowance • Identifying and facilitating the PAP who opts to move out to housing colony built by the project and identifying the assistance needed. • Providing Assistance in moving allowance and in-kind assistance. 	Affected Villages	After Assets compensation payment	- RIT West Bandung - RIT Cianjur	

No	Key issues	Issues to be done	Location	Schedule	Responsible entities
	d) Housing Colony developed by PLN PIU	• Site selection and Design	Kampong Munjul, Kampong Pasir Taritih and Kampong Nagrak	December 2010-March 2010	- PLN PIU: The Implementation - RIT : Input and PAP consultation coordination
		• Construction	Kampong Munjul, Kampong Pasir Taritih and Kampong Nagrak	April – September 2011	- PLN PIU: The Implementation - RIT : Input and PAP consultation coordination
		• Identifying the eligible PAP	Affected Villages	Starting March 2011	RIT
	e) Infrastructure in the new settlement area other than mentioned on 2d)	• Identifying the proposed settlement area where occupied by more than 30 new houses of PAP that needs new Infrastructure to built by the PIU.	To be confirmed	After Assets compensation payment	RIT
• Construction		To be confirmed	After Assets compensation payment	PLN PIU	
3	Economic restoration and Assistance				
	a) Capacity building	In cooperation with the PIU, facilitating the PAP with the training and other capacity building. This will be conducted after the data mentioned in 2a) ready and before the PAP moving out takes place.	Affected Villages	After Assets compensation payment	RIT with PLN PIU
	b) Coaching	In cooperation with the PIU, facilitating the PAP with the coaching to develop economic restoration. This will be conducted after the PAP moving out takes place.	To be confirmed	After PAP moving into new places	RIT with NGO or specialist
	c) In kind assistance,	In cooperation with the PIU, providing the PAP with the in kind assistance to develop economic restoration. This will be conducted after the PAP moving out takes place.	Affected Villages	Before PAP moving into new places	RIT with PLN PIU
	d) Finding out shelter/ farmland assistance	Assistance for non-title holders and title holders for PAH to find land for their shelter and/or farmland needs	To be confirmed	Before assets compensation payment	RIT with PLN PIU
4	Reporting and Monitoring				
	a) Monitoring	Develop close cooperation with IMA. Use the monitoring data to feedback the implementation. In cooperation with the PIU, the RIT will also develop data base of PAP and monitor the resettlement.	Affected Villages (The previous and the new destination)	Quarterly, after relocation (in segment)	RIT in cooperation with IMA and PLN PIU
	b) Reporting	Report will be submitted to Governor of West Java, Bupati (Head of Regents) West Bandung & Cianjur and to PLN. PLN will send the report to World Bank.	Bandung	Quarterly	RIT
5	Grievance redress	Grievance of the PAP will be managed in cooperation with several institution such as LAC, RIT, PIU and sectoral involved institution. Grievance and the redress implementation will be recorded and reported.	Affected Villages (The previous and the new destination)	Monthly	RIT in cooperation with PLN PIU and LAC

Note: PIU – Project Implementing Unit (PLN Hydro Development Java-Bali); IMA – Independent Monitoring Agency

7.3. Schedule and Cost

Activities to be implemented in resettlement activities of PAP (Project Affected People) are included: socialization and dissemination of the project to PAP, socialization and discussion of land acquisition, land acquisition, discussion about resettlement plan, discussion of public choice of rehabilitation plan, consultation on resettlement site, preparation and resettlement site construction, implementation of population movement, monitoring and evaluation of project implementation.

The LARAP providing sufficient budget which include the following aspects:

1) Basic losses

Providing the Compensation budget for all type of losses (private own, institutional and public facilities). Although the replacement and mitigation cost of losses and public facilities (bridges, school, clean water provision) is calculated under the LARAP budget, but the works will be conducted under the EMP scheme.

2) Rehabilitation, Compensation and Management.

Providing the budget for:

- Assistance for PAPs such as providing capacity building, micro business starting package, business transition allowances.
- Committees budget: a) Land Compensation b) Resettlement Implementation team c) Resettlement Policy Formulating team
- Capacity building for institutional (Committees and PLN PIU)

3) Impounding preparation.

Although the of purpose of this plan also covered by EMP scheme (clearing vegetation & debris works), but the budget is included in LARAP. Because, this involves the concerns of PAPs (demolished material, cutting trees) and the impounding committee whom some members will be partly taken from Land Compensation and Resettlement Implementation team.

The resettlement activities and time schedule is presented in Table 7-3. The cost estimation and the assumption of cost calculation are presented in Table 7-4 and 7-5 respectively

Table 7-4. LARAP - Cost Estimate Upper Cisokan Pumped Storage Power Plant Reservoir and Main Construction Works Area

NO	Type Of Loss	Volume							Allocated budget (xRp.1000)
		UNITS	Upper Reserv.	Disposal	Land Slide	Lower Reserv.	Switch Yard	TOTAL	
A	BASIC LOSSES								354,037,935
1	Agricultural Land	ha	72.73	6.38	19.28	217.46	7.84	323.69	
2	Homegarden	ha	15.44	0.94	5.45	15.57	2.37	39.77	
3	Forestry Land	ha	37.15	3.80	8.01	35.02	1.18	85.16	
4	Plants/Trees Crops								
4.1	Trees Perennial crop								
	a). Trees (Timber plants)	trees (x1000)	13.54			162.54		176.08	
	b). Trees (Non Timber plants)	trees (x1000)	74.39			342.48		416.86	
4.2	Non perennial crop	ha						-	
5	Houses/building	m2	22,940	2834	5781	15955	3240	50,750	
		unit	459	39	104	376	57	1,035	
6	Squatters (Lost of shelter)	PAP	5			24		29	
7	Business		17		2	11	1	31	
8	Loss of Jobs (Sharecropper, labors & squatters)							-	
9	Public Facility and Social infrastructure	m2						-	Spent in EMP
	a). Mosques	Unit	6			1		7	
	b). Musholas	Unit	14			14		28	
	c). Schools	Unit	3			3		6	
	d). Graves	Number	196			490		686	
	e). Bridges (short)	Number				2		2	
	f). Bridge (long)	Number				1		1	
	g). Domestic water and sanitation	Number	4			6		10	
	Project Affected Household (PAH)	PAH	276	25	67	590	38	996	

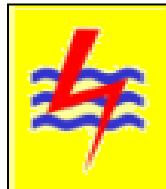
NO	Type Of Loss	Volume						TOTAL	Allocated budget (xRp.1000)
		UNITS	Upper Reserv.	Disposal	Land Slide	Lower Reserv.	Switch Yard		
B	REHABILITATION, COMP. & MANAGEMENT								117,352,913
1	Vulnerable groups	PAP	5			2		7	
2	Relocation allowances	PAP	229	21	45	255	33	583	
3	Development & Constr. of Relocation sites	Sites						3	
4	Communication, Monitoring & Evaluation	Opr. Months						24	
5	Assistance								
a	Capacity Building for PAPs	PAH						996	
b	Micro business Starting Package	PAH						996	
c	Business Transition allowances	PAH						996	
6	Land Compensation Committee	Opr. Months						18	
7	Resettlement Implementation Team	Opr. Months						48	
8	Resettlement Policy Formulating Team	Opr. Months						48	
9	Capacity-building (Institutional)	Times						4	
C	IMPOUNDING PREPARATION								18,200,000
1	Clearing vegetation & Debris	Ha						340	Spent in EMP
2	Impounding Team	Opr. Months						12	
	Physical Contingency (3%)	%						3	10,621,138
	Price Contingency (2%)	%						2	7,080,759
	TOTAL								507,292,745

Table 7-5. LARAP - Cost Estimate Assumption Calculation

NO	Type Of Loss	Cost Estimate Assumption Calculation
A	BASIC LOSSES	
1	Agricultural Land	Estimate market price of land. Independent team will survey and define the basic land price. Negotiation between Land Owner and PLN
2	Homegarden	
3	Forestry Land	The acreage will be based on Minister Decree. The substitution price will follow the above procedure. Replacement will be 2x affected land + Re-vegetation at new location + Land mapping. The Land price at new location and the land price at previous land will be determined by the Independent Appraisal Team -- --> Source Perhutani consultation 2009.
4	Plants/Trees Crops	The basic price will follow the Head of District Decree (West Bandung or Cianjur District) concerning agriculture compensation
4.1	Trees Perennial crop	
	a). Trees (Timber plants)	
	b). Trees (Non Timber plants)	
4.2	Non perennial crop	The basic price will follow the Head of District Decree (West Bandung or Cianjur District) concerning agriculture compensation
5	Houses/building	Estimate market price to build house. The basic price will follow the Head of District Decree (West Bandung or Cianjur District)
6	Squatters (Lost of shelter)	Relocation allowance
7	Business	Compensation per business
8	Loss of Jobs (Sharecropper, labors & squatters)	Based on minimum basic salary of the district
9	Public Facility and Social infrastructure	
	a). Mosques	Average 100m2/unit, Land 200m, replacement building
	b). Musholas	Average 36m2/unit, Land 100m, replacement building
	c). Schools	Average 150m2/unit, Land 250m, replacement building
	d). Graves	Average cost to relocate graves
	e). Bridges (short)	Estimated cost to build permanent bridge
	f). Bridge (long)	Estimated cost to build permanent bridge
	g). Domestic water and sanitation	Estimated cost to build Domestic water and sanitation (Spent in EMP)

NO	Type Of Loss	Cost Estimate Assumption Calculation
B	REHABILITATION, COMP. & MANAGEMENT	
1	Vulnerable groups	Allowance for transportation per PAP
2	Relocation allowances	Allowance for transportation per HH of PAP
3	Development & Constr. of Relocation sites	Estimated cost of Development for Construction of four Relocation sites (Houses, road, water facility, electricity, mushola)
4	Communication, Monitoring & Evaluation	Monitoring cost by consultant
5	Assistance	
a	Capacity Building for PAPs	Averaged operational cost for capacity building and others
b	Micro business Starting Package	Averaged cost for micro business packages
c	Business Transition allowances	Averaged cost for 2 months minimal cost for household
6	Land Compensation Committee	Cost for operational and honorarium by Land Compensation Committee
7	Resettlement Implementation Team	Cost for operational and honorarium by Resettlement Implementation Team
8	Resettlement Policy Formulating Team	Cost for operational and honorarium by Resettlement Policy Formulating Team
9	Capacity-building (institutional)	Cost for operational and honorarium by Capacity-building institutional or NGO
C	IMPOUNDING PREPARATION	
1	Clearing vegetation & Debris	Cost for reservoir clearing of vegetation & Debris conducted by contractor (Spent in EMP)
2	Impounding Team	Cost for operational and honorarium of Impounding Team
	Physical Contingency (3%)	Percentage of Basic loss
	Price Contingency (2%)	Percentage of Basic loss
	TOTAL	

**PRE-FEASIBILITY STUDY OF RESETTLEMENT AREA OF
UPPER CISOKAN PUMPED STORAGE PROJECT**



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1. Introduction

Most of the project affected people (PAPs) want to move out (relocate) from their existing place by their own way in the surrounding villages (EIA, 2006; and LARAP, 2010). Based on these studies, only around 98 household (HHs) of PAPs who want to be resettled by PLN/government. Considering that there are many PAPs who want their resettlement program be arranged by the PLN/government, therefore some resettlement sites should be identified and analysed, and later on, recommended by the PLN/government to be the site for resettlement. The above study also indicates that total number of PAPs from both the upper and the lower reservoirs are 996 HHs of PAPs, where 113 HHs of PAPs of them want to be relocated by the PLN/government. Majority (64 HHs of PAPs) of the 98 HHs of PAPs are coming from the upper reservoir, while the rest (34 HHs of PAPs) are from the lower reservoir, and 15 HHs of PAPs are from access road (LARAP, 2010). The information on where the PAPs are coming from will be used to consider the site selection, not only based on the PAPs desire, but for practicality reasons as well.

The resettlement program organised by the PLN/government will be carried out with the following considerations: the size of land and type of building/house will be determined by cash compensation received by the PAPs and other future economic opportunities. In this case, the PLN/government will provide the options of resettlement sites, building/house designs, water and electricity access, and their possible economic recovery programs in the form of agriculture and non-agriculture based on job opportunities. Apart from the above considerations, the resettlement site selection will also consider the existing public facilities that are already available in the proposed sites, such as road, water sources and their accessibility, sanitary system, and other public facilities such as schools, health services, markets and mosques. These existing physical infrastructures that are already available in the proposed sites will not only be used as considerations for a better resettlement sites, but also to prevent any possible conflict with the local inhabitants. In principle, the better infrastructure for the PAPs should also be felt the same by the local community.

On some issues, there might be more information and/or more analysis that need to be carried out in this study, but this information and/or analysis will be done in a detailed study by the feasibility study team. This report concentrates more in presenting general biophysical and socio-economic conditions within the proposed resettlement sites, and setting the direction for further study. The result of this site assessment for resettlement will be presented in an optional basis. Considering that those PAPs will have to leave their existing houses because of the proposed Upper Cisokan Pumped Storage (UCPS) Project, they have some flexibility in selecting which resettlement site they preferred, but through this pre feasibility study, the PLN offers to the PAPs the location of resettlement site that fulfill the criteria for resettlement site. That is way the proposed resettlement sites will be presented in different scenarios. Each scenario will offer to the PAPs with options of economic packages for economic recovery programs, housing designs and their sanitation systems with its access to water sources, electricity, and a simple guidance on how to cope with possible natural disaster.

2. Objective

To identify and determine the proposed resettlement sites for the project affected people (PAPs) as a result of the proposed Upper Cisokan Pumped Storage (UCPS) Project. This pre-site assessment study will be based on physical condition (geological including water source and environmental hazard, topography), technical feasibilities (status of the proposed lands, the price and mechanism of land acquisition), and the existing socio-economic condition (education, health, and religion).

3. Method of Site Selection

Based on combined considerations from the perspective of physical condition (geological including water source and environmental hazard, topography), technical feasibilities (status of the proposed lands, the price and mechanism of land acquisition), and the existing socio-economic condition there will have the economic development possibilities for the new settlers. Therefore, the process of site assessment/selection is first, identify the geological and hydrological conditions (physical feasibility), second, the point of view of technical/practical considerations, and finally from the socio-economic consideration .

4. Potential Sites for Resettlement based on Geological and Socio-economic Aspects

In the LARAP study (2010), it was mentioned that most of the PAPs preferred to be relocated to Ciangkrong and Sukaresmi. This pre-FS study does not include these two sites for the proposed resettlement sites assessment for the following reasons. Ciangkrong was excluded for site assessment because this site is too far from the PAPs of new access road and the PAPs want to live surrounding the new access road area. As in the case of Sukaresmi, this site is the Forestry land and this site is difficult to be reached by people.

Considering that most PAPs are preferred to be relocated in the surrounding areas where they are living, and considering that most PAPs are working on land-based on economic activities, this study of site assessment come up with nine potential sites as can be seen in Table 1. Later on, after carefully studied natural hazard possibility, status of land, economic characteristic of the PAPs and economic potentiality of the proposed sites, and accessibility for water, electricity, public facilities such as school, health and mosques, these nine potential resettlement sites are prioritised into **three sites**, namely Kampong Munjul, Kampong Pasir Taritih, and Kampong Nagrak (Table 2). Actually, there is a fourth site that is potential for resettlement site that is Kampong Ginaya, Cibitung village (site No. 7 in Table 1). However, from the perspective of geological/natural hazard factor, this site should be further studied geologically in the upcoming FS study.

The three proposed resettlement sites can be seen in Appendix 1. It is also important to be informed that the area proposed in each site is under process of permit to the local government. It should also be informed that the resettlement area proposed for each site, for example, 2.2 ha available in Kampong Pasir Taritih, can be expanded if more assessment for that purpose will be explored. This possibility can be further studied in the upcoming FS study.

From the perspective of socio-economic recovery programs, these three selected sites are feasible considering that more than 50% of these sites are used for agricultural activities such as mixed garden, rain-fed paddy fields, and homegardens. Apart from the agricultural-related activities, the recommended sites are also known for livestock business. The common agricultural commodities are banana, cassava, corn, and albizia. While types of livestock commonly found in the area are chicken, sheep and goat. These agricultural and livestock commodities are commonly found in the local and regional markets. In short, these market oriented products are potential for economic recovery programs of the residents. The proposed three resettlement sites are relatively close to the existing local markets. Further detailed information can be found in Table 1 and in each of the proposed three scenarios.

Considering that the proposed three sites have a relatively fertile soils, mostly agricultural lands, and close to the existing local market, therefore, the economic opportunities in the form of agriculture and livestock activities, for the incoming residents are relatively promising. This economic opportunity is further supported by the fact that the population density in the three proposed sites are relatively low, which is varied from around 600 to 725 persons/km² compared to the population density for West Java (1,441 persons/km²).

From the perspective of geological and natural hazard aspects, these three proposed resettlement sites are preferred compared to the other sites (Table 1). Geologically, these sites are composed by a combination of tuffaceous sandstone and weathered sandstone, which is considered as a fertile soils. Compared to other proposed sites, these sites are also considered to be less potential for soil movement (land slide) as can be seen in Table 1 (rock structure). There are some possibilities of land slide occurrences, but this is commonly taken place in areas with steep to very steep slopes. These areas should be identified in the upcoming FS study, so that the chance of land sliding and its impact to the resident can be avoided or minimised.

Hydrogeologically, more specifically, in-terms of water availability, these three sites are better off compared to other sites as can be seen in the same table that all of these three sites have spring water as their source of domestic water use. This source of water is relatively available all year long. Despite the spring water, in these three sites are also found both deep and shallow wells for daily water use.

Table 1. Biophysical and socio-economic characteristics of nine potential resettlement sites

No	Description	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9
1	Village	Bojongsalam	Bojongsalam	Bojong	Margaluyu	Margaluyu	Margaluyu	Cibitung	Karangnunggal	Girimulya
2	Kampong	Tangkalak/ Cikarang	Demplot	Munjul	Datar Peundeuy	Pasir Taritih	Cipateungteung	Ginaya	Cihurip	Nagrak
3	Area (Ha)	40	50	80	40	2,2	1,0	15	2	3,5
4	Site elevation	906 asl	931 asl	914 asl	589 asl	632 asl	617 asl	752-757 asl	517 asl	432 asl
5	Coordinate									
6	Land status	Private land (BJA)	Private land (BJA)	Private land (BJA)	State land	Private land	State land	Private land	Private land	Private land
7	Geological condition									
	Sensitivity zone	High	Medium to high	Low	Medium	Medium	Medium	Medium	Medium	Medium
	Rock type	Sandstone	Sandstone	Tufaceous sandstone	Sandstone and claystone	Tufaceous sandstone and claystone	Sandstone	Sandstone	Breccia, Sandstone, Weathered sandstone	Breccia, Sandstone, Weathered sandstone
	Fault Activities	Fault	Fault	No fault	Fault	No fault	No fault	Close fault zone	No fault	No fault
	Land slope	Steep to very steep slope	Steep to very steep slope	Mild to steep slope	Steep slope	Mild to steep slope	Steep to very steep slope	Mild to medium steep slope	Steep slope	Mild slope
	Source of water	Shallow well (3 – 6 m)	Shallow well (3 – 4 m)	River Shallow well spring water	Spring water	River	Shallow well (5 – 10 m)	Shallow well	Direct rainfall	River Shallow well Spring water
8	Infrastructures:									
	Distance from main road	500 m	50 m	3,6 km	200 m	3 m	40 m	1 km	1,4 km	20 m
	Road condition	Wide : 3 m	Wide : 5 m	Wide : 5 m	Wide : 3 m	Wide : 3 m	Wide : 4 m	Wide : 4 m	Wide : 3 m	Wide : 3 m
		Extension : 2 m	Extension : 0 m	Extension : 0 m	Extension : 1 m	Extension : 1 m	Extension: 0,5 m	Extension: 0	Extension: 1 m	Extension: 0
	Site distance to:									
	- Market	2,7 km	3,0 km	3,7 km	2,7 km	2,0 km	200 m	4 km	5,9 km	7,2 km
	- School	3,0 km	2,2 km	1,5 km	1,5 km	1,0 km	120 m	750 m – 4 km	1,4 – 6,9 km	1,7 – 8,2 km
	- Mosque	2,8 km	1,9 km	3,8 km	1,0 km	300 m	150 m	500 m	1 km	1,2 km
	- Village office	2,8 km	1,9 km	3,6 km	3,3 km	2,75 km	40 m	1 km	2,9 km	2,4 km
	- Health facility	2,8 km	2,0 km	3,8 km	-	-	-	-	5,7 km	-
	- Electricity 20 Kv	2,8 km	3,0 km	3,6 km	1,5 km	1,0 km	80 m	1 km	2,4 km	2,4 km
9	Agroecosystem									
	- Land use type	Mixed garden, paddy field, homegarden	Mixed garden, paddy field, homegarden	Mixed garden, homegarden	Mixed garden, paddy field	Talun, mixed garden	Talun, homegarden, paddy field	Paddy field, talun, dryland, homegarden	Mixed garden	Mixed garden, paddy field
	- Type of plants	Pine, <i>sereh wangi</i> , banana, sugar palm, bamboo, corn, cassava	Pine, albizia, <i>sereh wangi</i> , banana, sugar palm, bamboo, corn, cassava	Pine, albizia, calothyrsus, banana, <i>sereh wangi</i> , corn	Pine, albizia, sugar palm, banana, jack fruit, cassava, pineapple	Albizia, calothyrsus, banana, jackfruit, cassava, coconut	Albizia, sugar palm, bamboo, coconut, banana, tomato, citrus	Rice, corn, jackfruit albizia, pineapple, banana	Cassava, albizia, banana, bamboo, various trees	Albizia, cassava, banana
	- Soil fertility	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay (fertile)	Sandy clay	Sandy clay
10	Social aspects:									
	- Jobs	Farmer, labour, street trader, home servant,	Farmer, labour, street trader, home servant,	Farmer, labour, street trader,	Farmer, labour, street trader,	Farmers, transport, small	Farmers, transport, small	Farmer, mechanic, small	Farmer, private business, labour,	Farmer, labour, house material

		home industries	home industries	home servant, home industries	home servant, home industries	trader, labour farmer	trader, labour farmer	scale trader, house building making, sand miner	handy crafter	making, overseas servant, small scale business
	- Local community response to the relocation program	Welcome with the hope that public facilities will be improved; there will be compensation, etc.	Welcome with the hope that public facilities will be improved; there will be compensation, etc.	Welcome with the hope that public facilities will be improved; there will be compensation	Welcome with the hope that public facilities will be improved; there will be compensation	Welcome with the hope that public facilities will be improved; there will be compensation	Welcome with the hope that public facilities will be improved; there will be compensation	Welcome with the hope that public facilities will be improved; there will be compensation	Welcome with the hope that public facilities will be improved; there will be compensation, etc.	Welcome with the hope that public facilities will be improved; there will be compensation, etc.
	- Number of local community (person)			5275		4485				4381

5. The Proposed Resettlement Site

Based on consideration of the physical characteristics and aspects of the natural hazard, agroecosystem, and socio-economic of the nine potential sites required for resettlement, this study determined the three locations (**Annex 1**), namely Kampong Munjul, Bojong village, Rongga sub-district, West Bandung district, Kampong Pasir Taritih, Margaluyu village, Cibeber sub-district, Cianjur district; and Kampong Nagrak, Giri Mulya village, Cibeber sub-district, Cianjur district.

There are two extreme possibilities that the PAPs might response to this proposal for the resettlement site organised by the PLN/government. First, there will be more PAPs than anticipated will be interested in joining this organised resettlement program in these three resettlement sites. In this case, the upcoming FS study should be prepared that for each site, exploration for more possible lands for accommodating the PAPs should be carried out. The same models for economic recovery programs, house design and its lay out, and technical works and assistances should be prepared. The most likely constraints is that the price of the available lands could be more expensive as the site approaches the already available public facilities, if this is the case.

The second possibility is that there will be only a few PAPs who are interested in the proposed sites. If this is the case, therefore those who are not interested in joining the organised resettlement program will be treated the same as those who want to move out by their own way/initiative. Other possibility is that there should be any negotiation between the PLN/government and those who reject the existing resettlement program/proposal. The upcoming FS study should also anticipate these possibilities.

These three sites are relatively safe zone based on the following geological criteria.

(1) Proposed resettlement site No. 3 (UP3), Kampong Munjul

The landscape of the relief is moderate with geological condition is slightly coarse, research area and its surroundings composed by tuffaceous sandstone with moderate to high levels of weathering, with a characteristic level of hardness is a soft, reddish-brown color sometimes found fragment lytic white - gray young (Figure 4). There is no distinct geological structures that control the landscape in the study area (Annex 2). In general, the landslope is varied from mild steep to steep slopes (8% -50%). With this slope, then the weather becomes very important factor in this area, where residents have to increase the guard time in the rainy season or during wet months (high rainfall). Minimum rainfall is 3mm/month, occurred in June-September, while the wet months occur in the month of October to May with the highest rainfall of 661 mm / month.

The water sources are available by shallow wells in the valley and also the river on the base valley floor. Land use is typical of dryland farming, with settlements concentrated in the valleys some mixed garden, Citronella (*Sereh Wangi*) and scattered trees on the slopes. This area is close to the state owned forest of *Pinus Merkusii*. Soil erosion is considered low to moderate levels. Materials and debris avalanches are still possible. Avalanches occur so that residents are required to be alert during the wet months, especially during the months of October – May.

Based on the data sheet of Cianjur Indonesia Hydrogeological Map (Manaris, et al, 1998) and direct research on Kampong Munjul, it shows that the area is a regional ground water scarce or non-aquifer (Annex 3), with discharge less than 5 liters per second (Figure 5).

Based on the results of interviews with local residents, ground water source water obtained from wells dug from a depth of approximately 5 meters as well as river water, but the wells are only located at the bottom of the valley which is generally a residential area that already exist. However, the water availability in this area is continues throughout the season, both rainy and dry seasons. But if the settlement areas on the slopes and on the ridge of the hill, then during the dry season, dig wells in this area will be reduced, to meet the water needs for the citizens of relocation on the slopes or on a ridge, it should be created for water storage reservoir on the valley floor and then raised up into the residential area where the water reservoir was also built here, in order to meet water needs during the dry season. If it is the rainy season, so residents can meet their needs with wells that have been available in each home.

Based on the Sensitivity Zones Map Soil Movement (Usman and Djadja, 2004) this region has low levels of sensitivity of ground/soil movement, but according to the observation in the field in this zone, soil movement still occur if the area is susceptible to interference on its slopes (low to intermediate level). Movement of small dimension and the local soil is still likely to occur, especially on the river cliff (Annex 4.). From the field assessment, the proposed resettlement site Kampong Munjul , the sensitivity zone level is from low to medium.



Figure 1. Land of resettlement site No. 3 (UP3) Kampong Munjul

In Kampong Munjul, soil movement that occurs in the form of landslide debris material that generally occur on the steep cliff, with a length of material that slide between 3-7 m, with the cliff as wide as 5-25 m. Factors causing soil movement in this area can be driven by the following:

- The slope is considered to be steep slope;

- Land cultivated for citronella, is open land so that the run-off is high;
- At the bottom of the soil layer of rock debris have a watertight, this causes the water can not infiltrate, and hence increasing the surface run-off;
- Tuffaceous sandstone unit located in Kampong Munjul is not harmful to the residential areas were relocated. Just be wary of the region above 21% slope, especially when the wet months with high rainfall, because it would have the potential occurrence of local avalanches.

(2) Proposed resettlement site No. 5 (LO2) Kampong Pasir Taritih

It is a hilly relief of fine to medium. Rocks formations are from fine to medium and tuffaceous sandstone. There are no geological structures that control the area (Figure 14). The slope condition is from gentle to steep 10 – 25%, low-or middle-groundwater presence with a spring at the top of the hill. The water sources are from drilling wells and dug wells at the bottom valley and the river.

Based on field observation and information from residents in the vicinity of the location, the source water comes from springs in the vicinity which flowed through the pipes of water that flowed into people's homes, with discharge \pm 6 liters per second. To meet the water needs of residents in Pasir Taritih, it must be made water reservoir which is then distributed to the residents relocate. There are two sources of water for the reservoir, namely, river water for bathing and washing, and springs for drinking / cooking and other clean water requirements. It is necessary to make two kinds of reservoir water, where both the water reservoir is sourced from a waterfall that is also found nearby springs, located on the upstream side with a distance of \pm 500m from residential areas.



Figure 2. Land of resettlement site No. 5 (LO2) Kampong Pasir Taritih

Dry season in this PasirTaritih area occurred in June to October of 1.8 mm / month and the month of November to May is a wet month in which rainfall occurs quite large, which is 463.6 mm / month, so residents in Pasir Taritih especially near the cliff edge is expected to

further increase the guard. PasirTaritih (LO 2), see Figure 18 including into areas that have a potable wells ≤ 5 l / sec (light green color of the map).

Level of erosion in the vicinity of PasirTaritih (LO2), belonging to the level of erosion low - moderate. Condition and Type of Soil Movement in Pasir Taritih is not found even when the field observation was conducted in conditions of substantial rainfall (rainy season), thus this area is relatively safe to the land movement.

Based on soil movement Vulnerability Zone Map (Usman and Djadja, 2004) Pasir Taritih area (LO2) belonging to a high level of landslide susceptibility (Fig. 19), Meaning that the location of this common ground movement. However from the results of field surveys did not find any point landslide (a zone of low soil vulnerability). This is because the rock that has good cohesion (tuffaceous sandstone), vegetation is also quite good, so it can help reduce soil movement. From the results of field measurements of slope regions Sand Taritih (LO3) has a slope of 10-25% (Nichol and Edmundson, 1975), then this location is included in the classification until rather steep slope. From the research mentioned above, then this location has the potential as a resettlement area.

Land use is a typical dryland area dominated by mixed garden of fast growing trees and fruit trees combination.

(3) Proposed resettlement site No. 9 (GM) Kampong Nagrak

Rock formations are fine to medium, with sandstone, breccia and weathered sandstone formations. The landscape is dominated with gentle to steep slope, there is no fault structure, so that the area is relatively spared from the possibility of ground movement (Figure 22). Slope between 10-15% and 15-20% (ramps - a bit steep), including into the hilly landscape of fine to medium relief. Dry season in this Pasir Taritih area occurred in June-October, by 1.8 mm / month and the month of November to May, the wet months where rainfall is quite large, which is 463.6 mm / month (rainfall observation station is the same with PasirTaritih).



Figure 3. Land of resettlement site No. 9 (GM) Kampong Nagrak

Based on the review on Hydrogeological Map of Indonesia sheet Cianjur (Manaris, et al., 1998) can be seen that the area Nagrak (GM), including into areas that have a potable wells ≤ 5 l / sec (Figure 18). While the results of field observations, this region includes the areas of water surplus, water wells have a depth of 2-4 meters and also there are other springs. Groundwater presence is from intermediate to high, with dug well depth of 2 – 4 m. There are also found some springs and the river in the base valley.

Erosion at the village level Nagrak (GM) and surrounding areas, including into the low level of erosion, this is caused by several factors;

- First, with a gentle slope, the speed and volume of surface runoff to be small.
- Second, the type of soil and rock, soil type and bedrock consists of sandstones are weathered medium (moderate), so it does not easily occur erosion.

Based on the landslide Vulnerability Zone Map (Usman and Djadja, 2004), Kampong Nagrak (GM) belonging to the low vulnerability zone soil movement (Fig. 19), means that at this location are rare landslide. Based on field surveys have not found any point landslide. this is due to its rock-forming sandstone breccias and weathered sandstone, and the vegetation cover is very good. The condition and type of soil movement in the prospective relocation 9 is not found, although during field observations conducted in conditions of substantial rainfall (rainy season), thus this area is relatively safe to the land movement and is suitable for use as a resettlement area.

As the first and second proposed sites, the land use is typical of dryland farming with paddy field and mixed gardens of combination of fruit and fast growing trees. The residential areas are located at plain areas and some of them at the gentle slope areas. Generally, the agricultural area is with low level of soil erosion, and soil movement is not recognized. In short, the proposed area is considered to be low soil sensitivity zone. The specific geological and hydrological characteristics are summarized in Table 2.

Table 2. Three proposed resettlement sites

Description	Site No. 3 (Kampong Munjul)	Site No. 5 (Kampong Pasir Taritih)	Site No. 9 (Kampong Nagrak)
District	Bandung Barat	Cianjur	Cianjur
Sub district	Rongga	Campaka	Cibeber
Area (ha)	80	2,2	3,5
Number of owner	1	2	1
Number of cultivator	105	2	1
Coordinates position	N6°58'40" - E107°15'40"	N6°59'10" - E107°11'00"	N6°55'504" - E107°10.175'

Landscape	Relief: moderate to high	Relief: mild to moderate	Relief: mild to moderate
Rock type	Tuffaceous Sandstone	Tuffaceous Sandstone	Breccia, sandstones and weathered sandstones
Fault activity	None	None	None
Land slope	8–50% (mild to high)	10 – 25% (mild to moderate)	10-15% and 15-20% (mild to moderate)
Rainfall	3mm/month (min) - 661 mm/month (max)	1,8mm/month (min) – 463.6 mm/month (max)	1,8mm/month (min) – 463.6 mm/month (max)
Ground water	Moderate to abundance	Abundance	Abundance
Source water	Well discharge is < 5 ltr/sec, spring water	Spring water (6 lt/sec), deep well (50 m) and shallow wells (3-5 m)	Shallow wells of 2-4 m
Land use types	Dry-land, paddy field, plantation, settlement	Dry-land, paddy field, settlement	Paddy field, dry-land, settlement
Soil erosion rate	Low to moderate	Low to moderate	Low
Land movement	Light to moderate	None	None
Land movement potential	Land sensitivity zone: mild to moderate	Land sensitivity zone: mild with potential land movement	Land sensitivity zone: mild
Feasibility	Suitable for settlement	Suitable for settlement	Suitable for settlement

6. Scenarios for Resettlement Site Selection

6.1. Scenario 1:

The proposed three resettlement sites are: **Kampong Munjul** [proposed for around 79 HHs of PAPs], Bojong village, Rongga sub-district, West Bandung district; **Kampong Pasir Taritih** [21 HHs of PAPs], Margaluyu village, Campaka sub-district, Cianjur district; **Kampong Nagrak** [13 HHs of PAPs], Giri Mulya village, Cibeber sub-district, Cianjur district. This

proposed number of PAPs for each kampong will vary depend on the preference of the PAPs in deciding where they want to move out. This report is giving the description of geological, hydrological, and socio-economic aspects for the PAPs information and they can choose where they prefer to stay.

6.1.1. Kampong Munjul

(1) Geological and natural hazard aspect

Kampong Munjul, will be occupied by 79 HHs of PAPs, from research, the study area and the surrounding unit is composed of tuffaceous sandstone, with moderate to high levels of weathering, and the level of disturbance is mild. Sand grain size is from fine to medium (1/8mm - 1 / 4 mm). This formation is considered to be within Cilang Formation Pliocene age rocks (Figure 4). Geologically, this site is prospective resident's area, especially those areas with gentle slopes of less than 10-15% in order to avoid local soil mass movements.

This location can be classified into sensitivity rank between low to moderate, so that in the middle zone (Fig. 5.), should pay attention for the following considerations:

- Better to develop housing on horizontally cut slopes less than 15%;
- For cut slopes more than 15% better to plant crops;
- Houses/buildings build far from the cliff (above or below the cliffs);
- Prepare awareness by site inspection when it rains continuously for more than two days, especially for those living near the cliff;
- Plant more trees with deep root system, which serves as an absorber of water and as a stake/peg which serves to maintain the soil in place;
- If there is little avalanches or cracks, immediately report it to local office in charge in natural hazard handling;
- Provide the area with information on soil and slope stability, so that the local people become aware of the potential soil movement/land slide danger.

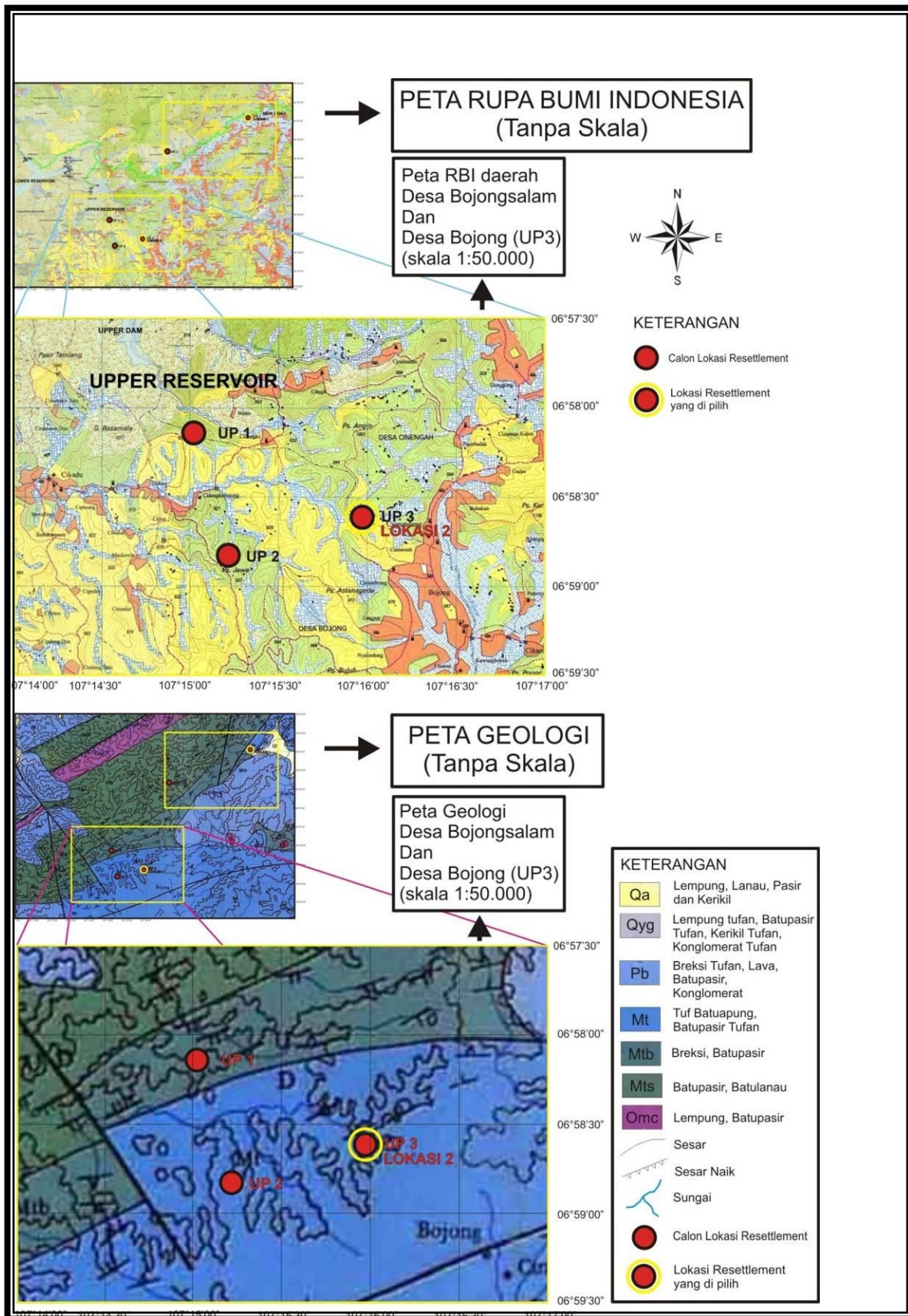


Figure 4. Geological map of the proposed resettlement No. 3, Munjul (UP3) (Scale 1:50,000, and yellow circle is the selected location)

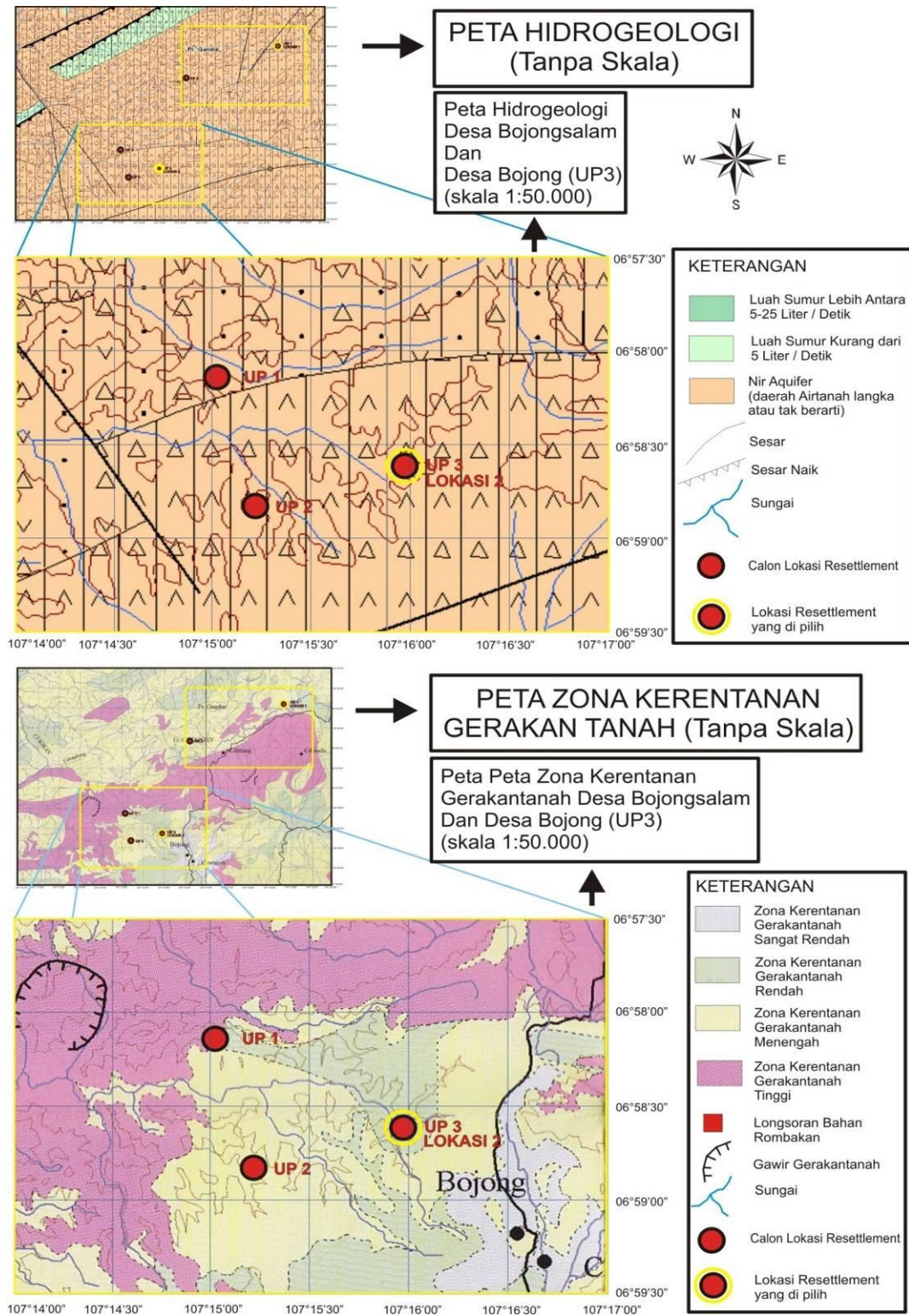


Figure 5. Hydrogeology and sensitivity zone maps in the proposed site No. 3 (UP3) (Scale 1:50.000, and Yellow circle is the selected location)

(2) Infrastructure, Capacity, and Design of House

a. Infrastructures

Infrastructure describes the condition of physical and social needs fulfillment which is significant as part of service and facility in order for the economy or social life goes well. The indicators to measure infrastructure are: distance from road to field location, road condition, distance to the market, distance to school, distance to mosque, distance to the village administrative, distance to local health care, types of market and number of schools.

The distance from the resettlement in Munjul to the main road (accessible by car) compared to the other location in other villages is considered farthest, around 3.6 km. This main road is quite wide with 5 m width, but access to the resettlement can only be done by motorbikes since in about an hour before the location we have to go through small streets between housings. Therefore, if the location in Munjul is selected for resettlement program, making alternative ways or new ways are necessary. The current street's condition especially 0.5 km before entering the location is still a ground road so it gets slippery in the rainy season.

The distance to the village market is about 3.6 km. Activities in the village market take place every Sunday from dawn till 1pm. The village market is where villagers sell their crops and livestock, also buy goods they can't produce in the village. Distance to the mosque is around 0.2 km. The nearest elementary school is about 1.6 km. Besides an elementary school, there is also a junior high school and senior high school in the village. Meanwhile the distance to the village administrative office is about 3.6 km and it is 3.8 km away from the local health care. The impact of the influx of the resettler should consider to increase the capacity of mosque, elementary school, junior high school and senior high school to accommodate the new number of residents

b. Site Capacity and PAPs Distribution

Calculation of capacity for each location is based on the results of surveys about the types of houses and size of the yard are as follows:

1. Minimum land area, based on Minister of Public Work Decree 403/KPTS/M/2002 concerning Technical Guidelines Development Simple Healthy House, 7.2 m²
2. From the study of capacity building and improving livelihoods for the PAPs, land area that can provide a sustainable economic recovery, by making use of the land where they lived. The concepts that have been studied include the use of the house and yard with an area between 100-500 m², that will be calculated from the compensation based on their assets. Land area can be used for husbandary and farming.

