

ASSAM ELECTRICITY GRID CORPORATION LIMITED



RESETTLEMENT PLAN

TRANSMISSION LINE - 132 kV Double Circuit LILO at Rupai from 132 kV Double Circuit Tinsukia – Margherita line



ASSAM POWER SECTOR ENHANCEMENT PROJECT

List of Acronyms

ADB	Asian Development Bank
AEGCL	Assam State Electricity Grid Corporation Ltd
APs	Affected Persons
ASEB	Assam State Electricity Board
DC	Deputy Commissioner
DDP	Desert Development Program
DSM	Demand Side Management
EA	Executing Agency
ESMU	Environment and Social Management Unit
FGD	Focus Group Discussions
GOA	Government of Assam
GOI	Government of India
GRC	Grievance Redress Committee
IA	Implementing Agency
INRM	India Resident Mission
Kms	Kilometres
LAA	Land Acquisition Act 1894, as amended in 1984
LAO	Land Acquisition Officer
M&E	Monitoring and Evaluation
MFF	Multi-Tranche Financing Facility
MRM	Management Review Meeting
NGOs	Non-Government Organizations
NRRP	National Rehabilitation and Resettlement Policy, 2007
PMU	Project Management Unit
RF	Resettlement Framework
RP	Resettlement Plan
SCs	Scheduled Castes
SIA	Social Impact Assessment
STs	Scheduled Tribes



A. Overview and Project Description

The North Eastern region comprises eight states namely, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. The total geographical area of the region is 2,62,179 sq. km. which is nearly 8% of the total area of the country. In terms of population, the region has 39 million which is approximately 3.8 % of the total population. The region, though rich in natural resources, remains one of the most economically backward regions in the country. The overall growth rate in the region has remained low over the past and has been characterised by lack of infrastructure facilities and basic amenities. The per capita income in the region in the year 2001 was Rs. 6,625 which was much below the national average of Rs. 10,254. More than 34.3% people in the region are living below poverty line (BPL) – a figure that is higher than the national average of 26.1%.

The Government of India (GOI) and Government of Assam have requested Asian Development Bank (ADB) to provide \$200 million in loan funding via a multi-tranche financing facility (MFF) to support continued investment in the state power sector, especially for transmission and distribution system expansion and up-gradation. The Assam State Electricity Board is the GOA coordinating agency for MFF. GOA and ASEB will be the Executing Agencies for the MFF. The power sector investments are necessary to (i) facilitate increased power transfers to accommodate increased demand and economic growth; (ii) improve supply sided energy efficiency by system de-bottlenecking and reducing technical losses; (iii) reduce the intensity of greenhouse gases (GHG) and other emission via improved system efficiency; (iv) support expanded private sector participation in distribution system operations and other energy services; and (v) facilitate poverty reduction via improved electricity services an economic growth.

The proposed Transmission Line will be for 132 kV Double Circuit LILO at Rupai from 132 kV Double Circuit Tinsukia – Margherita line under tranche 1. Total length of the TL is approximately 30.82 km and it will be crossing 19 villages, mostly be constructed in the Tea garden land. It is expected that proposed line will accommodate the increasing industrial and agricultural loads coming up in Tinsukia Town and its adjacent area. **Table-2** indicates the land requirements under the project.

B. Profile of the State of Assam

Popularly called as the land of the red river and blue hills, Assam is the gateway to the north-eastern part of India. Situated between 90-96 degree East Longitude and 24-28 degree North Latitude, Assam is bordered in the North and East by the Kingdom of Bhutan and Arunachal Pradesh. Along the South lie Nagaland, Manipur and Mizoram. Meghalaya lies to her South-West, Bengal and Bangladesh to her West. Assam comprises the Brahmaputra and the Barak river valleys and the Karbi Anglong and the North Cachar Hills with an area of 78,438 Sq km. It represents 2.39 per cent of the Indian landmass and 29.92 per cent of the Northeast. It came under Company through Treaty of Yandabo in 1826 and was a British province after 1838. After 1947, it became a state of the Union of India known as Assam. The state has a total of 27 districts with its capital at Dispur.



Figure 1: Map of Assam

Assam is the most populous state in North-East India. According to the census of 2001, Assam has a total population of 2,66,55,528 with a density of 340 persons per square kilometre, and ranks 14th among Indian states. Population of Assam constitutes 2.6% of India and 68.60% of the Northeast.



Numerous tribal groups have travelled to Assam through different routes as the land was connected to several states and countries. Negritos, Dravidians, Alpines, Tibeto Burmese and Aryans had been the major races that came and dwelled in ancient Assam. They were considered as the aborigines of Assam and even today they are an integral part of the Assamese diaspora. The largest population in Assam is that of the Tibeto Burmese descent known as the Bodo tribe and Mishing tribe. Major tribes of Assam make out their livelihood through agriculture and by selling their handicrafts. Different types of tribes living in Assam are famous nationwide for their wide variety of handicrafts, handloom and pottery works. The languages of the Assamese tribes too differ according to their places of origin. Bodo Tribes are one of the earliest tribes that had settled in Assam. They are, however, not restricted to any specific area of the state and are found in almost all parts of Assam. They practice cultivation, tea plantation and poultry farming. Rabha is a scheduled tribe of Assam, belonging to the Indo Mongoloid descent and has resemblance to the Bodo tribe. Karbi tribe, also known as Mikir, usually dwells in the hilly areas of Assam, especially in the North Cachar Hills, Nagaon and Sonitpur districts of the state. On the other hand Mishing Tribe hails from Tibeto Burmese and inhabits the districts of Tinsukia, Sibsagar, Sonitpur, Jorhat and Golaghat, along the banks of River Brahmaputra. Dirugarh and Tinsukia district of Assam, along Dihing River are the settlement areas of Phake Tribes. The Dimasa Tribe lives in the Karbi Anglong District of Assam. The Lakher tribes of Assam consist of Hawthai, Zuchnanag, Tlongsai, Heima Sabeu and Lialia groups. One can also find a concentration of the Deori tribal community in Assam only in the nearby regions of the Brahmaputra River. Khamti Tribes, Naga Tribes and Santhals are also some of the oldest tribal groups of Assam. Lalung tribal community is one of the important tribal communities that have resided in Assam. Besides these the Singpho tribes of the Tinsukia district of Assam also form an important Assamese tribal group. The tribal population constitutes 12.41% of the total population of Assam.