Location in Kampong Munjul with building and size of yard area between 100-500 m² with a maximum about 75 ha to accommodate about 960 households or families.

Distribution of 79 households in Kampong Munjul by taking into account the type or pattern of house cluster and individual house, there will be three possibilities, namely: (1) 7 cluster of 10 households, 9 household of individuals, or (2) 79 household of individuals.

Block plan for the proposed cluster model of 6 households/houses, and cluster of 10 households/houses are presented in Figure 6. Block plan patterns can be used to show cluster

of 6 households with 1 MCK (*mandi-cuci-kakus*, or sanitary system), where each of them contains of 4 bathroom/WC. The pattern can also benefit in cluster of 10 households with 1 MCK containing 8 bathrooms / WC. A mixture of the patterns can also be arranged between cluster 6 households with cluster 10 household patterns, depends on the household needs in the resettlement area.

Position of stage houses must also be noted so the existing land condition do not need too much cut and fills. The natural land condition must be kept as it is considering that the replaced people who will live there will also use their yards as gardens, sheep, or chicken house. All of that requires natural land condition.

Table 3. Estimation of the Capacity for Resettlement in Kampong Munjul

1	Existing land area	1,000,000	M2	100 Ha
2	Plan and design of building time expectancy for land plots ready for construction (KSB)			
	Land plots ready for construction (KSB) division, based on assumptions as follow:			
	- Building Base Coefficient (KDB) = 15 %			
	- Building Floors Coefficient (KLB) = 2.45			
	- KSB width per household	100-500	M2	
	- 60% area can be used from 100 Ha	600,000	M2	
	- Road utility and infrastructure 20 % (from 60% x 100 Ha)	120,000	M2	
	- Total width usable	480,000	M2	
	- KSB capacity per household	960	KSB	
	- Rounded number	960	KSB / household	

For scenario 1 in Kampong Munjul, 79 households will be resettled into 4 groups containing 19-20 households per group.

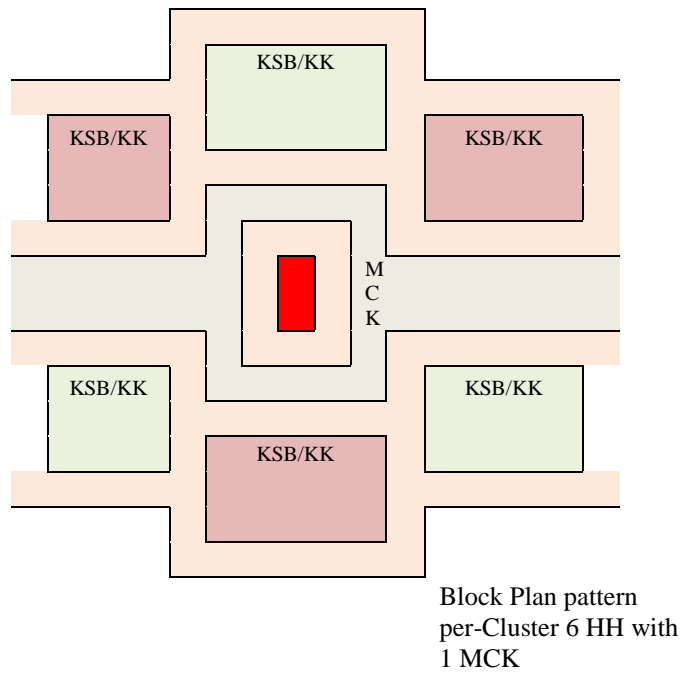
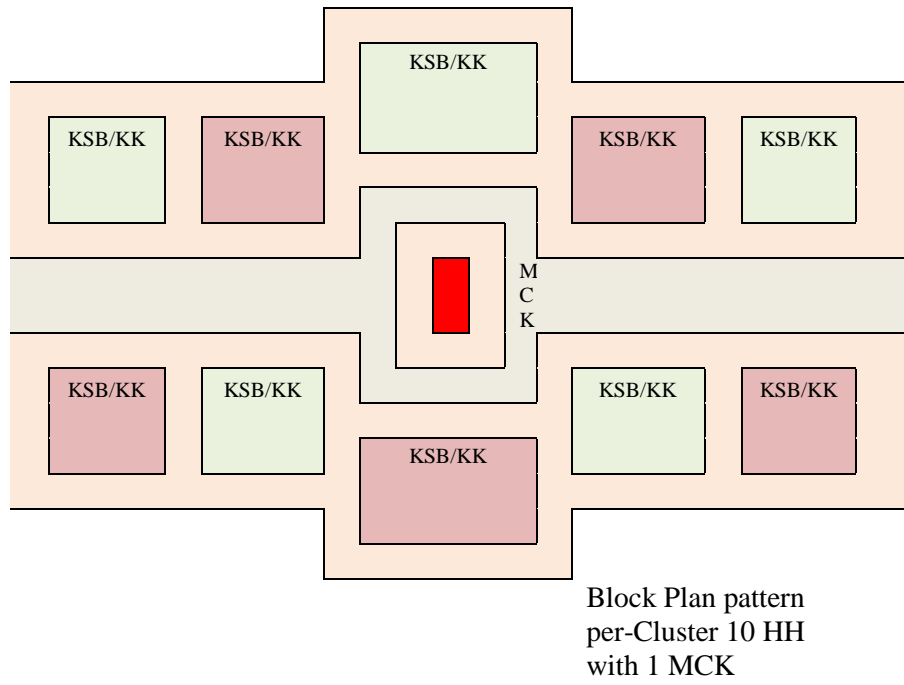
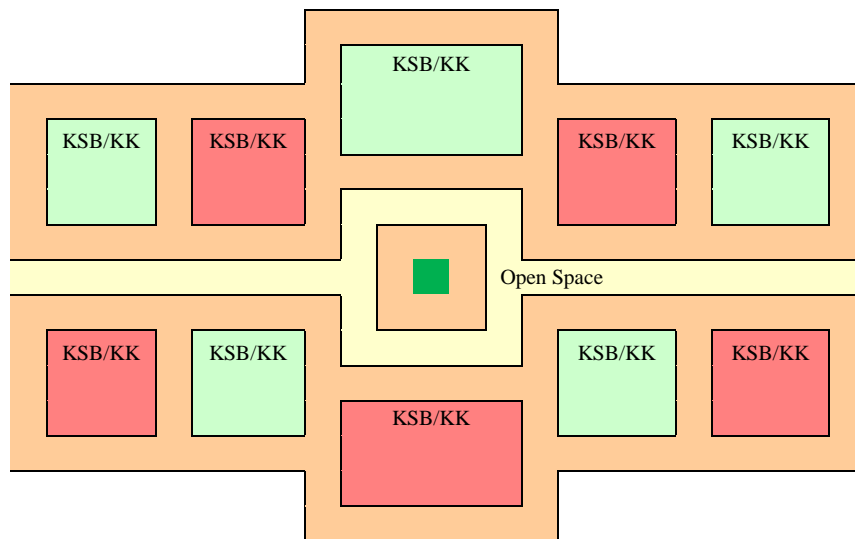


Figure 6. Block plan of cluster 6 households (KK) and cluster 10 households model, completed with 1 public bathing, washing, and toilet facilities (MCK)



Block Plan pattern per-Cluster 10 HH Individual mode with 1 Open Space

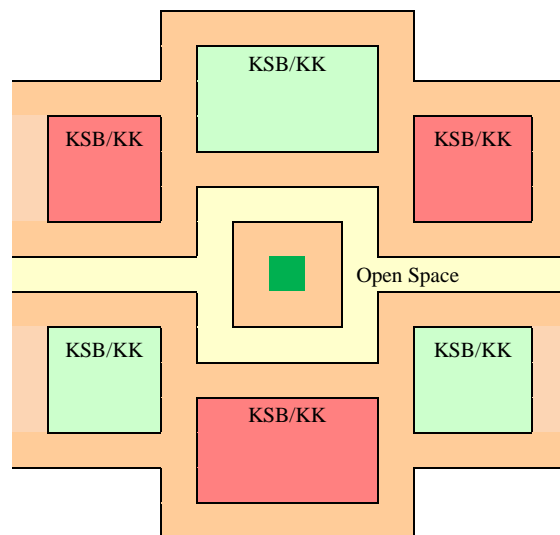


Figure 7. Block plan of cluster 6 households individuals and cluster of 10 household individual model, completed with one open space

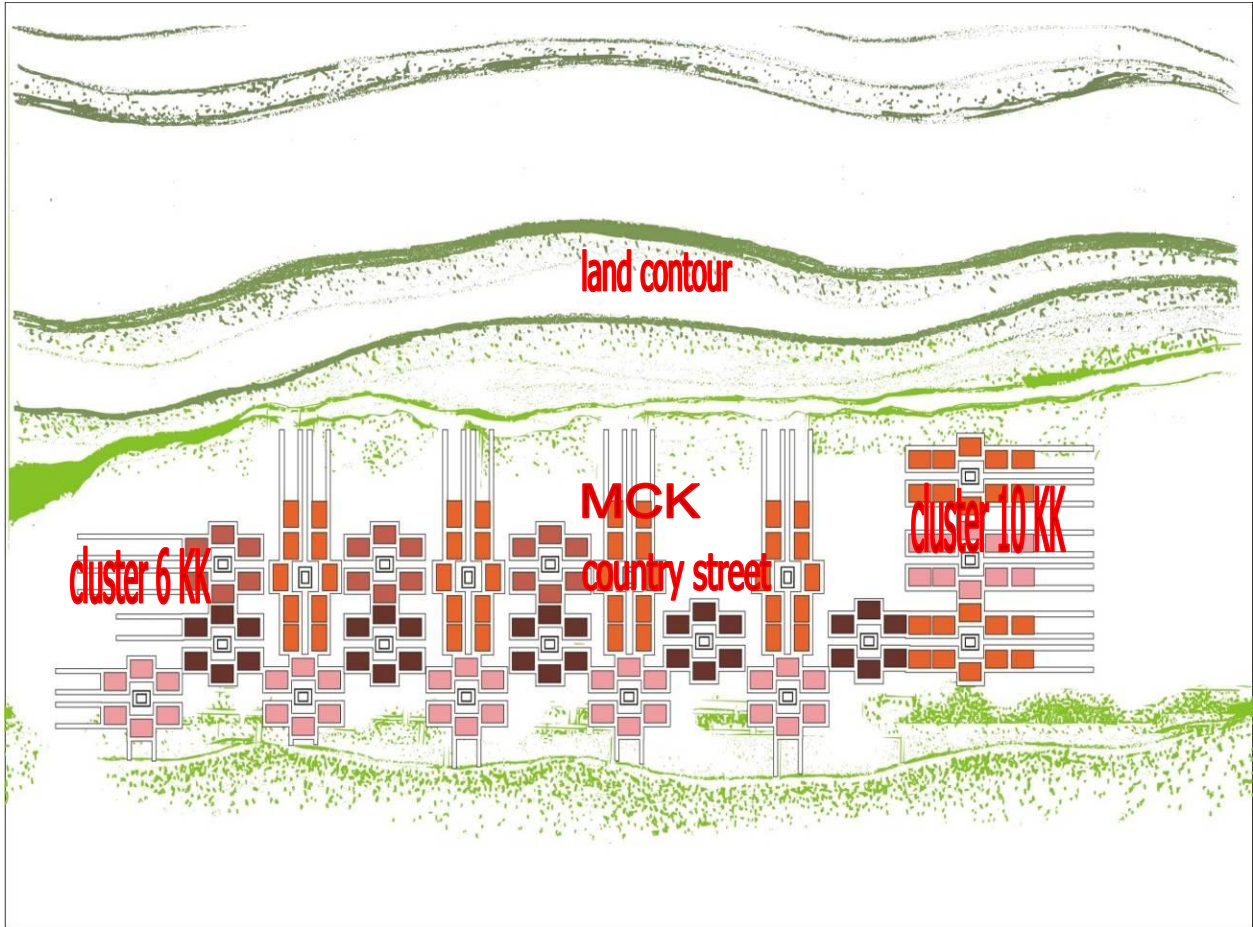


Figure 8. Block plan with mixed combination of cluster of 10 with 1 MCK unit and cluster of 6 with 1 MCK unit model

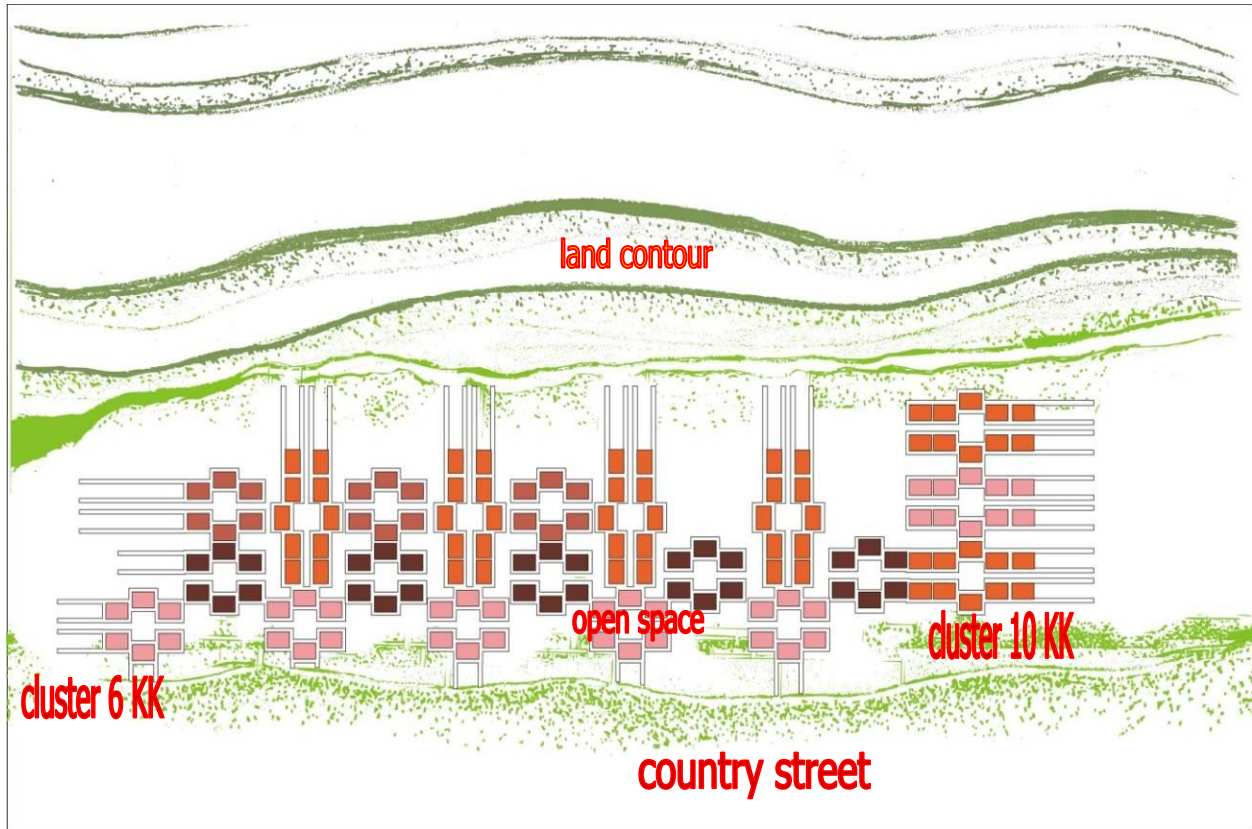


Figure 9. Block plan: mix model cluster of 6 , 1 open space with cluster of 10, 1 open space



Figure 10. Block plan for individual house in Kampong Munjul

If the residents relocated because affected by the project favors having bathroom/WC in their own houses, then cluster of 6 households with 1 MCK or cluster of 10 households with 1 MCK suits them best. The planned MCK location can then be allocated as an open space for public needs and interest.

c. Provision of Infrastructure (water, sanitation, electricity) and Design of Houses

Kampong Munjul in Bojong village, Rongga sub district, Bandung District, was selected to accommodate residents affected by the Upper Reservoir project. Clean water supply can be found in the area by making dug wells of 5-10 meters deep. By using the cluster 6 household – cluster 10 households system and having 1 to 2 wells, every household can meet their needs. A water tub reservoir system is also necessary to meet the purpose. Meanwhile, sanitation requires several alternatives to provide clean water and sewage drainage system. This can be conducted through providing bathrooms/WC in each house or cluster of 6 households – cluster of 10 household toilets.

The making of drainage or gullies that suits land contour needs the house positioning higher than any other facilities like the sheep and chicken house. This is actually a simple task. Then, for source of electricity, 3.6 km medium voltage will need to be installed, accordance with the existing condition of the local people. Installation withdrawal technicalities are not yet well planned and non-permanent electrical installation were found. Therefore, the selected resettlement area must be planned well and carried out exclusively by PLN.

Access to the resettlement location is easy because it is located close to the village road, thus drainage can run out through street gullies which needs to be settled along with the resettlement development. Drainage or gullies made accordance with land contour are supposedly in higher grounds than any other facilities like sheep and chicken house. Toilets should be provided per cluster of 6 households – cluster of 10 households. Its practicality relies to the fact that this resettlement is located on the close to the village road, currently waiting for the realisation of the local government development plan.

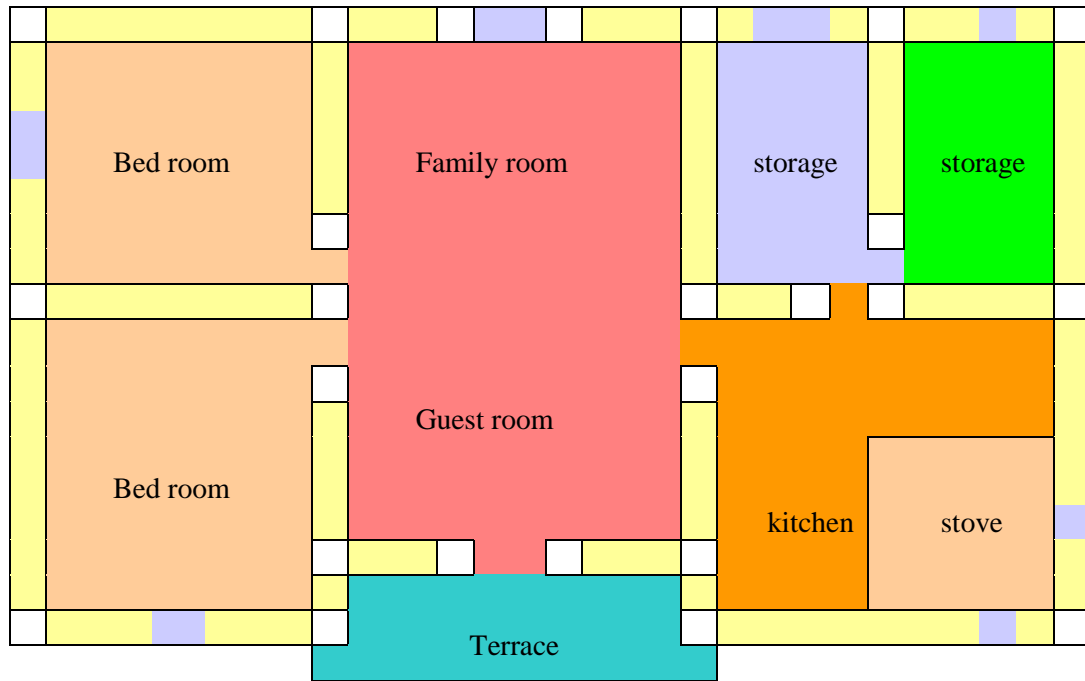
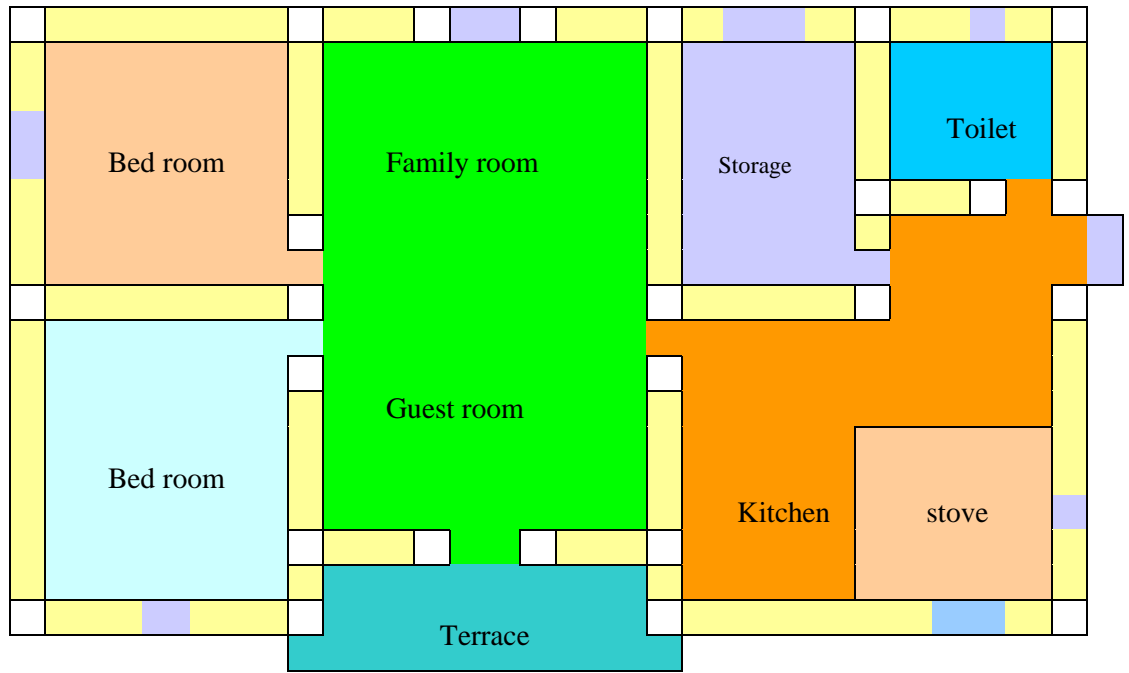


Figure 11. Existing house blue print design (99% without indoor bathroom/WC)

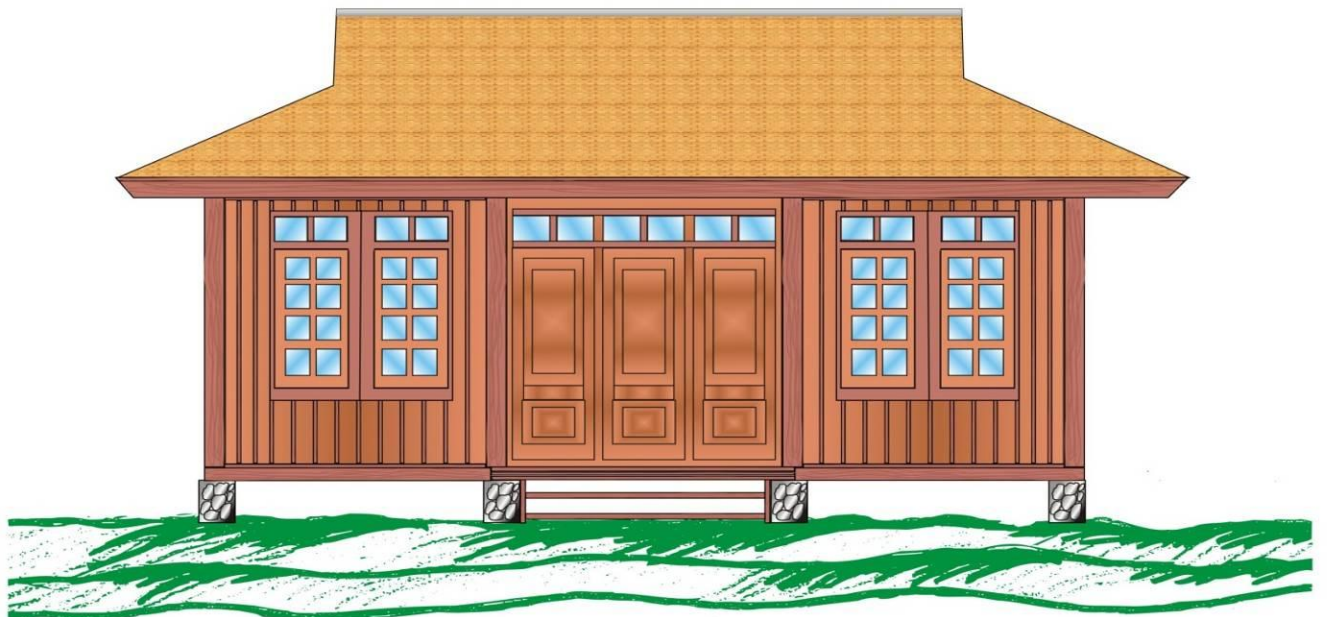


Picture of existing house

Figure 12. House blue print design with indoor bathroom/WC



MODEL RUMAH SEMI PERMANEN



MODEL RUMAH KAYU



MODEL RUMAH PERMANEN

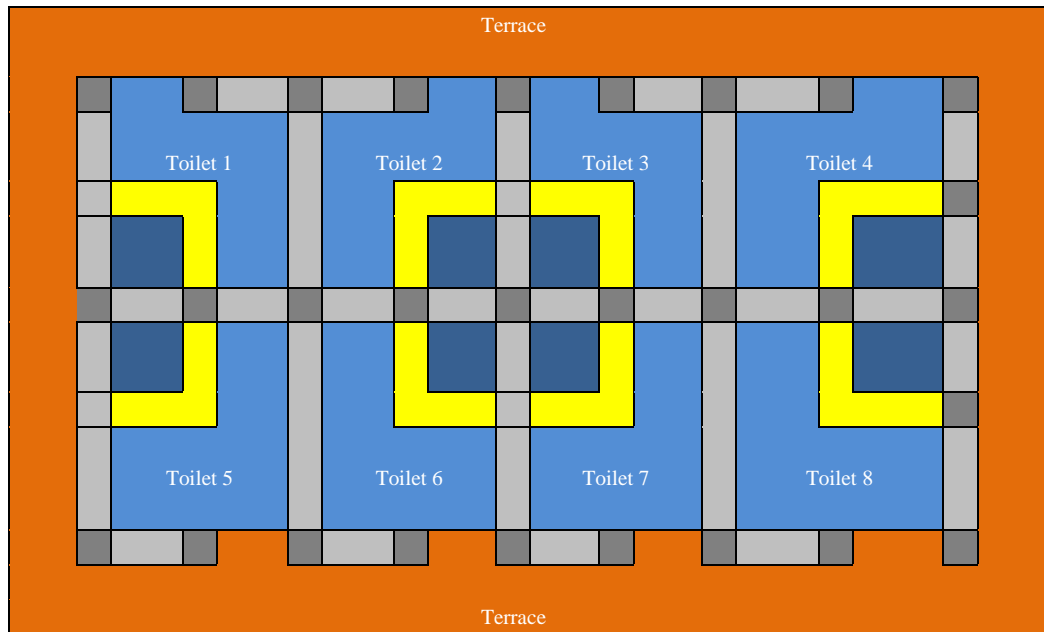


Figure 13. Bathing, washing, and toilet facilities (MCK) sanitation model

An MCK with 8 bathroom/WC meant for Cluster 10 KSB/household, while Model 1 MCK with 4 bathroom/WC are meant for Cluster 6 KSB/household.

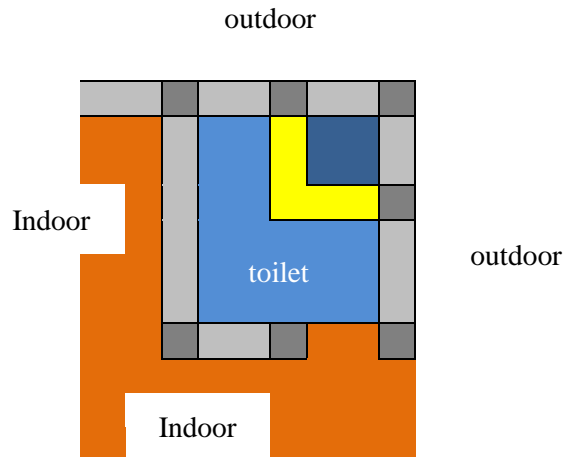


Figure 14. Indoor bathroom/WC Sanitation Model

This housing model can be carried out on Cluster 6 – 10 household individuals where Cluster 6 – 10 household that will be used is not assisted by a public bathing, washing, and toilet facilities (*MCK*). Therefore, the *MCK* area can be allocated as an open space. The bathroom and/WC model in every resident's house consist of clean water tub and water closet. That means 6 household patterns with 1 *MCK* and 10 household with 1 *MCK* have changed to 6 household with an open space, so is on the 10 household with an open space.

Small wastes from bathroom and rain water will go straight to the local drainage system. This is suggested to be made along the roads in the resettlement area and ends in village drainage or gully. Sewages from WC will directly dump in the septic tank. These septic tanks need to be planned and made accordance to the needs and WC availability. The option is whether it will be made collective or personally in houses with bathroom/WC. To Kampong Munjul, home of recommended are semi-permanent houses and wooden model house or stage.

(3) Social and Economic Aspect and Economic Recovery Program

a. Social and Economic Aspect

Social and economic condition of the proposed site shows that the proposed resettlement site is good for economic recovery program of the displaced people. The local economic indicators to describe this economic potentiality are area which is large enough for economic activities, especially agriculture-based economic activities, the soil is very fertile, the existing agricultural plants including tree farming which is mostly market oriented, types of livestock raised in the area, the availability of local farming and livestock markets, other non-farming economic activities such as small shops and local transport services. Apart from these economic potentiality of the proposed site, the total population and density of the area is also low.

This third location is the largest in area of all the proposed sites. This proposed site (Kampong Munjul), at this moment, there is about 80 ha agriculture-dominated land that may be able to host all the PAPs. This area is part of around 500 ha of private land used to be allocated for government project. The existing farming fields in the form of paddy field is around 143.94 ha and dry fields is about 320.02 ha. The dry fields are commonly mixed garden or homegarden. The types of soil are regosol dan andosol, a typical mountainous fertile soils. Fast growing tree species such as *albizia*, *kaliandra*, *akasia*, different kind of fruit trees, are already exist and very suitable to be planted in these kinds of soil. These fast growing tree products are market oriented, and local residents used these trees for building construction and other purposes. The local residents are also used to planting pine, banana, lemon grass, corn, cassava, and various vegetables.

Livestock commonly raised and sold to the local market are sheep, goat, and local chicken. This livestock is raised by the farmers as secondary products in farming activities, thus not many livestock are available. Normally, they only keep 2-5 sheeps and 5-12 chickens. Most of the residents work as farmers and farm labourer. Others work as side-street traders, housemaids, and running small shops.

Farming and livestock market in the area runs quite well. The volume of banana selling to Bandung per week reaches 5 tons. Lemon grass is usually sold to village traders, then sold to places out of the village. The same trading pattern with cassava and vegetables. Sheeps are traded in the village livestock market every Sunday with total livestock 60 sold each week.

There are 5,275 people lives in the village with population density of 607 people per km². This is the lowest population density, compared to the other three locations. This density level is also far lower than average density in West Bandung District, which is around 1,079 people per km². Based on this condition, farming and livestock businesses are potential to be develop to increase local people's economy.



Figure 15. Use of yards as home gardens in Kampong Munjul

b. Economic Recovery Program

b.1. Factors to be considered in economic recovery programs

Economic recovery programs for residents affected by project are efforts in developing job opportunities for them to recover their income. This activity should be based on the area's social and economy potentials of the PAPs and what the local people mainly work. The potential economic development for the proposed three selected locations are those which supports agriculture and livestock local business.

Economic recovery programs for residents affected by the project must consider the following:

1. Land size of land owned by the PAPs.

The size of land that will be owned by the PAPs will depend on resident's ability in allocating money from PLN compensation. Census on homegarden ownership in project area show that the residents' ownership ranged from 350 to 1,600 m². It is recommended for every household to have between 100-500 m² so they can earn a standar living. This is based on Minister of Public Work Decree 403/KPTS/M/2002 concerning Technical Guidelines Development Simple Healthy House about homegarden in various places in West Java which shows that 200-500 m² with productive plants can give an income higher than the commonly used Sayogo's poverty level. Based on the Larap study, these PAPs earn around Rp 800,000 per month. PAPs who has land area 100-200 m² can use as a small business (non-agriculture) and it is expected can follow the training held by PLN and will get a small shop package (that value is equivalent to agriculture assistance) Therefore, the proposed job creation/opportunity for the PAPs should at least the same with their current income.

2. Worker availability

The available workers among the PAPs mostly consists of an adult male worker (husband), and adult female worker (wife), and a child worker (child). Compared to the effective working hours, this worker availability is not yet used evenly. According to Adiwilaga (1982) there are 170 work days on small farming business, the rest can be used for livestock business and so on. Based on Rukasah (Hernanto, 1988) family worker availability in farmers level is actually not spread evenly yet. There is a potential for male family worker in farming level to work 300 days in a year. Female work 220 days a year, while children only 140 days. Thus, to make worker availability evenly, the PAPs can also run livestock business other than farming. They should also carry on a post harvest processing for small industries or any other business they're interested in. These other jobs possibilities, apart from agriculture, can be motor cycle mechanic, home based handicraft, public motorcycle driver (*Ojek*), or running small shops.

3. Capital and managing capability level

Capital is a production asset owned by every PAP. The capital consists of fixed capital which is a capital that doesn't ran out in one production period, and the other is non fixed capital which will ran out in a single production period. This capital ownership will certainly be limited. The amount of capital used by the PAPs in developing their future business will depend on the capital they have. They might spend the capital in running livestock business for buying sheep, chicken, and make livestock's cage. On farming, capitals consists the cost of buying seeds. Meanwhile, if they plan to run a post harvest processing industry, the capital can include processing equipments and ingredients.

Business managing level is the level of capability of each PAP in deciding, organizing, and coordination production factors they have. Their capability in managing the business should be further developed. Skill development activities must be carried out to increase the farming and livestock business success for these PAPs. This can be carried out through technical supervision in sheep livestock business, also banana and cassava post harvest processing technology training.

b. 2. Types of Economic Recovery Programs for the PAPs

(1) Businesses based on agriculture and livestock

Economic recovery programs for the PAPs for each resettlement site will be made available as alternatives. This alternative economic recovery program should be based on socio-economic and geological conditions. Considering these two aspects, the most suitable way is to direct the farming development activities to dry field farming. Farming activities that can be developed as alternative for the resettled residents are mixed farming and family farming with dry field farming and post harvest processing activities. The mixed farming tries to combine various farming branches and livestock business to gain maximum income because it can be used as a great source, especially in benefitting family worker who are available throughout the year.

Some other farming practices that can be developed in all of the locations as mixed farming is a combination of homegarden farming and sheep, chicken or local chicken livestock. Post harvest processing business that can be developed are bananas, cassava, and gnetum

gnemon (*melinjo*). Supported by the area's potential in agriculture and livestock which are relatively the same, then there is no significant difference on plantation types, livestock commodity, or post harvest processing activities.

(2) Non-agricultural and livestock activities

The job opportunities that can be developed outside agriculture and livestock businesses are running small shops and handicraft making, motorbike reparation and service, or other sort of activities.

Economic recovery program in *Kampong* Munjul include the following development activities:

1. Homegarden farming with intercropping pattern;

Homegarden is basically a plot of land located around the house. The types of plants that can use this space are cassava, corn, and bananas. Other kinds of plants that can work on homegardens are ginger, curcuma, and lemon grass. Annual plants that can work there is *Gnetum* gnemon and Petai. Types of bananas that can be planted are tanduk, kepok, yellow ambon kuning, raja, and nangka. Banana harvest time is about 9-18 months after planted, depending on the cultivar or fruit age (period between flowering and harvest) 80-120 days. Price level in the farmer's level is Rp.800,-/kg for yellow ambon and raja bananas. The price for other banana is Rp. 500,-/kg for kapok, and ambon lumut bananas, while tanduk banana is Rp.1000,-/kg.

The type of corns that farmers can grow is sweet corn hybrids. Harvest time is about 100 days with 4-7 tons/ha production. Sweet corn price at the farmers level is Rp.1200,-/kg and Rp.500,-/kg for hybrid corns. There are two kinds of cassava uses, first as the main ingredient of tapioca and staple food. Cassava for food must fill the main requirement of not containing HCN (<50 mg per kg wet cassava). Meanwhile, cassava for industry should contain low protein and high HCN. The harvest time is around 250 days and the production is about 23 tons/ha. Cassava price at the farmer level ranges from Rp.500, - to Rp.1000, - per kg.

Lemon grass can be grown for up to 10 years. It can be harvested once every 3 months and easily maintained. There are two kinds of lemon grasses, namely citron and common lemon grass. The price of citron lemon grass per quintal (100 kg) is Rp. 20,000,- and Rp. 35,000,- for a quintal of common lemon grass.

Other annual plants that can be planted as wood supply is sengon (*Parapaserianthes falcataria* L.). The harvest time for this fast growing tree species is around 5 years from planted time. The price of sengon wood depends on the quality.

2. Sheep livestock business

The number of sheep recommended to be raised by each household as part of mixed farming is five female sheeps with a male sheep used by 4 households. Garut sheep is recommended, ones that share characteristics as follow: (1) Dam weight between 60-80 kg and ewe 30-40 kg, (2) small sharp ears, (3) adequate tail size and a bit wide, (4) productive till age 6-7 years, (5) pregnancy 149 to 153 days, space between pregnancies 267 to 273 days, 2 months dry period, and (6) sexually active throughout the year so predicted to deliver lamb 3 times in 2 years.

Sheeps are easily marketed because of high demand of the sheeps in West Jawa Barat. The best time for sheep selling is when the sheeps reach the age of 12-18 months. Another good time to sell is during *Idul Adha*, one of the moslem festival. The price of sheep at the breeder level is about Rp. 400,000, - for young sheep, and Rp. 1,000,000,-. for mature sheep.

3. Local chicken livestock business

Chicken is a very strategic commodity to develop and it can take role as potential meat and egg supply, also easy source for protein. Breeding chicken for farmers can add their income, it depends on how many chicken they have and capability to use technology. Right now most residents in the selected locations still breed chicken in small scale with traditional maintenance, the chicken are released with sober food and no vaccine so productivity and population development is low. Local chicken are commonly distributed among farmers with small scale ownerships, below ten parents. The problems occurred in local chicken is low egg production and high death rate especially caused by *Newcastle Disease*. Local egg produced traditionally can make 30-40 eggs/chicken/year. Chicken production is also still low, only about 12 chickens per year and only 6 chickens per parent per year that can live to adult age.

Number of chicken recommended for each household is 9 hens (female chicken) and 1 cock. Local chicken maintenance for the PAPs should implement the correct maintenance technology which can push down mortality, increase production, and add value to local chicken. The introduction to the technology includes efforts to fix cages, feed, vaccine, disease control, and breeding methods. Cage shapes used for breeding local chicken aged 2 months till adult chicken ready for production is the *umbaran* shape sizing 3 meter x 2 meter. It is used for a group of chicken consisting 9 hens and a cock.

To prevent and cure diseases the things we need to note are: routine ND vaccine, giving disinfections every six months, and giving anti stress medicine and vitamin. Natural chicken breed are carried out with 1: 9 cock and hen comparison. Eggs produced are then hatched in group with a hatching machine. With a variation of hatching power 55-85 percent, about 50-100 eggs in minimum can be hatched. Better local chicken maintenance technology can help increase production from 12 to 70 chickens per parent per year.

Local chicken breeder's income can be higher if they are capable of grow local chicken for various production aims, like selling eggs, hatching, and sell the chicken itself. Price of local chicken in the farmer level ranges Rp. 15,000,- to Rp.25,000,- per kg alive weight.

4. Banana and cassava post harvest processing business

The business in processing banana and cassava is an effort of adding value to both commodities which have been processed through simple technology. Banana can be made into dried bananas and banana chips, while cassava can be made into fermented cassava and cassava chips. Post harvest processing business mostly targets housewives. The help can be given is in form of processing equipment packages for 3-5 households. These post harvest processing industry should be organized in groups, based on the number of households that will move to each locations.

6.1.2. Kampong Pasir Taritih

(1) Geological and Natural Hazards Aspect

Similarly, in the proposed resettlement site No. 5, Kampong Pasir Taritih, which will be inhabited by 21 families. Geologically, the proposed site and its surrounding region is composed of sandstone and weathering sandstones with moderate to high levels of weathering which is considered fertile soils. Based on Geological Map Sheet Cianjur (Sujatmiko, 2003), Figure 16, it shows that the Pasir Taritih (LO2) is not on the fault (*patahan*) zone. Meaning that this site, geologically stable.

With water discharge of ± 6 litres per second, there is also a deep well with a depth > 50 m can only accommodate around 10 families. The site has a low to moderate levels of erosion. Based on soil movement vulnerability zone map (Usman and Djadja, 2004), the proposed site is considered to be a high level of landslide susceptibility (Fig. 18.). Means that the location is often faced with mass movement. However, from the results of field surveys, the potential landslides were not found. It might be that the vegetation is quite good, so it can help reduce soil movement.

With generally gentle slope condition, this location is a potential area of resettlement. This is supported by the fact that the proposed site is a zone of low soil vulnerability. As for water source consideration, the proposed resettlement site should be placed as close as possible to the bottom valley. Considering also that in the proposed site the source of water comes from rain-fed source, it would be necessary that the rain water need to be channeled from the nearest water source, which then stored in a water reservoir to be distributed.

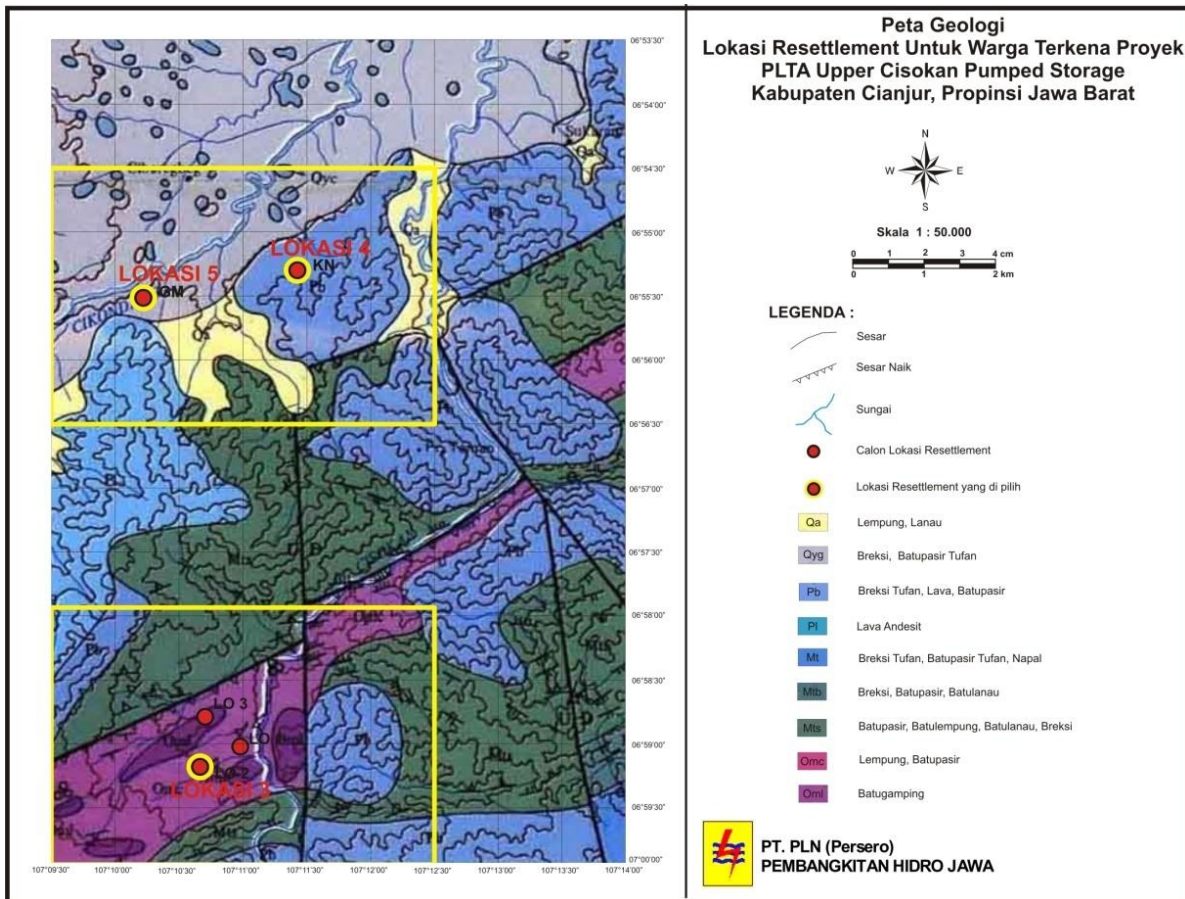


Figure 16. Geological map of the proposed resettlement site No. 5, Pasir Taritih (LO2), Margaluyu village, and resettlement site No. 9, Nagrak (GM), Girmulya village, (yellow circle is the proposed resettlement site)

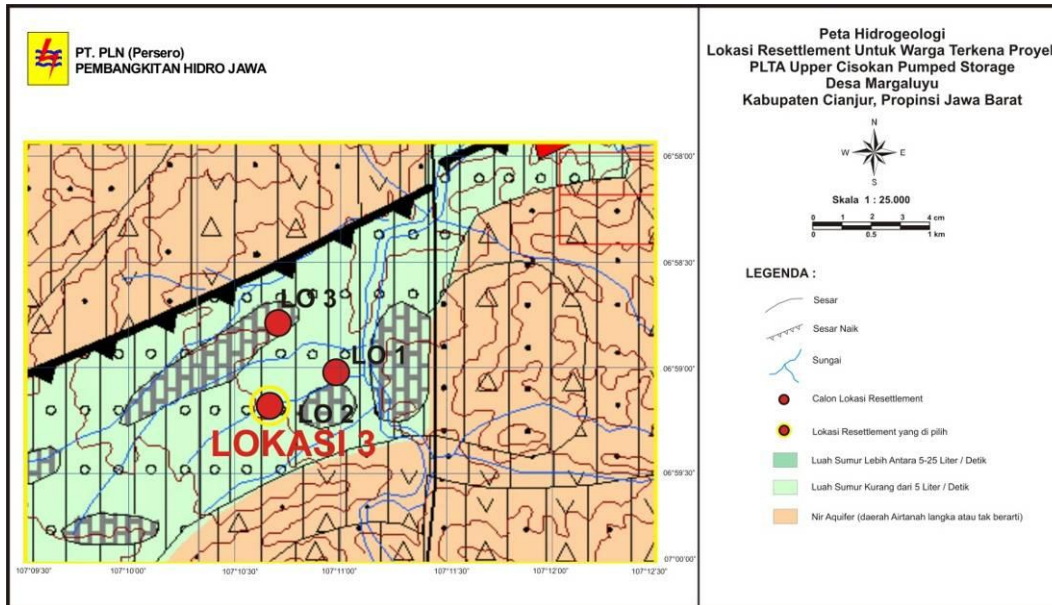


Figure 17. Hydrogeological map of the proposed resettlement site No. 5 Pasir Taritih (LO2), Margaluyu village (yellow circle is the proposed resettlement site)

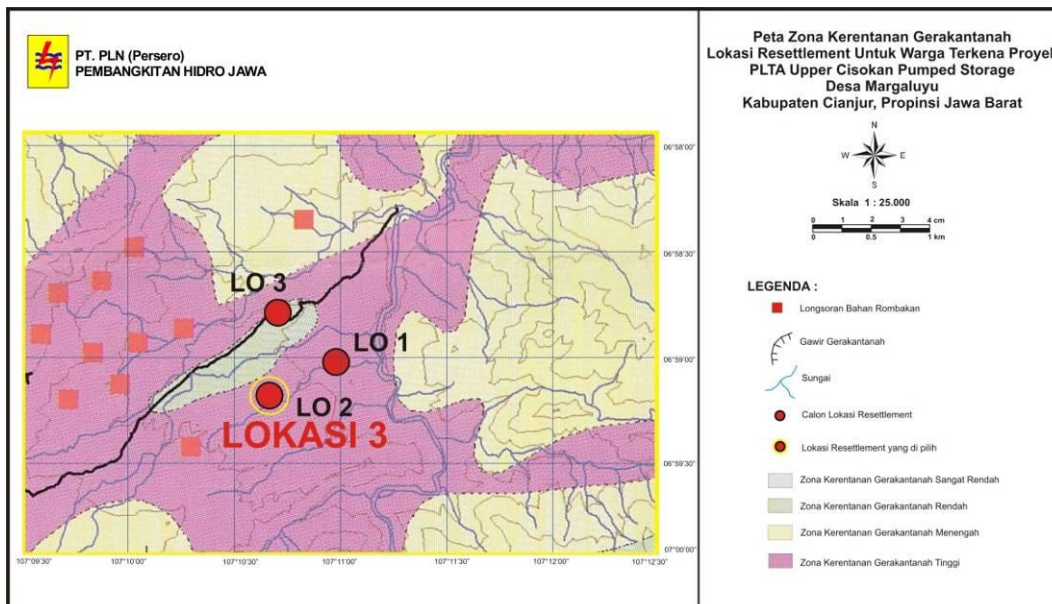


Figure 18. Zone map vulnerability of soil movement resettlement site No. 5 Pasir Taritih (LO2), Margaluyu village (yellow circle is the proposed resettlement site)

(2) Infrastructure, Capacity, and House Design

a. Infrastructure

The proposed resettlement site in Pasir Taritih is not far away from the central sub-district small town but the road condition is poor. During rainy season, cars cannot get to the location because of landslides and slippery road. These conditions have been a major problem for selling crops and livestock to the neighbouring small towns. Thus, to improve the people's economic growth, road improvement should become the first priority.

The distance to the village market is about 2 km. This market operates every Thursday morning from 7 to 10 am. Meanwhile the distance to nearest elementary school is about 1km. There is also a junior high school and 2 boarding schools available in the village. The closest mosque is only about 0.03 km, while the distance to the village administrative office is 2.75 km, and the local health care is about 7 km away.

Existing social infrastructure facilities in Kampong Pasir Taritih, especially facilities for education is relatively adequate, eventhough the incoming PAPs will decide to live in this resettlement site. Considering that existing mosque is relatively small, it is suggested to enlarge the existing mosque. The water installation from water source to the mosque also need to be improved.

b. Site Capacity and PAPs Distribution

The carrying capacity of the proposed resettlement site of Kampong Pasir Taritih, considering that the proposed building type is 72 m² and 500 m² is for homegarden, the available 2.2 ha is only enough to accommodate about 21 households.

Table 4. Estimation of the capacity for resettlement in Kampong Pasir Taritih

1	Existing land width	22000	M2	2,2 Ha
2	Plan and design of building time expectancy for land plots ready for construction (KSB)			
	Land plots ready for construction (KSB) division, based on assumptions as follow:			
	- Building Base Coefficient (KDB) = 15 %			
	- Building Floors Coefficient (KLB) = 2.45			
	- KSB width per household	500	M2	
	- 60% width can be used from 2.2 Ha	13200	M2	
	- Road utility and infrastructure 20 % (from 60% x 2.2 Ha)	2640	M2	
	- Total width usable	10560	M2	
	- KSB capacity per household	21.12	KSB	
	- Rounded number	21	KSB / household	

Distribution of 21 households in Kampong Pasir Taritih can be done by the following three alternatives: (1) a combination of three cluster of six households and three separate household, (2) two cluster of 10 households and one separate household, or (3) twenty one of separate household.

c. Provision of Infrastructure and House Design

Pasir Taritih, Margahayu village, Cempaka sub district, Cianjur district, is one of the three sites proposed for the resettlement site of PAPs from the lower reservoir project. In this kampong, the artesian spring water is available as clean water source. There are two artesian spring water and another small water reservoir close to the resettlement site of around 100m away. In the rainy season, the spring waters are used for daily bathing, washing, and drinking. Meanwhile, the artesian spring water, which is located 600-700 m away from the location, requires piping system to channel the water down to the proposed resettlement site. Another alternative source of water is in the form of a small water reservoir that can be sited in high enough location, so that the collected water from direct rainfall can be distributed for public facilities water uses for bathing, washing, and toilet facilities (MCK).

In terms of sanitation purpose, some alternative local systems are necessary to provide clean water and drain out the sewage. This can be carried out through bathroom/WC availability in each house or MCK in every Cluster 6 households – Cluster 10 households, where each cluster will contain 4 to 8 public bathrooms/WC.

Special local drainage system and other necessary works need to be done for making the house positioning match with the land contours in the resettlement site. Normally, for human health reasons, the house positioning should be higher than livestock stable. This is important to avoid clean water contamination and also to make processing sewage disposal easier. The drained water from WC should be distributed to septic tanks, according to the number of provided bathrooms/WC. Therefore, the sewage drainage and/or human wastes should be given priority by designing in such a way that the PAPs and local community can have benefits in the form of having a better water distribution system and adequate domestical waste disposal system. For power supply, a withdrawal of 1,0 km medium voltage needs to be provided and prepared. It is better to have a collective electricity system arrangement. Based-on the above reasoning, and especially considering that the proposed resettlement site in Kampong Pasir Taritih has high level of landslide susceptibilty (Fig. 18.), therefore, the suitable house design is a semi-permanent houses dominated by local wood materials.

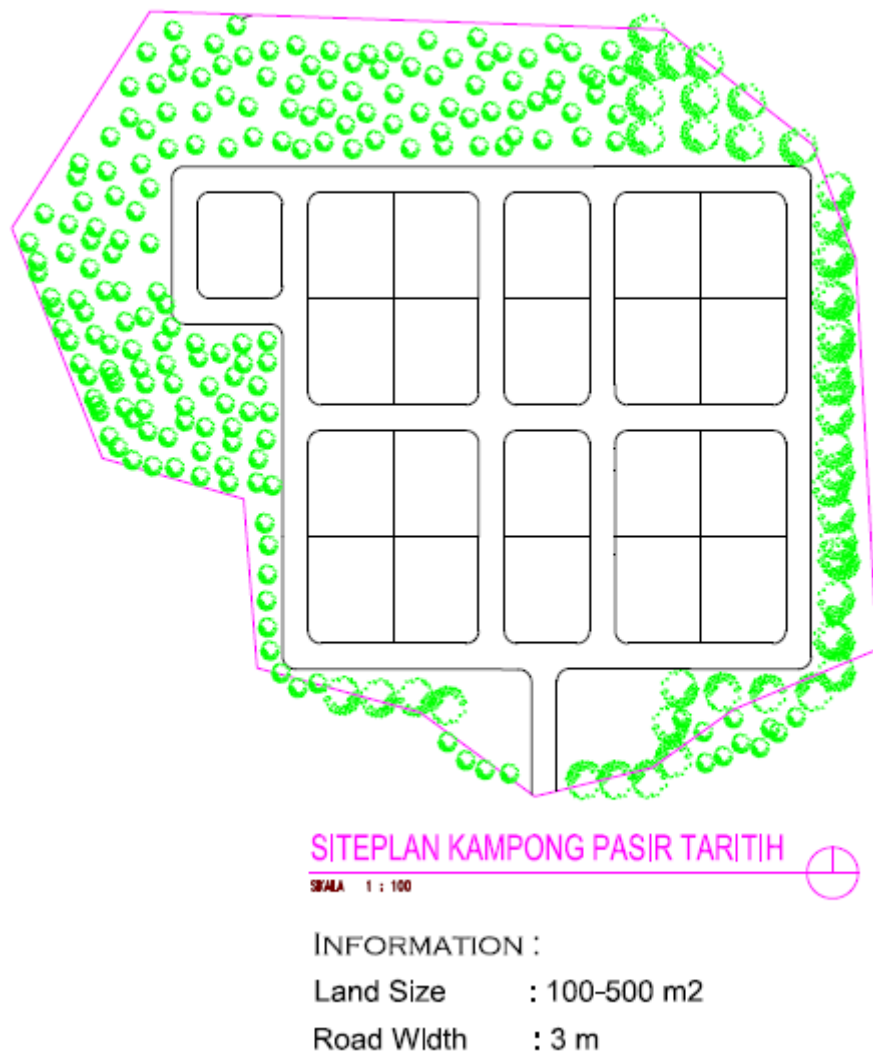


Figure 19. Block plan for individual house in Kampong Pasir Taritih

(3) Social and Economic Aspect and Economic Recovery Program

a. Social and Economic Aspects

This is the smallest proposed resettlement site, only about 2.2 ha. The total village's area is only about 620.45 ha. Agricultural fields in the form of paddy fields is about 125 ha and dry field is 220 ha. The dry fields are mostly mixed gardens and homegardens. The soil type is regosol. With this kind of soil, banana, sengon, kaliandra, coconut, and Gnetum gnemon are suitable for the site. Other agricultural crops and trees found in the area are bananas, cassava, jackfruit sweet potatoes, coconuts, and sengon.

Common livestock found in the proposed resettlement site are sheep, goat, and local chicken. These livestock are found as part of the local farming system. Apart from getting money and as capital, keeping sheeps are for getting organic fertilizer for their farms. Usually

villagers only keep 2-5 sheeps and 5-12 chickens. Their main occupation is as farmers and farmer employer. Other than that, they work as local traders, motorcycle driver, housemaids, and small trade like running small shop.



Figure 20. Sheep stable in Pasir Taritih

Bananas are sold to Warungbitung village, Cibeber Sub-district. The selling volume reaches 2.5 tons per week. Sheeps and chickens are commonly sold to traders in the village. Meanwhile, sheeps are marketed to the livestock market in Cianjur every Sunday and Thursday, also to Cibeber livestock market every Wednesday and Saturday. Total livestock sold every market days from the village reaches 30 sheeps per market days.

Residents in the village reach 4,485 people lives and population density is 723.4 people lives per km². This density level is almost as high as average population density in Cianjur District which reaches 728.8 people lives/ km². Field of business that can be developed within the framework of economic recovery for the PAPs is in the field of agriculture and animal husbandry.

b. Economic Recovery Program

Farming and post harvest business that can be developed is relatively similar to the one that was proposed for Kampong Munjul:

1. Homegarden farming activities with intercropping pattern:

The types of crops that can be planted here are cassava, corn, and banana. The other types of plants are ginger, curcuma, and lemon grass. The annual plants that can work there are gnetum gnemon, petai, and coconut. Annual wood plants that can be planted there is sengon, albizia, and *petai cina* a fast growing tree species for multi-purpose uses.

2. Sheep livestock business

The recommended type and number of sheep for each household is same to the recommendation for Kampong Munjul, with five female sheeps per household and one male sheep for 4 households, all Garut sheep.

3. Local chicken livestock business

The recommended number of chicken for each household is the same, 9 hens and a cock per household.

4. Banana and Cassava Post Harvest Processing Industry

Technical support can be given in the form of processing equipments for 3-5 households.

In Scenario 1 in Kampong Pasir Taritih as many as 21 families joined into one group.

6.1.3. Kampong Nagrak

(1) Geological and Natural Hazards Aspect

Geologically, the proposed resettlement site of Kampong Nagrak is formed by rock formation and tuffaceous sandstones with brownish red in color. The grain size varied from fine sand to marl, with slightly breccia. The weathering level is quite loose. The proposed site is still included in the Rajamandala formation (Sudjatkiko, 2003). Hydrogeologically, the site is considered to be in tertiary age (Figure 21). The proposed site was not on fault (*patahan*) zone.

Hydrogeological map of Indonesia sheet review Cianjur (Manaris, et al., 1998) shows that the proposed resettlement site No. 9 (GM), Nagrak village, falls into areas that have wells \leq 5 litre/sec (Figure 22). While, the results of field observations, the proposed site belongs to the areas of water surplus, relying on well water with a depth of 2-4 meters and there are also found some springs water in the surrounding areas.

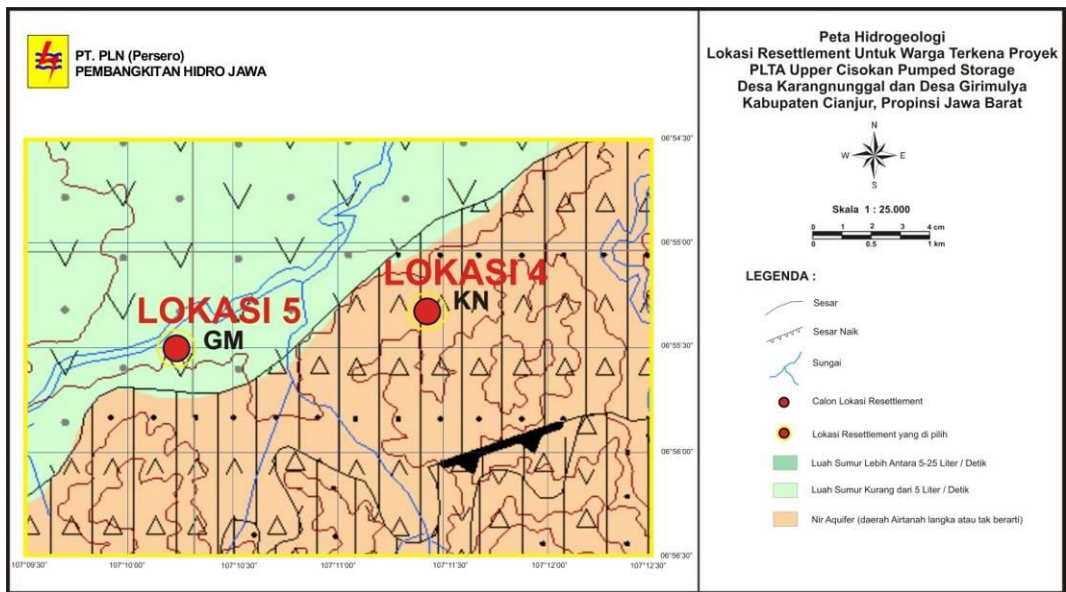


Figure 21. Hydrogeological map of the proposed resettlement site No. 9, Kampong Nagrak (GM) Girimulya village (yellow circle is the proposed site)

Erosion rate is low (Table 2), from vulnerability zone map of landslide (Usman and Djadja, 2004) the proposed resettlement site falls into low vulnerability zone of soil movement

(Fig. 23). Meaning that, at this location, the earth movement is relatively rare. Mild level of land movement may occur, especially along the river banks. Based on field surveys, there are no signs of landslide. Due to its rock-formation of sandstone breccias and sandstones *lapukan* with relatively good vegetation cover, the proposed resettlement site No. 9 (GM), Kampong Nagrak, geologically is a safe resettlement area. Therefore, the proposed resettlement site does not require special handling for soil mass movement-related problems.

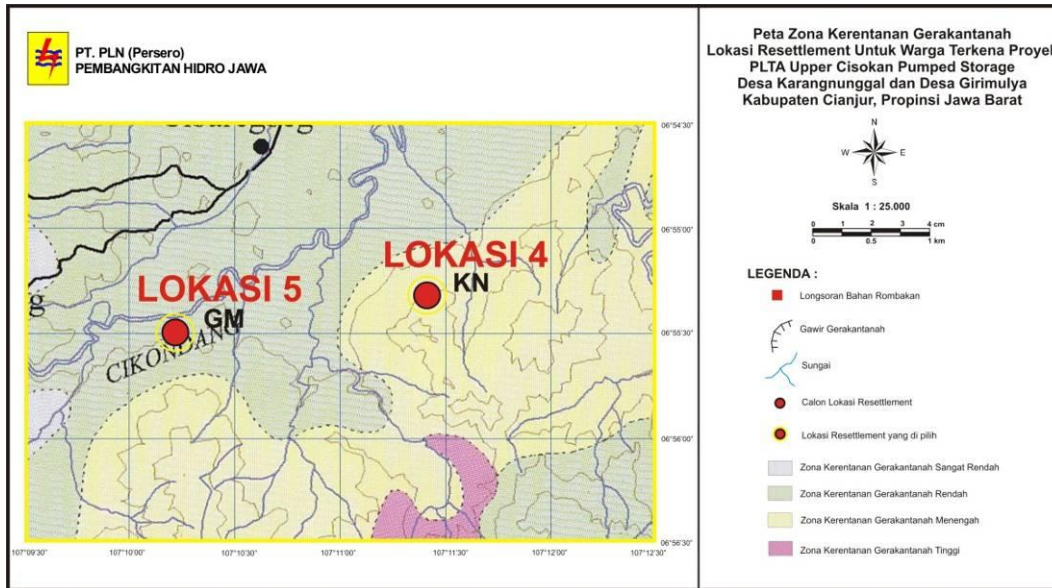


Figure 22. Zone map of soil movement vulnerability of the proposed resettlement site No. 9 (GM), Kampong Nagrak, Girimulya village (yellow circle is the proposed site)

(2) Infrastructure, Capacity, and House Design

a. Infrastructure

The proposed resettlement site in Kampong Nagrak is very strategic. Located close to the road which is suitable for cars to go through. With this condition, villagers can easily sell their agriculture crops and livestock. The distance to the nearest Cibeber market is about 7.2 km. The proposed site is also about 1.7 km away from the local elementary school. Other available school in the surrounding area is a junior high school. Meanwhile, the mosque is about 1.2 km away and 2.4 km is the distance to the village administrative office. Another important public facility, the local health care, is about 8 km away from the proposed resettlement site.

The existing social facility is considered adequate for accommodating the incoming PAPs as stated in sub-chapter 6. However, if enough PAPs decided to move in this site, there will need to enlarge praying facilities. This can be done by enlarging the existing mosque.

b. Site Capacity and PAPs Distribution

In terms of resettlement capacity for the proposed site, Kampong Nagrak with available area of around 2.2 ha (with a maximum of 4 ha), and assuming that the proposed building type

of 72 m² equipped with 500 m² homegarden, the site could accommodate a maximum of 38 households.

Distribution of 13 families in Kampong Nagrak by taking into account the type or pattern of cluster and individual house, there will be the following three possibilities: (1) two clusters of 6 households, combined with one compound/house of single household, (2) one cluster of 10 households, combined with three separate compounds of 3 households, or (3) thirteen separate compound/house of 13 households.

Table 5. Estimation of the capacity for resettlement in Kampong Nagrak

1	Existing land width	40000	M2	4 Ha
2	Plan and design of building time expectancy for land plots ready for construction (KSB)			
	Land plots ready for construction (KSB) division, based on assumptions as follow:			
	- Building Base Coefficient (KDB) = 15 %			
	- Building Floors Coefficient (KLB) = 2.45			
	- KSB width per household	500	M2	
	- 60% width can be used from 4 Ha	24000	M2	
	- Road utility and infrastructure 20 % (from 60% x 4 Ha)	4800	M2	
	- Total width usable	19200	M2	
	- KSB capacity per household	38.4	KSB	
	- Rounded number	38	KSB / household	

c. Provision of Infrastructure and House Design

The Kampong Nagrak in Giri Mulya village, Cibeber sub district, Cianjur district, was selected to be the proposed resettlement site for PAPs from the lower reservoir project. In this proposed site, the clean water supply can be found in most households by digging wells of 3 – 5 meters depth. Some households, 6-10 households, using a collective well system. When each household has its own well, the water supply is considered adequate. If this site should become resettlement site, there is a possibility to establish small reservoir at certain place where water can be distributed by the gravity force.

In terms of sanitation purpose, some alternative local systems are necessary to provide clean water and drain out the sewage. This can be carried out through bathroom/WC availability in each house or MCK in every Cluster 6 households – Cluster 10 households, where each cluster will contain 4 to 8 public bathrooms/WC.

Special local drainage system and other necessary works need to be done for making the house positioning match with the land contours in the resettlement site. Normally, for human health reasons, the house positioning should be higher than livestock stable. This is important to avoid clean water contamination and also to make processing sewage disposal easier. The drained water from WC should be distributed to septic tanks, according to the number of provided bathrooms/WC. Therefore, the sewage drainage and/or human wastes should be given priority by designing in such a way that the PAPs and local community can have benefits

in the form of having a better water distribution system and adequate domestical waste disposal system. Based-on the above reasoning, and especially considering that the proposed resettlement site in Kampong Nagrak is located close to main road, therefore, the suitable house design is a permanent and semi-permanent houses dominated by local wood materials.

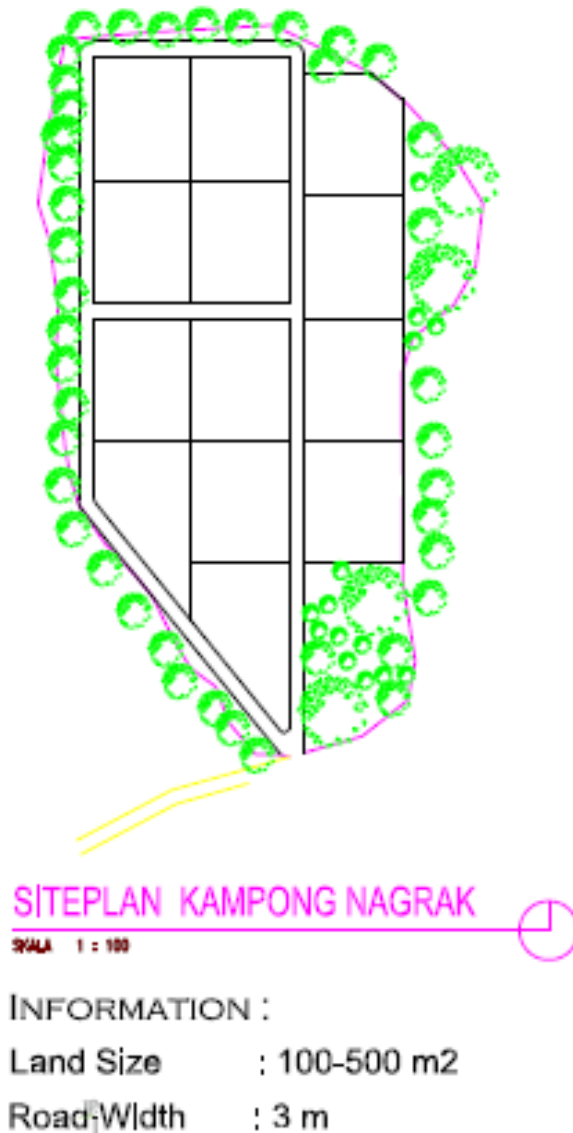


Figure 23. Block plan for individual house in Kampong Nagrak

(3) Social and Economic Aspects and Economic Recovery Program

a. Social and Economic Aspects

The proposed resettlement side No. 9, Kampong Nagrak, has an available area of around 3.5 ha. The total village area is around 615 ha. Agricultural field is typical paddy field of around 175 ha. Dry fields are normally in the form of mixed gardens and homegardens. The soil

type in this area is Andosol. According to the soil type, the suitable plants are banana, sweet potato, cassava, dry crops, and fast growing tree species of albizia and some local fruit trees.

Commonly found livestock are sheep, goat, and local chicken. Livestock business is considered as part of the local people's farming system. Sheeps and chickens are kept by families are not in big numbers, only about 2-5 sheeps and 5-12 chickens. The people's main occupation is as farmers and farmer workers. Other jobs are labor, small traders, work in the middle east countries as drivers or housemaids.



Figure 24. Bananas collected by the trader in Kampong Nagrak

Bananas from this area are marketed to Bandung and Jakarta, with selling volume of around 4.5 tons per week. In this village, banana and cassava processing industry have developed with Bandung and Jakarta as its markets. Sheeps and chickens livestock are usually sold to traders/middle mans in the village. The sheeps are then marketed to the livestock market in Cianjur every Monday and Thursday, also to Cibeber livestock market every Wednesday and Saturday. There are around 35 livestock sold in the village market on daily basis.

Considering the social and economic aspects, job opportunities that can be further developed in economic recovery programs for the PAPs in this proposed site are farming and livestock business activities, combined with post harvest processing home/small scale industry.

b. Economic Recovery Program

Farming and post harvest activities to be developed here in Kampong Nagrak is similar to the one proposed for *Kampung* Munjul and Kampong Pasir Tatirih, they are:

1. Homegarden farming with intercropping patterns:

The types of plants/crops that can be planted here are cassava, corn, and lemon grass. The perennial plants that can be grown are *Gnetum gnemon*, petai, also fruits like the jack fruit and rambutan.

2. Sheep livestock business

The recommended type and number of sheeps for each household is the same with the recommendation for Kampong Munjul.

3. Local chicken livestock business

The recommended number of chicken for each household is also the same as proposed for Kampong Munjul.

4. Banana and cassava post harvest processing industry

The technical support to accelerate the economic recovery program can be in form of processing equipments for 3-5 households.

In the first scenario for Kampong Nagrak, all thirteen households are grouped into one. There are specific things related to the location that needs to be considered to speed up farming improvements, such as land fertility level, infrastructure availability especially roads and access to the market. From the three selected locations, Kampong Nagrak in Girimulya village is predicted to provide the PAPs with the fastest economy recovery. This is because that the proposed site has more fertile soil, compared to other proposed sites. The road to the locations is quite good so it is easy to get in to the site. With this, access to the market place is also easier. It is also in this location where post harvest banana and cassava processing industry have already been developed. The market destination, mostly to Bandung, Cipanas, and Jakarta.

6.2. Scenario 2:

Proposing two resettlement sites, **Kampong Munjul**; 92 HHs of PAPs and **Kampong Pasir Taritih** maximum for 21 HHs of PAPs.

(1) Geological and Natural Hazard Aspects

Assuming that Kampong Munjul and Kampong Pasir Taritih are the only proposed resettlement sites (scenario two), therefore, the treatments and programs are the same with that of scenario one.

(2) Infrastructure and House Design

The proportion of households in scenario 2 include: 92 households from Kampong Munjul, 21 households from Pasir Taritih. The preparation of infrastructures such as water supply, electric power, the handling of environmental sanitation in the two villages is no different than in scenario 1. The proposed house design is a house made of wood or semi permanent house.

The existing social infrastructures both in Kampong Munjul and Kampong Pasir Taritih as in scenario 2, especially infrastructure for education at primary and secondary schools, seems to be adequate eventhough a number of PAPs as stated in sub-chapter 6 want to move in the two kampongs.

(3) Economic Recovery Program

The economic recovery program for the PAPs in scenario 2 for Kampong Munjul and Pasir Taritih, should have the same program as in scenario 1, namely the development of activities: (1) homegarden farming with intercropping patterns, (2) sheep farming, (3) a local chicken farming, and (4) post harvest processing for banana and cassava. The only different is in terms of the number of groups as organized media. In scenario 2 for Kampong Munjul, total of 77 households will be incorporated into the 4 groups with the number of households of each group of about 19-20 families. While, for Kampong Pasir Taritih, as many as 21 households are incorporated into one group.

6.3. Scenario 3

Proposing one resettlement site in **Kampong Munjul** accommodating all 113 HHs of PAPs.

(1) Geological and Natural Hazard Aspects

Assuming only the proposed resettlement site No. 3, namely Kampong Munjul is used, then the considerations must be given to Kampong Munjul. The considerations should be the same as in scenario 1. However, it must be added by the following:

- Most area with steep slopes should be immediately treated by planting deep rooting trees, especially on the cliff landslide area prior to construction of housing for the proposed resettlement area. Under extreme condition, a retaining cement-wall could also be considered;
- For areas with rather steep slopes (17° - 27°) to very steep slopes ($> 36^{\circ}$) necessary arrangements of irrigation system (surface water drainage) and the planting of trees so that landslide can be prevented.

The above considerations should taken out considering that the required area is for all 98 PAPs, therefore some of the proposed settlements can be close to the cliff or in a place with a steep slopes. The upcoming FS study should investigate where are these steep slopes and cliff area are located. These areas should not be used or at least minimised to be used as house location.

(2) Infrastructure and House Design

The preparation of infrastructure in Kampong Munjul is no different from that of the scenario 1 and scenario 2. The only different is that the house that will be built is a combination of wooden houses and semi-permanent houses.

For the scenario 3, where all 113 PAPs will be resettled in Kampong Munjul, some social infrastructures need to be made available. The capacity of primary school need to be expanded by adding some more capacity into the existing school, or build a new school closer to the new residential site. Another social public facilities are new mosque, and local village market. The new additional village market capacity can be done by expanding the existing local market. Considering that existing local market is only opens on Sundays, the additional market capacity may be arranged to different market day. With this, more opportunity for the local farmers to sell their agricultural products.

(3) Economic Recovery Program

Economic recovery program in scenario 3 in Kampong Munjul is no different from scenario 1 and 2. Namely, the development of activities: (1) farming in homegarden with intercropping patterns, (2) sheep farming, (3) a local chicken farming, and (4) business bananas and cassava post-harvest processing. In scenario 3, there will be 113 HHs of PAPs who will be incorporated into the 6 groups with the number of households of each group of about 19-20 households.

7. Benefit and Response of Local Community

In order to accelerate the integration of the PAPs with local community, efforts should be done to make the local community enjoy the benefit provided for the incoming PAPs. Therefore, the resettlement approach should use the concept of "local development". With this approach, the PAPs settlements have been placed as a center of development (activity). In this case, the surrounding areas will serve as regional development, so hopefully the local community will feel as an integral part of the development processes.

With this local development approach, all economic activities/opportunities provided to the PAPs should also given to local community. Certainly in terms of magnitude and distribution of benefits will vary between the PAPs with the local indigenous community. Program development of this region is very important even more so if the land used for resettlement has been worked out by local community.

The local development has, at least, two important objectives: first, to accelerate local/regional growth in the proposed resettlement sites, and secondly, reduce the jealousy of the local community that can lead to social tensions in the area. With this approach, there will be costs associated with it, therefore, close co-operation with local government is very important.

Other possibility that could be developed as part of a secondary local development is to encourage villages in the surrounding region of the Cisokan Hydroelectric Project Development to become agro-tourism area. Agricultural-based tourism activities can take advantage of the beautiful scenery surrounding area such as tea plantation, or the utilization of new residential areas (resettlement site) as a typical example of the pattern of settlement, complete with productive economic activities, developed a small scale home-based handicraft or other small scale economic activities. For the development of this secondary, because it is part of regional development planning activities, it is necessary to further coordinate activities with Bappeda and related agencies

Community response to the resettlement plan is considered positive, because local community who represented the formal and informal leaders and local residents next to the land relocation would not mind if the area becomes a place of resettlement of the PAPs. Local communities around the proposed resettlement site do hope that fair cash compensation will be given to local people whose their lands used by the project.

8. Right and Responsibility of the HHs of PAPs

The success of the resettlement program is affected by many factors, such as compliance with the rules enforced by the community.

Resettlement programs as a result of the proposed Cisokan hydroelectric project requires that rules should be formulated in the form of rights and obligations. The formulation of the rights and obligations referred not only aims to provide a practical guideline to be known and understood by the local people who moved to run seriously, but also to guarantee the rights of displaced people so that settlement can be worked well.

The preparation of such rights and obligations include the consideration for the interests of the population. To find out the interests and perceptions and expectations of the community need for intensive communication with the PAPs, so that its interests can be accommodated and set forth in the rules regarding the rights and obligations. One of the following rights for the PAPs is to obtain the location of land to residential neighborhoods and get the facility. As for the settlers in question is obliged to pay the price of land which they acquired at the new location. Thus the price of the proposed land will be determined by the amount of the compensation received by the PAPs.

Because the PAPs are obliged to pay land that they want in the resettlement site, they will be given the freedom to choose land they want at the new location. Similarly, the construction of houses, they can choose to be arranged by the government or by taking into account the price of the building with the compensation money they received or build their own houses according to the type of house they want.

9. Resettlement Permit

Considering that all of the proposed resettlement sites are involving private lands, the procedure of land acquisition is more straight forward. In this case, the procedure to conduct land ownership transfer would be better-off if an independent resettlement team (formed by PLN and local government) acting as a facilitator for the land ownership transfer. The land ownership transfer should refer to the Presidential Decree No. 36 Year 2005 jo Presidential Decree No. 65 Year 2006, for which the transfer of land ownership will be handled by the LAC (P2T) including the base price for the land to be transferred. Normally, the resettlement procedure takes place up to 2 years as in the case of Arinem in Garut District, West Java. Eventhough, technically, the house and other infrastructure construction can be completed within around 6 months.

According to the proposed resettlement sites, the location is proposed to be close enough to where they are now living. Based on field observation, the proposed resettlement site is in "*kawasan budidaya*" (non-conservation land) not in the protection/conservation area. Therefore, the available resettlement sites are suitable for building the house and carrying out various types of agriculture and livestock practices.

To land in Kampong Munjul document records show that the land is owned by Bukit Jonggol Asri (BJA) and, is part of the replacement land for reforested. Status of the land, with reference to Act No. 5 of 1960, the Agrarian, especially in chapter 6 that define the social function of land, the land in Kampung Munjul owned BJA can be justified for use as the relocation of the population. This is due, the land is changing the function because the interests of development or community, and the amount of land used for the relocation of only 2.5 percent (80 ha) of the total land owned by the BJA (3200 ha). Currently, land in Kampong Munjul, was also used by local village government to relocate residents affected by land slides.

In terms of the permit to use the proposed resettlement site, it can be done parallel to the FS study for site selection and other necessary study such as environmental/carrying capacity study. The following are general procedure need to be followed up for the resettlement program action according to the LARAP study (2010).

Steps to carry on the resettlement program action:

1. PLN propose a permit to the District of Bandung Barat and Cianjur District, Province of West Java to use the selected kampongs/villages as a resettlement sites.
2. The PLN conduct a feasibility study and environmental carrying capacity for those resettlement sites covering:
 - a. Agro ecosystem study,
 - b. Geological condition and potential natural hazard,
 - c. Physiographic and land suitability,
 - d. Clean water availability,
 - e. Accessibility to economic and social facilities such as market, education, and health.
 - f. Socio-economic aspects of the proposed site such as land ownership, perception of local community regarding the proposed resettlement plan, etc.
3. Resettlement site visit and consultation regarding location and perception of the PAPs. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Local NGO.
4. Decision of resettlement site based on study result. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Bandung Barat District Office, Local NGO.
5. Consultation with PAPs on preliminary resettlement plan design and associated economic restoration programs that will be developed in accordance to local resources. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Bandung Barat and Cianjur District Office, Local NGO.
6. Design and physical construction of resettlement including other facilities required by the PAPs. Institutions/parties to be involved in this activity are PLN, Resettlement Team, Contractor.
7. Relocation of the PAPs to the resettlement site.
 - a. Inventarisation of PAPs who want to be moved to the new settlement site.
 - b. Decision on house ownership including administration status of assets in their new settlement site.
 - c. Moving out the PAPs to their new settlement site.Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Village Office, Sub District Office, Bandung Barat and Cianjur District Office, Local NGO.
8. Monitoring and “treatment” to new settlers, covering socio-psychological aspects, and economic development. Institutions/parties to be involved in this activity are PLN, Resettlement Team, PAPs, Consultant, Village Office, Sub District Office, Bandung Barat and Cianjur District Office, Local NGO.

10. Organizing Economic Recovery Activities

The best approach for economic recovery programs of the PAPs should be empowering these PAPs economically. The main activity for the empowering program is to motivate and support these PAPs by exploring their economic potentials so that they can use these economic potentials to create and/or joint economic activities to finally improve their living quality. This is done through better education to give them awareness of their economic potentiality. Another program is to improve their skills and confidence in using the resources they have. The existing biophysical and socio-economic resources in the proposed resettlement sites should also be observed and considered for possible program development to speed up the economic recovery programs.

To empower the PAPs economically, the proposed program should provide the PAPs with inputs and opening access to various opportunities, such as markets and other economic facilities. Empowerment program is not only a matter of strengthening individuals to be relocated but also the institutions they live with. The main approach of empowerment is that the societies to be relocated are subjects from their own self dependence. Thus, the efforts that should take place have to be directed straight to ones in need, directly by the subjects themselves, and using group approaches. Group approach is the most effective and efficient way in terms of source allocation.

By considering the economic recovery program for the PAPs as an empowering activity, the organizing steps should cover the following:

1. Participative-based program. Decision making in choosing ways of farming including the area coverage will be determined by the residents resettled themselves. Outsider or program developer only take role as facilitator or give them options.
2. Using group approach. This approach is necessary so the residents resettled are willing and capable of cooperating in their groups. This cooperation then will make it easier in providing necessary inputs in farming and livestock business, also in marketing their products. This group will form between 13 and 22 households, equipped with a standard organisational structure, such as the head of the group, secretary, treasury, and other divisions in charge in a specific agriculture-related business activities, for example livestock and post harvest small scale economic activities.
3. Take gender aspects and other variables involved. Women, especially housewives from the residents to be resettled including their children, are given the same chance in getting support from program developers.
4. The implementation of education activity is to act and assist. Education to act is carried out through trainings to support success in farming, livestock, and all sorts of economic activities. Technical assistance can include management skills in arranging plans for farming and livestock, technology implementation and breeding for farm and livestock. The technical assistance also covers marketing for their farming and livestock products.

Technically speaking, to organize the activities for recovering economy of the residents affected by project in specific and the resettlement in general, forming an institution or body is necessary to formulate policies of steps to take in the resettlement process. The body can be the Resident Relocation Policy Formulator Team and Resident Relocation Team, in which members come from related institutions and universities.

PLN as a lead institution, could establish a special “task force” to prepare and formulate economic recovery programs, and in the same time, carry out a field level technical assistance to make sure that the formulated programs are operational. This task force is hopefully capable of carrying out the following : (1) to do field level assistancy (working together with the PAPs) on working as a group, management skill, and other organisatory works; (2) to organise small scale economic activities, both individual and collective one; (3) to help the PAPs and other local community on how to prepare and starts an individual and collective small scale economic activities; (4) to inform the PAPs and local community on how to make a plan and to manage the chosen small scale economic activities; (5) to increase the capability of the PAPs and local community in implementing small scale livestock analysis, homegardening, and using appropriate technologies to increase productivity and efficiency; (6) establishing a pilot study to show how appropriate technologies are applied in livestock and/or agricultural small scale practices; these field applications should be directed to find the best small scale economic models based on local knowledge and resources; (7) to help the PAPs to get small grants or loans as part of local economic improvement programs run by local government/PLN; (8) to help find marketing alternatives which work at local level; (9) to help establish coordination mechanism with local relevant government officers as part of economic recovery programs; and (10) to help formulate a practical monitoring and evaluation system to make sure that the intended program of economic recovery has been achieved.

11. Recommendation

In geological perspectives, all proposed resettlement sites are located in the mild to moderate zone of vulnerability, for example some places in Kampong Munjul, and in Kampong Pasir Taritih. For these sites the recommendation are the following:

- Avoid building the house on steep slope areas, and above or below the cliff;
- Avoid permanent/cemented building/house in areas with high soil susceptibility. Improving vigilance when it rained continuously;
- In the sloping lands, steep slope (17° - 27°) to very steep ($> 36^{\circ}$), it should be equipped with retaining wall on the cliff that may collapse before the construction of house;
- In the resettlement sites that the source of water comes from rain-fed water, it requires a small scale water reservoir (channeled from the nearest small rivers), which is then distributed to homes; and
- Planting deep rooted trees in the sloping areas that have high potentiality for landslide. These areas should be mapped for effective landslide prevention program.