The literacy rate of Assam is 64.28% and it holds the 24th position in this regard among the Indian States. Assam ranks 26th in human resource development index and 21st in poverty index in India according the Human Development Report 2001.

The economy of Assam is overwhelmingly agricultural. Assam produces nearly half of the country's total Tea. According to the provisional population total of Census 2001, 52.65 per cent of the total workforce in the state (58.40 per cent in India) is engaged in agricultural and allied activities. Assam's per capita income at constant prices (1993-94) stands at Rs 6,157/- and at current prices, Rs 10,198/- in 2000-2001. Assam is very rich in natural resources. The abundant water resources in the State form the potential for irrigation and generation of hydroelectricity. Its forests too are the storehouses for quality timber. However, much of the natural resources still lie unused and explain the economic backwardness of the State.

Hinduism is the major religion in the state, with 64.89% of the population following the religion. Muslims make up 30.92% of the population, Christians 3.7%, and Buddhists 0.08% and Sikh 0.19%. Major languages spoken in the State are Assamese, Bodo and Bengali. See Table 1 for a profile of the state.

Table 1 – Profile of Assam State							
Sl. No.	Name of District	Area in Sq. Km	Population (2001)	% of ST Population	Sex Ratio	Literacy Rate (%)	Work Participation Rate
1.	Dhubri	2797.78	1637344	1.97	947	48.21	29
2.	Kokrajhar	3169.22	905764	33.67	943	51.63	37
3.	Bongaigaon	2510.00	904835	12.23	945	59.33	32
4.	Goalpara	1824.00	822035	16.03	956	58.03	33
5.	Barpeta	3245.00	1647201	7.48	941	56.24	31
6.	Nalbari	2257.00	1148824	17.63	939	67.23	25
7.	Kamrup	4345.00	2522324	9.93	901	74.16	33
8.	Darrang	3481.00	1504320	16.61	944	55.44	35
9.	Sonitpur	5324.00	1681513	11.60	929	59.00	38



Table 1 – Profile of Assam State							
Sl. No.	Name of District	Area in Sq. Km	Population (2001)	% of ST Population	Sex Ratio	Literacy Rate (%)	Work Participation Rate
10.	Lakhimpur	2277.00	889010	23.49	951	68.56	56
11.	Dhemaji	3237.00	571944	47.29	941	64.48	44
12.	Morigaon	1704.00	776256	15.55	946	58.53	34
13.	Nagaon	3831.00	2314629	3.86	944	61.73	31
14.	Golaghat	3502.00	946279	9.93	930	69.38	41
15.	Jorhat	2851.00	999221	12.32	933	76.33	41
16.	Sibsagar	2668.00	1051736	7.95	928	74.47	41
17.	Dibrugarh	3381.00	1185072	7.45	931	68.96	40
18.	Tinsukia	3790.00	1150062	5.85	913	60.95	41
19.	Karbi Anglong	10434.00	813311	55.69	926	45.57	41
20.	N. C. Hills	4888.00	188079	68.28	884	57.76	
21.	Karimganj	1809.00	1007976	0.29	947	54.71	37
22.	Hailakandi	1327.00	542872	0.15	935	53.07	30
23.	Cachar	3786.00	1444921	1.29	945	59.16	33
	Assam	78438.00	26655528	12.41	935	52.89	32
Source: Census of India, 2001							

Note: Though the State has 27 districts demographic and other socio economic data cannot be shown separately for the 3 BTAD districts namely, Udalguri, Baksa, Chirang and Kamrup (Rural) as these districts were demarcated after 2001 census. Data for Udalguri, Baksa, Chirang and Kamrup (Rural) are included in the data of undivided Darrang, Nalbari, Bongaigaon and Kamrup respectively.

Although it is more industrially developed than the other North Eastern States, it is primarily an agrarian economy with 74% of its population engaged in agriculture and allied activities. The dependence of rural labour force on agriculture and allied activities was nearly 53 per cent as per Census 2001. The state per capita income as per Central Statistical Organization (CSO) is Rs.15, 623. Assam is a state rich in natural resources like oil and natural gas, coal, rubber, tea and some minerals like granite, limestone and kaolin. The state is known for its large industries in the tea and petroleum sectors. In 1999-2000, the contribution of the tertiary sector to the State Domestic Product (SDP) was the highest (39.46%). Over the years, there has been a shift in the sectoral contribution from primary to the tertiary sector while the secondary sector indicates a fluctuating contribution to the State Domestic Project.

C. Objective of the RP

The project development envisages impact to the people living along the Right of Way (ROW) of the transmission line and the land required for the Tower Location establishment. The land requirement does not envisage permanent acquisition of land for both the purposes mentioned above. This is also in line with the Indian Telegraph Act of 1885. The act also indicates that the land which is earmarked for the ROW is to be maintained without any high rise building developments or trees which may affect the systems. In order to avoid the urban building developments generally the transmission line has been finalized outside any such settlements or urban agglomerations in its route. Secondly, the tower locations will require a minimum land area of 100 sq.mts which is generally less than 10% of the land area owned by any of the land owners along the transmission route. This is termed as insignificant impact under both the Government of India norms and the ADB guidelines. The impact also indicates that the total area required for the tower locations is 0.95 ha of private land which is scattered over a length of 30.82 kms, thus, justifying the fact that there will be insignificant impact on the local population due to the project development.

In view of this we have developed a resettlement compensation plan that will provide for the appropriate



compensation as per the Government of India, the ADB guidelines and the entitlement framework that has been approved by both these parties.

The basic aims and objectives of this Resettlement Plan are to mitigate all unavoidable impacts due to land requirement and appropriate compensation in accordance with the approved resettlement framework. The plan has been prepared based on the findings of inventory survey, socio-economic census survey and consultation with various stake holders as well as in compliance with ADB's policy on involuntary Resettlement (1995), Safeguard Policy Statement (June' 2009), Indigenous Peoples (1998) and other social safeguard policies designed by the bank to protect the rights of affected persons and communities. The RP also takes in account the laws and policies of Government of India Land Acquisition Act, 1894, its subsequent amendments, the Resettlement and Rehabilitation Act, 2007. The issues identified and addressed in this RP are i) Impact due to land requirement; ii) socio-economic details of the project area and the affected population; iii) policy, legal framework and entitlement matrix; iv) consultation, information dissemination, disclosure, and grievance redress; v) Institutional arrangements; vi) Resettlement budget; vii) Implementation schedule; and Monitoring and evaluation.

D. Impacts on Land and Resettlement

There shall be temporary impact on land due to construction of tower line footings. However, for construction of 132 kV transmission line it requires a minimal land. As per the standard design of tower footings 100 m² of land area is required for all categories of tower at 350 meter intervals. Total land requirement for installation of tower footings for this 30.82 kms long transmission line is 1 ha out of which 0.95 ha of land is private land and remaining portion (0.05 ha) belongs to government. In addition, a transmission corridor of 27 meter in width must be permanently cleared of large trees.

Minimization of impacts on land and other assets

Necessary and adequate measures were taken by the executing agencies to avoid and/or minimize the impact on land by considering the location of towers on government land wherever possible. This has been done with proper consultation with the local people and affected communities. Suggestions have been appraised from design prospective and incorporated wherever it is technically feasible. Selection of final route has been made based on alternate route survey and the best option was included in the DPR. While selecting the best route all possible options from social and environment point of view were reviewed to get a prior idea on probable impacts and their mitigation measures likely to be because of the proposed project interventions. Though tower installation work do not cause any adverse impact on the asset and land, but pre caution by doing their operation during off season will be assured by the implementing agency. The census survey reveals that there will not be any impact on structures and common property resources. **Table 2** gives the land requirement for installation of tower footings.

Table 2: Summary of Impact on Land and other assets

Name of the Transmission line	132 kV Double Circuit LILO at Rupai from 132 kV Double Circuit Tinsukia – Margherita line – 30.82 kms
Total number of Towers	100
Total number of Affected Households	16
Total number of Project Affected Persons	43 (excluding 3 households)*
Total area of private land (hectare)	0.13 ha
Total area of tea garden land (hectare)	0.82 ha
Total area of Government Land (hectare)	0.05 ha
Trees	1362 nos.

**Out of 16 affected households 3 households could not be covered under the census survey due to non availability of respondents*



Impact on Private Land

The Census survey reveals that 95% of the total land to be acquired is private land. The proposed transmission line predominantly involves use of tea garden land which is 82% of the total land required for tower footings, the remaining are 11% agricultural land and 2% barren land. No residential land will be impacted because of the proposed project intervention. Refer to **Table No: 3**

Table No3: Types of Private Land Impacted

Name of the Transmission line	132 kV Double Circuit LILO at Rupai from 132 kV Double Circuit Tinsukia – Margherita line – 30.82 kms
Total land area required (hectare)	1
Total area of tea garden land (hectare)	0.82
Total area under agricultural activities (hectare)	0.11
Total area under barren land (hectare)	0.02

Clearing of large trees shall be required within 27 m transmission corridor which needs to be maintained throughout the project life. The compensation against tree cuts shall be made as per the entitlement matrix given in **Table-10**

Project Affected Families and Project Affected Persons:

Table 2 reveals that 16 families will be impacted due to the project. The total number of Project Affected Persons (PAPs) is 43. The land to be used for construction of tower footings is limited to 100 m² in most cases and no family or person will be impoverished due to the project implementation. This indicates that there is no adverse impact on the family or persons whose land is being used for the project development. The PAPs mentioned are the number of family members who own the private land that is being impacted due to the proposed project development. This indicates there are no project affected persons or families per se. Apart from this, land from another 5 different locations will be used for tower footings owned by Government.

Impact on Structures:

Census survey reveals that not a single structure will be impacted because of this proposed intervention.

Loss of Trees and Tea plants:

The survey has revealed that 82% of the proposed transmission line is passing through tea garden. No forest land is required to be diverted for the project works. However, nearly 1362 number of trees and 380 number of bamboo mostly with private ownership shall be removed within the 27 meter transmission corridor for stringing operation. The loss of private trees shall be compensated based on the timber value at market price, and compensation for tea bush, perennial crops and fruit trees at annual net product market value multiplied by remaining productive years. This will be determined in consultation with the Forest Department for timber trees and the other relevant departments for tea plants, fruit bearing trees and perennial crops (Refer to Entitlement Matrix). The economy and livelihood base of the state Assam is not tree based. Also, the impacted land, tea plants and trees are spread over a large area so the severity of impact is minimal.

Temporary Impacts during Construction:

No temporary impacts are envisaged during the time of project implementation. The construction work shall be planned as per the crop schedule predominantly followed by people from the project area, and the flooding period to avoid the temporary impact during construction stage. The onset of monsoon on the valley brings flood in the state and agricultural fields are found submerged with floodwater between the months of May to September. Agricultural activities are not practiced during this period and no project activities will be scheduled by ASEB during this period. The temporary impacts are visualized based in the context of loss of standing crop



or non availability of productive land for cultivation, thus there are no impacts of the kind envisaged under this project development.