In terms of socio-economic aspects the following are the recommendation from this preliminary field study:

1. Economic recovery programs for the PAPs, can be done through the development of mixed farming, post harvest and processing business as part of dry land farming diversification.
2. Farming practices that should be developed are: (1) farming in the homegardens with multiple cropping patterns. The recommended commercially oriented plants to grow are banana, sweet corn, cassava, and lemon grass vegetable. Perennial commercial plants that already have economic value are *gnetum gnemon* (melinjo), sengon wood, bamboo, and other

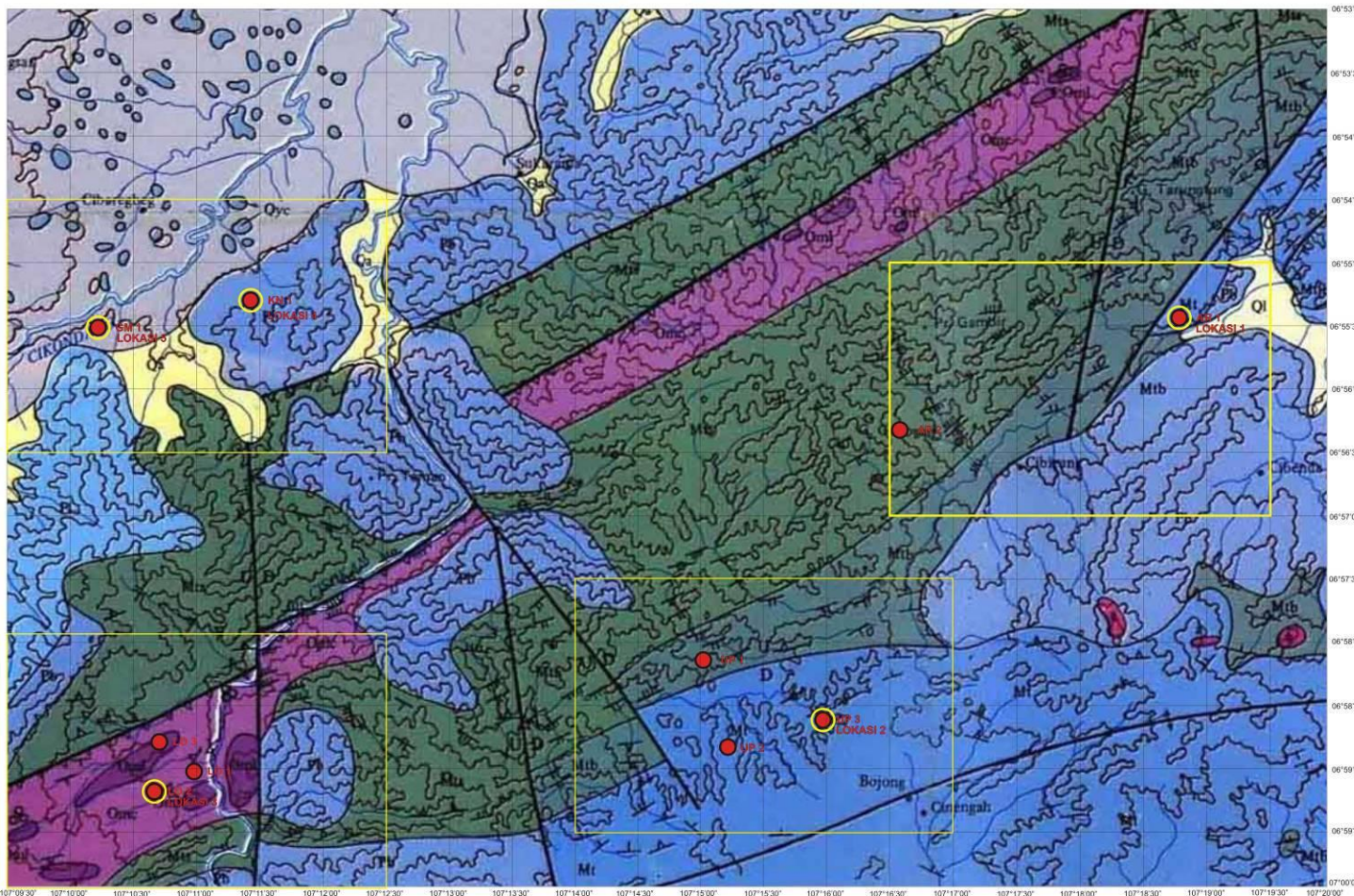
fast growing trees, (2) the livestock farming having good economic return and marketing system are sheeps and local chickens; and (3) the post-harvest processing small scale industry is for bananas and cassava products.

3. Economic recovery program is designed for the PAPs and relevant local community based on empowerment activities. Therefore, the proposed organized steps are the following: (1) based on participatory approach, the decision-making in the choice of farming, including determining the extent of farming, should be left to the PAPs; (2) using group approach, which combines a number of households around 13 to 22 families in one group of farming system; (3) attention to gender aspects and all elements involved, namely the housewife should be given equal opportunity to obtain empowerment programs; and (4) conducting the so-called “coaching clinical” approach as technical assistance at field level. This can be done through or working collaboration with local extension officers and on the job training programs.

Daftar Pustaka

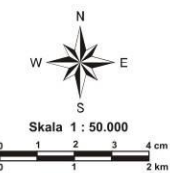
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Appendix 2. Geological Map of the Proposed Resettlement Sites



**Peta Geologi
Lokasi Resettlement
Untuk Pembangunan
PLTA Upper Cisokan
Pumped Storage**

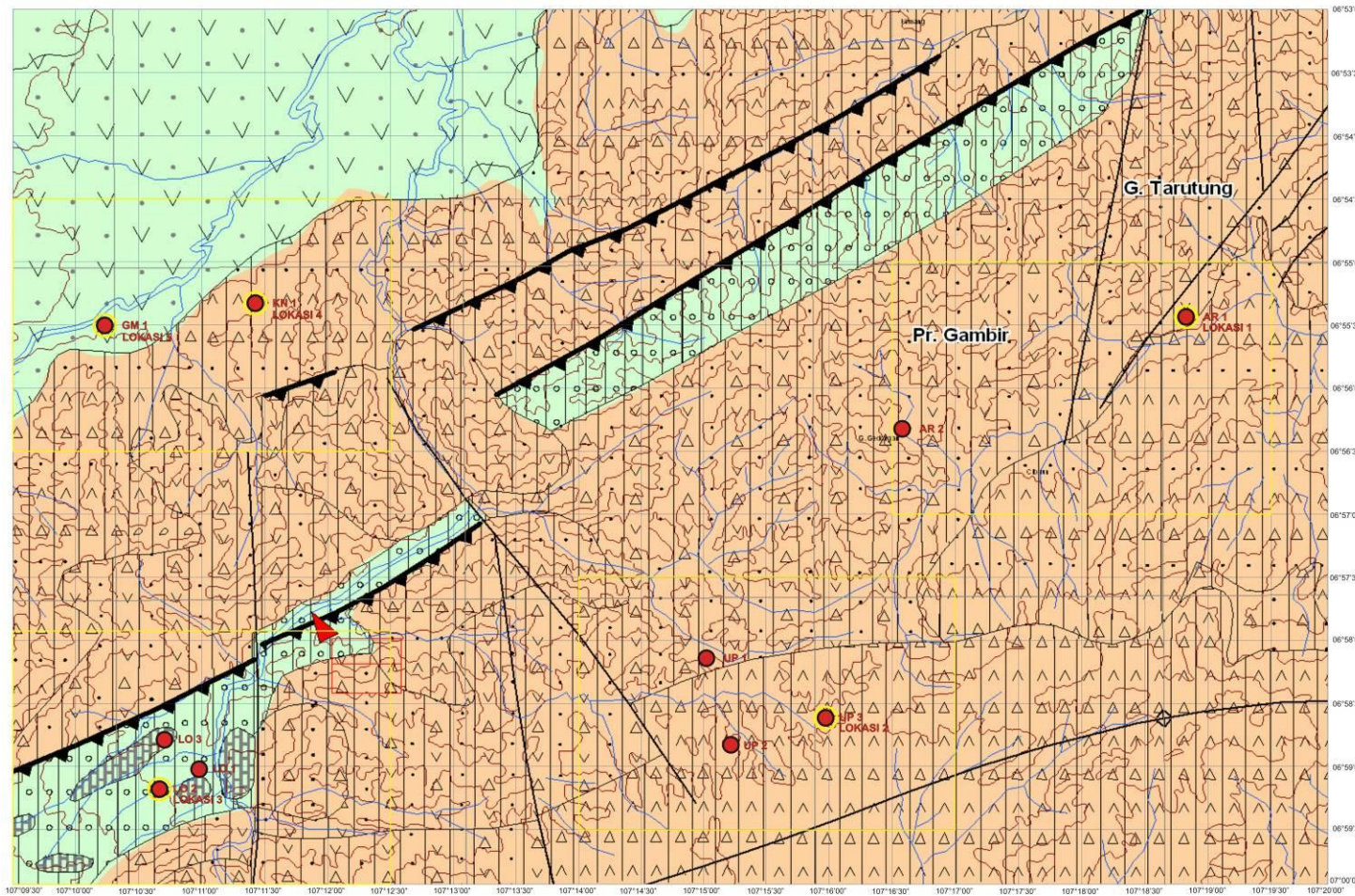
Kab. Bandung Barat dan Kab. Cianjur
Provinsi Jawa Barat



- KETERANGAN**
- Qa Lempung, Lanau, Pasir dan Kerikil
 - Qyd Lempung tufan, Batupasir Tufan, Kerikil Tufan, Konglomerat Tufan
 - Pb Breksi Tufan, Lava, Batupasir, Konglomerat
 - Mt Tuf Batuapung, Batupasir Tufan
 - Mtb Breksi, Batupasir
 - Mts Batupasir, Batulanau
 - Omc Lempung, Batupasir
 - Sesar
 - Sesar Naik
 - Sungai
 - Calon Lokasi Resettlement
 - Lokasi Resettlement yang di pilih



Appendix 3. Hidrogeological Map of the Proposed Resettlement Sites



Peta Hidrogeologi Lokasi Resettlement Untuk Pembangunan PLTA Upper Cisokan Pumped Storage

Kab. Bandung Barat dan Kab. Cianjur Provinsi Jawa Barat

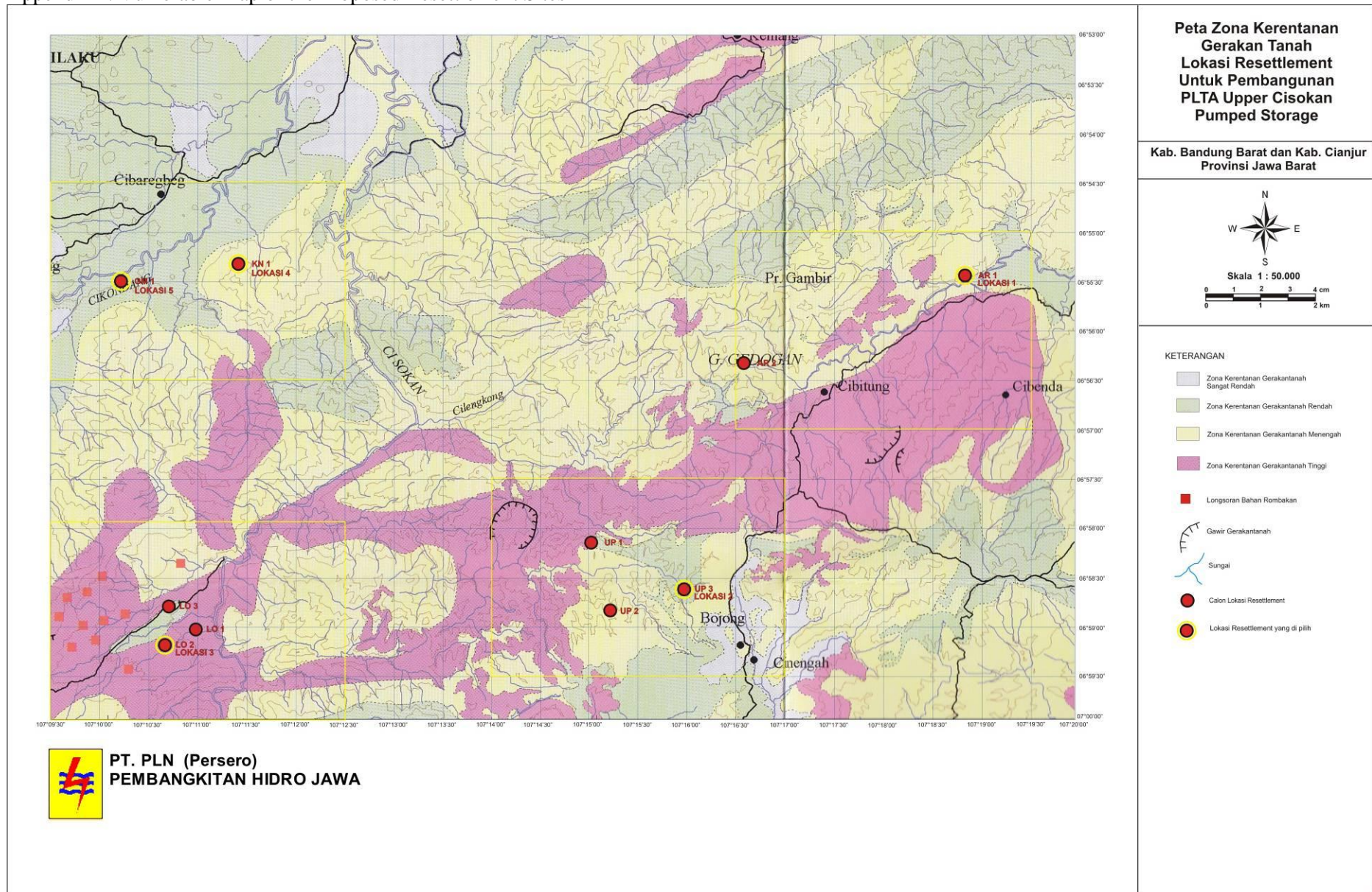


KETERANGAN

- Luah Sumur Lebih Antara 5-25 Liter / Desik
- Luah Sumur Kurang dari 5 Liter / Desik
- Nir Aquifer (daerah Airtanah langka atau tak berarti)
- Sesar
- Sesar Naik
- Sungai
- Calon Lokasi Resettlement
- Lokasi Resettlement yang di pilih



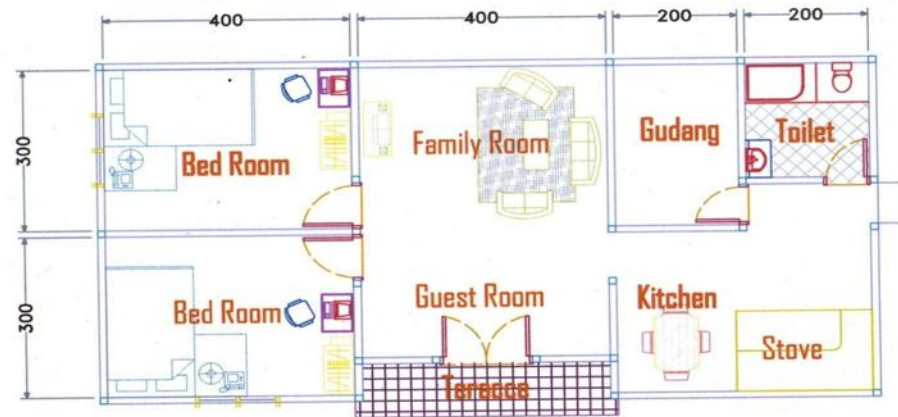
Appendix 4. Vulnerable Map of the Proposed Resettlement Sites





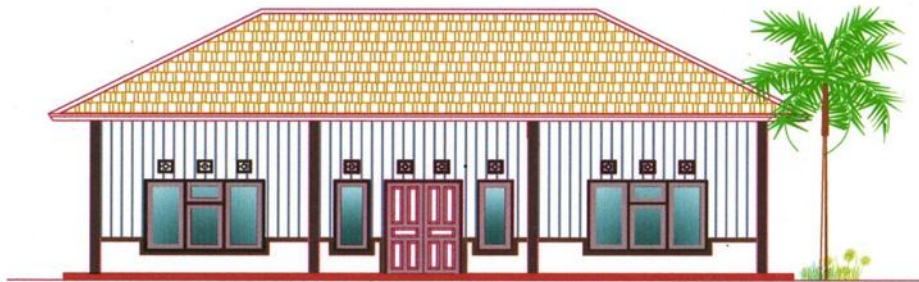
GAMBAR 3D
SKALA 1 : 100

Appendix 6. House blue print design with indoor bathroom/WC



RENCANA DENAH RUMAH
SKALA 1 : 100

Appendix 7. Semi-permanent houses

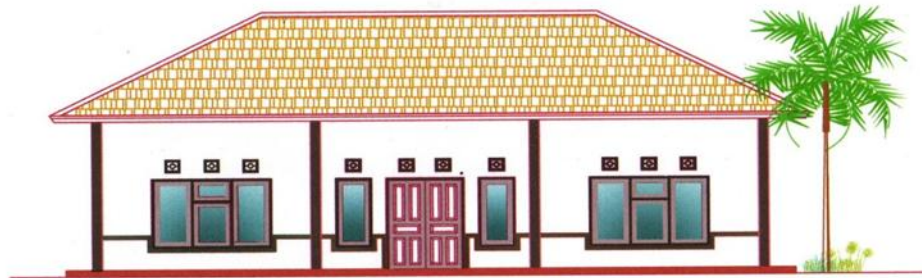


TAMPAK DEPAN BANGUNAN SEMI PERMANEN
SKALA 1 : 100



TAMPAK SAMPING BANGUNAN SEMI PERMANEN
SKALA 1 : 100

Appendix 8. Permanent houses

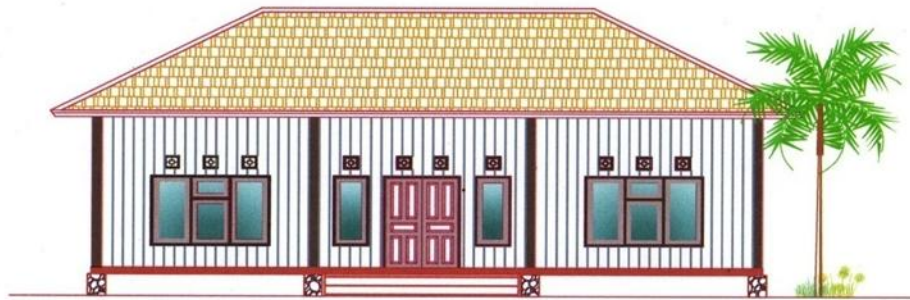


TAMPAK DEPAN BANGUNAN PERMANEN
SKALA 1 : 100



TAMPAK SAMPING BANGUNAN PERMANEN
SKALA 1 : 100

Appendix 9 Wooden model house or stage

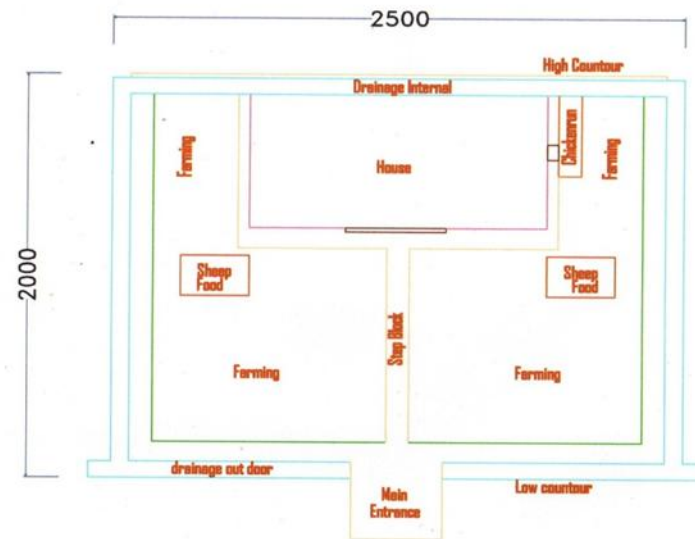


TAMPAK DEPAN BANGUNAN KAYU
SKALA 1 : 100



TAMPAK SAMPING BANGUNAN KAYU
SKALA 1 : 100

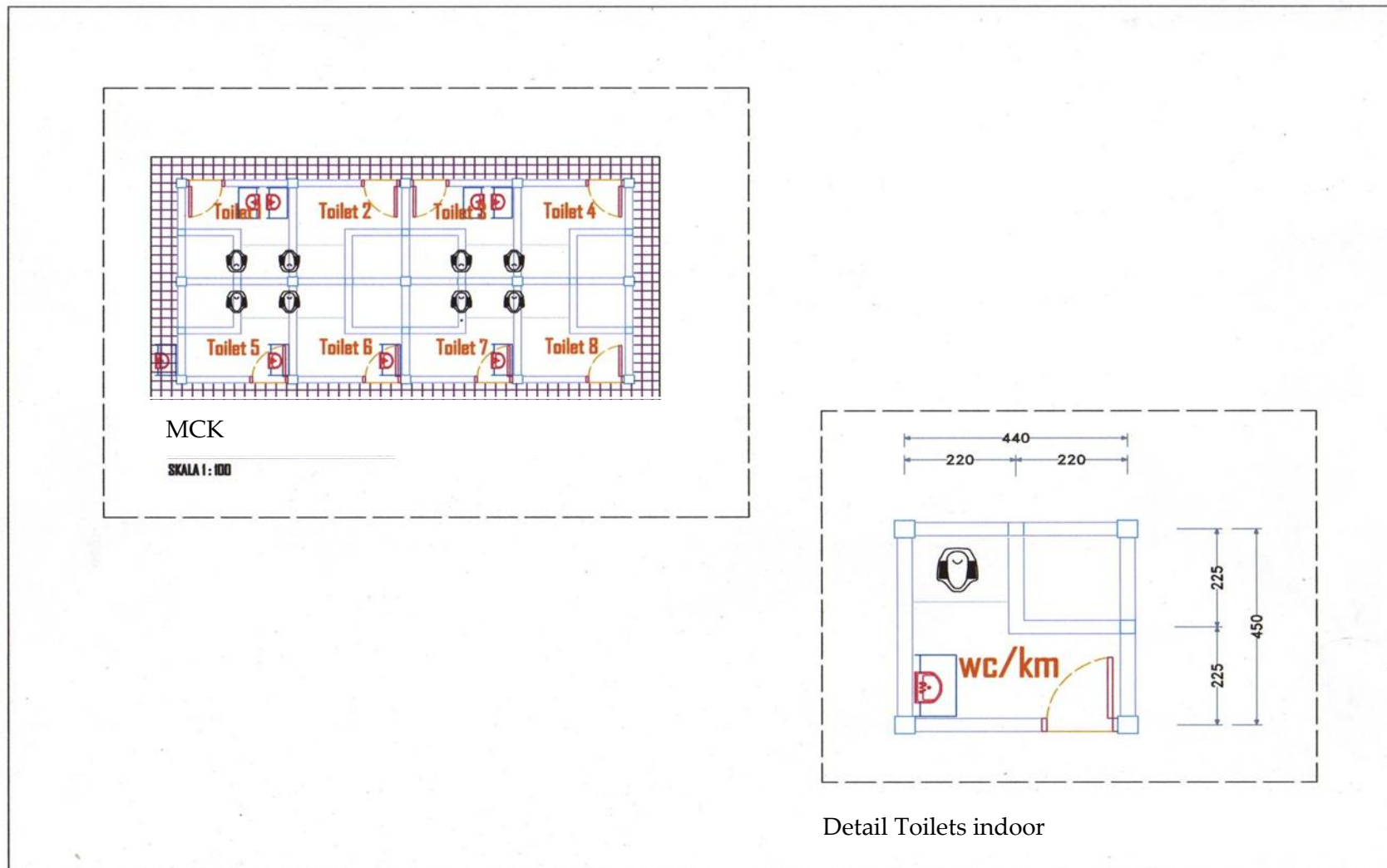
Appendix 10. Spatial pattern of land plot ready for construction per household symmetrical model



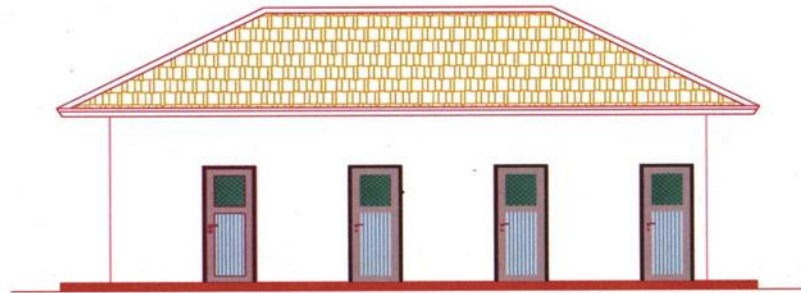
RENCANA MODEL NONSIMETRIS

SKALA 1 : 100

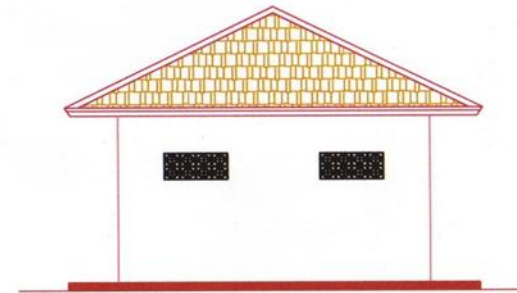
Appendix 11. Bathing, washing, and toilet facilities (MCK) sanitation model



Appendix 12. MCK model

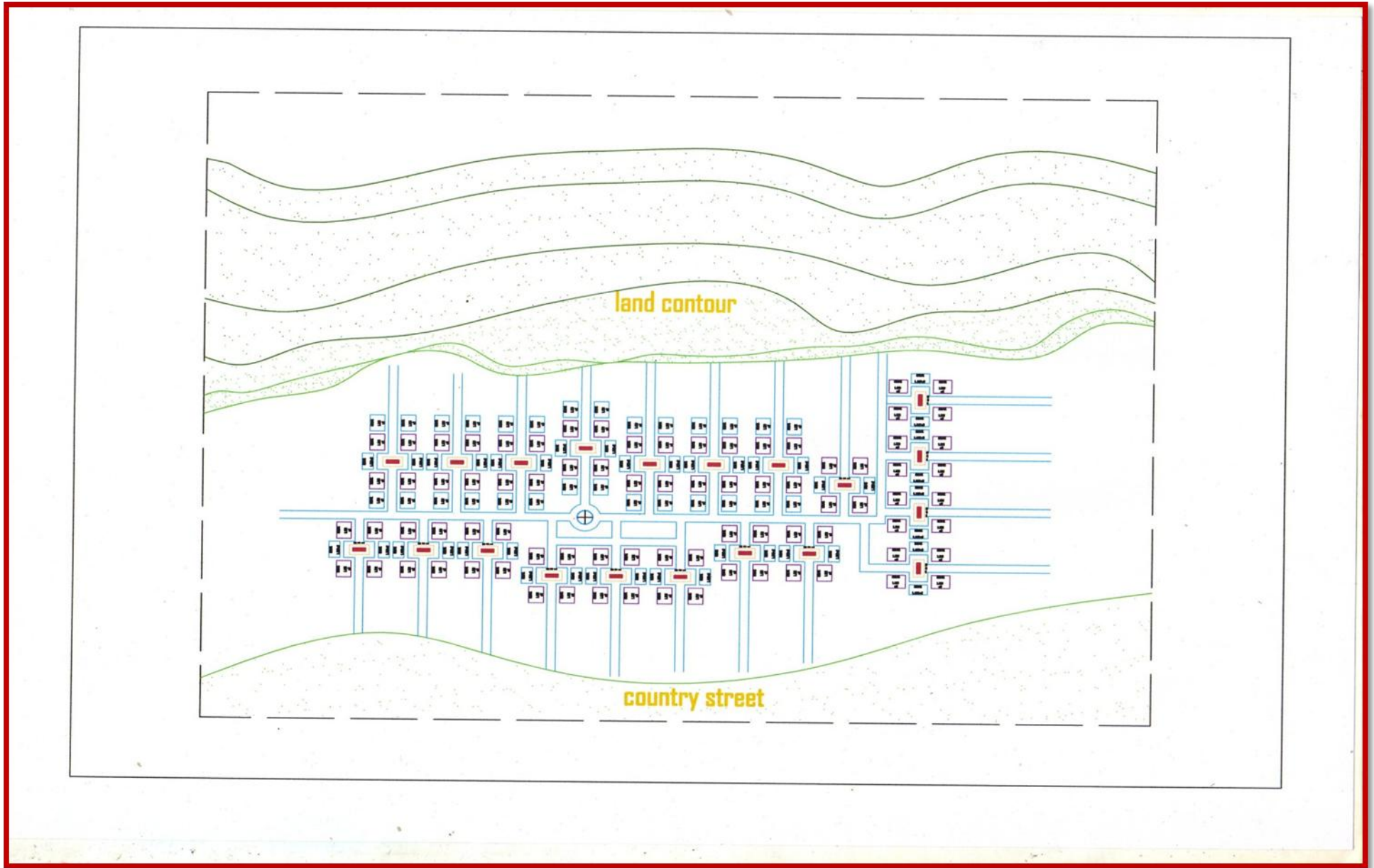


TAMPAK DEPAN MCK
SKALA 1 : 100



TAMPAK SAMPING MCK
SKALA 1 : 100

Appendix 13. Block plan: mix model cluster of 6, 1 open space or MCK with cluster of 10, 1 open space or 1



Appendix 14. Points to be followed by the proposed the planning of PAPs resettlement site, PLTA Upper Cisokan P/S

1. There will be more PAPs than anticipated. First, there were 98 PAPs who want to be relocated by the PLN/government. Later on, the number increasing to be 113 PAPs. In this case, the planning of PAPs resettlement site, PLTA Upper Cisokan P/S should be prepared to consider that new numbers of PAPs for each site (Munjul, Pasir Taririh, and Nagrak). Exploration for more possible lands for accommodating the PAPs should also be carried out. The same models for economic recovery programs, house design and its lay out, and technical works and assistances should be prepared. The most likely constraints is that the price of the available lands could be more expensive as the site approaches already available public facilities, if this is the case.
2. The planning of PAPs resettlement site, PLTA Upper Cisokan P/S should prepare all possibilities regarding the desire of those PAPs in relation with the proposed sites. There will be the possibility that PAP will not be interested to live in the proposed sites. On the contrary, more PAPs than identified in the LARAP study will be interested in the proposed sites. Other possibility is that there will be only a few PAPs who are interested in the proposed sites. If this is the case, therefore the remaining of PAPs those who are not interested in joining the organised resettlement program will be treated the same as those who want to move out by their own way/initiative.
3. The proposed sites, i.e. Kampong Munjul, Nagrak, and Pasir Taritih including other potential site, i.e. Kampong Ginaya, should be further studied in terms of the following research: a) statistical analysis for natural hazard, and b) soil mechanics and rock to determine the stability of slope stability.
4. The planning of PAPs resettlement site, PLTA Upper Cisokan P/S should conduct a feasibility study and environmental carrying capacity for those resettlement sites covering:
 - a. Agro ecosystem study,
 - b. Geological condition and potential natural hazard,
 - c. Physiographic and land suitability,
 - d. Clean water availability,
 - e. Accessibility to economic and social facilities such as market, education, and health.
 - f. Socio-economic aspects of the proposed site such as land ownership, perception of local community regarding the proposed resettlement plan.
5. The planning of PAPs resettlement site, PLTA Upper Cisokan P/S should reidentification of relocation of the PAPs to the resettlement site as follows:
 - a. Inventarisasi of PAPs who want to be moved to the new settlement site.
 - b. Site plan, detail design and decision on house ownership including administration status of assets in their new settlement site.
 - c. Moving out the PAPs to their new settlement site.
6. As in the case of economic recovery programs for the PAPs, the planning of PAPs resettlement site, PLTA Upper Cisokan P/S should covers the following aspects: (1) Livelihood technical assistance, especially for 2 months. Most agriculture and livestock

businesses require at least one year to make significant profit; (2) The right composition and/or combination of plants that need to be done in their homegarden. It is suggested that the selection of the plants should be based on the economic value, duration of the harvesting time, and in high demand; (3) Livestock model involving a combination of sheep and local chicken, so that easier for the livestock to adapt to their local environment. In this case, a technical assistance need to be developed so that the local human resource can fully involved. Another important factor is the use of appropriate technologies to increase the productivity (4) the PAPs should be prioritised in this economic recovery programs, while the host residents may be able to sell raw materials needed by the economic programs; and (5) a clear schedule for the targets to be achieved in the economic recovery programs.

TERMS OF REFERENCE
FOR PREPARING
LAND ACQUISITION AND RESETTLEMENT ACTION PLAN (LARAP)
OF UPPER CISOKAN PUMPED STORAGE HYDROELECTRIC POWER PLANT

1. BACKGROUND

In order to fulfill power demand particularly during peak load hours (at 05.00 pm – 10.00 pm), PT. PLN (Persero) plans to develop Upper Cisokan Pumped Storage Hydro Electric Power Plant with 1040 MW capacity by utilizing the potential of Cisokan river and its tributaries in West Java.

Development of this project will need large amount of fund, therefore PT. PLN (Persero) needs financing aid from other parties. One of alternative institution that probably will finance this project (The Lender) is World Bank.

Based on the survey of community acceptance report in March 2007, development of Upper Cisokan HEPP (Pumped Storage is estimated will affect approximately 1,539 households whom their assets will be acquitted and 511 households of them will resettled.

One of conditions required by The Lender in financing process is an availability of Land Acquisition and Resettlement Action Plan (LARAP) study for Project Affected People (PAP). Therefore, this Terms of Reference is prepared based on World Bank guidelines.

2. OBJECTIVES

The aim of preparing Land Acquisition and Resettlement Action Plan (LARAP) of Upper Cisokan Pumped Storage Hydro Electric Power Plant is to provide the report related to land acquisition, assets and resettlement that will be used by PT. PLN (Persero) in project planning and as a reference to be used by The Lender in making decision.

The objectives of preparing LARAP of Upper Cisokan Pumped Storage HEPP i.e:

- a) To obtain accurate data concerning Project Affected People and other related data according to the guideline of preparing LARAP (Appendix 1 and 2)
- b) To conduct socialization of LARAP to the community in order to meet the same perception and to get initial input from the community.
- c) Preparing payment of LARAP and compensation scheme to the PAP.
- d) Preparing resettlement plan and rehabilitation for PAP whom to be resettled.
- e) Preparing study that the PAP will be improved their livelihoods at least to restore them to predisplacement.

3. LOCATION

Area of Upper Cisokan HEPP (Pumped Storage) covers:

- a) Bandung District (Kabupaten Bandung)
 - Subdistrict of Cipongkor : the villages of Karangsari, Sarinagen, Cijambu, Sirnagalih.
 - Subdistrict of Rongga : the villages of Sukaresmi, Cinengah, Bojong Salam, Cicadas, Cibitung.

b) Cianjur District (Kabupaten Cianjur)

- Subdistrict Cibeber : The villages of Karangnuggal, Girimulya.
- Subdistrict Campaka : Margaluyu village

4. PROJECT DESCRIPTION

Description of Upper Cisokan Pumped Storage Hydro Electric Power Plant project is as follow:

<i>1 Plant and Reservoir</i>			
1	Plant Data	Units	Size
	Installed Capacity	MW	1,040 (260 MW x 4 Units)
	Maximum Turbine Discharge	m ³ /s	432
	Rated Net Head	m	276
2	Reservoir Scale and Hydrology		Upper Reservoir
	Catchment Area	Km ²	10.5
	Reservoir Surface Area at N.W.L	Km ²	0.8
	N.W.L	m	796.5
	L.W.L	m	777.5
	Effective Depth	m	19
	Active Storage	10 ⁶ m ³	10
	Average River Discharge	m ³ /s	0.4
	<i>Design Flood</i>	m ³ /s	230
			1,100
<i>2 Quarry Access Road and Base Camp</i>			
1	Quarry		At Gunung Karang, Kab. Bandung
	Nett volume to be extracted	tons	2.7 million
2	Access Road		Existing
	Length	Km	7.3
	Width	m	10
	Right of Way (minimal)	m	na.
			40
3	Base Camps		
	Project Management	At ex-Diklat PLN at Saguling PLTA Near plant and	
	Construction Contractor	dam sites	
4	Transmission Line 500 kV for 72 Pcs Tower		
	Length	Km	29.5
	ROW Width	m	34

The studies, which have been conducted in relation with works, are as follows:

- a) Feasibility Study (Up dated) year of 1996 - 1998.
- b) Study of AMDAL (Environment Impact Assessment) Upper Cisokan Pumped Storage Hydro Electric Power Plant year of 1998.
- c) Study of AMDAL (Environment Impact Assessment) Upper Cisokan Pumped Storage Hydro Electric Power Plant year of 2007.

- d) Study of community acceptance toward development of Upper Cisokan Pumped Storage HEPP year of 2007.
- e) Study of inhabitant resettlement from Upper Cisokan Pumped Storage HEPP project year of 2007.

Based on the AMDAL study conducted on 2007, land requirement for this project was predicted as shown in the following table:

Infrastructure Item	Land Requirement (ha)					
	Total	Rice Field	Dry Land	Forest	Home Yard	Houses (Unit)
1 Upper Reservoir	105	24	19	26	36	194
2 Lower Reservoir	356	131	94	75	57	281
3 Disposal Areas	79	17	12	18	32	36
4 Quarry	18	1	3	-	13	37
5 Access Road						
a. Existing (7,3km)	-	-	-	-	-	345
b. New (24,6km)	107	10	20	70	7	94
6 T/L 500 kV (29,5 km)	100.3	28.08	62.19	4.01	6.02	900
For Tower (72 pcs 4.5 ha and ROW (34 m width)						
Total	765.3	211.08	210.19	193.01	151.02	1887
Source : AMDAL Report 2007						

The document was also mentioned the following data for the predicted PAP:

Infrastructure item	Number of Affected Households				Individual in Affected HNS
	House & Land	House	Land	Total	
Upper reservoir	174*	(20)*	30	224	797
Lower reservoir	252*	(29)*	276	557	1.866
Disposal areas	32*	(4)*	118	154	546
Quarry	-	37	-	37	121
Access Road					
a. Existing (6.7 km)	-	345	-	345	1.350
b. New (24.6 km)	94	-	128	222	890
Transmission line 500 kV (29.5 km)				327	990
Total	552	435	552	1.866	6.560
Source : AMDAL Report 2007			*Number resettlement required = 511 (N)* Landless people = 53		

5. SOURCE OF FINANCING

The LARAP study will be financed by using APLN (PT. PLN (Persero) Budget Allocation)

6. PROJECT INITIATOR

Company : PT. PLN (Persero) PROKITRING of west Java
Title : Project Manager
Address : Jl. Ciliwung No. 5 Bandung
Telephone : 022- 7107194 / 7107195 / 710196
Fax : 022- 7272928 / 7272146

7. SCOPE OF WORKS

- 7.1. To conduct socialization to the PAP in order to achieve the same perception and to have initial input as well.
- 7.2. To conduct coordination with PT. PLN (Persero), PEMDA (Local Government), related District's Stakeholder, The Lender and community's leaders in preparing LARAP and data compiling as well as preparing the report.
- 7.3. To collect data of landowners, building and trees, etc, related to the LARAP report requirement.
- 7.4. To collect data of land area, house yard, houses and other buildings and any kind of trees (crop), which will be affected by the project.
- 7.5. Preparing payment / compensation scheme to the PAP based on guidelines of Lender and regulation of Indonesian Government.
- 7.6. To conduct survey and census of the PAP regarding the transferring of assets and appraisal of assets owned by PAP, as describes in "The Highlight of LARAP" on Appendix 1.
- 7.7. Conducting social economic study to obtain data as describes in "The Frame of Writing on Social Economy Study" on Appendix 2.
- 7.8. Preparing report of LARAP refers to Appendix 3.
- 7.9. Re-study and review environmental Impact Assessment (EIA) as commented by Lender as listed in Appendix 4.
- 7.10. Staking out of main work boundary..
- 7.11. Identify and staking out of land owners.

8. EXPERT REQUIREMENT

Consultant shall provide professional experts who have capability and experience in the their field. The proposed experts have to be the real persons who will be assigned to this work. If during execution of the work, there is substitution of expert, the owner has right to refuse such expert then substitute with another one who meet the requirement.

In implementation of Study of LARAP of Upper Cisokan Pumped Storage HEPP, Consultant must provide experts as the following:

Professional			
No	Required Experts	Number (person)	Professional Experience
1	Team Coordinator	One (1)	12 years
2	Assistant Team Coordinator (Environmental Expert)	One (1)	10 years
3	Social Economic Expert	One (1)	8 years
4	Agriculture Expert	One (1)	8 years
5	Social & Culture Expert / Anthropology	One (1)	8 years
6	Civil Expert	One (1)	8 years
7	Geodetic Expert	One (1)	8 years
8	Appraisal Expert	One (1)	8 years

Sub Professional			
No	Required	Number (person)	Professional Experience
1	Social Economic Surveyor	six (6)	3 years
2	Agriculture Surveyor	four (4)	3 years
3	Social Culture Surveyor	six (6)	3 years
4	Topographic Surveyor	four (4)	5 years
5	CAD-operatof	two (2)	5 years

Supporting Staff			
No	Required	Number (person)	Professional Experience
1	Bilingual Secretary	One (1)	3 years
2	Accountant	One (1)	3 years
3	Computer operator	three (3)	3 years
4	Security Guard	two (2) 4	-
5	Office Boy	One (1) 2	-

9. TIME FOR COMPLETION

Time for completion of this study is six (6) months calendar days since signing of contract up to submission the final report of LARAP. The draft final report of LARAP shall be submitted thirty (30) days before the end of completion time.

10. COMPLETION OF WORK

The work is deemed to be complete if the Consultant has submitted the final LARAP report in accordance with TOR as described in the contract and approved by PT. PLN (Persero)

11. REPORTS

The consultant shall submit the following reports:

- a) Inception Report
This report contains: Work Plan, Methods, Plan of coordination meeting related stakeholder, Team Organization, Manning Schedule, Time Schedule, Questionnaire and Equipment to be used.
The report shall be four (4) copies in English and eight (8) copies in Indonesian, submitted to the Owner not to be late than fifteen (15) days after receiving Letter to Proceed.
- b) Bimonthly Progress Report
This report contains working progress and the results of works have been done. The report submitted shall be four (4) copies in English and eight (8) copies in Indonesian.
- c) Draft of LARAP Report
Draft report of LARAP shall be discussed with PT. PLN (Persero). Final draft report submitted is four (4) copies in English and eight (8) copies in Indonesian.
- d) Final Report of LARAP
Final report is an improvement of draft report of LARAP that has been approved by PT. PLN (Persero). The Report shall be prepared are eight (8) copies in Indonesian and four (4) copies in English.
- e) Draft of Re- Study and Review EIA
- f) Final Report of Re-Study and Review EIA

12. OTHER REQUIREMENTS

1. Appendix 1, 2, 3, and 4 cannot separated from the TOR
2. The existing data obtained during previous study shall be as reference data that will be gained in the LARAP report.
3. If any matters which not covered yet in this TOR related to LARAP, it will be directed by The Owner.

Guidelines of Land Acquisition and Resettlement Action Plan (LARAP)

Note to preparer. This Table of Contents and outline of LARAP report should be complied. Reports not in the format, or where the main text exceeds 10 pages, will not be accepted for review. This format of report is applicable where less than 200 families are affected and impacts on the entire displaced population are minor, or fewer than 200 people are displaced. Impacts are considered “minor” if the affected people are not physically displaced and less than 10% of their productive assets are lost. In some of the displaced persons lose more than 10% of their productive assets or require physical relocation, the LARAP should include a socioeconomic survey and income restoration measures (Appendix 2).

1. Project Description

2. Census survey of PAP's, assets lost, and valuation of assets

- a. List of project-affected people;
- b. Size of current affected land/building;
- c. Size of land/building to be required; acquired
- d. Size of remaining affected land/building (for remaining land/building that could not be feasible economically, it should be considered the land/building affected entirely);
- e. How many percent (%) land to be acquired;
- f. Status ownership of affected land/building and the ownership evidence;
- g. Function of affected land/building
- h. Building condition (permanent, semi permanent, temporary, IMB);
- i. Affected plant: type, number, condition (age), productivity;
- j. Other affected assets (such as well, electricity installation, fence, etc) along with the provisioning cost.

NB: List of inventory assets lost is better separated for land owner and people occupying right of way.

2.2 Total number of affected assets

- a. Total size of land to be acquired (how many m2, how many plot)
- b. Total project-affected people (how many household of owner of land/building including renters), could be specified (depend on the case)
- c. Total project-affected people to be displaced
- d. Total building to be affected
- e. Total plant affected, specified on the type
- f. Total other affected assets, such as cemetery, advertisement.

3. Compensation and resettlement assistance description

3.1 Compensation agreement

- a. Compensation alternative provided by the local Government and offered to the project-affected people;

- b. Compensation form wanted by the PAP based on consultant result;
 - c. Compensation form and amount agreed by the PAP
 - Presidential decree No.36/05 (65/06) requires the existence of independent institutional to appraise the assets;
 - But if land area < 1 ha, asset value for land, building, plants can be obtained from the last transaction of local people.
 - d. Certification process (what facility provided by the LG and when)
- 4. Consultation with PAP's about compensation alternatives**
 The main group to be consulted ie: women, land owner without title, poverty group, jobless, indigenious.
- 4.1 How the process was conducted
 - 4.2 When and how many times
 - 4.3 Where the process was conducted
 - 4.4 By whom and who participate by name
- 5. Institutional responsibility for implementation and procedures for grievance redress**
- 5.1 Responsible organization for land acquisition including contact details
 - 5.2 Responsible organization for LARAP implementation
 - 5.3 Responsible for reporting and monthly monitoring
 - 5.4 Grievance redress mechanism for compensation disagreement and LARAP implementation including name and contact details of where to send complaints, required response time and evidence the PAP's have been fully informed of how to use the grievance process and understand it.
- 6. Arrangement for monitoring and implementation**
- 7. Schedule and funding**

Table : the program along with the activities that will be conducted, the responsible unit, the schedule, cost, fund resource and note.

Activity	Responsible institution	Deadline	Cost (Rp)	Source of Fund
1. Consultation with the people in project area on the project and its potential impacts				
2. Identification of affected people and assets				
3. Deliberation on form and amount of compensation and measures to rehabilitate livelihood				
4. Payment of compensation, moving allowance				
5. Building demolition				
6. Assistance for livelihood and social services restoration (mention the form of assistance)				
7. Monitoring and evaluation				
8. Land certification				

EXAMPLE:**Land Acquisition, Resettlement and Affected People Establishment Action Plan**

ACTIVITY	IN CHARGE	DATE	EXPENSE (Rp)	SOURCE OF FUND
1. Preparation				
2. Briefing and information to residents affected by the project				
3. Determining form and amount of compensation (consult with residents)				
4. Compensation hand out				
5. Handling complaints and follow up				
6. Aid and advancement, for example:				
- training				
- small scale credit facility				
- etc				
7. Monitoring and evaluation				
8. Certification				
9. IMB				

Social Economic Study Outline

I Preface

- a. Background
- b. Objective
- c. Methodology
- d. Report outline

II Information on residents affected by the project

- a) Resident, household affected by the project and resident who had the move
 - Number of household affected by the project;
 - Number of residents affected by the project;
 - Number of residents affected by the project occupying land to which they do not have title or occupying land illegally;
 - Number of household/resident who had to move due to cut through on land or housing totally or partly cut through, hence unsuitable either for housing or commerce
- b) Age, occupation, education, job location (distance to job premises) transportation used to go to work, resident's standard of living and cost of living, length of period in current place.
 - There may be more than one household in each housing unit. Social economy survey is conducted based not on number of housing unit but on all existing household.
 - In one family there could be more than one person having a job. Information on income are to be accumulated from all those who has a job in one household, and this total income from various sources form a main family total income.
 - Job location, whether resident is working at home or away from home. If away from home how far the distance to the job premises and the transportation used to go to work.
 - Average household expense (food, transportation, education, etc).
 - Education: information on both level of education of the head of family and children's education (how many of them has school education such as Elementary School, Junior High School, etc).
 - Length of period for each resident affected by the project, staying at the current location (for example: < 1 yr, 1-5 yrs, 6-10 yrs, >10 yrs, >20 yrs, etc)
- c) Access to services
 - Location of school and health facilities, distance to those facilities and time required to travel to them.
 - Location of markets and related facilities, distance to those facilities and time required to travel to them.
 - Location of other social services, distance to those facilities and time required to travel to them.

- d) Amount, type and scale of both formal and informal businesses
Information in relation to type of job/activity done by resident affected by the project, for explanation on agricultural activity, how big the size of agricultural land used, how much cost incurred until harvest, how much profit derived, number of work force involved, etc. also for all the other activities, especially those with an informal nature.
- e) Availability, accessibility and education facility usages, health, market, religion, etc: whether these facilities are available at the current location, how far is the nearest distance between residence and facilities, whether those facilities are being used by residents (affected by the project).
- f) Availability and utilization of public utilities such as electricity, telephone network, clean water, asphalt roads, public transportation.
- g) Community social cultural characteristics including outlook on formal and informal institution existence.
- h) Type, size, condition, status and value of land building before and after affected by project.
Data/information needed are:
- Size of land/building owned before affected by project;
 - Size of land/building to be affected by project;
 - Land/building ownership status and its documents;
 - Use/function of land/building.
 - Building condition (permanent, semi permanent, temporary, number of story), IMB (permit by the government to build houses/structures) existence;
 - NJOP (land valuation endorsed by the Tax Department) and market value of land and building affected the project;
 - trees, plants and other assets affected by the project : number of plants to be affected, condition (age) of plant, amount and type of other assets to be affected (Such as pump wells, electricity network, etc.), cost to be incurred to replace those assets with the same state and condition ;
 - infrastructure and public utilities affected by the project.
- i) Positive and negative impact on behalf of the civil community, cultural assets and environment.
- Project component or activity causing land clearance and resettlement;
 - the extent of region affected by the project;
 - positive and negative impacts if residents are to be moved to a new location (in case any are to be moved), in relation to jobs/ income, social relationship, distance to schools, availability of public facility, etc.
 - impact on residents whose land are being 'cut through' by the project and still reside at the very location
 - impact on those who previously reside at riversides (if there are any) and then moved to a location beyond riversides (away from the river);
 - other positive and negative impacts that may occur due to land acquisition and resident resettlement to those affected by the project including impact on cultural assets and environment;
 - considering other alternatives to prevent or minimize land acquisition and resettlement.

- j) Perception and aspiration of resident affected by the project
- resident's perception towards the benefit and negative impact of the project and efforts that could be done to minimize the negative impact of the project;
 - resident's perception towards the project being implemented, resident's aspiration towards the process in implementing the project;
 - resident's aspiration toward the form and amount of compensation and advancement;
 - resident's aspiration toward resettlement schemes and resident's willingness if they must move;
- k) Current rule laws (including tribal and traditional rule of law) on land ownership, asset and loss valuation, compensation, and the right to extract and use natural resources.

FORMAT OF LARAP

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- 4.1 Consultation and Discussion Process with Project Affected People
- 4.2 Consultation and Discussion Results with Project Affected People

 - a. Agreed Scheme and Value of Compensation
 - b. Relocation / Resettlement Plan for Affected Assets or People
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V. LARAP INSTITUTIONAL AND PROCEDURE OF TREATMENT GRIEVANCE

- 5.1 Institutional Responsibility and Procedure of Grievance Treatment
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- 6.1 Action Plan
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 - a. Implementation Schedule of LARAP
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APPENDIX 3
LARAP CAPACITY BUILDING
UPPER CISOKAN PUMPED STORAGE POWER PLANT

1. INTRODUCTION

LARAP of the Upper Cisokan Pumped Storage Project consists of 3 parts, namely 1) the access road, 2) Upper and Lower reservoir, and 3) construction of 500 KV transmission lines. Those LARAP documents were composed in order to minimize the negative impacts arising from land acquisition and PAP's relocation/resettlement. PAP who lost their jobs/source of income will receive assistance in order to rehabilitate the living conditions as the same as before the project.

Types or forms of assistance such as development of motivation, skills training and specific job types, the guidance to start and develop small business, small business credit, marketing development, assistance during the transition period, and strengthening of community organizations and other services.

Resettlement Implementation Team will play the most important role for the success of resettlement. There will be Resettlement Implementation Team (RIT) in each district/regency (Districts of West Bandung and Cianjur).

Since there are some gaps of knowledge to implement the above plan among the RIT officers, the PAPs, the PLN officers as project proponent, and other local leaders so the capacity building needs to be implemented to deliver the knowledge. They will be provided with the capacity building (training) and coaching to increase the level of PAP's living rehabilitation accomplishment.

Considering that most PAPs are preferred to be relocated in the surrounding areas where they are living, and considering that most PAPs are working on land-based economic activities. As part of the economic recovery there will be some models of agriculture-based economic activities. First, agriculture-based activity in the form of home garden-based agricultural practice with market-oriented fruits as main components. Second, livestock-based small scale economic activities with goats as main component. Thirdly, chicken-based small scale economic activities, with local chicken as main component, and fourthly, after harvest fruit processing with banana and cassava as the main components. Fifthly, the combination of agriculture, animal husbandry and home industry

2. TARGET

- RIT Management officers
- RIT Coaches
- PLN Officers (PLN Head Office, PLN PHJ, PLN PIU Project)
- Involved Local leaders

3. IMPLEMENTATION PLAN

The implementation plan of LARAP capacity building is presented in following matrix table.

Table 1. Matrix of the implementation plan of LARAP capacity building

No	Activity	Purpose	Tutorial And Discussion Issues	Time of implementation	Responsible
1	Workshop with RIT, Local leader and PLN Officers	To dissipate information and to compose detailed plan of training and coaching for PAP <ul style="list-style-type: none"> • How to organizing the resettlement program • How to manage the resettlement program • How to handle coaching • How to handle supervising • How to handle monitoring 	<ul style="list-style-type: none"> • Policy and Institutional changes to develop an adequate framework for the resettlement; • Design and implementation an effective consultation campaign involving key stakeholders, especially the affected people; • Staffing, both of numbers and of skills, and the necessary recruitment or training, based on the results of the assessment; • The mechanisms to coordinate the work of other agencies; and • Implementing pilot resettlement programs. • Monitoring and evaluation of the resettlement program; • Resources and corrective actions to achieve satisfactory outcomes; 	Two weeks after loan agreement. This workshop will be repeatedly conducted in every 6 month.	PLN PHJ
2	Training for PLN Officers	The management of LARAP <ul style="list-style-type: none"> • How to organizing the LARAP • How to handle supervising • How to handle monitoring 	<ul style="list-style-type: none"> • Policy and Institutional changes to develop an adequate framework for the resettlement; • Design and implementation an effective consultation campaign involving key stakeholders, especially the affected people; • Staffing, both of numbers and of skills, and the necessary recruitment or training, based on the results of the assessment; • The mechanisms to coordinate the work of other agencies; and • Implementing pilot resettlement programs. • Monitoring and evaluation of the resettlement program; • Resources and corrective actions to achieve satisfactory outcomes; 	One week after issuance permit letter of project Location by Governor of West Java. This workshop will be repeatedly conducted in every 6 month	PLN PHJ

No	Activity	Purpose	Tutorial And Discussion Issues	Time of implementation	Responsible
3	Training for RIT coaches	To train how to convey the knowledge of assistance program to PAP: <ul style="list-style-type: none"> • How to organizing the resettlement program • How to manage the resettlement program • How to handle coaching 	<ul style="list-style-type: none"> • Policy and Institutional framework for the resettlement; • Design and implementation an effective consultation campaign for the affected people; • The mechanisms to coordinate the work of other agencies; and • Implementing pilot resettlement programs • Monitoring and evaluation of the resettlement program; • Resources and corrective actions to achieve satisfactory outcomes; 	Three weeks after loan agreement. This training and workshop will be repeatedly conducted in every 6 month	RIT

4. RESOURCES NEEDED

- Training place:
Room or place for conducting the training or workshop. This will be determined later, it could be in Bandung, Cianjur or in the field.
- Equipments:
It is such as multimedia projector, sound system etc.
- Trainers/Fasilitators/Coaches:
This will be selected from Individual consultant, University, Training institution, NGOs and local leaders
- Handouts and content of the training and workshop.
It will be formulated by PLN PHJ with the input from other stake holders such as (RIT, LAC, IMA, PRP, PAP, Governments)
Each Trainers/Fasilitators/Coaches requested to deliver handout to participants
- Evaluation sheet and reporting:
It is proposed to be conducted by organizing committee to conduct evaluation of knowledge/understanding in the beginning of the events and at the end of the events. The organizing committee will be formed by PLN PHJ or RIT. The organizing committee will submit the report to PLN PHJ and RIT management to be evaluated by PLN, RIT and PRP.

5. BUDGET FOR IMPLEMENTATION

The budget of implementation has been included in LARAP document:

- The budget for activities under responsibility of PLN PHJ as mentioned in table above will be spent directly by PLN PHJ
- The budget for activities under responsibility of RIT as mentioned in table above will be spent through project allocated RIT budget.

Appendix 4
GENDER MAINSTREAMING AND HIV/AIDS STRATEGY
IN UPPER CISOKAN PUMPED-STORAGE HYDRO PROJECT (UCPSHP)

Resettlement has serious consequences for all those affected but often disproportionately disadvantages women if it results in reduced access to resources to cope with household responsibilities. Resettlement also could lead to social exclusion or poverty, as well as shifts in gender roles and responsibilities. Resettlement can create new opportunities for women but this requires careful planning and monitoring of the distribution of the costs and benefits of any resettlement program.

The 2006 multi-donor Country Gender Assessment found that progress toward the Millennium Development Goal number 3 (Promote Gender Equality and Empower Women) has been mixed. Female literacy and school enrollment rates for have improved, but their share of wage employment and political representation remains low. The latest gender indicators for Indonesia are shown in Table x below.

The responsibility of GOI and the local governments at province/ district/ municipalities levels to consider gender issues in development plans are spelled out in Presidential Instruction (INPRES) no 9 / 2000 and the Regulation of the Ministry of internal affairs No 15/ 2008 General Guidelines for Gender Mainstreaming at the Regional Levels. This draft gender strategy explains how, based on these two regulations, the Upper Cisokan project has integrated gender perspectives and managed gender issues relevant to its activities.

For the Upper Cisokan project, social and environmental impact assessments have disaggregated impact data by gender, and the resulting management and action plans include the following measures to ensure both genders benefit from livelihood restoration and resettlement entitlements.

1. Access to Assets

Relatively few affected land plots are owned by women, and few are jointly registered to both spouses. Article 35 of the 1974 Marriage Law adopts the concept of joint ownership of marital property, and the customary attitude of both woman and men alike in Java¹ is that both spouses are considered as co-owners of any property purchased during marriage, even if only one name is registered. Problems would only arise when land becomes a more valuable and marketable asset and land rights are determined by registered titles. For this project, women's access to productive assets will be guaranteed through joint titling of all replacement land, and delivery of all cash compensation for lost assets to joint Bank accounts requiring both husband's and wife's signature for withdrawals.

2. Access to Employment

The Constitution of the Republic of Indonesia, 1945, upholds a commitment to the principle of equal rights between men and women. Paragraph 1 of Article 27 stipulates that: "every citizen enjoys equal status before the law and government, and is obliged to uphold this status without exception." Paragraph 2 of the same article states that: "every citizen shall have the right to employment and to

1 Brown, Jennifer and Purwanti, Firliana. 2002. *Registration of Land and Women's Land Rights on Java: Why so Many Married Couples Register Marital Property in the Name of One Spouse and What has been the Impact on Women's Land Rights*. Washington, DC.

conditions of life commensurate with human dignity.” 1984 CEDAW Ratification Act No. 7 emphasizes equality between men and women, the inalienable right to work, and the need to eliminate discrimination against women in employment. The Indonesian Government has placed reduction of unemployment high on its political agenda. The Medium-Term Development Plan (MTDP) 2004-2009 laid down a target of reducing open unemployment but the MTDP does not recognize the specific problems that women encounter in terms of their lower ability to access formal employment and the fact that the majority of women still only have access to low-paying jobs in the informal sector.

The Country Gender Assessment noted that job opportunities in the formal sector tend to be for the better educated, however economic empowerment for most women is related to improved opportunities that are mostly in micro and small enterprises and in the informal sector. Support to women may include increasing their access to training, affordable credit, and business development services. Better skills will improve women’s opportunity to enter the labor market as self-employed in rural and urban areas. Other interventions might include integration of training into employment promotion strategies and support for community-based adult education programs responsive to the situation and interests of those who missed out on basic education in their youth.

PLN will provide women entitled to rehabilitation packages awareness training on employment opportunities, but training alone cannot guarantee access to employment. Therefore for this project, PLN will enforce labor laws against employment discrimination by helping those women wishing to participate to qualify for project employment, and ensure these already qualified and interested are included in the village head lists of available workers sent to the contractor.

3. Access to justice

Personnel who involve in grievance redress mechanism should consider gender balance in order to avoid reluctance of people to submit their grievance.

4. Monitoring rehabilitation and income restoration

- Encourage women meeting through existing women groups in villages to collect idea of social economy impact and rehabilitation programs;
- Encourage formats for monitoring collect gender disaggregated data for participation in rehabilitation and income restoration programs (against baseline data)
- Ensure sustainability regular (such as quarterly, bi-annual, annual) monitoring involves participation of women and men.

5. Consultations

During consultation of planning, implementation and monitoring evaluation activities the project should design participation forms of women by involving women leader and women groups (*PKK, Pengajian, Arisan*); ensuring gender balance of women and men (from poor and better off group); and when necessary conducting separate men and women’s consultation.

6. Negotiation

Women-headed household to be invited and present during the negotiation.

GENDER INDICATORS IN INDONESIA

Indicators	Population		Years, Source
	Male	Female	
Household heads (% of total household heads)	87.6	12.4	2002, Country Gender Assessment
Decision Making and Politics Legislature:			
- MPR / People's Consultative Assembly (% of total seats in the parliament)	90.26	9.74	1999-2004, www.menegpp.go.id
- DPR / House of Representatives (% of total seats in the parliament)	88.19	11.81	2004-2009, www.cetro.or.id
Civil Servant:			
- Echelon I (% of total civil servant)	0.027	0.004	2005, www.menegpp.go.id
- Echelon II (% of total civil servant)	0.479	0.049	2005, www.menegpp.go.id
- Echelon III (% of total civil servant)	2.176	0.483	2005, www.menegpp.go.id
- Echelon IV (% of total civil servant)	7.641	3.071	2005, www.menegpp.go.id
- Echelon V (% of total civil servant)	0.493	0.201	2005, www.menegpp.go.id
- General Function (% of total civil servant)	46.957	33.095	2005, www.menegpp.go.id
- Specialized Function (% of total civil servant)	42.226	63.098	2005, www.menegpp.go.id
Labour			
Labour force participation (% of total working age population)	84.74	48.63	2006, www.menegpp.go.id
Work status:			
- Self-employed (% total employee)	20.94	16.05	2006, www.menegpp.go.id
- Wage earner (% total employee)	28.22	25.57	2006, www.menegpp.go.id
- Unpaid (% total employee)	8.13	36.92	2006, www.menegpp.go.id
Average hourly wages (Rp)	4,000	3,000	2002, Susenas
Estimated earned incomes (PPP US\$)	4,161	2,138	2002, Country Gender Assesment
Overseas migrant workers (total person)	138292 (20%)	541708 (80%)	2006, Ministry of manpower and Transmigration
Health			
Maternal mortality rates (per 10 0,000 live births)		307	2002, www.menegpp.go.id
Infant mortality rates (per 1000 live births)	53	41	2000, www.menegpp.go.id
Births attended by skilled health staff (% of total births)		87	2005, World Development Indicators
Life expectancy (years)	68	64	2002, Country Gender Assesment

Indicators	Population		Years, Source
	Male	Female	
Education			
Illiteracy rates (% of total population, age > 10 years)	5.3	11.71	2004, www.menegpp.go.id
Enrolment rates-elementary school (% of total population, age 7-12 years)	93.11	92.97	2004, www.menegpp.go.id
Enrolment rates-secondary school (% of total population, age 13-15 years)	64.17	66.37	2004, www.menegpp.go.id
Enrolment rates-high school (% of total population, age 16-18 years)	43.23	42.66	2004, www.menegpp.go.id
Years of education (average years)	7.6	6.5	2002, www.menegpp.go.id

HIV/AIDS strategy

The project shall conduct awareness of HIV/AIDS program via an approved service provider, and shall undertake such other measures as are specified in the contract document of the project construction to reduce the risk of the transfer of the HIV virus between and among the contractor's personnel and the local community, to promote early diagnosis and to assist affected individuals (special condition of contract document as annex 1).

Annex 1

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

The Contractor shall throughout the contract (including the Defects Notification Period): i) conduct information, education and consultation communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Sub-Contractors and Consultant's employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to, of Sexually Transmitted Diseases (STD) or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular, ii) provide male or female condoms for all Site staff and labor as appropriate; and iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.

The Contractor shall include in the program to be submitted for the execution of the Works and alleviation program for Site staff and labor and their families in respect of Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how, and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.

**GENDER MAINSTREAMING AND HIV STRATEGY
UPPER CISOKAN PUMPED STORAGE HEPP**

GENDER

No	Activities	Aims
A	Access to Asset	
1	Have a clear explanation on the lost family assets (size of land, building or the quantity of plants) due to the development of the project.	<ul style="list-style-type: none"> - The wife of Head of family whose asset is loss due to the development of the project. - Women-headed household
2	Have a clear explanation on how much compensation will be received from all of the lost assets due to the development of the project.	<ul style="list-style-type: none"> - The wife of Head of family whose asset is loss due to the development of the project. - Women-headed household
3	Countersign the purchase documents at the time of purchase transaction of assets and the time of receiving cash compensation.	The wife of Head of family whose asset is loss due to the development of the project.
4	Together with the husband sign the Bank account book to receive the compensation from the lost family assets due to the development of the project.	The wife of Head of family whose asset is loss due to the development of the project.
B	Access to Employment	
1	Rehabilitation on income training for women who lose their productive assets : <ul style="list-style-type: none"> - Productive business (Banana chips, crackers, sweet potato chips, etc.) - Small business services (kiosk/food seller) 	<ul style="list-style-type: none"> a. Women-headed household whose productive assets is loss due to the development of the project: <ul style="list-style-type: none"> - Land plot as their work place - Productive business as their source income. b. Women in their productive age who lose their land plot as their work place.
2	Provision of venture capital to fund productive economic businesses through	Women who lose their land plot as their work

	productive business women group: (Banana chips, crackers, sweet potato chips, etc.)	place.
3	Have the opportunity as a project worker according to their capabilities and expertise as needed by the project (contractor).	Women in their productive age who are willing to work in the project site.
C	Access to Justice	
1	Women have the same right to get service from the related officers when they are delivering their complaints on the project's negative impacts.	Project affected women
D	Monitoring Rehabilitation and Income Restoration	
1	Routine meetings will be held (monthly monitoring by the PLN) on women who received productive business assistance, to make sure their business sustainability.	Women who received capital assistance on productive business.
E	Consultation and Negotiation	
1	Women will be invited in asset compensation price negotiation	Women-headed household
2	During the project, Women have the right to be invited in socialization and consultation between the PLN and contractors.	Representation from women group (<i>PKK, Arisan, Pengajian, etc.</i>)

**TRANSMISSION OF AIDS/SEXUALLY TRANSMITTED DISEASE ANTICIPATION
UPPER CISOKAN PUMPED STORAGE HEPP**

No	Activities	Aims	Implementer
1	Counseling on the impacts of AIDS or STD (Sexually transmitted disease), transmission and its prevention and consultation which will be held once a month.	<ul style="list-style-type: none"> - All project's workers (field workers, drivers, office and consultant's staff) - Base camp's surrounding communities 	Contractors through local Health Department
2	Hold a routine diagnostic examination every 2 months	<ul style="list-style-type: none"> - All project's workers (field workers, drivers, office and consultant's staff) - Base camp's surrounding communities 	Contractors through local Health Department
3	Provide the means to prevent sexual transmission (condoms for male and condoms for females) which will be given every month.	All project's workers	Local Health Department

Appendix 5

Disclosure and Consultation Plan

I. Introduction

1.1 Upper Cisokan Pump Storage Hydro Power Project

Upper Cisokan Pumped Storage Hydro Electric Power Plant development plan is intended to overcome the power shortage in Java-Bali electricity system. Upper Cisokan Pumped Storage HEPP is expected to increase the supply of energy at the load peak, as a backup generation facility (stand-by) if there is a decrease in network capacity and help manage the overall system frequency between 49 and 51 Hz.

Project Upper Cisokan Pumped Storage HEPP Project consists of 3 sub-project components are 1) the construction of access road, 2) construction of upper and lower dams, 3) construction of tower footprint and 500 KV transmission lines. Physical constructions of these projects require land acquisition that will impact on people's lives, as a result of the loss or decrease in land assets, or require further removal of citizens from doing the location currently occupied.

Construction of access roads is divided into 2 segments, namely the existing access roads (hereinafter referred to as the Existing Road) and new access roads (hereinafter called the New Road). Access roads located in most villages in Cipongkor Sub-district and Rongga Sub-district, West Bandung District. The Quarry site is located in the Karangsari Village, Cipongkor Sub-district, West Bandung District.

Existing Road segment is a path of land which has been acquisitioned by PT PLN (Persero) along the 6.7 km. New Road is a path of land to be constructed into roads starting from Sta 0 +000 (CIPARI Hamlet / Village Cijambu) to the lower dam site (Sta 25 +413) and the upper dam site (Sta 21 +280) along the 27.3 km (land occupied by private and Perhutani¹).

To distribute electricity produced by hydro electric power, Upper Cisokan Project will build the Java-Bali transmission network interconnection. 500kV Transmission lines will convey electricity from the power station to the Java-Bali electricity network. To the north, the scheme will connect to the Cibinong-Saguling line by two separate lines and corridors. 500 Kv transmission lines will be built towards the north of Upper Cisokan hydro electric power that will connect with SUTET Cibinong-Saguling (distance of about 15.55 km). The Project will require 82 SUTET towers, with the height of is 30.5 m. The land to be used by the transmission line is owned by the village and private.

¹ State Owned Forestry Company.

Total area of land needed for the construction of 500 Kv SUTET Upper Cisokan hydro electric power is approximately 105 ha with details :

- Corridor of free space: ± 100.5 ha (29.5 km long, 34 m wide)
- Tread tower: ± 4.5 ha (72 tower ; area ± 625 m² / site)

Upper Reservoir is planned to be built for approximately 200 m downstream from the confluence of the Cirumamis with small other rivers. The upper dam project is located at the Cirumamis river. It will inundate the part of villages Sukaresmi, Bojong Salam, the district of West Bandung. Reservoir will store water flow from small rivers of Cirumamis, Cipedes, Cipateungteung, Cilawang, and Cidongke river.

The development of upper reservoir would have surface water area of 80 ha which is inundating the village of Sukaresmi and the village of Bojong Salam. In general, land uses inundated by the proposed reservoir are in the form of homegardens, mixed gardens, dry lands, and forests.

The Settlements in the upper basin area are generally located in the valley around the Cirumamis and Cisokan rivers.

The lower dam will be built at conjunction of Cisokan and Cilengkong rivers and located about 300 m from the upper reservoir.

The proposed reservoir would have surface water area of 260 ha and will inundate settlements, agriculture lands, and forest areas of Cicadas village in Rongga sub-district of West Bandung district, Karangnunggal and Girmulya villages in Cibeber sub-district, and Margaluyu village in Campaka sub-district of Cianjur district.

1.2 Impacts caused by UCPSPP and Mitigation Measures

UCPSP causes some adversely environmental and social impacts as follows:

The following is a summary of the key potential environmental and social impacts, as assessed in the Consolidated EIA Report.

CONSTRUCTION

Impact	Mitigation Measures
Water quality and river habitat impacts from construction-related sediment and pollution discharges	Controls on construction methods.
Potential for trees and endangered species in the remnant secondary growth indigenous forest to be harvested or hunted by workers or otherwise disturbed by construction-related	Controls on workers behavior and access to the forest, through announcement board.

Impact	Mitigation Measures
activities	
The resettlement of households and the compensation for livelihoods for those that will lose land, houses and / or economic opportunities, or will suffer social dislocation	Adequate consultation and compensation processes through the Land Acquisition and Resettlement Plan.
The disruption to host communities from the influx of workers and construction related noise and air quality issues.	Controls on workers behavior and camp management. Controls on construction work timing and methods.
Increased risk to road users and pedestrians due to regular heavy vehicle use	Controls on traffic management and timing of traffic movements.
The benefits of short term employment and enterprise opportunities during the construction period.	Offers of local labor where possible.

INUNDATION AND OPERATION

Impact	Mitigation Measures
Changes to the downstream environment due to reduced river flow during inundation.	Reservoir filling during rainy season Minimum discharges and fluctuating discharges from both dams during filling.
Reduced river flow to downstream users during inundation.	Reservoir filling during rainy season Minimum discharges and fluctuating discharges from both dams during filling. Consultation prior to filling.
Water quality and habitat changes within the reservoir.	Reservoir land clearance and preparation procedures. Water quality monitoring, fish monitoring and adaptive management of the operational regime. Maintenance/ clean up of weeds and other growths in the reservoir.
Reduced downstream flow during low flow conditions, where scheme water demands are close to, or exceed, inflow.	Minimum discharges from both dams as original inflow related to the season. Monitoring of flows to obtain an accurate record of low flow conditions and suitable minimum discharges from the scheme. Consulting with downstream users.
Loss of habitat or endangered species from the remnant secondary growth indigenous	Implement further monitoring and a management regime through the Biodiversity Management Plan.

Impact	Mitigation Measures
forest, due to changes in land uses and the operation of the power scheme.	Use the greenbelt restoration process to provide connecting secondary growth indigenous forest habitat.
Changing erosion and deposition in the Cisokan River, downstream of the lower dam, due to decreased sediment load.	Surveying of river channels.
Land instability with fluctuating water levels.	Engineered land stabilization measures implemented prior to inundation. Monitoring of slope stability.
Loss of access to the river environments and land within the reservoir areas, and changes to community connectivity.	Alternative fishing location. Provision of sanitary facilities Provision of bridges across the lower reservoir on previous Cisokan River location.
Risks to people accessing the reservoir areas	Security and protection measures at both reservoirs to prohibit access. Consultation regarding risks.
Flood risks downstream.	Emergency warning systems and consultation.
EMF (Electro-magnetic field) interference and health impacts	Operations according to national standards and WHO standards. Regular monitoring. Complaints action process.

1.3 Previous Consultation Activities

Previous Consultation activities during in LARAP, detail in annex 5-1

II. Information Disclosure and Consultation Objectives

The objectives of this consultation are to:

- Inform the affected households and communities, local authorities and social organizations about the impacts likely to happen caused by the Project and propose mitigation measures. Information provided in LARAP and EIA/EMP should be disclosed in advance at the project affected area, IDIC and Info shop at least 3 weeks of the consultation;
- Collect opinions/feedbacks to the LARAP and EIA/EMP; and
- Have initial agreement/commitment to co-operate with the local authorities during the implementation process.

III. Consultation location and subjects

1. Community consultation:
The affected communities in 21 villages and 5 sub-districts including construction site, reservoirs, resettlement sites, access road and transmission line. Details are provided in Annex 1.
2. Sub-district consultation
Cipongkor and Rongga Sub-district, west Bandung district. Bojong Picung, Campaka and Haur Wangi sub-district, Cianjur District. (5 sub-districts)
3. District consultation:
Two districts of West Bandung and Cianjur.
4. Provincial consultation: Province of West Java

IV. Action Plan

4.1. Document preparation for the information disclosure and consultation

4.1.1 Sources

The documents are provided by the Information Project Management Board. The documents studied and considered include:

- LARAP and Livelihood Development Plan Report – full reports with attached annexes;
- Environmental Impact Assessment Report – full report with attached annexes;
- Environmental Management Plan Report - full report with attached annexes;
- Report on Cultural Assets Assessment – full report;
- Social Impact Assessment Report – full report;
- Construction site map;
- Other documents.

4.1.2 Requirements for documents for information disclosure

- Documents have to be published and disclosed to household, village, sub-district, district and province levels together with other organizations.
- These documents should cover all aspects to be affected by the Project such as environment, social aspect and livelihoods.

- The documents should also meet the requirements for consultation, which are (i) bridging the language gap; and (ii) paying attention to the official language illiteracy rate of a part of people in extremely difficult villages..
- The documents should be produced in audio, reading and visual forms and aim to be understandable and attractive to the people so that they can know about the project information and give feedback.

4.1.3 Consultation Materials

Printed materials

Materials for reading and reference include:

- Summary report – delivered to all levels.
- Information sheets – used for being read on the loudspeaker systems at commune, village and kept in the village leader’s house;
- Questions and answers – delivered to all levels and read by residents and used in the consultation process;
- Full reports include: (a) Environmental Impact Assessment; (b) Environmental Management Plan; and (c) Land Compensation and Resettlement Plans. Reports.

Materials delivered to village level must ensure to: (a) be short and comprehensive; (b) avoid using technical terms; (c) avoid using abbreviations and foreign words; (d) be enough with the main information and (e) be with pictures and easy to use.

Materials – full reports - are publicized at sub-district and district level have to ensure (a) to have enough information; and (b) to be easy to use. For Cianjur district, EIA, EMP and LARAP for transmission line are required only.

Requirements to the printed materials include:

- Summary report on LARAP and EIA/EMP – materials are designed maximal in 30 pages and with colored pictures and can provide main information on environmental, social and community impacts residents. This materials also provide name, address and phone number of main relevant parties those are in charge of the project implementation;
- Information sheet with the length of 02 pages – is to serve at loudspeaker systems at communes, districts and provinces;
- A set of Frequent Answers and Questions (FAQs) 05 pages – is delivered to all levels from village to province to serve for information dissemination and consultation.
- A set of tapes, disks recording FAQs in Sundanese and Indonesian languages.
- A set of poster (A1 size) which is printed in 4 colors includes 3 sets pictures to disseminate environmental impacts, livelihood improvement and recovery activities and the project’s map. The posters are delivered to all levels, from the village level to above levels and are requested to stucked at crowd, public places and cultural houses at villages;
- Sole calendar sheets (1 page - 4 colors printed) of Upper Cisokan Hydro Power Pump Storage Project consist the map of the project area (including all main components)

which are published to deliver to affected households with the names, addresses of main units in charge.

- Enough LARAP Reports to deliver to sub-district, district and province level;
- Enough EIA/EMP Reports to deliver to sub-district, district and province level;

Picture materials

There are 2 types of picture materials printed for information dissemination and consultation. They are as follows:

- Sole calendar: Sole calendar is published due to reasons as follows: (a) residents often hang colorful picture in large size on the walls ; (b) time to carry out the consultation is near the new year – so, information supplying on a calendar sheet will last throughout a year, which will be more useful than pictures in small size in the form of leaflets;
- Posters: Posters are decided to be printed in A1 size with 3 different subjects: (a) Project diagram drafting all components of Upper Cisokan Hydro Power Pump Storage Project; (b) main impacts in terms of environment when implementing Upper Cisokan Hydro Power Pump Storage Project and (c) livelihood activities – one of programs is built to minimize social impacts while building Upper Cisokan Hydro Power Pump Storage Project.

Both types can meet the following demands: (1) provide main project's information – including main contact addresses of Project management Unit of Upper Cisokan Hydro Power Pump Storage Project; (2) colorful and attracting audience and (3) have short and comprehensive notes.

The amount of all materials (calendar sheets) is calculated to sufficiently deliver to affected households and interested people can approach the information.

Tools used in the consultation process under the form of pictures in small size (A4 size) which are printed colorfully and illustrate the environmental and social impacts and methods to minimize these impacts.

Diagrams on complaint process and implementation are drawn in A0 size with different shapes to illustrate the community more easily.

Samples of picture are provided as follow:

- Sole calendar:
- Posters.

Audio materials (recording)

Languages used in the information dissemination in audio materials (CD) are Bahasa Indonesia and Sundanese. The time limit of news is under 15 minutes. This amount of time is to (a) transfer the main information relating to the project and (b) attract audience's attention.

Community Radio

The Project will establish community radio which will be managed by the local NGO, as for the cost to built structures and operational will be the responsible for the PLN. Radio station will operate daily and will informs surrounding the project's information which will be given by the PLN weekly. Broadcasted information to the people will include project's development and other important information.

4.2. Process

4.2.1 Steps to be taken:

1. Request permission for the information disclosure activity at project province, district, sub-district and village level. Provide timetable for the activity;
2. Preparation for documents
3. Disclosure of documents at various levels (two weeks before consultation)
4. Conduct consultations
5. Report of results

4.2.2. Documents for each step

The documents for information disclosure and consultation include:

4.2.2.2 For disclosure

At village level:

- ✓ A summary report on environmental and social impacts caused by the Project is at the house of the head of the village for the project affected people and anyone who wants to refer to;

At sub-district level

- ✓ A summary report on environmental and social impacts caused by the Project for the project affected people and anyone else who wants to refer to;
- ✓ A full LARAP report with annexes;
- ✓ An EIA with annexes;
- ✓ An Environmental Management Plan Report with annexes.

At district level

- ✓ A summary report on environmental and social impacts caused by the Project for the district officials to read and study the project's policies;
- ✓ A full LARAP report with annexes;
- ✓ A revised Environmental and Social Impact Assessment Report with annexes;
- ✓ An Environmental Management Plan Report with annexes.

At provincial level

- ✓ A summary report on environmental and social impacts caused by the Project for the district officials to read and study the project's policies;
- ✓ A full LARAP report with annexes;
- ✓ A revised Environmental and Social Impact Assessment Report with annexes;
- ✓ An Environmental Management Plan Report with annexes.

4.2.2.3. For consultation

At village level:

- ✓ 2 packages of posters about the project's environmental impacts, livelihood activities to be carried out in the project affected villages and project sketching comprising of the main components of the Project. A package is posted at the house of the head of the village or a place where people often have public meeting and a package is required to post at the place where many people pass by;
- ✓ Wall calendars are distributed to the affected households and some neighboring households;
- ✓ FAQs is used to answer some common questions that people have and is kept at the house of the head of village for anyone who wants to refer to;
- ✓ A set of audio recorded (CD) the project main information.

At Sub-district level:

- ✓ 2 packages of posters about the project's environmental impacts, livelihood activities to be carried out in the project affected villages and project sketching comprising of the main components.
- ✓ Wall calendar is provided for the sub-district to use as a communication tool;
- ✓ A project information paper (PIP) for the sub-district.
- ✓ FAQs is used to answer some common questions that people have and is kept at the sub-district office for the affected people or anyone else who wants to refer to;
- ✓ A set of audio recorded (CD) the project's main information.
- ✓ Communities radio station, day to day operation,

At district level:

- ✓ 2 packages of posters about the project's environmental impacts, livelihood activities to be carried out in the project affected villages and project sketching comprising of the main components of the Project. A package is posted at the district office and a package is required to post at the place where many people pass by;

- ✓ Wall calendar is provided for the District government to use as a communication tool;
- ✓ A project information paper (PIP) for the District government.
- ✓ FAQs is used to answer some common questions that people have and is kept at the district office for anyone who wants to refer to or for the district to propagandize;
- ✓ A set of audio recorded (CD) the project's main information

At provincial level:

- ✓ 2 packages of posters about the project's environmental impacts, livelihood activities to be carried out in the project affected villages and project sketching comprising of the main components of the Project. A package is posted at the Province office and a package is required to post at the place where many people pass by;
- ✓ Wall calendar is provided for the Province to use as a communication tool;
- ✓ A project information paper (PIP) for the Province.
- ✓ FAQs is used to answer some common questions that people have and is kept at the Province office for anyone who wants to refer to or for the district to propagandize;
- ✓ A set of audio recorded (CD) the project's main information

The number of documents provided for the province, districts, sub-districts and villages during the information disclosure period is attached in the Annex 2.

Besides, in order to comply with the principle of providing information constantly and sufficiently, there will be additional poster package for each district and subdistrict in the consultation batch. These posters will replace the ones that are damaged due to the weather or other reasons.

4.2.3. Implementation Arrangement

4.2.3.1 Grouping of affected villages by impacts

In order to ensure the publicity, transparency, voluntaries and being informed in advance, the information disclosure is carried out in 3 groups :

Group 1: comprises 6 of the villages and communes affected by the Quarry, existing and new road. For this group, the number of villages which the team needs to carry out the information disclosure and consultation activities is: Karang sari and Sarinagen vaillages (Cipongkor sub-district), Cijambu, Sirnagalih, Cibitung and Sukaesmi villages, Rongga sub-district.

Group 2: includes 6 villages which are affected by water rising of the upper and lower reservoirs. Bojong Salam, Sikaresmi, and Cicadas villages Rongga sub-district. KarangNunggal, Giri Muluya, and Margaluyu villages, Campaka and Cibeber sub-district.

Group 3:: include 11 village, which are affected by the transmission line only; Sukaesmi villages Rongga sub-district; Sukarama, Sukajaya, Kemang, Jatisari, Cibarengkok, Sukaratu and Neglasari villages Bojong Picung sub-district; Ramasari, Sukatani and Haur wangi villages, Haur wangi sub-district.

4.2.3.2 Schedule

The consultation schedule at various level should be informed beforehand to provincial, district, sub-district levels and heads of village so that they could inform to the communities and stakeholders in advance to participate in the consultation;

The disclosure and consultation schedule is provided in Annex 3a&b

4.2.3.3 Responsibility

Responsibility for each activity is provided in Annex 2

Two (2 Team) consultation teams will be formed. Each should include at least the following members:

- Team leader
- Social specialist
- Environment Specialist
- Supporting members for video recording, photos, distribution of materials etc.

The consultation team should provide training among all members in order to:

- Obtain consultation techniques for different target groups communication skills and especially different kinds of impacts in each area;
- Know how to use the documents and tools during the consultation process;
- The leaders, social and environmental specialists should carefully consider the impacts for each group of villages. A matrix on impact sources, mitigation measures and information needs providing should be prepared.

4.2.3.4 Consultation techniques

At village level: depending on the impacts, each village may have up to 3 meetings:

- Consultation with PAP
- Consultation with community representatives (local leaders, NGOs,)
- Consultation with vulnerable PAP (to be decided)

Each meeting will be limited to 50 participants

Annex 5.1: List of villages/sub-districts/districts in consultation

Or.	Location	Affected level			kind of affected
		HH	Have reallocate and lost land	Number of meeting	Affected source
A	District West Bandung				
I	Rongga Sub-District			1	
1	Sukaresmi	540	299+4	12	Upper reservoir, Transmission line, new road
2	Bojong Salam	231	164	6	Upper reservoir
3	Cicadas	90	62	3	Lower reservoir
4	Cibitung	203		5	New road
II	Cipongkor Sub-district			1	
1	Cijambu	105		3	New road
2	Simagalih	80		3	New road
3	Karangsari	64		3	Quarry
4	Sarinagen				Eksisting
	West bandung distr	1249		1	
B	District Cianjur		63	1	63 PAPs to relocation
I	Campaka Sub-district			1	
1	Margaluyu	352	10	8	Lower reservoir
II	Cibeber Sub-district			1	
1	Girimulya	13	0	2	Lower reservoir
2	Karangnunggal	62	48	3	Lower reservoir
			58		
III	Bojongpicung Sub-district			1	
1	Cibarengkok	22			Transmission line
2	Jatisari	24	3	2	Transmission line
3	Kemang	4	-		Transmission line
4	Neglasari	29	-		Transmission line
5	Sukajaya	26	-	3	Transmission line
6	Sukarama	78	-	3	Transmission line
7	Sukaratu	81	2	3	Transmission line
IV	Haurwangi Sub-District			1	
1	Haurwangi	23	-	2	Transmission line
2	Ramasari	54	-	2	Transmission Line
3	Sukatani	43	-	2	Transmission line
	Cianjur district	811	5		
		2105			
	DI Cihea (down stream)				
	Sukarama			1 (combined with Transmission)	
	Sukajaya			1 (combined with	

Or.	Location	Affected level			kind of affected
		HH	Have to reallocate and lost land	Number of meeting	Affected source
				Transmission)	
	Karangnunggal			1 (combined with Lower Reserv)	
	Salamnunggal			1	
	TOTAL MEETING			46	@3 TEAM will do 15 meetings
6	Sub-district				20 days

Annex 5-2 – Disclosure and consultation materials to be provided

Or.	Villages/Sub-district	HHs	Number of meeting	FAQ and PIP	Summary report	Calendar	CD	Poster/set	LAR	EMP	EIA
									AP		
A	District West Bandung										
	<i>Rongga Sub-District</i>			10	1	10	1	2	1	1	1
	Sukaresmi	540	1	540	540	540	1	2	-	-	-
	Bojong Salam	231	12	231	231	231	1	2	-	-	-
	Cicadas	90	6	90	90	90	1	2	-	-	-
	Cibitung	203	3	203	203	203	1	2	-	-	-
	<i>Cipongkor Sub-district</i>		5	10	1	10	1	2	1	1	1
	Cijambu	105	1	105	105	105	1	-	-	-	-
	Simagalih	80	3	80	80	80	1	2	-	-	-
	Karangsari	64	3	64	64	64	1	2	-	-	-
	Sarinagen		3				1				
	West Bandung Distr	1313		1713	1340	1743	1	18	3	3	3
			1								
	District Cianjur		1	20	25	50	1	2	1	1	1
	<i>Campaka Sub-district</i>		1	10	1	10	1	2	1	1	1
	Margaluyu	352	8	352	352	352	1	2	-	-	-
	<i>Cibeber Sub-district</i>		1	10	1	10	1	2	1	1	1
	Girimulya	13	2	13	13	13	1	2	-	-	-
	Karangnunggal	62	3	62	62	62	1	2	-	-	-
	<i>Bojongpicung Sub-district</i>		1	10	1	10	1	2	1	1	1
	Cibarengkok	22	2	22	22	22	1	2	-	-	-
	Jatisari	24		24	24	24	1	2	-	-	-
	Kemang	4	3	4	4	4	1	2	-	-	-
	Neglasari	29		29	29	29	1	2	-	-	-
	Sukajaya	26		26	26	26	1	2	-	-	-
	Sukarama	78	3	78	78	78	1	2	-	-	-
	Sukaratu	81	3	81	81	81	1	2	-	-	-
-	<i>Haurwangi Sub-District</i>		1	10	1	10	1	2	1	1	1
	Haurwangi	23	2	23	23	23	1	2	-	-	-

Or.	Villages/Sub-district	HHs	Number of meeting	FAQ and PIP	Summary report	Calendar	CD	Poster/set	LAR		
									AP	EMP	EIA
	Ramasari	54	2	54	54	54	1	2	-	-	-
	Sukatani	43	2	43	43	43	1	2	-	-	-
	Cianjur district	811		871	840	901	1	18	5	5	5
	GRAN TOTAL	2124		2584	2180	2644	30	27	8	8	8
	DI Cihea (down stream)										
	Sukarama		1 (combined with Transmision)	1	1			2		1	1
	Sukajaya		1 (combined with Transmision)	1	1			2		1	1
	Karangnunggal		1 (combined with Lower Reserv)	1	1			2		1	1
	Salamnunggal		1								
	District										
	District West Bandung			20	50	50		2	1	1	1
	District Cianjur			20	50	50		2	1	1	1
	Province										
	West Jawa			20	50	50		2	1	1	1
	Other organizations										
	NGO	20	1	2	2	2		2			
	WB			10	10	10		2	1	1	1
	PLN			20	50	50		2	1	1	1
	PHJ										
	Provincial Costal guard department					1					
	Cultural and Information Department of provinces					1					
	Materials for other level consultation					1					
	Grand total			2679	2395	2859	30	45 set	13	16	16

Annex 5-3a Responsibility Allocation

N#	Task	Primary responsibility	Supporting responsibility	Deadline
A	Document Preparation			
	Disclosure			
1	Summary Reports (on EIA, EMP and LARAP)	Maisha	Sri- Rusydi, Priyono	December 11 th
	Translators to Indonesia language LARAP, EIA, EMP	Maisha		December 12 th
	Printing	Sri Mulyasari	Maisha team	December 15 th
	Consultation			
2	Information Sheet/leaflet	Sri Mulyasari	Maisha, Helmi (team)	Dec 15 th
3	Frequent Asked Questions and Answers	Maisha	Maisha, Helmi (team)	
4	Content of Posters/Calendar	Sri Mulyasari	Maisha Team	Dec 15th
5	Printing of Materials	Sri Mulyasari	Maisha Team	Dec 25 th
6	CD	Maisha	Maisha team	Dec 22 th
7	Radio Communities	Sri Mulyasari	Maisha team	Juni 2012
B	Disclosure			
	At village levels	Sri Mulyasari	Maisha	
	Local government levels	Rusydi	Maisha	
C	Consultation			
I	Team 1	Sri Mulyasari	Tubagus	Jan 1-20 th
1	West Bandung District			
2	Rongga and Haur Wangi sub district			
3	Villages 6			
II	Team 2	Rusydi	Oke	Jan 1-18 th
1	Cipongkor and Bojong Picung sub-district			
2	Village 10			
III	Team 3	Woro Budi	Hari Sarsito	Jan 1-22 th
1	Cianjur District			
2	Campaka and Cibeber Sub-district			
3	Villages 5			
VII	Province (to be confirmed)			
VIII	Consultations reporting			

Annex 5-3b Responsibility Consultations by Teams Per Village

	Location	Team 1 (number of meeting)	Team 2 (number of meeting)	Team 3 (number of meeting)	date	Number of days
	Villages	19	19			
	Rongga Sub-District	1			Jan 1th	1
	Sukaresmi	12			Jan 2-6th Jan 8 th	6
	Bojong Salam		6		Jan 1-3rd	3
	Cicadas		3		Jan 4-5 th	2
	Cibitung		5		Jan 8-10th	3
2	Cipongkor Sub-district		1			
	Cijambu		1		Jan 11-12th	2
	Simagalih		3			
	Karangsari	3			Jan9-11th	4
	Sarinagen	3			Jan11-12th	
	West Bandung distr	1			Jan 15	
	Villages	7	6	24		
	District Cianjur					
3	Campaka Sub-district			1	Jan 1th	1
	Margaluyu			8	Jan2-5th	4
	Cibeber Sub-district			1	Jan8th	1
	Girimulya			2	Jan 9-12th	4
	Karangnunggal			5		
	Bojongpicung Sub-district		1		Jan15-16 th Jan 18th	3
	Cibarengkok		2			
	Jatisari					
	Kemang		3			
	Neglasari					
	Sukajaya					
	Sukarama			3	Jan15-16 th	3

	Location	Team 1 (number of meeting)	Team 2 (number of meeting)	Team 3 (number of meeting)	date	Number of days
	Sukaratu			3	Jan 18th	
	Haurwangi Sub-District	1			Jan 16	1
	Haurwangi	2			Jan 18-20th	3
	Ramasari	2				
	Sukatani	2				
	Cianjur district			1	Jan 22th	1
	TOTAL MEETING BY TEAM	26	25	24		75 (2,6,21,56)
	Total days by team	16	14	13		
	DI Cihea (down stream)					
	Sukarama					
	Sukajaya					
	Karangnunggal					
	Salamnunggal		1(included by team 2)			

Note :

Team 1 : Sri Mulyasari, Tubagus Syamsul, Maisha D. Ardani, Gilang Pradipta, Anung Garjito, Astri Kusumawardani

Team 2 : Rusydi, Cahyo Wiwoho, Oke Krisda, M.Rizki, Dinar Pradipto, Nurfazri

Team 3 : Woro Budi, Helmi Munajah, Hari Sarsito, Khahar Hawari, M Firdaus, Mursyid.