The field activities under the project will be in a phased manner for effective implementation of the proposed project work. The proposed implementation schedule is:

- Contractual clearance and installation should be done during off season
- Tower point construction and installation should be done during off season
- Finalizing the tower points and stringing will be carried out during January- May after the harvesting is complete to avoid any impact on standing crop to be complete before the flood season. But this activity will not impact the farmer for carrying out their normal agricultural activities during this period. Thus there will not be any loss to the crop. There is no access restriction for the farmers for carrying out the normal agricultural activities including grazing of cattle within the transmission corridor.

Restrictions on Use of Land

Land use restriction will be limited to the transmission corridor of 27 m all along the transmission line. This implies that construction activity and cultivation of tall trees cannot be done below the transmission line. The area directly under the tower footings cannot be utilised for any activity.

The impact summary for various foreseen impacts is presented in the **Table 4**. There will not be any access restriction of the project affected person due to the proposed transmission line during post project scenario.

Table 4: Impacts on Land and Resettlement under the Projects

SI No	Category	Impact Assessment
1	Land	The amount of land required for each tower footing of the transmission line is 100 m ² . Spacing between two tower footings is 350 m on an average. As a result of which land to be impacted is small compared to the total holding size for each individual affected person (i.e. less than 10% of total land holding of each PAF) and hence the impact is insignificant.
2	Structures	No structures are found within or near the RoW of the proposed Transmission line
3	Trees and tea plants	Based on the field survey it has been found that most of the trees are private property and 1362 numbers of trees and 380 numbers of bamboos are required to be cut for cleaning the RoW. Apart from this an area of 0.82 ha of tea garden land will be required for the tower footings and tea plants at the tower footing locations needs to be cleared.
4	Crops	11% of the land to be used is agricultural land. Temporary loss of land for each affected person compared to the total individual holding is relatively small; accordingly, crop loss compared to the total crop is also minimal.

5	Restrictions on use of land	There will not be any restrictions for carrying out the agricultural activities all along the transmission line corridor other than the tower footing area. But, there will be restriction on construction of new building or planting of tall trees below the transmission line. Since Row required for transmission corridor is a narrow strip of 27 m width and passing mostly through tea garden so impact of these restrictions is insignificant.
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E. Land Procurement Process

In the event of the land being utilized for the establishment of the tower locations an appropriate compensation will be finalized in consultation with the negotiation committee which will comprise of the members as listed below. In order to obtain the private land it is decided to carry out a direct negotiation process with each land owner in place of evoking the land acquisition process as per the land acquisition act. This is being proposed to not only expedite the process but also to reduce conflicts or delays. This process being adopted is defined as the direct compensation payment which could also be termed as consent award process - the direct negotiation and mutual agreement between the private land owner and the department. This will help in arriving the mutually agreed rate of compensation with the land owners, which will eliminate resentment from the land owners regarding rate of compensation. Thus reduce the scope for approaching the civil courts for higher compensation. The composition of the negotiation committee will be:

1. The Deputy Commissioner of the concerned districts who will be the chairman of the committee,
2. The LAO attached to the PMU will be the secretary,
3. ADC (Revenue) and Circle Officers of the concerned circles will be members of the committee,
4. The DGM (AEGCL), upper, lower and middle Assam will be the members at executing agency level,
5. The concerned Zilla Parishad officials will also be the member of this committee.

The circle value for the land price fixation as per the Department of Registration for different categories of land for the villages along the transmission line corridor will be obtained from the district registrars. This guidance value will be referred to by the negotiation committee.

The compensation payment for loss of land paid through negotiation + additional stamp paper and registration cost + 30% solatium¹ on the negotiated price.

Process of Price Fixation

1. The concerned LAO who is the secretary of the negotiation committee will call for a meeting.
2. The dates for price negotiation will be provided village wise. Negotiation will be conducted village wise by gathering all the land losers at one point in time for negotiation. This is to ensure transparency.
3. The PMU will provide information on the guidance value of the land to land losers at least one week before negotiation.
4. Minimum negotiated price will be 1.5 times the circle value.
5. The negotiation committee will negotiate the price with the land owners.

¹ This has been included in accordance with the Land Acquisition Act 1894 which would ensure not only appropriate compensation package but also a higher value

6. Based on the decision of the negotiation committee and the approval of the PMU the LAO and the District Commissioner officers will make the payment.
7. Compensation will be given within 30 days of taking possession and receiving all the necessary documents by the LAO and District commissioners. In case of delay a 9% interest will be given to the beneficiary upto a period of one year after which it will be increase to 15% per annum thereafter (this is as per the provision of the LA Act).
8. Civil works will start after payment of compensation.

Compensation payment process

1. Compensation to be finalized by the negotiation committee with the consent of the land owners.
2. The award will be approved by the District Commissioners or the LAO (PMU).
3. All payments should be done through cheques only. The AEGCL local staff will assist the affected people to open a bank account in case they do not have a bank account.

F. Socio Economic Profile

The state, being T-shaped, consists of the northern Brahmaputra valley, the middle Karbi and Cachar hills and the southern Barak valley. Assam has beautiful dense tracts of tropical forests, mixed together with bright green patch work of paddy and flourishing tea gardens enriched by the flow of river Brahmaputra. The alluvial plains of the Assam valley (100 km at its widest) enjoy an abundance of natural riches. The state is the largest producer of timber and tea in the country and it has the oldest oil refinery in India. Assam is the only region in the world that has its own variety of tea, called *Camellia assamica*. Most of the population of 26.6 million of state Assam lives in the cultivable areas of the river valley.

As per the Census 2001, the population of Assam is 26.66 million which accounts for 2.59 % of the country's total population with 4.91 million households. Population concentration is recorded higher in Nagaon, Kamrup, Sonitpur, Barpeta, Dhubri, Darrang and Cachar. The sex ratio is 932 females per 1000 males. The literacy rate recorded is 63.3% with male literacy 71.3% and female at 54.6%. Share of Scheduled Castes (SCs) and Scheduled Tribes (STs) in total population are 16.73% and 7.57% respectively. The rate of urbanisation recorded is 12.9%.

The economy of Assam is primarily depends on agriculture and employment in the state is still heavily depends on land based occupations. Agriculture employs 69% of the workforce. Assam produces nearly half of the total country's total tea. The per capita income at constant price (1993-94) stands at Rs.6157 and current prices, Rs. 10198 in 2000-2001. Though Assam is rich in natural resources but much of the natural resources in the state are still lie unused and explain the economic backwardness of the state.

The proposed project component of 132 kV Double Circuit LILO at Rupai from 132 kV Double Circuit Tinsukia – Margherita line is located in Tinsukia district of Assam. Tinsukia is one of the commercial centres in Assam after Guwahati. It is situated 480 kms north east of Guwahati and 84 kms away from the border with Arunachal Pradesh. It is the administrative headquarter of Tinsukia District. The total land area of the district is 3790 km² and has a population of 11, 50,062 as per the Census 2001. Considered as the commercial capital of Assam, the district is known for its best quality tea production, wood related products like Kitply, Merino ply, National ply etc. Chamber Road, situated at the centre of the town, is the oldest area of business activities especially grocery. Even grocery items are exported from here to neighbor state Arunachal Pradesh.



Socio-Economic Profile of the PAPs

The census survey was carried for PAPs spreading over 19 villages in Tinsukia district of Assam. Total number of respondents was 13 and 3 were non respondent since their present locations cannot be traced out during the time of conducting socio-economic survey. Another 5 identified locations were found to be owned by Government of Assam. In addition to this 14 nos. of tea garden owned by private Ltd companies will also be impacted due to the proposed project.

Average Size of Households of PAPs:

The survey reveals that average size of the household is 4.38 persons, which is lower than the state's average of 5.86. However, average household size for Amguri village is 7, which is highest among all project affected villages. This value does not necessarily represent the average household size of the entire village since only a single family was identified as PAF from this village and interviewed. The lowest average family size of 3 is found in the village of Akthingia.

Social Stratification of PAPs:

The Scheduled Tribes population among PAPs is 6.98% of the total PAPs identified to be impacted because of the proposed project intervention, which is higher than the state average of 6.85%. Nearly, 18.60% are Other Backward Class. More than 50% of the PAPs do not belong to any of the Socially Backward category as 74.42% of them are reported in general category. **Table 5** shows the social stratification of the PAPs

Table 5: Social Stratification of Project Affected Area

Scheduled Tribes	Other Backward Class	General
6.98%	18.60%	74.42%

Education Profile of PAPs:

Table 6 presents the literacy level among PAPs. It is found that only 9.20% of the PAPs are illiterate which indicates that literacy status of the PAPs is better than the state average (illiteracy rate 47.42%). Over 25% PAPs have attained education up to the primary level and more than 41% PAPs have attained the secondary level. PAPs attaining graduate level are more than 20%. However, the percentage of people attending technical training is almost negligible.

Table 6: Education Profile

Illiterate	Primary	Secondary	Graduate	Technical
9.20%	25.58%	41.86%	20.93%	2.33%

Occupation status of the PAPs

Working status of PAPs is not encouraging. Only 44% of the PAPs are working as shown in the **Table 7**

Table 7: Working Status

Working	Non Working
44%	56%

The project affected area is predominantly agriculture based. The occupation pattern of the working PAPs is shown in the **Table 8** it is seen that majority of the population depends on agriculture for their livelihoods. About 47.37% PAPs are farmers, 26.32% are agri labour, 15.79% has business and only 5.26% are private service holders and pensioners.

Table 8: Occupational Pattern of Working PAPs

Agriculture	Agri. Labour	Business / Trade	Private Service	Pensioner
47.37%	26.32%	15.79%	5.26%	5.26%

Income Distribution Pattern of PAPs

Socio-economic survey reveals that majority of the PAPs have monthly income of Rs. 3000 or above per month. The **Table 9** shows that 27.91% PAPs have monthly income of Rs. 3000 and above per month, and 13.95% have a monthly income of Rs. 2000 to Rs. 3000. Nearly 2.33% of PAPs are in the lower income group of less than Rs 2000 per month.

Table 9: Income Pattern of PAPs (income per month)

Less than Rs 2000	Rs 2000 to 3000	Rs 3000 and above
2.33%	13.95%	27.91%

The summary of the major finding based on Socio-Economic Survey is highlighted below-

- i) Average size of the household is 4.38 persons which is lower than the state's average of 5.86.
- ii) 6.98% of the affected persons are Scheduled Tribes which is higher than the state average of 6.85%.
- iii) 9.20% of the PAPs are illiterate, and more than 41% PAPs have attained the secondary level of education
- iv) Nearly 44% of the PAPs are working out of which 47.37% source their livelihood from agriculture.

G. Impact on Vulnerable Groups

The vulnerable groups include only STs. STs have low ascribed social status and more remoteness of their traditional lands. Among socially vulnerable class STs constitute 7.69% (1 family) of all the affected families. The vulnerable family is losing 100 m² of agricultural land and relocation will not be required since no structure will be impacted because of this proposed intervention.