Government local included in the PLN PHJ Team

Annex 5-4 Social and environmental impacts and mitigation measures in groups of villages

4.1. Group that has downstream impacts

1 Environmental impacts	Mitigation measures
<p>the environmental impacts have not been assessed yet because the project has not come into operation; however, there are some possible impacts such as:</p> <p>Change in environmental flow will increase impacts on the biodiversity of the river downstream and on the life of the people living along the river bank;</p> <ul style="list-style-type: none"> - Flow change will lead to changes in shape and function of the river; - Flow change will decrease or increase the diversity of fauna and flora of the river. Fishery can be affected due to the decrease in native species; - Mud is drifted to the downstream; decrease in DO; increase the risk of salinization. 	<p>Environmental impact mitigation measures such as:</p> <p>Maintain the river water quality to meet the required standard;</p> <p>If the appropriate mitigation measures are applied during the operation process, the duration, intensity, geographical scope, possibility and change will be low.</p> <p>Applying the mitigation measures during the operation process will help minimize the risk and level of the remaining impacts.</p>
2 Social impacts	Mitigation measures
<p>Social impacts</p> <p>The social impacts have not been assessed exactly yet because there are impacts from the implementation of Upper Cisokan Pumped Storage :</p> <p><u>Impacts</u></p> <ul style="list-style-type: none"> - loss asset (building, plant, 	<p><u>Mitigation measures against social impacts</u></p> <ul style="list-style-type: none"> - Resettlement Plan – policies and people’s entitlements for compensation and assistance when their land is acquired or assets are affected (temporarily/permanently); - Livelihood Development Plan – activities aimed to restore the living standards of the affected people and communities; - Project’s information;

1 Environmental impacts	Mitigation measures
<ul style="list-style-type: none"> - loss job - loss income - - - - 	<ul style="list-style-type: none"> - Grievance redress mechanism; - The units mainly responsible for the implementation of the plans above;
	<p><u>Notes for the villages and communes in affected downstream area:</u></p> <ul style="list-style-type: none"> - In case the social impacts occur, the activities, policies and entitlements of the people and communities will be carried out complying with the mitigation measures of the Project for the area affected by the headwork; - Implement the plans above

4.2. Resettlement impacts

1 Environmental impacts	Mitigation measures
CONSTRUCTION SITE	
<p>1.1.Dust: due to transport and construction machines</p>	<p>1.1. - Water at construction site</p> <ul style="list-style-type: none"> - Do not allow vehicles to exceed the speed limit - Cover the vehicle during transportation
<p>1.2.Noise and vibration: due to transport, excavating machine, shovel machine, concrete blender, setting mine</p>	<p>1.2. – Equip adequate labor safety equipments for the workers</p> <ul style="list-style-type: none"> - Not require workers to work beyond the required hours - The construction activities are only allowed to carry out in the daytime. In case of construction at night at the site near the residential area, the local authorities and people have to be informed beforehand. <p>1.3. – Keep the soil layer taken from the surface area to use to restore the landscape and</p>

1 Environmental impacts

Mitigation measures

the site

1.3. Impacts on soil:

- Affect surface layer due to leveling;
- Not plant trees to cover timely;
- Soil erosion;
- Soil pollution due to oil and other hazardous wastes from the construction site, etc.

- Plant trees
- Not allow to discharge oil and hazardous chemical into the environment
- Embankment to avoid soil erosion
- Not carry out excavation activities on rainy days.

1.4. Impacts on water quality:

- Alluvion due to soil erosion and wash-out process;
- Wastewater from the living area of the workers;
- Wastewater contains oil, chemical, industrial waste, etc.

1.4. - Plant tree to restore the area after construction stage

- Wastewater from the toilet area should be treated by standard composting tank, septic tank to discharge to the environment
- Arrange maintenance area, waste storage at the area that has impermeable foundation with embankment and septic tank to avoid flowing into the environment.

1.5. Solid waste:

- Domestic and industrial solid waste, hazardous waste.

1.5. – Collect and store temporarily hazardous solid wastes and then treat according to the government's regulations

- Solid wastes are often collected and disposed of at the required areas after the local authorities agree and approve.

1 Environmental impacts	Mitigation measures
-------------------------	---------------------

RESERVOIR

2.1. Loss of forest, biodiversity and inhabitation of wild animals

2.1. – Before the forest is inundated in the reservoir or area is localized to become the construction site, the authorities and PMB will allow people to take the woods and economically valuable trees. However, the authorities together with the PMB and the contractors will supervise and not allow to cut down trees and deforest in the places out of the allowed area, not allow the workers to use firewood to cook.

- The authorities and the reserve area management board Citarum will take management and protection measures to the core area of the reserve: deal with illegal hunting and wild animal trade, etc.

2.2 Measures mentioned in RDLP

2.2. Immigration

2 Social impacts	Mitigation measures
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- Relocation activities: different sites
- The livelihood sources of the people are affected because of restricted productive land area;
- Impacts on cultural characteristics of the ethnic minority groups and communities due to relocation;
- Possible impacts on cultural assets of the communities;
- Because of the concentration of many workers, it is possible to transmit

- Resettlement Plan – policies and people’s entitlements for compensation and assistance when their land is acquired or assets are affected (temporarily/permanently) – focus on compensation, compensation policy and resettlement site arrangement, replacement infrastructures and supports; - provide all activities for implementation of livelihood plan and technical provision.
 - Livelihood Development Plan – activities aimed to restore the living standards of the affected people and communities;
 - Project’s information;
 - Grievance redress mechanism;
 - The units mainly responsible for the implementation of the plans above;
-

1 Environmental impacts	Mitigation measures
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diseases from the workers;

- Increase of drug-related crimes;
- Pressure on local healthcare service;

4.3. Impacts caused by construction site and auxiliary structures

Impact level	Construction site and auxiliary structures
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1 Environmental impacts	Mitigation measures
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CONSTRUCTION SITE

1.1.Dust: due to transport and construction machines

1.2.Noise and vibration: due to transport, excavating machine, shovel machine, concrete blender, setting mine

1.3. Impacts on soil:

- Affect surface layer due to leveling;
- Not plant trees to cover timely;
- Soil erosion;
- Soil pollution due to oil and other hazardous wastes from the construction site, etc.

1.4. Impacts on water quality:

- Alluvion due to soil erosion and wash-out process;

1.1.- Water at construction site

- Do not allow vehicles to exceed the speed limit
- Cover the vehicle during transportation

1.2.- Equip adequate labor safety equipments for the workers

- Not require workers to work beyond the required hours
- The construction activities are only allowed to carry out in the daytime. In case of construction at night at the site near the residential area, the local authorities and people have to be informed beforehand.
- Regulate that the vehicles has to be within the speed limit with sufficient register papers. Install safety signs as needed. Increase the awareness of the drivers and local people to comply with the traffic regulations.

1.3.- Keep the soil layer taken from the surface area to use to restore the landscape and the site

- Plant trees
- Not allow to discharge oil and hazardous chemical into the environment
- Embankment to avoid soil erosion
- Not carry out excavation activities on rainy days.

1.4.- Plant tree to restore the area after construction stage

- Wastewater from the toilet area should be treated by standard composting tank, septic tank to discharge to the environment
- Arrange maintenance area, waste storage at the area that has impermeable foundation

Impact level

Construction site and auxiliary structures

1 Environmental impacts

Mitigation measures

- Wastewater from the living area of the workers;
- Wastewater contains oil, chemical, industrial waste, etc.

1.5.Solid waste:

- Domestic and industrial solid waste, hazardous waste.

with embankment and septic tank to avoid flowing into the environment.

- 1.5.– Collect and store temporarily hazardous solid wastes and then treat according to the government's regulations
- Solid wastes are often collected and disposed of at the required areas after the local authorities agree and approve.

RESERVOIR

2.1. Loss of forest, biodiversity and inhabitation of wild animals

2.1. – Before the forest is inundated in the reservoir or area is localized to become the construction site, the authorities and PMB will allow people to take the woods and economically valuable trees. However, the authorities together with the PMB and the contractors will supervise and not allow to cut down trees and deforest in the places out of the allowed area, not allow the workers to use firewood to cook.

- The authorities and the reserve area management board...will take management and protection measures to the core area of the reserve: deal with illegal hunting and wild animal trade, etc.

2.2. Immigration

2.2. Measures mentioned in RDLP

New Road

3.1.Dust

3.1.- Water at construction site

- Do not allow vehicles to exceed the speed limit
- Cover the vehicle during transportation

3.2.Noise and vibration

3.2.– Equip adequate labor safety equipments for the workers

- Not require workers to work beyond the required hours
- The construction activities are only allowed to carry out in the daytime. In case of construction at night at the site near the residential area, the local authorities and people have to be informed beforehand.
- Regulate that the vehicles has to be within the speed limit with sufficient register papers. Install safety signs as needed. Increase the awareness of the drivers and local people to comply with the traffic regulations.

3.3. Loss of surface soil, forest, landscape and ecosystem

Impact level

Construction site and auxiliary structures

1 Environmental impacts

Mitigation measures

3.4. Waste: soil residue, waste from construction site...

- 3.3.– Keep the soil layer taken from the surface area to use to restore the landscape and the site
- Plant trees
- Not allow to discharge oil and hazardous chemical into the environment
- Embankment to avoid soil erosion
- Not carry out excavation activities on rainy days.
- 3.4.– Collect and store temporarily hazardous solid wastes and then treat according to the government's regulations
- Solid wastes are often collected and disposed of at the required areas after the local authorities agree and approve.

2 Social impacts

Mitigation measures

- The livelihood sources of the people are affected because of restricted productive land area;
- Impacts on cultural characteristics of the ethnic minority groups and communities due to relocation;
- Possible impacts on cultural assets of the communities;
- Because of the concentration of many workers, it is possible to transmit diseases from the workers;
- Increase of drug-related crimes;
- Pressure on local healthcare service;

- Resettlement Plan – policies and people's entitlements for compensation and assistance when their land is acquired or assets are affected (temporarily/permanently);
- Livelihood Development Plan – activities aimed to restore the living standards of the affected people and communities; - focus on livelihood restore activities and creation of jobs, training.
- Ethnic Minority Development Plan – specific measures will be taken to the affected ethnic minority communities; activities related to health, traffic safety and public order
- Project's information;
- Grievance redress mechanism;
- The units mainly responsible for the implementation of the plans above;

4.4. Impacts on productive land and move-up

Impact levels

Relocation and land loss

No.	Environmental impacts	Mitigation measures
1	<p>ACCESS ROAD</p> <p>3.1.Dust</p> <p>3.2.Noise and vibration</p> <p>3.3.Loss of surface soil, forest, landscape and ecosystem</p> <p>3.4.Waste: soil residue, waste from construction site...</p>	<p>3.1.- Water at construction site</p> <ul style="list-style-type: none">- Do not allow vehicles to exceed the speed limit- Cover the vehicle during transportation <p>3.2.– Equip adequate labor safety equipments for the workers</p> <ul style="list-style-type: none">- Not require workers to work beyond the required hours- The construction activities are only allowed to carry out in the daytime. In case of construction at night at the site near the residential area, the local authorities and people have to be informed beforehand.- Regulate that the vehicles has to be within the speed limit with sufficient register papers. Install safety signs as needed. Increase the awareness of the drivers and local people to comply with the traffic regulations. <p>3.3.– Keep the soil layer taken from the surface area to use to restore the landscape and the site</p> <ul style="list-style-type: none">- Plant trees- Not allow to discharge oil and hazardous chemical into the environment- Embankment to avoid soil erosion- Not carry out excavation activities on rainy days. <p>3.4.– Collect and store temporarily hazardous solid wastes and then treat according to the government's regulations</p> <ul style="list-style-type: none">- Solid wastes are often collected and disposed of at the required areas after the local authorities agree and approve.
2	<p>Social impacts</p> <ul style="list-style-type: none">- The livelihood sources of the people are affected because of restricted productive land area;- Impacts on cultural characteristics of the ethnic minority groups and communities	<p>Mitigation measures</p> <ul style="list-style-type: none">- Resettlement Plan – policies and people's entitlements for compensation and assistance when their land is acquired or assets are affected (temporarily/permanently); compensation for mixed relocation and settlement.- Livelihood Development Plan – activities aimed to restore the living

- due to relocation;
- Possible impacts on cultural assets of the communities;
 - Because of the concentration of many workers, it is possible to transmit diseases from the workers;
 - Increase of drug-related crimes;
 - Pressure on local healthcare service;

- standards of the affected people and communities; - focus on livelihood restore activities and creation of jobs, training.
- Ethnic Minority Development Plan – specific measures will be taken to the affected ethnic minority communities; activities related to health, traffic safety and public order, cost according to customs and culturally appropriate to the ethnic minorities.
 - Project's information;
 - Grievance redress mechanism;
 - The units mainly responsible for the implementation of the plans above;

Annex 5-5 Previous Consultation done by the PLN

Public Aspirations of the Project, PAPs in the Upper and Lower Dam.

Result socialisations and FGDs are:

1. The people accept the development of the Upper Cisokan project
2. In general people accept the compensation of land and other assets affected by the project, considering this project for the public interest.
3. The process determining of compensation of asset, should be discussed and consider the market price's standard.
4. Payment method should be conducted directly by PLN without intermediary or brokers and it will be made through transfer to the account of each HHs or PAPs.
5. The PAP expected that compensations received, will be able to recover the lost asset.
6. The majority people is not interested to be relocated by the PLN, because new locations may not suitable for them, they prefer to move by themselves.
7. Moving expenses to be borne by the PLN.
8. The PAP expect time span from the start of compensation payment until the resettlement approximately three month.
9. The relocation cost of public facilities and infrastructure (including graveyard) affected by the project are the expense of PLN.
10. PLN was asked to give attentions for the sharecropper who is working in the forestry land.
11. Representations of women suggested that PLN consider the relocation of school to arrange their children remain to go to schools as usual.
12. Women's group expected the formed agency/institutions to handle complain of negative impact from the project.
13. Institutions for complaints handling will be formed after the recommendations of LARAP.
14. Socializations and meeting with the residents still be required before the compensations process.

The results of socialization and consultation with the community using FGD approaches showed that the results were consistent with the survey results, which most of the people affected want to move on their own. Meanwhile, when viewed from the location where the desired move, most people choose to move in the same village.

Matrix of socialization and consultation activities that has already been done (FGD with PAP) in Upper and Lower Dam.

Socialization, FGD	Location/Date	Participant	Conclusion
Socialization			
Lower Dam	Lobby Karang Nunggal village, sub district Cibeber district Cianjur, 8 Oktober 2009	<ul style="list-style-type: none"> • Number of participant 71 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub- 	<ul style="list-style-type: none"> • In general people accept the compensation of land and other assets affected by the project, considering this project for the public interest. • The PAP expect that compensations received, will be able to recover the lost asset • Payment method should be conducted directly by PLN without intermediary or brokers and it will

Socialization, FGD	Location/Date	Participant	Conclusion
		District Leaders) <ul style="list-style-type: none"> • Village Officials • Community Informal Leaders and • Representative of PAPs • Representative of tenants in the forestry area • Representative of women group 	be made through transfer to BANK to the account each HHs. <ul style="list-style-type: none"> • PLN was asked to give attentions for the sharecropper who is working in the forestry land • expect the formed agency/institutions to the handle complain of negative impact from the project. • The majority people is not interest relocated by the PLN, because new locations may not suitable for them, they prefer to move by themselves. • Socializations and meeting with the residents still be required before the compensations process.
FGD			
Lower Dam	Lobby sub district Campaka, District Cianjur, 8 Oktober 2009	<ul style="list-style-type: none"> • Number of participant 45 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • Representative of PAPs • Representative of tenants in the forestry area • Representative of women group 	<ul style="list-style-type: none"> • In general people accept the compensation of land and other assets affected by the project, considering this project for the public interest. • The process determining of compensation of asset, should be discussed and based on the market price's standar. • Payment method should be conducted directly by PLN without intermediary or brokers. • Moving expenses by the PLN. • Moving expenses to be borne by the PLN. • Representations of women suggested that PLN consider the relocation of school to arrange their children remain to go to schools as usual . • Affected Infrastructures are replaced in accordance with the loss. • The majority people is not interested to be relocated by the PLN, because new locations may not suitable for them, they prefer to move by themselves.
Socialization			
Upper Dam	Common room in Rongga sub-district on 24 October 2008	<ul style="list-style-type: none"> • Representative of PAPs • Community leaders • Village officials • Sub-district officials • PT. PLN (persero) Prokitring Jawa Barat • LPPM UNPAD • Muspika (Board of Sub-District Leaders) 	<ul style="list-style-type: none"> • Local communities are agreed to the proposed project • Local communities want certainty regarding when the upper cisokan project will be carried out, since the information on the proposed project has been known from 1989 • Local communities want to be involved in the project as workers • How and when the land, building and other assets will be compensated and when and how the resettlement will be conducted • The compensation should be based on local communities agreement • Study report carried out by LPPM-UNPAD should be used as consideration and resettlement.
FGD			
Upper Dam	Common room in Rongga sub-district on 24 October 2008	<ul style="list-style-type: none"> • Representative of PAPs • Community leaders • Village officials • Sub-district officials • PT. PLN (persero) Prokitring Jawa Barat • LPPM UNPAD • Muspika (Board of Sub-District Leaders) 	<ul style="list-style-type: none"> • Local communities want certainty regarding when the upper cisokan project will be carried out • Local communities demand transparency regarding the mechanism of land, building and plant compensation • The compensation should be based on local communities agreement • Most of the PAPs want to be relocated closer to where they are living now.

Public Aspirations of the Project, PAPs in the Transmission Line.

The results of socialization and focused group discussion are as follows:

15. Basically, people do not oppose to the proposed transmission lines project covering transmission line and tower site.
16. Most people want that the money compensation should be paid directly to them in cash.
17. Most people do expect that the proposed project do not disturb their on-going agricultural activities.
18. People insists that a handling complaint institution needs to be established, to monitor and evaluate potential negative impacts related to health, psychological and economic aspects resulted from transmission lines project.
19. Most people want that the payment of the compensation paid directly to the project affected people.
20. People understand that compensation value will be determined by agreement between PAPs and LAC.
21. The handling complaint institution/mechanism will be formed once the LARAP study has been done by the LPPM-UNPAD
22. Further socialization and discussion between the PLN and the PAPs will be done in the near future.

The results of socialization and consultation with the community using FGD technique are in line with the survey results, which indicate that all PAPs want to move by themselves in the same or near by village.

Matrix of Socialization and consultation activities that has already been done (FGD with PAP) in Transmission Line

No	Socialization, FGD	Location/Date	Participant	Conclusion
5.1	Socialization, <i>ROW Transmission and Tower</i>	Multi-purpose room of Haurwangi, Monday, 30 August 2009	<ul style="list-style-type: none"> • Representative of 11 villages • Number of participant 75 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • PAPs of the transmission line project • PAPs of the Tower project • Representative of women group • Community leaders 	<ul style="list-style-type: none"> • Most people do not oppose the project • The compensation money should be paid directly to the people, not middle man. • Compensation price should be decided based on the agreement between PAPs and local government • A complaint institution/mechanism should be established to handle disputes affected by transmission lines, especially on health-related matters. • More information on negative effects caused by transmission lines • Houses that affected by the tower project should not be moved out of the village. • Need more information on the compensation for transmission line, and how much PLN will compensate them?
5.2	FGD <i>ROW Transmission and Tower</i>	Multi-purpose room of Haurwangi, Monday, 31 August 2009	<ul style="list-style-type: none"> • Representative of 11 villages • Number of participant 75 persons • PLN Generation and Transmission of West Jawa, • LPPM UNPAD • Sub-District officials • Muspika (Board of Sub-District Leaders) • Village Officials • Community Informal Leaders and • Those affected by transmission line project • Representative of tower project affected people • Representative of women group • Community leaders 	<ul style="list-style-type: none"> - Most people do not oppose the project - Those affected by the tower project want that the compensation should be based on market price - The compensation money should be paid directly to the people, not middle man. - Those affected by transmission line project want their compensation money should consider the negative impacts from the transmission lines, in this case the price of the land lower than it should be and the health effect should also be considered. - PLN will establish a complaint institution/mechanism - The information on health , psychological and economic impacts resulted from transmission lines should be announced publicly, so that all concerned people are aware of it and anticipative measures can be taken. - In response to the PAPs' concerns, PLN with independent monitoring team will work together in monitoring and evaluating socio-economic condition and health of the PAPs in the transmission line for possible compensation.

Public Aspirations of the Project, PAPs in the Access Road.

Important things the opinions and wishes of the people who appear in the discussion are as follows:

- For those who are willing to move through the movement of the population, they expect that residential location not far from their homes in the area now.
- People want to know the certainty of when the realization of the development of Upper Pumped Storage Cisokan implemented, because people have waited so long since the year 1989;
- People willing to participate in the project work.
- Community want to clarity about how the replacement of land, construction and project-affected stands. Society wants compensation price of land, crops and buildings or other assets in accordance with the prevailing market price of consultation between the government and society. Payments made in cash directly to the owner through the bank;
- For the people who will move themselves, they will stay around the project (not far from where live now); and
- People who live in Existing Road realize that they live in the land of PT. PLN (Persero). Although there was agreement that the land use of the PT. PLN (Persero), but they want their building up losses can be replaced by the project in accordance with market prices.

The results of socialization and consultation with the community with FGD technique showed results consistent with the survey results, which most of the people affected want to move their own projects. Meanwhile, when viewed from the location where the desired move, most people choose to move in the same village (see table 3-12).

Matrix of Socialization and Consultation Activities (FGD) with PAP in Access Road

No	Socialization, FGD	Location/Date	Participant	Conclusion
5.1	Socialization,			
	<i>New Road</i>	Sub-District of Rongga, District of West Bandung, Friday, 24 October 2008	<ul style="list-style-type: none"> • Number of participant 54 persons • PT.PLN (Persero) Prokitring West Jawa, • LPPM UNPAD • Sub-District officials • Muspika • Village Officials • Community Informal Leaders and • Representative of residents who are impacted by the Project. 	<ul style="list-style-type: none"> • Resident agree on the development of the Upper Cisokan Pumped Storage • Resident want to know precise time on construction of the Upper Cisokan Pumped Storage Project because they have uncertainly waited since 1989. • Resident want to participate as worker at the project works. • Resident want to know how they obtain compensation of land, buildings, and crops that are impacted by project. • Value of compensation (land, bangunan, crops and other assets) must consider the resident require. • For the resident who are impacted by the project, if they must be moved, they consider want to move to new settlement in the surrounding near the project. • According to developer, to fix pole, measurement, calculation of building, crops will be undertaken by LARAP team, as input for land acquisition committee (P2T), then will be rechecked by P2T
	– <i>Existing Road</i>	Sub-District of Cipongkor, Thursday 2008	<ul style="list-style-type: none"> • Number of participant 47 persons • PT. PLN (Persero) Prokitring West Java, • LPPM UNPAD • Sub-District Officials • Board of Sub-district leaders • Village Officials • Community Leader and • Representative of the community who are impacted by the Project 	<ul style="list-style-type: none"> • They realize that they live in the land of PT. PLN (Persero).Although the existing agreement with PT. PLN (Persero) Indonesia Power on the use of land of the PLN, they want to obtain compensation for their buildings which have built by them. • For those who do not have land in other places if you want to move by the government is not far from where live now. • Resident wants to participate in the project work. • Just like in the location of the New Road that this LARAP study as inputs for the Land Acquisition Committee (P2T)

5.2	FGD			
	- <i>New Road</i>	Undertaken in village of Village of Cijambu, Cibitung, Sukaresmi of New Road.	<ul style="list-style-type: none"> • Number of Participant 42 person • PT. PLN (Persero) Prokitring West Java, • LPPM UNPAD • Sub-District Officials • Muspika • Village Officials • Informal Leader, and • Representative of the community who area affected by the Project. 	<ul style="list-style-type: none"> • PAP hope that compensation would be paid in cash via Bank, in accordance with price that appropriate with market price, so the PAP could buy the land in new place. • PAP ask to re-measure their land because the measurement that have been done no match reality in the field. • All cost of moving grave must be paid by the project • The compensation price would be undertaken by consensus • Administration process / certificates and letters of land would be undertaken by the government. • The rice field crops and other agricultural land that have not been harvested at the time held that compensation must be paid for the compensation of various input costs of cultivating rice that have been allocated.
	- <i>Existing Road</i>	Undertaken in Village of Sarinagen.	<ul style="list-style-type: none"> • Number of participatants 77 persons • PT. PLN(Persero) Prokitring West Java, • LPPM UNPAD • District Officials • Muspika • Village officials • Informal Leaders, and • Representative of the community who are affected by the Project. 	<ul style="list-style-type: none"> • PAP realize that the place they occupy is owned by PLN • Although there is an agreement with PLN, the building has been built on land of PLN, buildings that have been constructed on land of PLN, including crops, must be paid in accordance with market price. • PAP want to know clearly the borders of widening the road would be used by the project. • PAP wants to know when the Upper Cosecant Pumped Storage HEPP projects will be precisely constructed.

APPENDIX 6
DRAFT
GENERIC TERMS OF REFERENCE FOR
CONSULTANCY FOR IMPLEMENTATION OF
LAND ACQUISITION AND RESETTLEMENT ACTION PLAN

I. BACKGROUND OF THE PROJECT

1. In order to increase the supply of electrical power in Java, the government (in this case PT. PLN Persero), plans to build the Upper Cisokan Pumped Storage Project HEPP (UCPS project) located in West Bandung and Cianjur District. The project will have an installed capacity of 1040 MW. The Project Implementation Unit (PIU) is PLN Hydro Java Generation (PLN PHJ).
2. The Upper Cisokan Pumped Storage Project consists of 3 sub-project components, namely 1) the construction of access road, 2) construction of upper and lower dams, and 3) construction of 500 KV transmission lines. Physical construction of these projects require land acquisition that will impact on people's lives, as a result of the loss or decrease in land assets, or require further removal of residents from the location currently occupied.
3. In order to minimize the negative impacts arising from land acquisition for the Upper Cisokan Pumped Storage Project, PLN conducted census and consultations with the project-affected people (PAP) and prepared three Land Acquisition and Resettlement Action Plans (LARAP), one for each sub-project. For the implementation of these LARAPs PLN will appoint local Consultants, NGOs and Income Restoration Training and Development Agencies who not only have the experience in carrying out such activities, but also have a better access with the people at the grassroots for effective implementation.

II. TASKS

4. The Consultant shall play a role in implementation of the LARAP and in mitigating the adverse effects of the project. The Consultant shall remain responsible for the development of a comprehensive livelihood system to facilitate the project affected persons PAPs to take advantages of the options available as per the LARAP. The main tasks of the Consultant thus appointed for the implementation of the UCPS Project LARAP would be to:

2.1. Verification

All Verification has to be conducted jointly with PLN

5. The Consultant shall undertake joint verification of the project affected persons and shall update the database on the eligible PAPs and project-affected households (PAHs). The Consultant shall verify the information already contained in the LARAP and the individual losses of the PAPs and validate the same and recommend any ammendment if required.
6. During the identification and verification of the eligible PAPs/PAHs, the Consultant shall ensure that each of the PAPs are contacted and consulted. The Consultant shall ensure consultation with the women from the PAP families especially women headed households.

7. Verification exercise shall include participation in measurement of the extent of total property loss/damage, and valuation of the loss/damage/affect along with the Land Acquisition Committee. The Consultant shall display the list of eligible PAPs in prominent public places like Village Offices and Sub-District Headquarters.
8. The Consultant will identify any PAP, PAH or community asset coming within the Project affected area after the cut-off date, and notify the same to the local government office. The Consultant shall through consultation help remove the PAP, PAH or community structure from the area, and inform them that any project benefits do not apply to them.

2.2. Distribution of Identity Cards

9. The Consultant shall assist any eligible PAP lacking a National Identity Card to obtain one. The identity card should include a photograph of the PAP, and will be linked to PLN records of the extent of loss suffered due to the project, and the choice of the PAP with regard to the mode of compensation and assistance, with necessary family details.

2.3. Consultation

10. The Consultant shall educate the PAPs on their rights, entitlements and obligations under the LARAP. It shall disseminate information to the PAPs on the possible consequences of the project on the communities' livelihood systems and the options available. It shall explain to the PAPs the need for land acquisition, the provisions of the policy and the entitlements under the LARAP. This shall include communication to any lacking title about the need for their eviction, the timeframe for their relocation and their entitlements as per the LARAP.

2.4. Prepare Micro Plan

11. The Consultant shall prepare Micro plans indicating category of entitlement; alternate livelihood options; land identification; skill up gradation and institutions responsible for training. A separate plan has to be prepared for shifting of community assets.

2.5. Training and Support for income restoration

12. In addition to providing assistance given in the entitlement package, the Consultant shall be responsible for training and assisting the PAPs to establish linkages with government programmes.
 - (i) The Consultant shall train PAPs losing their livelihood, in suitable income restoration programmes, depending on the skills and interest of the PAPs. The Consultant shall prepare individual Income Restoration Plan, as a part of the Micro Plan for all PAPs whose livelihoods are affected. The Consultant shall explore the potential of employment opportunities with the local contractors, and where ever possible ensure suitable employment with the contractors. This will include providing the list of people willing to work under contractors and to facilitate these types of jobs to PAPs and local people;
 - (ii) Consultant shall assist the PAP to establish linkage with Financial institutions for facilitating access to credit.
 - (iii) Assist the PAP to establish linkages with Government departments, district administration, etc., to ensure that the PAPs are included in the development schemes, as applicable especially with reference to vulnerable groups such as

pension schemes for Senior citizens, schemes for women for women headed household families, widow pensions, schemes for handicapped persons etc.

- (iv) Link up PAPs to Training institutes for imparting skill and management training for enterprise creation and development. For those PAPs who are interested in skill upgradation or training for economic generation programmes

2.6. Disbursement of Assistance and delivery of entitlements

- 13. The Consultant shall ensure that PAPs obtain their full entitlements under the LARAP; to ensure benefits due to the PAPs under the R&R policy and LARAP are provided to the PAPs. Where options are available, the Consultant shall provide advice to PAPs on the relative benefits of each option.
- 14. The Consultant shall assist the project authorities in ensuring a smooth transition helping the PAPs to take salvaged materials and shift with proper notices. In close consultation with the PAPs, the Consultant shall inform the PLN about the shifting dates agreed with the PAPs in writing and the arrangements desired by the PAPs with respect to their entitlements.
- 15. The Consultant shall assist the PAPs in opening bank accounts explaining the implications, the rules and the obligations of a joint account and how he/she can access the resources s/he is entitled to.
- 16. Ensure proper utilization by the PAPs of various grants available under the LARAP. The Consultant will be responsible for advising the PAPs on how best to use any cash that may be provided under the LARAP. Emphasis should be placed on using such funds in a sustainable way e.g. purchasing replacement land for that acquired.
- 17. The Consultant shall ensure proper utilisation of the R&R budget available for each of the packages. It shall identify means and advise the Land Acquisition Committee to disburse the entitlements to the eligible persons/families in a transparent manner and shall report to the PLN on the level of transparency achieved in the project.

2.7. Grievance Redressal

- 18. The Consultant shall make PAPs aware of the grievance mechanism set out in the LARAP and shall assist PAPs who have grievances to pursue a suitable remedy. The Consultant shall help the PAPs to file a grievance application. The Consultant shall record the grievance and bring the same to the notice of the Grievance Task Force within 1 (one) day of receipt of the grievance from the PAPs and shall assist the Grievance Task Force when ever requested by either parties.

2.8. Identification of self-relocation sites

- 19. As part of the LARAP, eligible PAHs will receive alternative sites for residential and commercial structures getting affected. The Consultant will identify with PLN and the local governments, suitable government land and assist in its transfer to the PAP. Where suitable government land is not available, the Consultant will assist the PAP to locate a land owner willing to sell his land and assist in the negotiation of the purchase price whenever requested by the PAP. Where at least 30 PAH relocate together, the Consultant will also consult with the local people for the provision of public infrastructure and relocation of community assets.

2.9. Co-ordination between PAPs and the PLN

20. The Consultant shall develop rapport with PAPs through regular monthly meetings with both the PLN representatives and the PAPs. All meetings and decisions taken are to be documented.

2.10. Conduct Public information campaign

21. The Consultant shall assist the PLN to undertake public information campaign at the commencement of the project to inform the affected communities of the project LARAP and the entitlement packages.

2.11. Conduct Village Meetings

22. Besides contacting PAPs on an individual basis to regularly update the information, village meetings will be conducted by the Consultant on a regular basis. The frequency of such meetings will depend on the requirements of the PAPs, to allow the PAPs to remain up to date on project developments. Consultant will encourage participation of individual PAPs in such meetings by discussing their problems regarding land acquisition, resettlement, and rehabilitation, and other aspects relating to their socio-economic livelihood. Such participation will make it easier to find a solution acceptable to all involved.

2.12. Report the Status of PAPs after shifting

23. The Consultant shall submit a status report on each PAH after their relocation to PLN.

III. CONDITION OF SERVICES

24. The Consultant shall ensure that the LARAP is implemented in an effective and proper manner. The prime responsibility of the Consultant shall be to ensure that each and every eligible PAPs receive appropriate and due entitlement (within the Entitlement Framework). Additionally the Consultant shall help the PLN in all other matters deemed to be required to implement the LARAP in its spirit and entirety. All documents created, generated or collected during the period of contract, in carrying out the services under this assignment will be the property of PLN. No information gathered or generated during and in carrying out this assignment shall be disclosed by the Consultant without explicit permission of PLN.

3.1. Location of Consultant

25. In order to carry out the above tasks, employees of Consultant are to be stationed in each division as identified by the PIU. Each division office shall have one key person along with support staff.

3.2. Reporting

26. Reports will have to be submitted, as well as photographs, videos etc., taken during the assignment shall be submitted in support of the reports, along with an electronic copy of the documents. All reports should be in Indonesian language only. The following documentation have to be submitted.

1) Inception Report

27. The Consultant shall submit to the PLN an inception report-detailing plan of action, manpower deployment, time schedule, and detailed methodology within 21 days of the commencement of the assignment.

2) Monthly progress Reports

28. The Consultant should also submit monthly progress reports on the activities carried out during that month and proposed activities for the coming month. The monthly progress reports will include data on input and output indicators as required by PLN, with work charts as against the scheduled timeframe of LARAP implementation. All progress reports shall include data on input and output indicators as required by PLN. The Consultant shall document in full details, the consultation/counselling processes, the process of identification of the resettlement sites, and a full description of the training imparted (or facilitated) as part of the assignment. The progress achieved in land acquisition as per entitlements have to be documented. This documentation shall be submitted to PLN as a part of the monthly progress report.

3) Annual Reports

29. Submit a completion report at the end of each year summarizing the actions taken, the methods and personnel used to carry out the assignment, and a summary of supports/assistance given to the PAPs.

4) Records of meetings

30. All minutes of the meetings between PLN and PAPs etc have to be recorded and submitted to (i) PLN PHJ and (ii) PLN Upper Cisokan Project.

5) Record of Grievances

31. All grievances have to recorded and the process of redressal documented and submitted to PLN on a monthly basis.

6) Submission of Micro Plans

32. All micro plans have to be submitted, with the status of disbursement and payment of compensation, on a monthly basis. Where changes occur during the project requiring changes to the micro level plans, the Consultant will update the relevant plans and resubmit them to PLN.

3.3. Data, Services and Facilities to be provided by the Client

33. PLN will provide to the Consultant copies of the LARAP, PAP database, land acquisition details, and any other relevant reports/data prepared by the Project Preparation Consultants. All facilities required in the performance of the assignment, including office space, office stationery, transportation and accommodation for staff of the Consultant etc., shall be arranged by the Consultant.

3.4. Time Schedule

34. It is estimated that the Consultant services will be required initially for two years for participating in the implementation of LARAP. The Consultant shall carry out all assigned tasks based on the milestones as set out by PLN.

3.5. Payment

35. All payments will be linked to the completion of tasks as per milestones. As the implementation will be done in a phased manner, payment will be linked to the

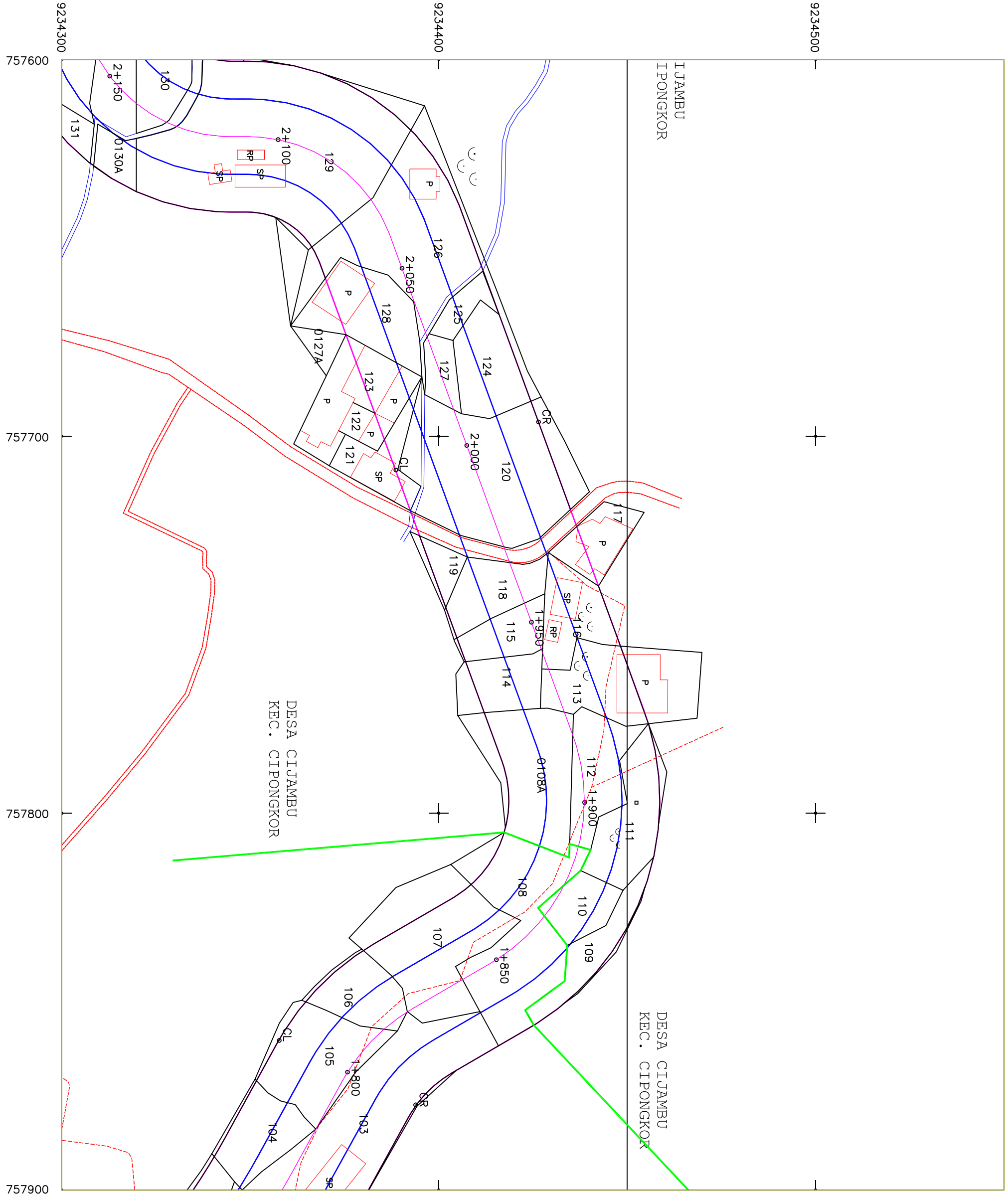
completion of links/contract packages, based on the timeline provided by PLN. The payment schedule will be made against outputs as given below. There will be not more than 4 installments.