Severity of Loss of Vulnerable Groups:

In Assam, ST has better development indicator than other groups since they are closely integrated with the mainstream population. They have the access to the infrastructure facilities such as roads, electricity, schools and hospitals etc. Looking at the culture, language, economic activities and source of livelihood, of these ST households, it is evident that they are quite mainstreamed. Consultations have been carried out with all the affected ST households and it was noted that they agree to sell their land against with due compensation. These ST households have been considered as special category under the vulnerable group and special assistance has been provided in the RP which is in addition to the compensation and assistance in order to restore their livelihood. The impact assessment and the census survey enumerated that there will be only 1 ST household who will be affected by losing a strip of their land. However, the loss of an area measuring 100m² of land compared to total land holding of the vulnerable group is not more than 10% of their productive asset.

Special care has been taken to ensure that that no indigenous people, especially the tribal people are affected. The tribal groups of the project area have free social interaction with the mainstream population and they are integrated to the main stream population and they are integrated to main stream population. The tribes share

their source of water, folklore, food infrastructure and other belongings with the outside community. Moreover, these groups are also open to new ideas like family planning and formal education. Most of these tribes have nuclear family norms. Thus, it is clearly established that in their social behavior and interactions they are not disconnected from the mainstream population but are assimilated with them. Additionally, an indigenous Peoples Development Framework has been prepared for the future activities.

H. Policy, Legal Framework and Entitlement

The policy framework and entitlements for the Program are based on national laws: The Land Acquisition Act, 1894 (LAA, amended in 1984) and The National Rehabilitation and Resettlement Policy, 2007 (NRRP); and ADB's Safeguards Policy Statement 2009. The salient features of Government and ADB policies are summarized below.

1. Government Policy

1.1. The National Resettlement and Rehabilitation Policy (Ministry of Rural Development, Department of Land Resources), 2007

The NRRP 2007 was adopted by the Government of India on 31 October 2007 to address development-induced resettlement issues. The NRRP stipulates the minimum facilities to be ensured for persons displaced due to the acquisition of land for public purposes and to provide for the basic minimum requirements. All projects leading to involuntary displacement of people must address the rehabilitation and resettlement issues comprehensively. The State Governments, Public Sector Undertakings or agencies, and other requiring bodies shall be at liberty to put in place greater benefit levels than those prescribed in the NRRP. The principles of displaced permanently due to any other reason. The objectives of the Policy are:

- (i) to minimize displacement and to promote, as far as possible, non-displacing or least displacing alternatives;
- (ii) to ensure adequate rehabilitation package and expeditious implementation of the rehabilitation process with the active participation of the affected families;
- (iii) to ensure that special care is taken for protecting the rights of the weaker sections of society, especially members of the Scheduled Castes and Scheduled Tribes, and to create obligations on the State for their treatment with concern and sensitivity;
- (iv) to provide a better standard of living, making concerted efforts for providing sustainable income to the affected families;
- (v) to integrate rehabilitation concerns into the development planning and implementation process; and (vi) where displacement is on account of land acquisition, to facilitate harmonious relationship between the requiring body and affected families through mutual cooperation.

The NRRP is applicable for projects where over 400 families in the plains or 200 families in hilly or tribal or Desert Development Program (DDP) areas are displaced. However, the basic principles can be applied to resettling and rehabilitating regardless of the number affected. NRRP's provisions are intended to mitigate adverse impacts on Project Affected Families (PAFs). The NRRP comprehensively deals with all the issues and provides wide range of eligibility to the affected persons and meets most of the requirement of ADB's Policy on Involuntary Resettlement (1995). The non-title holders, under NRRP, are recognized as the people living in the affected area not less than three years after the declaration of the area as affected area. The NRRP addresses the vulnerable families with adequate entitlements and provides special provisions for Scheduled Castes (SC) and Scheduled Tribes (ST) Families. The NRRP takes in to account all the transparency as far as consultation, dissemination of information, disclosure and grievance is concerned. However, the law relating to the acquisition



of privately owned immovable property is the Land Acquisition Act of 1894 (LAA, amended 1984) which is discussed in the following section.

1.2. Land Acquisition Act, 1894 amended 1984

The LAA provides a framework for facilitating land acquisition in India. LAA enables the State Government to acquire private land for public purposes. LAA ensures that no person is deprived of land except under LAA and entitles APs to a hearing before acquisition. The main elements of LAA are:

- (i) Land identified for the purpose of a project is placed under Section 4 of the LAA. This constitutes notification. Objections must be made within 50 days to the District Collector (DC, the highest administrative officer of the concerned District).
- (ii) The land is then placed under Section 6 of the LAA. This is a declaration that the Government intends to acquire the land. The DC is directed to take steps for the acquisition, and the land is placed under Section 9. Interested parties are then invited to state their interest in the land and the price. Under Section 11, the DC will make an award within one year of the date of publication of the declarations. Otherwise, the acquisition proceedings shall lapse.
- (iii) In case of disagreement on the price awarded, within 6 weeks of the award, the parties (under Section 18) can request the District Collector (DC) to refer the matter to the Courts to make a final ruling on the amount of compensation.
- (iv) Once the land has been placed under Section 4, no further sale or transfer is allowed.
- (v) Compensation for land and improvements (such as houses, wells, trees, etc.) is paid in cash by the project authorities to the State Government, which in turn compensates landowners.
- (vi) The price to be paid for the acquisition of agricultural land is based on sale prices recorded in the District Registrar's office averaged over the three years preceding notification under Section 4. The compensation is paid after the area is acquired, with actual payment by the State taking about two or three years. An additional 30 percent is added to the award as well as an escalation of 12 percent per year from the date of notification to the final placement under Section 9. For delayed payments, after placement under Section 9, an additional 9 percent per annum is paid for the first year and 15 percent for subsequent years.

2. ADB'S Safeguard Policy Statement, 2009

ADB has adopted Safeguard Policy Statement (SPS) in 2009 including safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the Involuntary Resettlement Safeguard policy is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

The involuntary resettlement safeguards covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The main policy principles of the Involuntary Resettlement Safeguard are:

- (i) Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or



census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.

- (ii) Carry out meaningful consultations with affected persons, host communities, and concerned non-government organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
- (iii) Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.
- (iv) Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
- (v) Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.
- (vi) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
- (vii) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
- (viii) Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
- (ix) Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.
- (x) Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.

- (xi) Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.
- (xii) Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

3. IR Principles Adopted for the Project

The NRRP represents a significant milestone in the development of a systematic approach to address resettlement issues in India. LAA, 1894 however gives directives for acquisition of land in public interest and provides benefits only to titleholders. The core involuntary resettlement principles for the Program to be followed for each sub-project, including tranche 2 sub-projects are: (i) land acquisition, and other involuntary resettlement impacts will be avoided or minimized exploring all viable alternative sub-project designs; (ii) where unavoidable, time-bound resettlement plans (RPs) will be prepared and APs will be assisted in improving or at least regaining their pre-program standard of living; (iii) consultation with APs on compensation, disclosure of resettlement information to APs, and participation of APs in planning and implementing sub-projects will be ensured; (iv) vulnerable groups will be provided special assistance; (v) payment of compensation to APs including non-titled persons (e.g., informal dwellers/squatters, and encroachers) for acquired assets at replacement rates; (vi) payment of compensation and resettlement assistance prior to the contractor taking physical acquisition of the land and prior to the commencement of any construction activities; (vii) provision of income restoration and rehabilitation; and (viii) establishment of appropriate grievance redress mechanisms.

I. Entitlement Matrix

Based on the above broad principles, a detailed description of each compensation measure and assistance for the tranche 1 components is provided in the entitlement matrix. APs will be entitled to a combination of compensation measures and resettlement assistance, depending on the nature of ownership rights of lost assets and scope of the impact, including social and economic vulnerability of the APs. The loss of crop, trees and agriculture during the construction of the transmission lines will be paid as instant cash compensation for the damaged period. People will use the land below the lines after the construction. In case there is a need for repair or maintenance of the transmission lines in the future, the project authorities would reach agreement with the land owners for access to the land for maintenance and repairs, when necessary, and that the land owners would continue to use the land for farming activities. The EA will provide cash compensation to the APs for the temporary loss of crop, if occurred, during the time of maintenance and repair. Details of the entitlement are given in **Table 10**.

Table 10: Entitlement Matrix

	Type of Loss	Application	Definition of Entitled Person	Entitlement
	Loss of private land	Agricultural land, Homestead land or vacant plot	Legal titleholders/ APs with customary land right APs with Permit from local authority	<ul style="list-style-type: none"> • Compensation at replacement value or land-for-land where feasible. • Transitional allowance based on three months minimum wage rates. • Shifting assistance for families (@Rs.10,000/- per affected family). • Notice to harvest standing seasonal crops. If notice cannot be given, compensation for share of crops will be provided.



	Type of Loss	Application	Definition of Entitled Person	Entitlement
				<ul style="list-style-type: none"> Additional compensation for vulnerable families (lump sum @ Rs. 10,000/- per family).
	Loss of Government Land	Vacant plot, Agricultural land and homestead land	Appropriate Government departments	<ul style="list-style-type: none"> Payment of land value by ASEB to the concerned government and departmental transfer of ownership.
	Loss of livelihood	Livelihood	Legal titleholder/tenant/leaseholder / non-titled / employee of Commercial structure, farmer/agricultural worker	<ul style="list-style-type: none"> Assistance for lost income based on three months minimum wage rates. Additional compensation for vulnerable families (lump sum @ Rs. 10,000/- per family) Consideration for project employment.
	Loss of trees and crops	Standing trees and crops	Legal titleholder/tenant/leaseholder /sharecropper/non titled DP/ AP	<ul style="list-style-type: none"> Notice to harvest standing seasonal crops If notice cannot be provided, compensation for standing crop (or share of crop for sharecroppers) at market value Compensation for trees based on timber value at market price, and compensation for perennial crops and fruit trees at annual net product market value multiplied by remaining productive years; to be determined in consultation with the Forest Department for timber trees and the Horticulture Department for other trees/crops.
	Temporary loss of land	Land temporarily required for sub project construction	Legal titleholders, non-titled APs	<ul style="list-style-type: none"> Provision of rent for period of occupation for legal titleholders. Compensation for assets lost at replacement value. Restoration of land to previous or better quality Additionally, Cash Compensation will be paid for the temporary damage of crop under the RoW during the maintenance and repair after the construction. In case there is a need for repair or maintenance of the transmission lines in the future, the project authorities would reach agreement with the land owners for access to the land for maintenance and repairs, when necessary, and that the land owners would continue to use the land for farming activities.
	Any other loss not identified			<ul style="list-style-type: none"> Unanticipated involuntary impacts will be documented and mitigated based on the principles of the Resettlement Framework.

J. Eligibility and Cut-off-Date

APs entitled for compensation or at least rehabilitation provisions under the Project are:

All APs losing land either covered by legal title/traditional land rights, or without legal status;

- Tenants and sharecroppers whether registered or not;
- Owners of buildings, crops, plants, or other objects attached to the land; and
- APs losing business, income, and salaries.

Compensation eligibility will be limited by a cut-off date to be set for the subproject. For the legal title holder, the issuance of Section 4 notification of LA Act will serve as the cut-off date. For the non-titleholder, the day of the beginning of the Census Survey (30 October 2010) will serve as the cut-off-date. APs who settle in the affected areas after the cut-off date will not be eligible for compensation. They, however will be given sufficient advance notice, requested to vacate premises and dismantle affected structures prior to project implementation.