	Output	Tentative Payment Schedule
1.	Inception Report	30%
2.	After submission of 1st milestone as given by PLN PHJ	20%
3.	After submission of 2nd milestone as given by PLN PHJ	20%
4.	After submission and approval of Final Milestone as given by PLN PHJ	30%

3.6. Team for the Assignment

36. The Consultant shall depute a team of professionals to the project site. The constitution of the team and the qualification for the tentative team members is given below:

No.	Position	No. Of Positions	Qualification
1.	Team Leader	1	The Team Leader should be a post-graduate, preferably in social sciences. S/he should have about 10 years experience in implementation of R&R and rural development works. S/he should have held responsible position in the previous assignments should possess participatory management skills. Knowledge of local language is a necessary qualification. The team leader must have been with the Consultant for at least 2 years. In case of Joint Ventures the Team Leader must be from the lead partner
2.	Key Professionals	4	Should be a post-graduate in social sciences. S/he should have about 5 years of working experience of which about 2 years in R&R or rural development projects. Should have sound understanding of the land acquisition process and experience in participatory management. Knowledge of local language is a necessary qualification. One key professional must have a minimum qualification of Diploma in Civil Engineering. One key professional has to be a woman.
3.	Sub professionals	1 for every 200 major impacted households	Should be graduate or equivalent in social sciences. with at least two years field experience. Knowledge of local language and experience of working in the region desired. One – third must be women.
4.	Other support Personnel		One support staff to be provided to each key professional



SKALA 1:1000

LEGENDA

- Perak BM
- Perumahan Jalan Umum
- Tangkai Listrik
- Menara Transmisi
- Menara Telekomunikasi
- Rumnah / Gedung
- Masjid
- Gereja
- Vihara
- Pura
- Sekolah
- Rumnah Sialit
- Kantor Polisi
- Terminal Bus
- Kucheran Dalam
- Kucheran Keluar
- Kucheran Cina
- Jalan
- Jalan Layang
- Jalan Sempit
- Jembatan Besi / Beton
- Jembatan
- Gorong - Gorong Baki
- Gorong - Gorong Sempit
- Bata Perak
- Peta
- Saluran Udara Tegangan Tinggi
- Bata Denda
- Sawah
- Ladang / Tani Gunung
- Kecher Kelapa Sialit
- Rokon
- Kuchun Baki - buahan
- Alang - alang
- Bakul
- Padang Rumput
- Tanah Kering
- Rumpun Bambu
- Bata Siaman
- Sungai
- Kanal Saluran
- Kemitok Perkuat
- Pahu Air
- Pahu (a), Gasi Penuk (b)
- Tembak Bani
- Kuchun, Denda
- Rawa
- Tembak BaturPuar
- Baki Batu
- Teling / Tani Lajang
- Ganti Tinggi
- Tik, Tinggi Tanah
- ZBK, Tinggi Jln Layang
- Bata Kaca
- Bata Kecamatan

NO.	TANGGAL	REVISI	OLEH	REVISI

PT. PLN (PERSERO)
 PROJEK RENCANA PENGADAN DAN JARINGAN
 JAWA, BALI DAN IINDIA TENGGARA

PEREMMAN
 SURVEY TOROPORAKAFI

LOKASI	DISUSUNAI	TEK.	T. ANGGAN

SKALA: 1:1000
 NO. DOKUMEN: 0017

desain :
PETA BIDANG TANAH



9234300 757600 757700 757800 757900

9234400 9234500

IJAMBU
 IPONGKOR

DESA CIJAMBU
 KEC. CIPONGKOR

DESA CIJAMBU
 KEC. CIPONGKOR



SKALA 1:1000

LEGENDA

- Persegi BM
- Persegi Jalan Umum
- Tangkai Listrik
- Menara Transmisi
- Menara Telekomunikasi
- Rumah / Gedung
- Masjid
- Gereja
- Vihara
- Pura
- Sekolah
- Rumah Sialat
- Kantor Polisi
- Kantor Sertu
- Terminal Bus
- Kikoran Dalam
- Kikoran Keluar
- Kikoran Cina
- Jalan Utama
- Jalan
- Jalan Layang
- Jalan Sempit
- Jalan Kiri
- Jembatan Besi / Beton
- Jembatan
- Corong - Corong Bulat
- Corong - Corong Segitiga
- Bata Perak
- Peta
- Saluran Udara Tegangan Tinggi
- Saluran Udara
- Batas Kecamatan
- Batas Desa
- Sawah
- Ladang / Tani Gunung
- Kebun Kelapa / Sawit
- Peron
- Kebun Buah - buahan
- Alang - alang
- Bakau
- Padang Rumput
- Tanah Kering
- Rumpun Bambu
- Batas Swami
- Sungai
- Kanal / Saluran
- Perisai (a) Garis Pemisah (b)
- Perahu Air
- Tembak Ikan
- Kolam, Dendau
- Rawa
- Tembak Baur/Putar
- Bait Batu
- Tebing / Teras Lempur
- Garih Tinggi
- TTK Tinggi Tanah
- Garis Tinggi Jln Layang
- Batas Kota

NO.	REVISI	OLEH	REVISI

PT. PLN (PERSERO)
PROJEK RENCANA PEMBANGUNAN JAWA, BALI DAN IINDIA TENGGARA
PERERMAN

SURVEY TOPOGRAFI

LOKASI	TEK.	T. ANGGAN
DISUSUN		
DIREVISI		
DIBENTUK		
DIREVISI		
SKALA	NO. DOKUMEN	
1 : 1000	01/1	

gambar :
PETA BIDANG TANAH



**KETERANGAN
PROYEK PLTA UPPER CISOKAN**

1. — Access Road (Existing & New)
2. 🏠 Quarry (Sumber Materia / Batul)
3. 🌊 Genangan / Reservoir
4. 📡 Transmisi 500 kV jalur 1 yang akan dibangun
5. 📡 Transmisi 500 kV jalur 2 yang akan dibangun

GEDUNG DAN BANGUNAN LAINNYA

- Perumahan
- Bangunan
- Mesjid, Gereja
- Vihara, Pura
- Kuburan:
 - Islam, Kristen
 - Cina, Hindu
- Kantor Pemerintah
- Gubernur, Walikota
- Bupati, Camat
- Desa, Lurah
- Rumahsakit/Puskesmas
- Pasar
- Polisi, Sekolah
- Pelayanan Pos, Pelayanan Telepon
- Menara, Sumur Bahan Bakar
- Sumber Gas Alam, Sumber Air Panas
- Tambang
- Tempat/Bangunan Bersajarah
- Tempat yang Menarik
- PLTA, PLTD
- PLTN, PLTU
- Menara Air, Tangki Bahan Bakar
- Kawat Tegangan Tinggi
- Pipa Bahan Bakar
- Pipa Gas
- Pipa Air

TUMBUH-TUMBUHAN

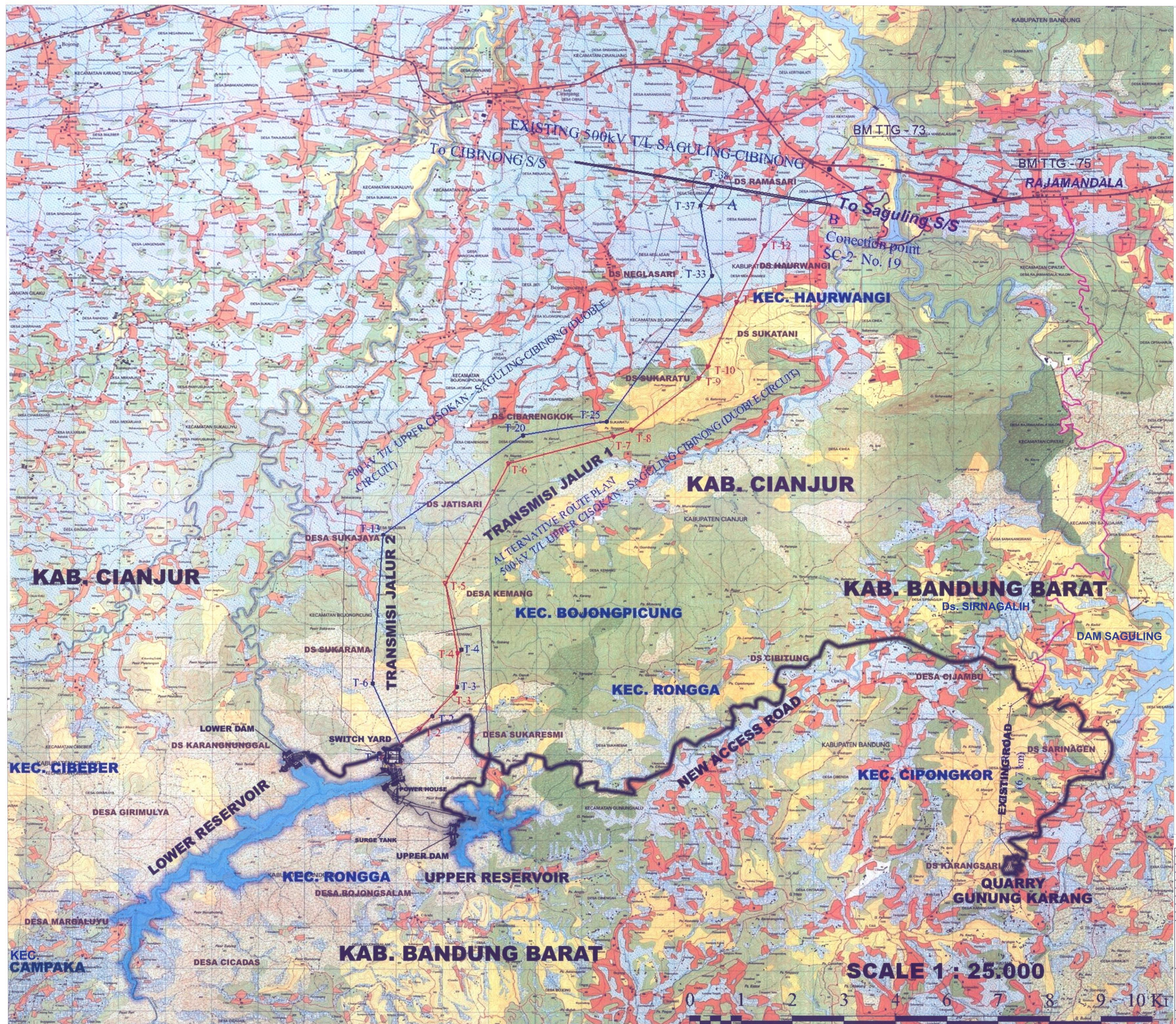
- Sawah Irigasi
- Sawah Tidak Irigasi
- Kebun/Perkebunan
- Hutan
- Semak/Bekau
- Tegalan/Ladang
- Rumpuk/Tanah Kosong
- Hutan Rawas

RELIEF DAN TITIK KONTROL

- Genis Kontur, Kontur Indeks
- Kontur Daerah Berbatu
- Kontur Batu
- Cekungan
- Tebing, Tebing Batu
- Bukit/Gundukan
- Tanggul Tanah, tanggul Diperkeras
- Galian Tanah, Galian Diperkeras
- Paisir Pasul, Pasir
- Titik Tinggi
- Titik Triangulasi: Primer, Sekunder
- Tertier
- Titik Doppler, Titik GPS
- Titik Tinggi Geodesi
- Titik Astronomi, Titik Geyse Berat

BATAS ADMINISTRASI

- Batas Propinsi
- Batas Kodya/Kabupaten/Kotip
- Batas Kecamatan
- Batas Desa/Kelurahan



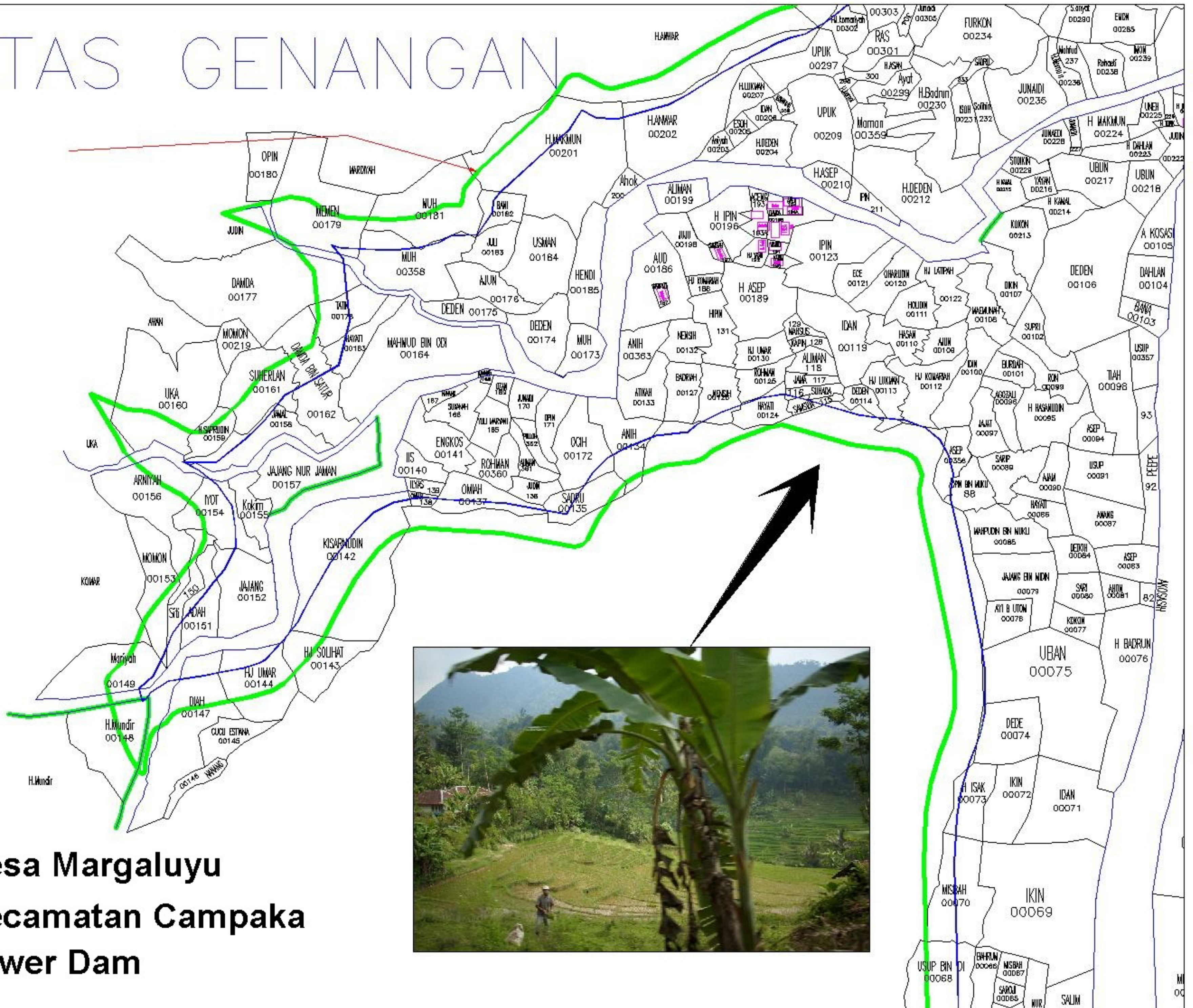
No.	REVISI	TANGGAL	DI GAMBAR	DI PERIKSA	DI SETUJUI
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**PT. PLN (PERSERO)
PEMBANGKITAN HIDRO JAWA**

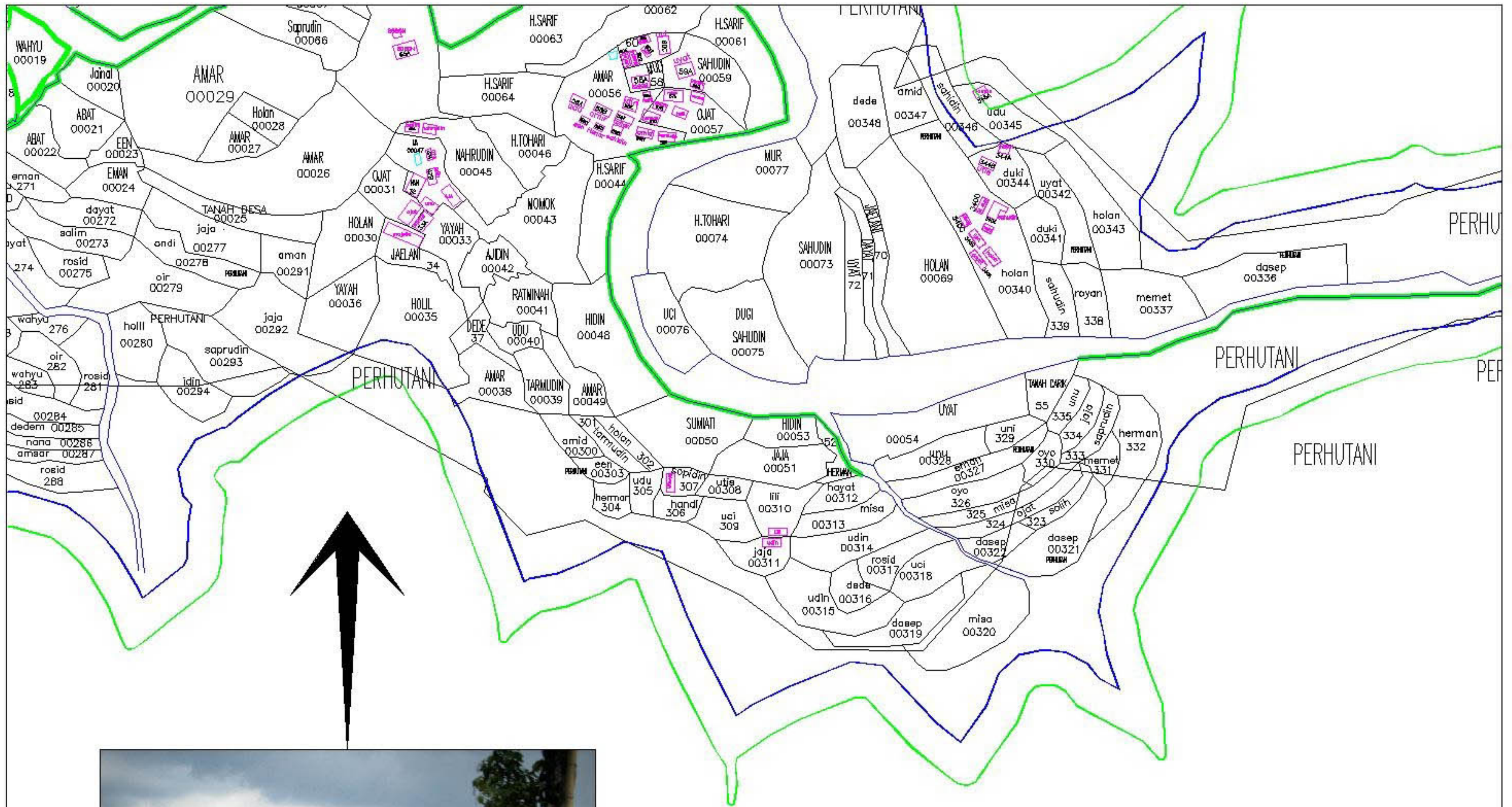
JUDUL
PETA LOKASI PROYEK PLTA UPPER CISOKAN
PUMPED STORAGE 1040 MW

NO. GAMBAR	TANGGAL	DIGAMBAR	DIPERIKSA	DISETUJUI

BATAS GENANGAN



**Desa Margaluyu
Kecamatan Campaka
Lower Dam**



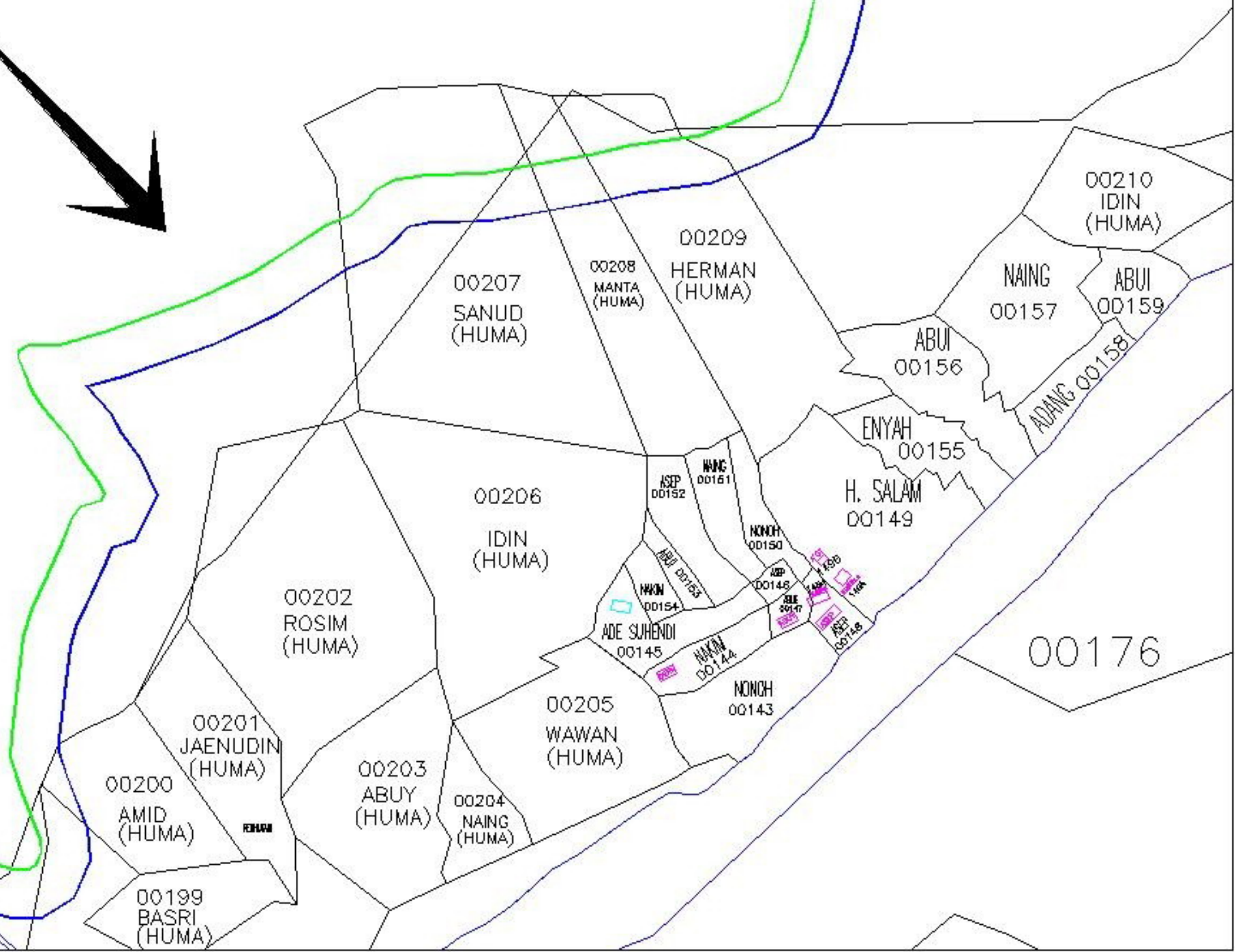
DESA : BOJONG SALAM
 KECAMATAN : RONGGA
 KABUPATEN : BANDUNG
LOWER DAM



DESA : KARANG NUNGGAL
KECAMATAN : CIBEBER
KABUPATEN : CIANJUR

PERHUTANI

Desa Karang Nuggal kecamatan Cibeber Lower Dam



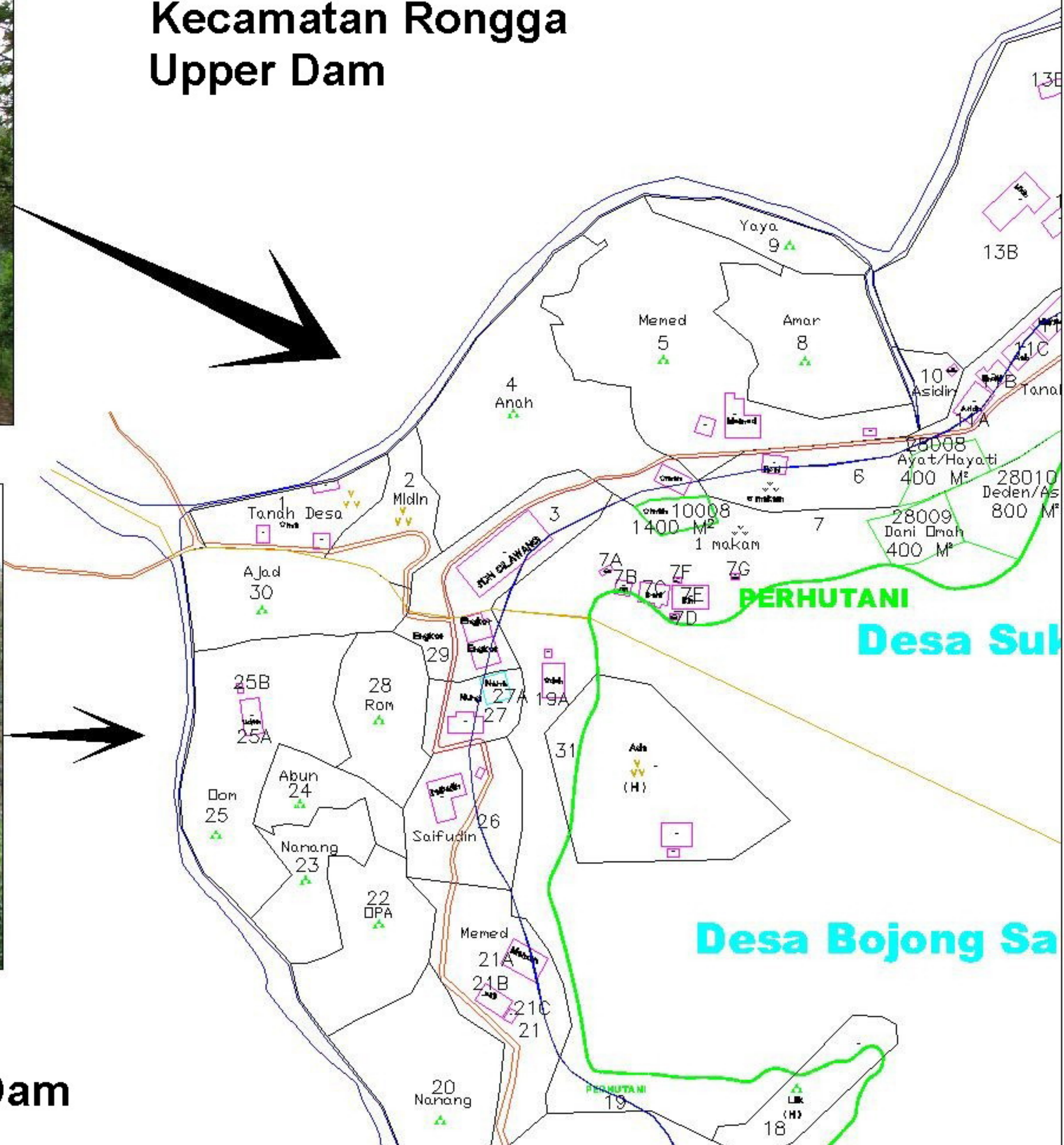


**Desa Sukaresmi
Kecamatan Rongga
Upper Dam**

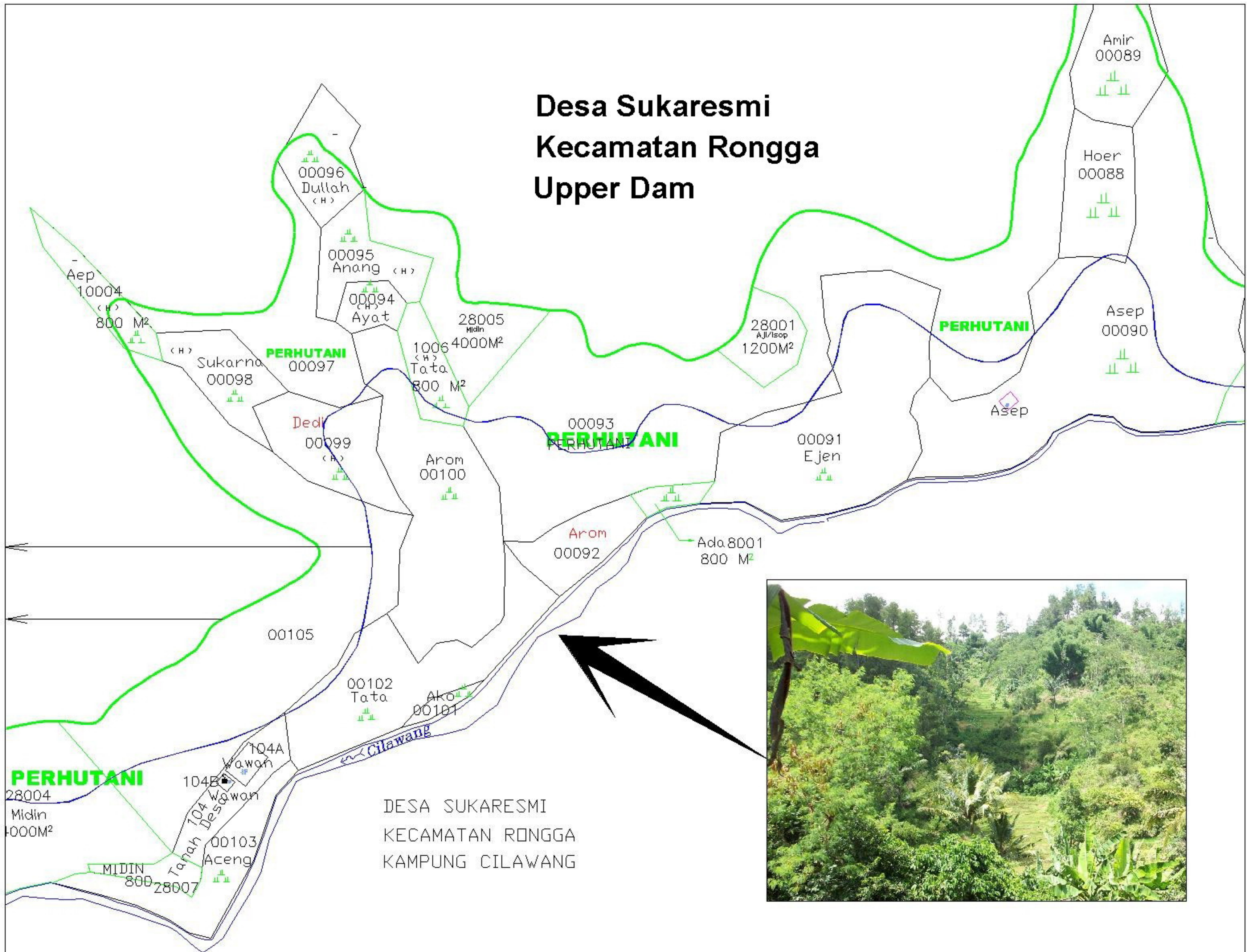


**Desa Bojong Salam
Kecamatan Rongga**

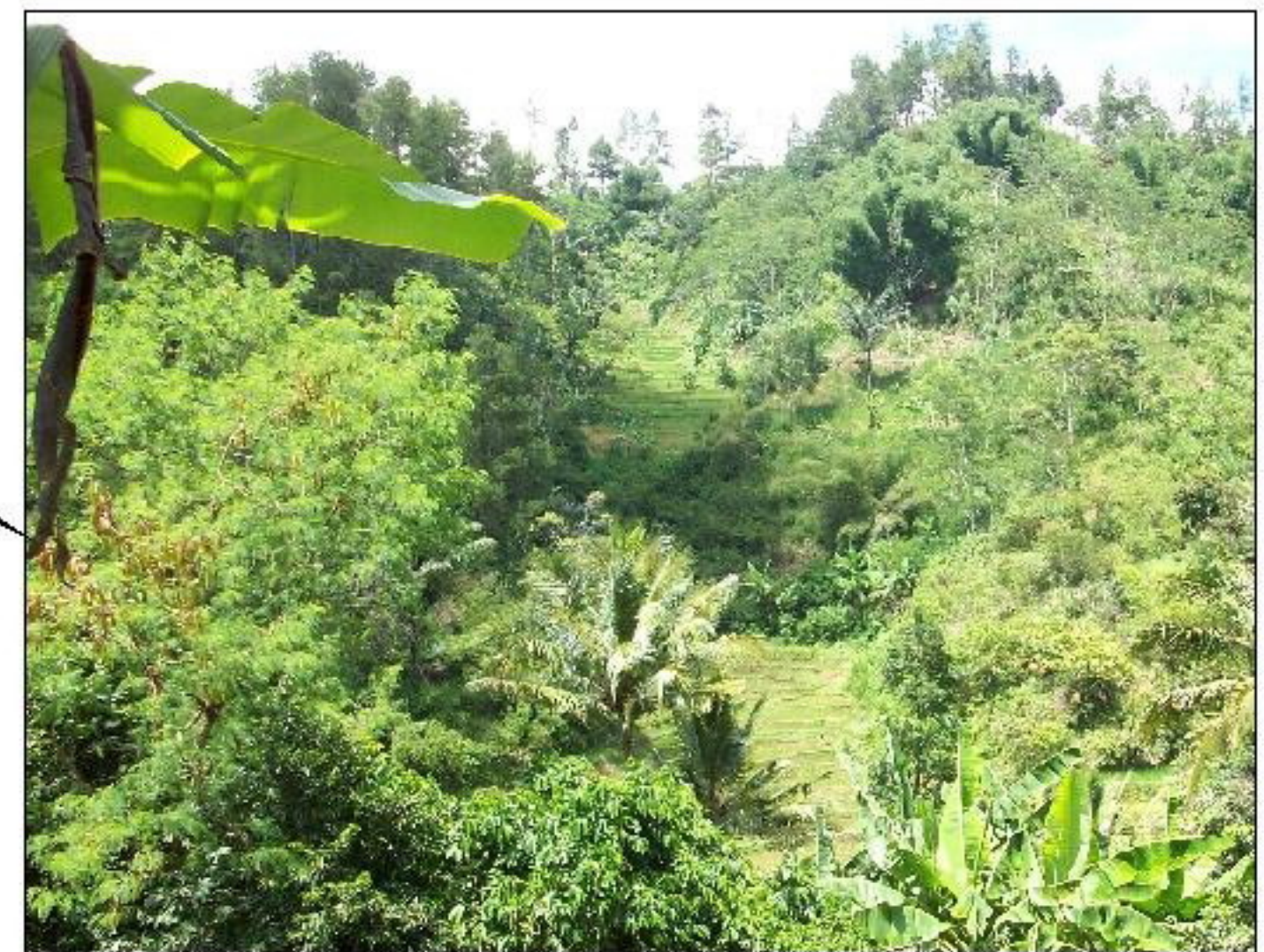
Upper Dam



Desa Sukaresmi Kecamatan Rongga Upper Dam



DESA SUKARESMI
KECAMATAN RONGGA
KAMPUNG CILAWANG





Bangunan Sudah Ada
Tidak Ada Persil
Tapi Di Luar GB

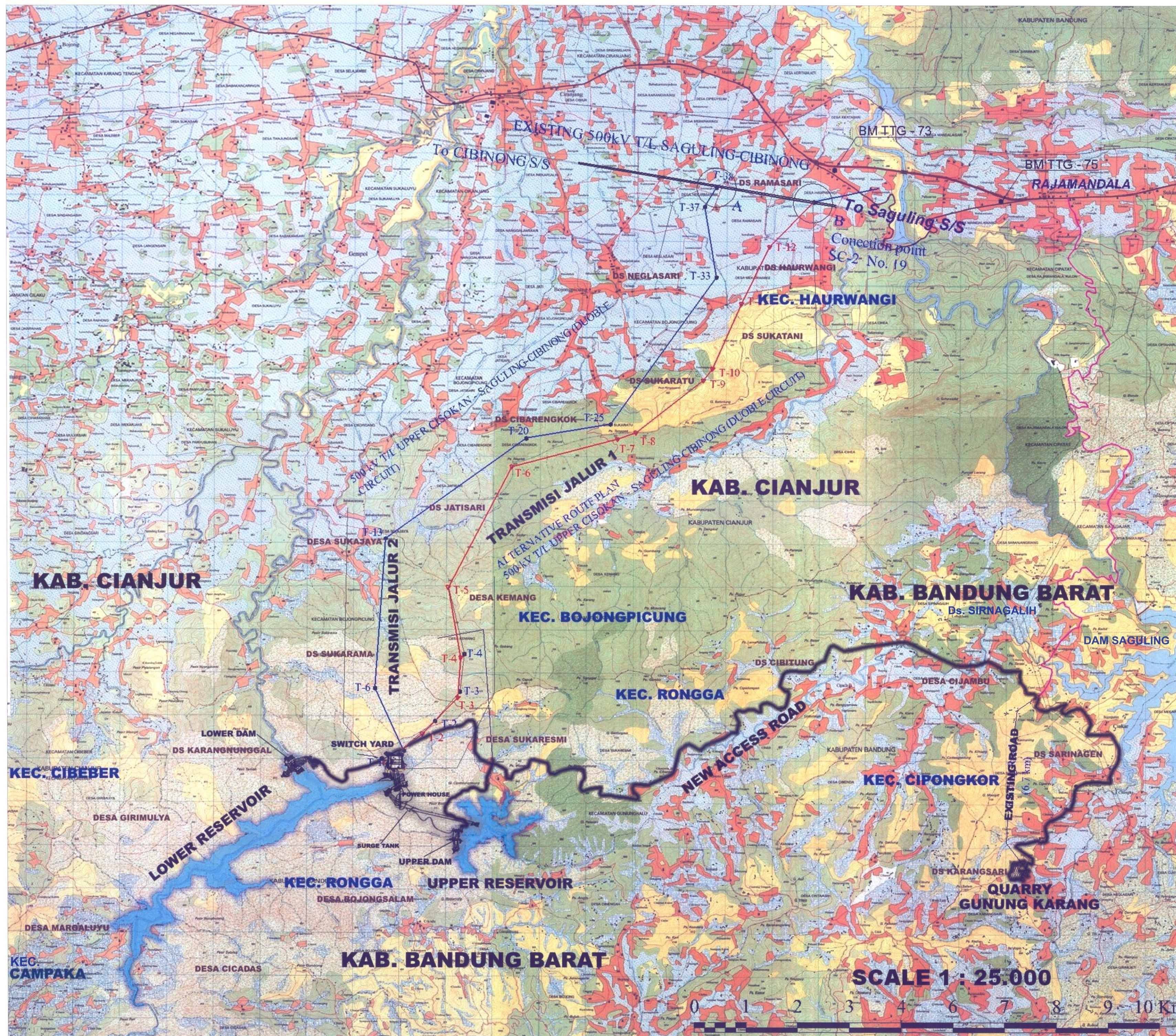


**Desa Sukaresmi
Kecamatan Rongga
Upper Dam**

DESA SUKARESMI
KECAMATAN RONGGA
KAMPUNG CIMAREL

**KETERANGAN
PROYEK PLTA UPPER CISOKAN**

1. — Access Road (Existing & New)
2. 🏠 Quarry (Sumber Materia / Batul)
3. 🌊 Genangan / Reservoir
4. 📡 Transmisi 500 kV jalur 1 yang akan dibangun
5. 📡 Transmisi 500 kV jalur 2 yang akan dibangun



GEDUNG DAN BANGUNAN LAINNYA

- Perumahan
- Bangunan
- Mesjid, Gereja
- Vihara, Pura
- Kuburan :
 - Islam, Kristen
 - Cina, Hindu
- Kantor Pemerintah
- Gubernur, Walikota
- Bupati, Camat
- Desa, Lurah
- Rumahsakit/Puskesmas
- Pasar
- Polisi, Sekolah
- Pelayanan Pos, Pelayanan Telepon
- Menara, Sumur Bahan Bakar
- Sumber Gas Alam, Sumber Air Panas
- Tambang
- Tempat/Bangunan Bersajarah
- Tempat yang Menarik
- PLTA, PLTD
- PLTN, PLTU
- Menara Air, Tangki Bahan Bakar
- Kawat Tegangan Tinggi
- Pipa Bahan Bakar
- Pipa Gas
- Pipa Air

TUMBUH-TUMBUHAN

- Sawah Irigasi
- Sawah Tidak Irigasi
- Kebun/Perkebunan
- Hutan
- Semak/Bekau
- Tegalan/Ladang
- Rumpuk/Tanah Kosong
- Hutan Rawas

RELIEF DAN TITIK KONTROL

- Genis Kontur, Kontur Indeks
- Kontur Daerah Berbatu
- Kontur Batu
- Cekungan
- Tebing, Tebing Batu
- Bukit/Gundukan
- Tanggul Tanah, tanggul Diperkeras
- Galian Tanah, Galian Diperkeras
- Pasir Pasut, Pasir
- Titik Tinggi
- Titik Triangulasi: Primer, Sekunder
- Tertier
- Titik Doppler, Titik GPS
- Titik Tinggi Geodesi
- Titik Astronomi, Titik Geyse Berat

BATAS ADMINISTRASI

- Batas Propinsi
- Batas Kodya/Kabupaten/Kotip
- Batas Kecamatan
- Batas Desa/Kelurahan

No.	REVISI	TANGGAL	DI GAMBAR	DI PERIKSA	DI SETUJUI
1.					
2.					
3.					
4.					
5.					
6.					
7.					

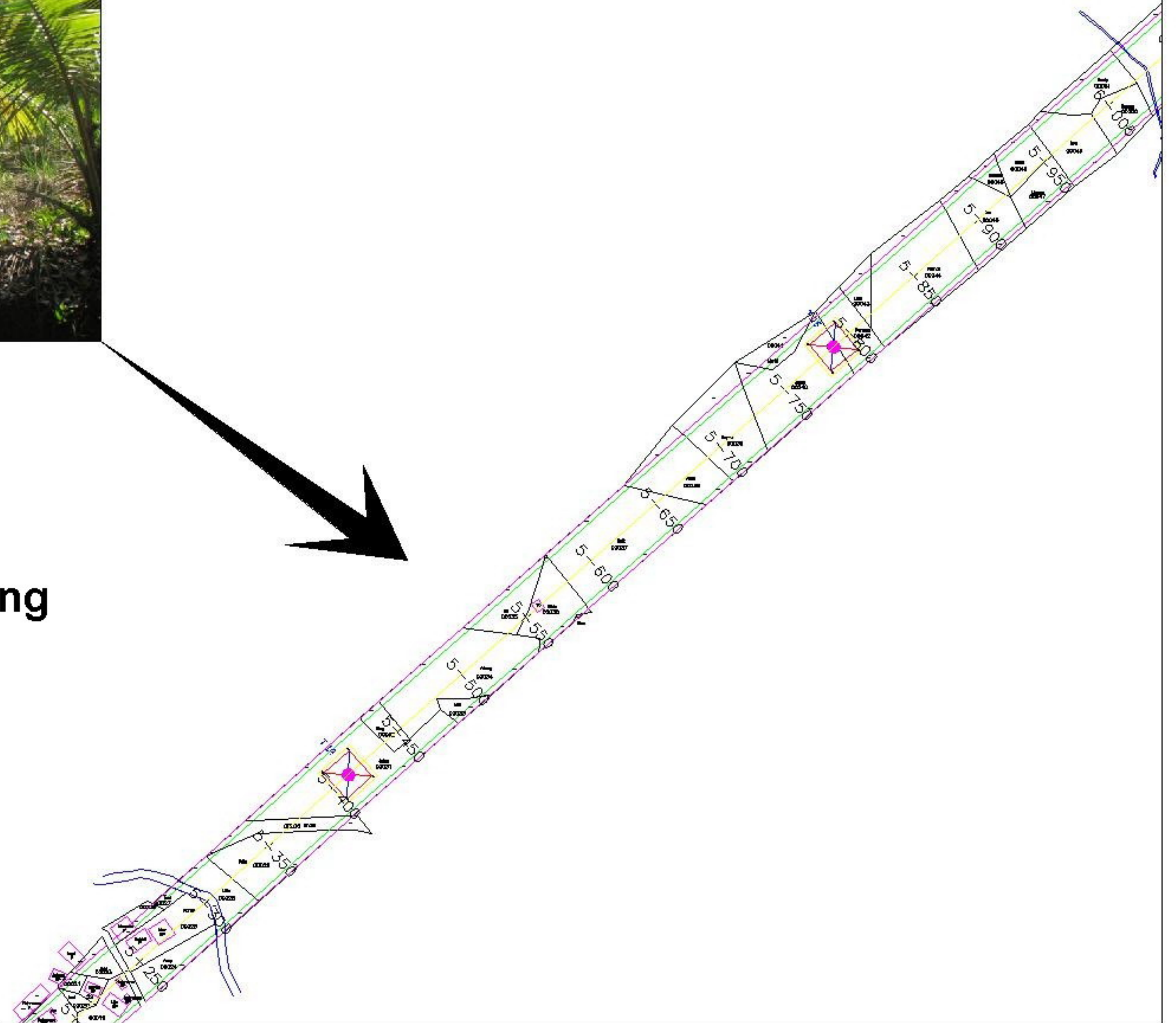
PT. PLN (PERSERO)
PEMBANGKITAN HIDRO JAWA

JUDUL: **PETA LOKASI PROYEK PLTA UPPER CISOKAN
PUMPED STORAGE 1040 MW**

NO. GAMBAR	TANGGAL	DIGAMBAR	DIPERIKSA	DISETUJUI

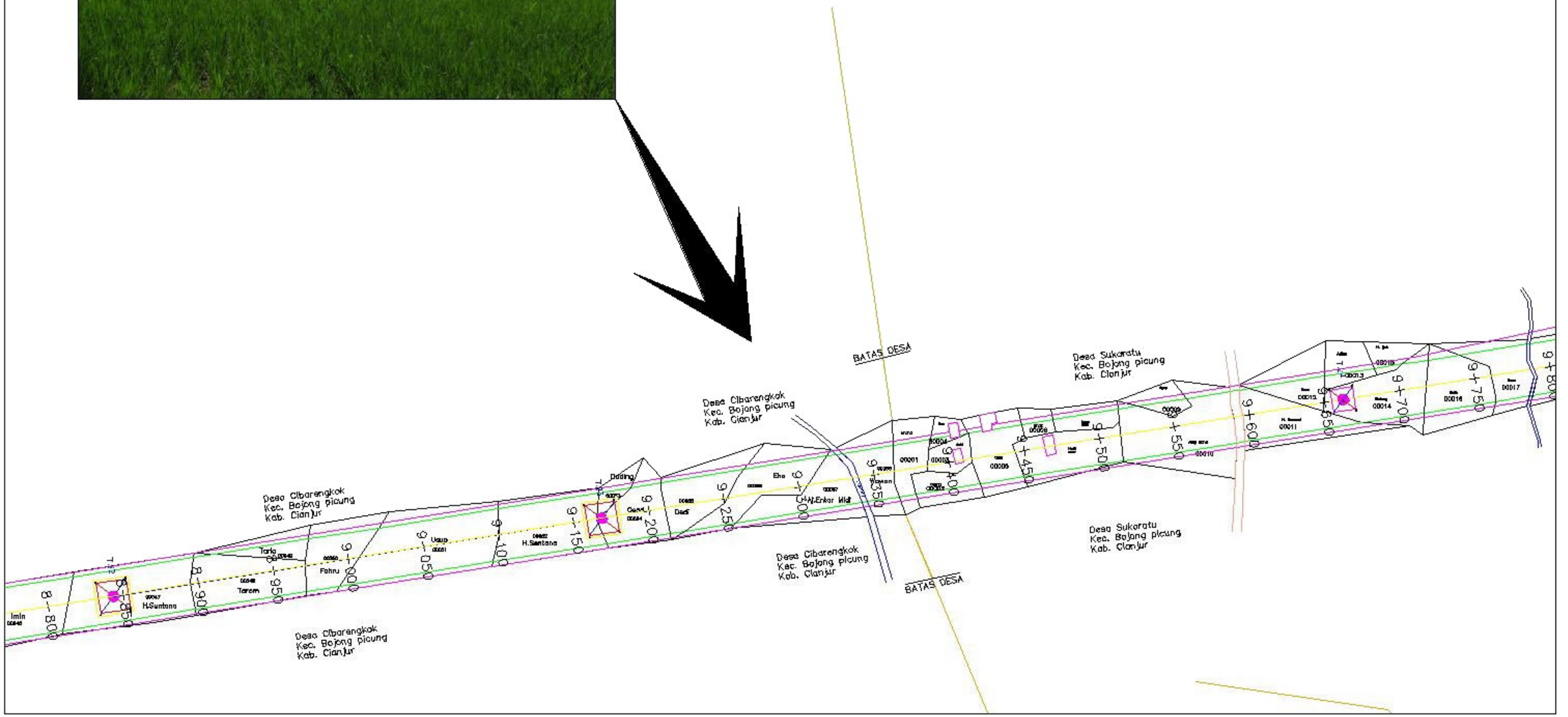


**Desa Jati Sari
Kecamatan Bojong Picung
Transmisi**



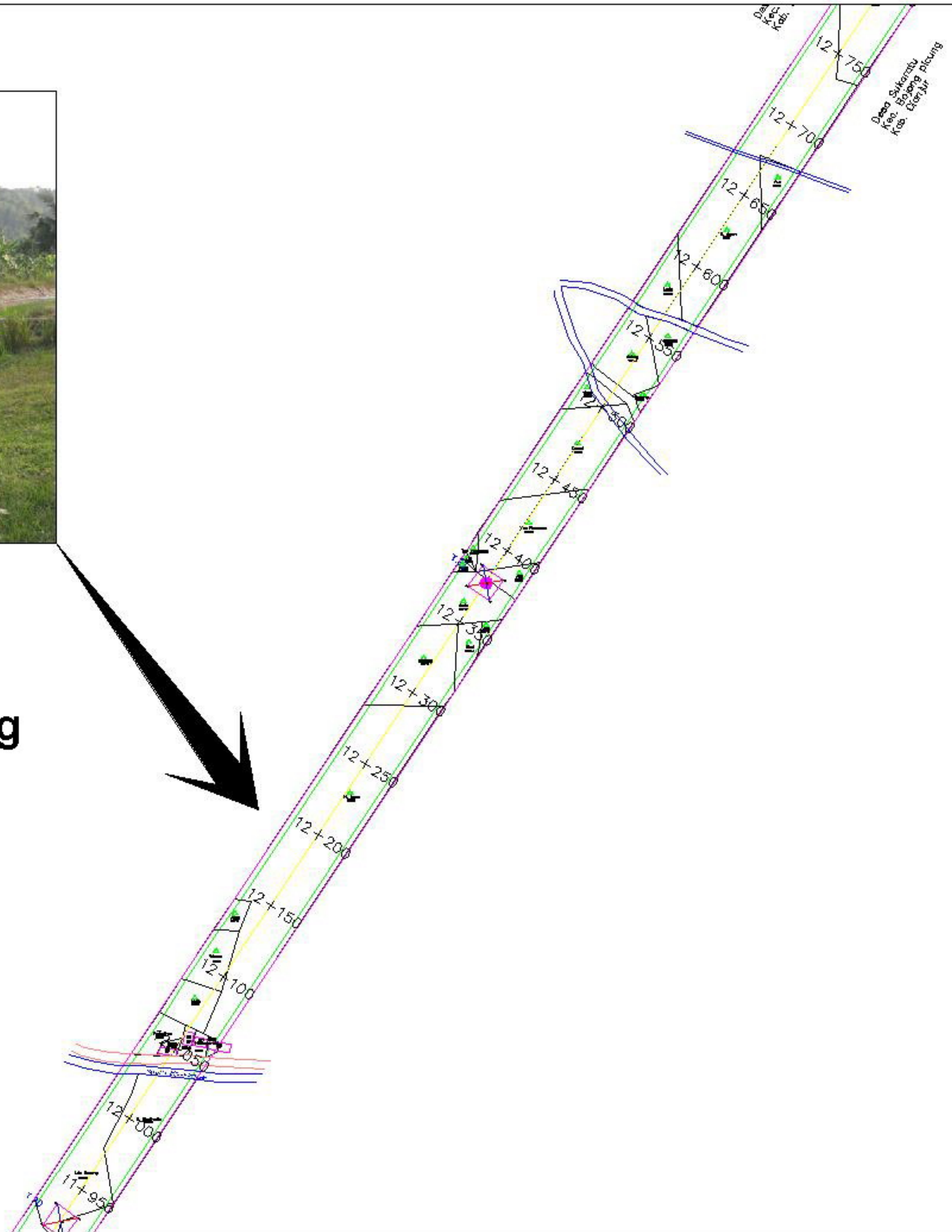


Desa Cibarengkok Kecamatan Bojong Picung Transmisi





**Desa Sukaratu
Kecamatan Bojong Picung
Transmisi**



APPENDIX X

UPPER CISOKAN PUMPED STORAGE PROJECT

REPLACEMENT FOREST LAND ACQUISITION AND LAND FOR RESETTLEMENT SITES PROJECT/SITE SCREENING CRITERIA WORKSHEET

This worksheet is designed to help project safeguard specialists assess potential environmental and social risks and impacts associated with the acquisition of replacement forest land and land for resettlement sites under the Upper Cisokan Pumped Storage Project. The findings can inform the need for additional actions to meet World Bank safeguard policies.

QUICK ASSESSMENT

This quick assessment should be based on existing information and desk review.

No	Criteria	Yes/ No	Description	Comments
Location				
1	Inside or close to a National Park (existing or planned), reserve, or area of high cultural value?			
2	Are there vulnerable or endangered species (terrestrial or aquatic) in the area?			
3	Are there natural habitats in the site?			
4	If there are natural habitats, are they fragile, unique, limited in size?			
5	Are there wetlands, areas of saturated soils (permanent or temporary)?			
6	Do people live on the site?			
7	Are there existing land uses (ranching, farming)?			
8	Are there land title conflicts?			
9	Are there known archaeological, historical or other cultural property (including tombs, cemeteries) ?			

**ASSESSMENT BASED ON WORLD BANK SAFEGUARD POLICY
O.P. 4.04: NATURAL HABITATS**

ENVIRONMENTAL SAFEGUARD SCREENING CRITERIA	APPLIES, YES OR NO (tick ✓)	
O.P. 4.04: Natural Habitats		
<i>Natural habitats are defined as land and water areas where the ecosystems' biological communities are formed largely by native plant and animal species, and human activity has not essentially modified the area's primary ecological functions.</i>		
Is the project located within any National Biological Conservation Areas, (NBCAs), National/Provincial/District Protected Areas (NPAS, PPAs, DPAs)? (If yes, project is excluded)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Is the project located within the buffer zone of any National Biological Conservation Areas, (NBCAs), National/Provincial/District Protected Areas (NPAS, PPAs, DPAs)? (if yes, project is eligible but requires permit)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Will the land acquisition result in significant degradation or conversion of habitats and/or forests in protected areas, proposed protected areas or areas that are considered of special ecological significance?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Based on the above assessment, does OP 4.04 apply?	YES <input type="checkbox"/>	NO <input type="checkbox"/>

ENVIRONMENTAL SAFEGUARD SCREENING CRITERIA	APPLIES, YES OR NO (tick ✓)	
O.P. 4.11: Physical Cultural Resources		
<i>Physical cultural resources include movable or immovable objects, sites, and structures, groups of structures, natural features and landscapes that have archeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance.</i>		
Will the project cause temporary or permanent relocation or any other type of impact on physical cultural resources known to be of local, regional or national significance based on national or Provincial lists, proposed national or Provincial lists and/or identified during public consultation with local affected groups.	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Are any physical cultural resources considered especially important or sensitive particularly to local groups (e.g. gravesites)	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Based on the above screening, does O.P. 4.11 Apply?	YES <input type="checkbox"/>	NO <input type="checkbox"/>

ENVIRONMENTAL SAFEGUARD SCREENING CRITERIA		APPLIES, YES OR NO (tick ✓)	
<p>O.P. 4.12 Involuntary Resettlement</p> <p><i>“Voluntary resettlement” refers to any resettlement not attributable to eminent domain or other forms of land acquisition backed by powers of the state. The operative principles in voluntary resettlement are informed consent and power of choice. “Informed consent” means that the people involved are fully knowledgeable about the project and its implications and consequences and freely agree to participate in the project. “Power of choice” means that the people involved have the option to agree or disagree with the land acquisition, without adverse consequences imposed formally or informally by the state. By definition, power of choice—and thus voluntary resettlement—is only possible if project location is not fixed. The route of a rural road, for example, could be changed if a landowner objected. The area of a reservoir behind a local dam, by contrast, is immutable. The former instance would allow for voluntary resettlement; the latter would not. To have only informed consent is insufficient without the power of choice.(OP 4.12 Sourcebook p.21 on Voluntary Resettlement)</i></p>			
1	Are the people involved fully knowledgeable about the project and its implications and consequences and freely agree to participate in the project?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
2	Do the people involved have the option to agree or disagree with the land acquisition?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
3	Do the people involved understand the adverse consequences imposed formally or informally by the project?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
4	Are replacement forest land acquisition and land for resettlement sites flexible locations?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	Based on the above screening, does these land acquisitions are voluntary resettlements?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
If based on the above screening is not voluntary resettlement, fill the screening criteria table below.			

ENVIRONMENTAL SAFEGUARD SCREENING CRITERIA		APPLIES, YES OR NO (tick ✓)	
O.P. 4.12 Involuntary Resettlement			
<i>Involuntary Resettlement is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts.</i>			
1	Is the land acquisition a willing buyer willing seller situation?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
2	Will any project activity involve restrictions of use on adjoining land?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
3	Is land ownership affected by the project?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
4	Are non-titled persons present (squatters, renters, caretakers)?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
5	Will there be a loss of housing for people living in the land to be acquired?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
6	Will there be a loss of crops, trees, and other fixed assets?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
7	Will there be a loss of incomes and livelihoods?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
8	Will access to facilities, services or resources be lost?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
9	Will there be lost of business or enterprises?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
10	Will any social or economic activities be affected by land use related changes?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
	Based on the above screening, does O.P. 4.12 Apply and is a Resettlement Plan required?	YES <input type="checkbox"/>	NO <input type="checkbox"/>

Overall Safeguard Assessment Does the project need additional assessment/studies in order to meet World bank safeguard policies?	YES	
	NO	

ACTIONS REQUIRED

**ON NATURAL
HABITATS:**

ON RESETTLEMENT:

ON PHYSICAL CULTURAL RESOURCES:

ATTACHMENTS

Attach Terms of Reference for each safeguard action.

SCREENERS:

Date:

To be completed if OP 4.12 triggered

Site location : (address/village/district)
 Expected Relocation date : (month, year)
 Project Staff Person in Charge of Relocation :
 Preparation Date :

Attach proof of willing seller land purchase (copy of purchase receipt)

(Signature & Stamp)

B. STATUS SUMMARY FOR LAND AND PHYSICAL ASSET REQUIRING RELOCATION/REMOVAL

Description	Data	Notes
1. Land being acquired		
a. Total Area of land purchased	m2 or ha	
b. land owners whose land are being acquired	Names of owners	
c. Land occupancy/ownership status of each plot :	Names of occupants	Correspond to section C
2. Physical assets affected (for each occupant above)		
a. List of physical assets affected & Occupier name	b. Condition & size	c. Assistance/compensation eligibility
3. Plants and other assets affected (for occupant named above)		
a. number of plants & other assets affected	b. names of plant owners	c. value for each
4. Other impacts (as needed)		

C. LIST OF PEOPLE AND ASSETS TO BE AFFECTED (to be filled in for each household named in B2 or B3 above)

Census & Consultation Dates :.....
 HH's Name :.....
 Number of family members :.....

Condition	Data	Notes
Main job		
Average income/month		
Residential Address		
Job Address		
Options of assistance/compensation (selected from LARAP Table 4.1)		
- Describe types of assistance/compensation chosen		(location)
Physical Assets affected by the project		
- Size of building owned	m2	
- Ownership status		
- Usage/utilization of building		
- Building condition & Size		
- Compensation/assistance to be provided		
Plants and other assets to be affected by the project		
- Type & number of plants to be affected		
- Assistance/Compensation		
- Type and number of other assets affected by the project		
- Assistance/compensation to replace other assets		

D. SUMMARY ACTION PLAN FOR LAND ACQUISITION AND RESETTLEMENT

1. Summary of assistance/compensation to residents affected by the project

Forms of Assistance/Compensation (selected from LARAP Table 4.1)	Total Amount	Location	Notes
			Certification by person in charge to administer

2. Implementation Schedule, Budget & Responsibility (Progress steps suitably adjusted to activities to be executed)

Activity	Person in Charge	Schedule	Funds needed (Rp)	Source of Fund
1. Briefing & information to residents				
2. Determine form & amount of assistance/compensation				
3. Provide assistance/compensation				
4. Relocating resident				
5. Structure demolition (if any)				
6. Complaint handling and follow up				
7. Monitoring and evaluation				
8. Completion report & site handover				

Appendix 11

PLN PROJECT IMPLEMENTATION UNIT (PIU)

CAPACITY BUILDING FOR INSTITUTION OF LAND ACQUISITION AND RESETTLEMENT ACTIVITY

Trainer	Training Scope	Purpose/Objective	Training Material	Trainees/Audience	Schedule & Budget
<ul style="list-style-type: none"> • University • NGO • Head of sub-district • Planning Agency 	Resettlement and Rehabilitation Management	<ul style="list-style-type: none"> • Understanding the LARAP • Managing the resettlement program on housing colony and self relocation • Managing the rehabilitation and economic restoration program on housing colony and self relocation 	<ul style="list-style-type: none"> • LARAP • Feasibility study of Resettlement plan • Project time schedule 	<ul style="list-style-type: none"> • PIU Manager/ Section Head/ Supervisors • Resettlement Implementation Team (RIT) 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost
<ul style="list-style-type: none"> • University • NGO • Local leader • Head of village 	Grievances Handling and Redress Mechanism	<ul style="list-style-type: none"> • Understanding the LARAP • Handling and redressing the grievances from PAPs • Communicating the mitigating measures to other parties 	<ul style="list-style-type: none"> • LARAP • EMP • The work mechanism of grievance handling • The grievance redress procedure • Project time schedule • Project works interaction 	<ul style="list-style-type: none"> • Grievances Task Force • Resettlement Implementation Team (RIT) 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost
<ul style="list-style-type: none"> • University • IMA 	Data Management	<ul style="list-style-type: none"> • Understanding the LARAP • Collecting, inputting and housekeeping of data • Data analyzing and reporting 	<ul style="list-style-type: none"> • Database of PAPs • Format for monitoring task (LARAP Table 6.2 – 6.8) • Computers 	<ul style="list-style-type: none"> • Data Management Officers • Resettlement Implementation Team (RIT) 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost
<ul style="list-style-type: none"> • University • NGO • Consulting Engineer 	Relocation Site Development	<ul style="list-style-type: none"> • Understanding the LARAP • Planning and design of relocation site • Supervising the development of relocation site • Developing of the relocation site • Supervising the Relocation of PAPs to relocation site 	<ul style="list-style-type: none"> • LARAP • Feasibility study of Resettlement plan • Project time schedule 	<ul style="list-style-type: none"> • Resettlement and Compensation Officers • Resettlement Policy Formulating Team (RPFT) 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost

Trainer	Training Scope	Purpose/Objective	Training Material	Trainees/Audience	Schedule & Budget
<ul style="list-style-type: none"> • University • NGO • Local leader • Head of village • Agricultural agency • Livestock agency • Small business and cooperation agency 	Livelihood Restoration Management	<ul style="list-style-type: none"> • Understanding the LARAP • Enhancing the PAPs income • Coaching the income restoration • Socio-economic of income restoration • Socio culture of PAP 	<ul style="list-style-type: none"> • LARAP • Feasibility study of Resettlement plan • Project time schedule • Module package of: <ul style="list-style-type: none"> - Animal husbandry - Agriculture - Post harvest - Marketing - Small business 	<ul style="list-style-type: none"> • Livelihood Restoration Task Force • Resettlement Implementation Team (RIT) 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost
<ul style="list-style-type: none"> • University • NGO • IMA 	Monitoring and Evaluation	<ul style="list-style-type: none"> • Understanding the LARAP • Understanding the benchmark of livelihood restoration • Understanding the monitoring indicator • Data gathering and sampling method • Data analyzing, evaluating and reporting 	<ul style="list-style-type: none"> • Database of PAPs • Format for monitoring task (LARAP Table 6.2 – 6.8) • Eligibility and entitlement policies 	<ul style="list-style-type: none"> • Monitoring and Evaluation Officers 	<ul style="list-style-type: none"> • Prior to the executing of compensation payment and resettlement plan • Budget included in the LARAP's cost

Appendix 12
JOB DESCRIPTION OF PLN PIU UPPER CISOKAN PROJECT
IN RELATION WITH RESETTLEMENT & COMPENSATION

NO	MANAGER/OFFICER	JOB DESCRIPTION
A	PIU Upper Cisokan Project (1)	<ul style="list-style-type: none"> • Manage and control Upper Cisokan Project implementation • Conduct coordination with the consultants, contractors, and related agencies of Upper Cisokan Project • Prepare project progress report regularly • Prepare and manage Project documents including administration, billing administration, document bookkeeping
B	Resettlement & Compensation Manager (2)	<ul style="list-style-type: none"> • Manage and control LARAP's implementation • Conduct coordination with the consultant, contractor, and agencies in relation with Resettlement & Compensation (RIT & RFPT) • Prepare Resettlement & Compensation progress report regularly • Prepare and manage Resettlement & Compensation administration, billing administration, document bookkeeping
1	General Services (3)	<ul style="list-style-type: none"> • Manage the project for handling general administrative and human-related aspects in the implementation of compensation and resettlement.
2	Legal Counseling (4)	<ul style="list-style-type: none"> • Conduct Legal Counseling in various matters associated with legal aspects in relation with the implementation of compensation and resettlement.
3	External Compliance Monitoring (5)	<ul style="list-style-type: none"> • Manage the External Compliance. • Conduct coordination with External Compliance agency and Independent Monitoring Agency (IMA) • Conduct coordination with the Grievance Task Force. • Manage the incompliance mitigation measures
4	Mediating Committee (6)	<ul style="list-style-type: none"> • Conduct Mediating services for PAP regarding the problem of Resettlement & Compensation • Prepare and coordinate to seek the problem solution submitted by the PAP
5	Financial Auditing (7)	<ul style="list-style-type: none"> • Manage the Financial Auditing conducted by certified public accountant • Conduct coordination with Financial auditor • Manage the financial incompliance and problem solving • Conduct coordination with finance and bookkeeping
6	Grievance Officer (8)	<ul style="list-style-type: none"> • Conduct coordination with the Grievance Task Force to redress any grievances related with project implementation • Conduct monitoring and evaluation in handling grievance related the aspects with: <ul style="list-style-type: none"> ✓ Cases of Land Acquisition referred to court, pending and settled

		<ul style="list-style-type: none"> ✓ Number of grievance meetings ✓ Number of village level meetings ✓ Number of field visits by PLN/RIT/RPFT officers on Resettlement and Rehabilitation ✓ Number of cases disposed by PLN/RIT/RPFT officers on Resettlement and Rehabilitation to the satisfaction of PAPs.
6.1	Grievance Task Force (9)	<ul style="list-style-type: none"> • Receive and administer all grievance documents from PAP • Redress any grievances related with project implementation • Facilitate the advocating of the grievance • Coordinate with relevant institution to redress the grievance
7	Census/Survey/ Data Management (10)	<ul style="list-style-type: none"> • Conduct and coordinate the Collecting data • Manage the housekeeping of data Resettlement & Compensation • Conduct Analyzing and reporting of data required by LARAP such as: <ul style="list-style-type: none"> ✓ Categorization of PAP (Vulnerable and severely people, Joining family etc) ✓ The asset ownership of PAP ✓ The PAP who has to relocate ✓ Social facility and infrastructure required
7.1	Land Acquisition, Independent Appraisal (11)	<ul style="list-style-type: none"> • Conduct coordination with Independent Appraisal of Land Acquisition • Manage the contract matter with Independent Appraisal consultant • Manage the housekeeping and analyze of data received from Independent Appraisal consultant
8	Resettlement Site Development & Construction (12)	<ul style="list-style-type: none"> • Manage the planning and implementation of resettlement site development & construction • Supervise the development & construction works • Conduct coordination with PAPs and stake holders in relation with resettlement site development & construction • Prepare progress report concerning with the resettlement site development and construction
8.1	Design/Planning/ Architecture (13)	<ul style="list-style-type: none"> • Manage the planning and design of resettlement site • Conduct socialization to PAP concerning planning and design of house, site plan and infrastructure on the site plan
8.1.1	Consultant (14)	<ul style="list-style-type: none"> • Conduct the counter-parting with the consultant planning and design of resettlement site • Conduct the monitoring of consultant works • Conduct the review of report submitted by the consultant
8.2	Construction Supervision (15)	<ul style="list-style-type: none"> • Supervise the construction conducted by the contractor • Conduct the inspection of contractor's construction equipment, results of material and soil tests, works safety, property and personnel. • Establish efficient procedures for verifying contractor performance and reporting progress and problems in a timely

		manner, including quality control reports, quantity survey records, requests for variation or change orders, and contractor's claims and invoices
8.2.1	Construction Contractor (16)	<ul style="list-style-type: none"> • Conduct the Implementation of construction work according to the rules and specification that have been planned and specified in the contract • Make the progress report regularly • Implement the maintenance of construction until the agreed time limit.
8.3	Environmental Monitoring of Construction (17)	<ul style="list-style-type: none"> • Conduct the environmental impact monitoring during the construction phase • Make regular report related with the implementation of RKL RPL and the implementation of EMP and EIA
9	Post Resettlement/ Livelihood Restoration/ Vulnerable (18)	<ul style="list-style-type: none"> • Conduct the coordination with University, NGO, small economic enterprises agency, agricultural agencies, livestock agencies and social service agencies in performing the resettlement program. • Conduct Socialization of proposed resettlement program to PAP and receive feedback for improvement. • Make the strategy and parameter for successful achievement of the resettlement implemented program. • Conduct the capacity building concerning Resettlement/ Livelihood Restoration • Manage the Starting Micro Business Packages: <ul style="list-style-type: none"> ✓ Livestock Package ✓ Farming Associated Business Package ✓ Small Shop Package • Conduct the coordination with IMA to implement the mitigation measures in the less successful area.
9.1	Livelihood Restoration (19)	<ul style="list-style-type: none"> • Create the capacity building program for PAP in cooperation with several institution, as follows: <ul style="list-style-type: none"> ✓ Agricultural training station, to conduct training in relation with agriculture intensification, diversified land-based activities. ✓ Small Economic Enterprise Agency to conduct training in relation with Business/ Marketing Incubation, training of production and processing techniques and facilitating micro business development ✓ Livestock agency to conduct training in relation with of animal husbandry technique • Manage integrating and prioritizing livelihood restoration program into Government Programs on increasing small scale economic programs (UKM/small enterprises programs). • Conduct the socialization of resettlement program proposed to PAP and absorb the feedback to improve the program • Implement coaching the livelihood restoration program
9.1.1	Livelihood Restoration	<ul style="list-style-type: none"> • Elaborate livelihood restoration program mentioned in LARAP

	Programs (20)	<p>to further detail</p> <ul style="list-style-type: none"> • Propose the detailed livelihood restoration program
9.2	Business Resettlement(21)	<ul style="list-style-type: none"> • Develop resettlement business program in cooperation with Small Economic Enterprise Agency including: <ul style="list-style-type: none"> ✓ Facilitate the relating agency in providing training of post harvest and livestock management. ✓ Facilitate the PAP in marketing their product ✓ Facilitate the PAP in developing of counter-parting with investor to augment the business capital for production, marketing, etc
9.3	Supervisor (22)	<ul style="list-style-type: none"> • Supervise the implementation of livelihood restoration and business resettlement • Conduct coaching in implementation of livelihood restoration and business resettlement
9.3.1	Vulnerable People Assistance Programs (23)	<ul style="list-style-type: none"> • Manage the assistance program given to vulnerable PAP, i.e. <ul style="list-style-type: none"> ✓ Assistance given to other PAPs such as capacity building and starting micro business packages ✓ assistance in acquiring certificate service, ✓ assistance in moving service to new settlement site
10	Monitoring & Evaluation (24)	<ul style="list-style-type: none"> • Conduct monitoring of infrastructure and other facilities in resettlement site • Conduct Monitoring of economic restoration and livelihood restoration of PAP • Coordinate the implementation of regular monitoring of Maintenance at Resettlement Site and Socio-Economic & Livelihood Restoration
10.1	Infrastructure monitoring at Resettlement Site & housing area (25)	<ul style="list-style-type: none"> • Conduct monitoring concerning the living condition of PAP in the resettlement location. • The aspects to be monitored are: <ul style="list-style-type: none"> ✓ Shelter condition ✓ Family Infrastructure access (clean water, sanitation facilities, electricity) ✓ Public Services access (road, market, education facility, praying facility) • Prepare monitoring report regularly
10.2	Socio-Economic and Livelihood Restoration Monitoring (26)	<ul style="list-style-type: none"> • Conduct monitoring concerning Socio-Economic and Livelihood Restoration program. • The aspects to be monitored are: <ul style="list-style-type: none"> ✓ Family Utilization of compensation ✓ family income of displaced PAP ✓ Replacement of lost assets with assets of comparable value ✓ Number of business re-established • Conduct monitoring concerning socio-economic condition of vulnerable and severely people • Prepare monitoring report regularly

Note: The number in bracket indicate the number mentioned in figure 6-5.

Appendix 13. Matrix of Public Consultation that has already been done

LARAP of Upper Cisokan Pumped Storage HEPP

No	Theme	When	Where	Who & how many people participated	Key issues raised during the consultation	How these issues were addressed in the revised documents
1	Resettlement plan for existing road	23 October 2008	Sub-District office of Cipongkor	47 participants: <ul style="list-style-type: none"> • Sub-District Officials • Board of Sub-district leaders • Village Officials • Community Leader and representative of the PAPs 	<ol style="list-style-type: none"> 1. Compensation for their buildings/assets along the RoW in the existing road. 2. How local people can have opportunity to work in project construction. 	<ol style="list-style-type: none"> 1. Ch. 4 table 4.1 the project will provide compensation for their assets (after loan agreement) 2. Accommodated in the EMP: The construction labour will be recruited from local villages to construct and maintain the sections of road near their respective villages in accordance with the construction labour capability.
2	Resettlement plan for existing road	23 October 2008	Village office of Sarinagen.	77 participants: <ul style="list-style-type: none"> • PLN Generation and Transmission of West Java, • LPPM UNPAD • District Officials • Sub-District officials • Village officials • Informal Leaders, and • Representative of PAPs 	Compensation for their buildings asset along the RoW of the existing road	Ch. 4 table 4.1 the project will provide compensation for their asset (after signing of loan agreement)
3	Resettlement plan for new road	25 October 2008.	Village office of Cijambu, Cibitung, Sukaresmi	42 participants: <ul style="list-style-type: none"> • PLN Generation and Transmission of West Java, • LPPM UNPAD 	<ol style="list-style-type: none"> 1. Transparency on payment 2. Administration cost for land certificate of the remaining 	<ol style="list-style-type: none"> 1. Direct payment through bank account. 2. Administration cost is part of

No	Theme	When	Where	Who & how many people participated	Key issues raised during the consultation	How these issues were addressed in the revised documents
				<ul style="list-style-type: none"> • Sub-District Officials • Sub-District Leaders • Village Officials • Informal Leader, and • Representative of the community who area affected by the Project. 	<p>land.</p> <p>3. Compensation for private grave/cemetery.</p>	<p>assistance covered by the project.</p> <p>3. Covered in the EMP that the project will provide compensation to the private graves.</p>
4	Resettlement plan for transmission line and tower	30 August 2009	Subdistrict office of Haurwangi, Cianjur District.	<p>75 participants:</p> <ul style="list-style-type: none"> •Representative of 11 villages • PLN Generation and Transmission of West Java, • LPPM UNPAD • Sub-District officials • Sub-District Officials • Village Officials • Community Informal Leaders and • PAs of the transmission line project • PAs of the Tower project •Representative of women group • Community leaders 	<p>1. Transparency on payment.</p> <p>2. More information on negative impacts on health from transmission lines</p> <p>3. Incentive for ROW of transmission lines is too small (10% of NJOP).</p> <p>4. Grievance redress handling unit located at the closest to PAP's location.</p>	<p>1. Direct payment through bank account.</p> <p>2. Covered in the EMP section III Operation Stage about mitigation measure.</p> <p>3. To be considered in Loan Agreement (10% of market price).</p> <p>4. Ch 6 point 6.1.4 of LARAP on Grievance redress handling</p>
5	Resettlement plan for lower dam	8 October 2009	Karangnunggal Village office, Sub District Cibeber, Cianjur	<p>71 participants:</p> <ul style="list-style-type: none"> • PLN Generation and Transmission of West Java, • LPPM UNPAD • Sub-District officials • Sub-District Officials • Village Officials • Informal Leaders •Representative of PAs •Representative of tenants in the forestry area 	<p>1. Market price requested by PAP for all affected asset and their livelihood.</p> <p>2. Transparency on payment.</p> <p>3. Accessibility in the new sites and rehabilitation assistance to restore the livelihood</p>	<p>1. Licensed appraiser will asses affected assets assessed by refers to the replacement cost as described in the independent appraisal TOR.</p> <p>2. Direct payment through bank account.</p> <p>3. New location will be as close</p>

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				<ul style="list-style-type: none"> • Representative of women group 	<ol style="list-style-type: none"> 4. More consultation with the PAP on value and options of compensation. 5. Sharecroppers/tenants will lose income from cultivating forestry land. 6. Women participation on land acquisition process. 	<p>as possible from their previous village. Public utilities and infrastructure will be provided in the new location. Rehabilitation assistance will be considered as PAPs need</p> <ol style="list-style-type: none"> 4. PLN will work closely with the LAC during land acquisition process 5. Rehabilitation assistance for such PAPs. 6. Covered in Gender mainstream strategy (appendix 4) ch. 6 of LARAPs.
6	Resettlement plan for lower dam	9 October 2009	sub district Campaka office, District Cianjur,	<p>45 participants:</p> <ul style="list-style-type: none"> • PLN Generation and Transmission of West Java, • LPPM UNPAD • Sub-District officials • Sub-District officials • Village Officials • Community Informal Leaders and • Representative of PAPs • Representative of tenants in the forestry area • Representative of women group 	<ol style="list-style-type: none"> 1. Market price requested by PAP for all affected asset and their livelihood. 2. How the physically displaced people will move to new site 3. Women's question: public school for their children 4. More information on facilities and utilities in new sites. 	<ol style="list-style-type: none"> 1. TOR of valuation for affected assets by licensed appraiser refers to cost approach (without depreciation) and market price. 2. PLN will provide resettlement assistance 3. PLN will rebuild the affected school and/or may build new school in the new site. 4. Consultation and discussion as described in ch. 5 of LARAP and Appendix 5

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7	Project development plan	11 Nov 2009	PLN Project Prokitring West Java office, Bandung	Relevant institutions from: West Java Province , West Bandung District and Cianjur District	How to synergize objectives of the project with the regional government programs.	Accommodated in LARAP documents.
8	Socialization of UCPS Project and implementation of CSR Program (donation for schools and mosques renovation)	11 February 2010	Pondok Pesantren Pusaka Baru at Sirnagalih village, Cipongkor sub-district, West Bandung district.	<ul style="list-style-type: none"> - Bupati of West Bandung district - Head of Sirnagalih village - Head of Cipongkor sub-district - Principals of Sirnagalih and Cipari elementary school - Community leaders 		
9	Socialization of UCPS Project and implementation of CSR Program (donation for schools and mosques renovation)	19 March 2010	Karangnunggal village office, Cianjur District	<ul style="list-style-type: none"> - Bupati of Cianjur district - Head of Karangnunggal village - Head of Cibeber sub-district - Principals of Cisero and BinaWarga elementary school - Community leaders - 		
10	Socialization of UCPS Project	25 May 2010	NGO office, Bandung (Dewan Pemerhati Kehutanan dan Lingkungan Tatar Sunda)	Members of DPKLTS	Land substitution for land forest to be in the Cisokan catchment area	Study on location for land substitution (December 2010 to March 2011)
11	Dissemination of information for	7 August 2010	West Java Governor	Governor, Director of PLN, Provincial Official Officers from Dinas	Governor is waiting for BPN' decision regarding with	Project delayed

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	Upper Cisokan Project		Official House	Kehutanan, Perum Perhutani, BPN	determination of location	
12	Upper Cisokan Hydro Power Pumped Storage Development Plan	23-26 September 2010	Jakarta Convention Center on Indonesia Business – BUMN Expo and Conference (IBBEX)	- Public		Advantages of hydro power pumped storage power plant compare to conventional hydro power
13	Hydro Power Pumped Storage Technology	21 October 2010	Institute of Technology Surabaya	- Prof. Roman Klasinc from Austria - ITS Students - ITS Lecturers - Department of Public Works of East Java		Project preparation and description
14	Resettlement plan for existing road	24 Oct 2010	Rongga sub-district office, West Bandung District	54 participants: sub-district officials, subdistrict officials, village officials, informal leaders (religious, community, youth); representatives of PAPs subdistrict	<ol style="list-style-type: none"> 1. Value of compensation refers to the market price. 2. Relocation site: 1. Move by them-selves. 2. Follow PLN's program. 3. PAPs want to know precise time on construction of the Upper Cisokan Pumped Storage Project because they have uncertainly waited since 1989. 4. Transparency of inventory for affected people and asset. 	<ol style="list-style-type: none"> 1. Value of compensation will be carried out by Independent appraisal. 2. This aspiration is covered in options of resettlement. 3. PLN has target to start this project in 2011 4. Public announcement and grievance redress resolution.
15	Coordination for land acquisition plan	23 December 2010	Le Aries Hotel, Bandung	- West Bandung Bappeda	1. Recent status of project location determination	1. Waiting for BPN's decision.

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				<ul style="list-style-type: none"> - District secretary - Official officers: Dinas Kehutanan, Perum Perhutani, BPN, Subdistricts 	2. Implementation of OP 4.12	2. Loan Agreement as legal basis for land acquisition implementation
16	Coordination for land acquisition plan	13 January 2011	Cianjur PLN office	<ul style="list-style-type: none"> - Cianjur Bappeda - District secretary - Official officers: Dinas Kehutanan, Perum Perhutani, BPN, Subdistricts 	<ol style="list-style-type: none"> 1. Recent status of project location determination 2. Implementation of OP 4.12 	<ol style="list-style-type: none"> 1. Waiting for BPN's decision. 2. Loan Agreement as legal basis for carrying out the land acquisition
17	Options on relocation sites	31 January 2011 (Access Road) and 13-14 February 2011 (Lower Reservoir). 6 February 2011	Along access road row and along lower reservoir footprint Cimarel Elementary School, Cimarel Hamlet, Sukaresmi Village, Rongga sub-district, West Bandung District	<p>Participants from PAPs who are affected the access road and lower reservoir</p> <p>131 participants from PAPs who are living in the village of Tapos, Cimarel, Cipateungteung, Lembur Panjang, Lembur Sawah, Campaka, Cimanggu, Cibenda, Cilengkong, Gasintu, Cibima, Cipedes, Cilawang Hamlets and officials government from Sukaresmi village office</p>	<ol style="list-style-type: none"> 1. Replacement for land belongs of the forestry land that occupied by PAPs 2. Is the land without land certificate get the same compensation which are certified 3. NJOP can't be used anymore because market price is higher than NJOP (10 times) 4. Replacement for social/public facilities 5. Continuation school/education for children who moved their family 6. Is land and house free or paid? 7. People want to move by themselves 	<ol style="list-style-type: none"> 1. Tabel 4.1 (entitlement PAPs) provides assistance for this group 2. Get the same compensation but not the same value 3. The value of affected assets carried out by licensed appraiser based on market price/cost approach. 4. PLN will provide social/public facilities 5. PLN consider it and cover in the LARAP. 6. It must be paid by PAP from compensation on PAPs' affected assets 7. PLN gives a freedom to PAPs to choose the option as they need
18	Coordination for land acquisition	9 February 2011	West Java Province Office	- Assistance of Province Secretaries	Recent status of project location determination	1. Waiting for BPN's decision.

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	plan			<ul style="list-style-type: none"> - Officials from West Java Province Office Official officers: Dinas Kehutanan, BPPT, BPN Province		<ol style="list-style-type: none"> 2. Legal division from West Java Province Office will review PLN's status as government entity.
19	Project information	17 February 2011	Sub-District of Rongga Office, West Bandung District	<ul style="list-style-type: none"> - Assistance of District Secretaries - Head commission of DPRD Commission C Official officers: district, sub-district Rongga, DPRD Commission C (local parliament).	<ol style="list-style-type: none"> 1. Environmental issues and renewing coordination agreement between district and PLN. Such as Cisokan project should not create giant septic tank like Saguling (disposal water from Bandung city enters to Saguling) 2. Farm labour/tenants/ sharecropper should be considered for compensation on their assets 	<ol style="list-style-type: none"> 1. PLN has allocated budget for coordination and developing infrastructures in West Bandung district. Cisokan not accommodate waste water from outside and banned for fishing and farming activity due to safety reason. 2. LARAP has covered this
20	Project impact on environmental and social impact and its mitigation.	23 February 2011	Horison Hotel Bandung	86 participants from: <ul style="list-style-type: none"> - Universities: ITB, UNPAD, UPI - NGOs - Local medias - West Bandung District - Cianjur District - West Java Province - DPRD 	<ol style="list-style-type: none"> 1. Before the inundation needs properly information to the community nearby. 2. Biodiversity and other environmental impact 3. Recent status of project 4. Monitoring and evaluation during and post implementation 5. Many neighbourhoods nearby PLN's project do not get electricity supply. 	<ol style="list-style-type: none"> 1. It has been planned in the EMP 2. It has been paid attention on the mitigation plan as part of the EMP 3. Waiting for location determination by governor 4. It has been covered in the LARAP. External monitoring will be carried out by independent and PLN for internal monitoring

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					<p>6. Right of the people who are living on the forest land for long period from generation to generation without any sanction/warning from the forestry depart.</p> <p>7. Cultural property and local wisdom should be considered</p> <p>8. After completion of construction, i) cashew and banyan trees suitable for conservation in quarry area; ii) palm and cashew trees suitable for cultivation in the greenbelt of upper and lower reservoirs</p>	<p>5. It has been considered by PLN and PLN will supply electricity to the affected villages</p> <p>6. PLN has paid attention for their livelihood and they are eligible for compensation on their assets other than land and for assistance as described in table 4.1, LARAPs</p> <p>7. PLN provides compensation either on private or communal/village cemetery. Consultation is very important to hear/adopt local wisdom in the implementation of LARAP.</p> <p>8. Good input and PLN will consider it.</p>
21	<p>i) Options on livelihood restoration and capacity building program; ii) Environment and iii) Hotline for PAPs to PLN at 0819 1046 9060 for any questions/request information</p>	1 March 2011	<p>Cijambu Village office, Cipongkor Sub-District, West Bandung for PAP who are affected the access road</p> <p>Sukaesmi village office, Rongga Sub-District, West Bandung district for PAP who are</p>	<p>40 participants from PAPs who are affected from the access road.</p> <p>34 participants from PAPs who are affected the upper reservoir.</p>	<p>1. Livestock package for lambs is better than poultries due to avian flu risk</p> <p>2. Aid for seedlings for paddies (bibit unggul)</p> <p>3. Participants/PAPs who own farmland hope to buy new farmland</p> <p>4. Training for prevention of poultry diseases and its treatment.</p> <p>5. Training for prevention of plant pests and its treatment</p>	<p>1. Good input. The community can select package options as needs and local conditions.</p> <p>2. PLN will consider</p> <p>3. It is good to sustain the livelihood</p> <p>4. PLN will consider</p> <p>5. PLN will consider</p> <p>6. PAPs should inform their moving/new address to the project field office (posko proyek)</p> <p>7. PLN has considered about it</p>

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			affected the upper reservoir		<ul style="list-style-type: none"> 6. How the PAP knows about the training package if they move by themselves 7. Accessibility for new location either provided by the PLN or chosen by themselves 8. Replacement for land belongs to forestry land that occupied by PAPs 9. Participants/PAPs prefer to move to the same village by themselves. 10. Aid for seedling for coffee and coconut and training to maintain the plants to get a good harvest 11. How to pay for land and house provided by PLN? cash, credit? 12. Why can't the community have activity close to reservoir 13. Training for organic fertilizer since chemicals to far away and costly 	<ul style="list-style-type: none"> 8. PLN has considered about it in the LARAP 9. PAP can decide their option 10. PLN will consider 11. PLN will explain these scheme during implementation 12. Due to fluctuations in water levels fluctuate dam and slide risk 13. PLN will consider
22		4 March 2011	Margaluyu village office, sub-district Cibeber, Cianjur District for PAP who are	110 participants from PAPs who are affected the lower reservoir.		

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			affected the lower reservoir			
23	Consolidation meeting in preparation of Land Acquisition Implementation with the Provincial Government	8 March 2011 09.00	PLN Bandung Office	27 Officials from Provincial Government	<ol style="list-style-type: none"> 1. - PLN President Director has followed up BPN's letter with sending a letter to Ministry of Energy and Mineral Resources (MEMR) regarding land acquisition process. 2. - New BPN regulation no 2 of 2011 concerning on technical consideration on land services 3. - Gap between Indonesian laws/regulations with the WB policy 	<ol style="list-style-type: none"> 1. - Provincial Government will invite MEMR to discuss land acquisition process 2. - PLN will follow the new guidelines 3. - Indonesian laws/ regulations and the World Bank Policy will complement each other and they will be included in the loan agreement as legal basis in land acquisition implementation. 4. - Coordination and synchronization between PLN and related governmental agencies is needed to implement the LARAPs.
24	Consolidation meeting in preparation of Land Acquisition Implementation with the Local People's	8 March 2011 16.00	PLN Bandung Office	16 Officials from DPRD Commission A (West Bandung)	<ol style="list-style-type: none"> 1. - The WB was being questioned on how serious the Bank in financing the project since there has been reports from local newspaper that the Bank hesitant in financing the 	<ol style="list-style-type: none"> 1. - The Bank said that the headline was written in Galamedia Online dated March 3, 2011 is factually incorrect. Any questions regarding the project should be asked directly to PLN or the

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	Representative Council (DPRD) Commission A				<p>project due to delayed location determination</p> <p>2. - The project should provide economic benefits to the local community</p>	<p>WB.</p> <p>2. - The main project including new access road development will provide direct and indirect economic impacts to the districts as well as local community. Negative impact on social and environmental mitigation have been identified and planned well in the LARAPs.</p>