K. Consultation, Disclosure, and Grievance Redress

1. Consultation

1.1 Introduction

As part of the participatory approach, the project has been designed in due consultation with all the stake holders. Public consultation is highly mandatory for any investment in infrastructural development program. This is an important tool to ensure peoples' participation in the planning and implementation phase of this project. The aim of the public consultation is to make the people aware about the developmental activities being undertaken in their locality and to incorporate their views for making a sustainable plan during the design to the successful completion of the project. Various consultations with all stakeholders at different stage of the project preparation were undertaken and issues related to local needs, problem and prospects of resettlement, compensation options etc. were discussed. The project will therefore ensure that the affected people and other stakeholders are informed, consulted, and allowed to participate actively in the development process. This will be done throughout the project, both during preparation, implementation, and monitoring of project results and impacts.

Consultations were conducted during the initial stage of project preparation. However, additional consultations were also carried out as part of the continuous participation during the preparation of this resettlement plan among various stake holders, i.e., concerned officials of the executing agencies, local community and their leaders. Consultations were carried out at villages namely Mamarani, Bangali Baliyan, 210 No. Grant NLR Longchoal, Amguri, Mankhowa, Nagaon, Akthingia for the proposed transmission line. The participants were affected persons, village leaders, farmers, women, tribal people and other stake holders.

The need for public consultation for such intervention is many folds. Following points were taken in to account while conducting the public consultations as major objectives.

- For identification of sites for the new sub stations and transmission lines.
- Understand the views of the people affected, with reference to use of land and its due compensation.
- Understand views of people on resettlement options, if any.
- Identify and assess major economic and social characteristics of the villages to enable effective planning and implementation.
- Resolve issues related to impacts on community property and their relocation.
- Examine APs' opinions on health safety issues during the construction and selection garbage materials or the waste materials.
- Identify levels and extent of community participation in project implementation and monitoring.
- To establish an understanding for identification of overall developmental goals and benefits of the project.



- To develop a thorough coordination between all the stakeholders for the successful implementation of the project.
- To align with the government's policy on right to information.

1.2 Methods of Public Consultation

Public consultations in the project area were held at various villages where the proposed transmission line will pass through. The following methodology has been adopted for carrying out public consultations in this project:

- Disseminating information and requesting villagers to attend the public consultation meetings.
- Walk over survey and informal discussion with people along the transmission routes.
- Conducting focused group discussions
- Individual interviews with concerned stake holders.
- Sharing the opinions and preferences of the APs.
- Involving the APs and all other stake holders in decision-making including RP implementation.

1.3 Key Findings of the Consultation

The key findings of the consultation on various issues such as: general perception about the project, suggestions to mitigate any damage or loss of livelihood are presented below.

- The proposed investment, according to the people, will be beneficial to the local community. The EAs consulted and took the informal no objection from the people for the sub stations sites and availability of land during the project preparation. Therefore, People are aware about the project and welcomed the project.
- People consented to cooperate during the project implementation stage.
- People were of the opinion that adequate cash compensation should be given for the loss and damage of crop as per the market value.
- Setting up the towers and transmission lines will require some temporary acquisition. Cultivators prefer cash compensation and sufficient prior notification to harvest the crop
- It was advised that project implementation should be planned mostly during the off season in order to avoid the damage.
- APs requested local representation in the Grievance Redress Committee.
- People asked about creation of employment opportunities during project construction and later phases of the project.
- People suggested that adequate safety measures should be provided such as uninterrupted social life.

People perceived certain benefits from the proposed investment program, such as improved electricity, good power supply, better irrigation and better living condition, etc.

- There are major power cuts and low voltage in the village areas and the villagers are not able to feed water to the agricultural land through the motor with the existing electricity supply. People are seeking better electricity supply for their agricultural purpose for which they are ready to pay more also.
- Metering should be perfectly right and monitoring of the theft should be initiated by the local people.
- According to the female participants, it has been observed that supply of better electricity through this investment will be more beneficial to the women and children community as the living condition will be improved and people will get more time for entertainment etc.
- There was an appeal from the local people that all the schools and hospitals in the village areas should be compulsorily electrified in the priority basis which will attract more students to join the school.
- According to the farmer crop should be compensated keeping in view the annual yielding and the market rate of the crop.
- All the consultations were very much successful and people showed their interest in the project.

1.4 Continuation of Public Consultations

The consultation process will remain continued by the EAs over the entire period of project implementation. Consultations during RP implementation will involve agreements on compensation, assistance options, and



entitlement package and income restoration. The other round of consultations will occur when compensation and assistance are provided and actual resettlement begins. Information disclosure is pursued for effective implementation and timely execution of the RP.

2. Disclosure

The draft RP will be made available in relevant local government agencies and in relevant ASEB/PMU and site offices before the appraisal. The summary RP will be made available in Assamese language. Finalized RP will also be disclosed in ADB's website; and information dissemination and consultation will continue throughout Investment Program implementation. The disclosure process has been on-going depending on the progress of each tranches. The Resettlement Framework (RF) and the Indigenous Peoples Development Framework (IPDF) were disclosed to the affected area in May 2009 in the local language. This RP will also be disclosed to the APs.

3. Grievance

Efficient Grievance redress mechanism has been developed to assist the APs resolve their queries and complaints. Grievances of APs will first be brought to the attention to the site office level of the IAs. Grievances not redressed by the IA staff (field level) will be brought to the Grievance Redress Committee (GRC). The GRC has representatives from APs, PMU, IA, ESMU, field level staff, district magistrate/commissioner, local administration, revenue authority and local community. The main responsibilities of the GRC are to: (i) provide support to APs on problems arising from the use of their land/property ; (ii) record AP grievances, categorize, and prioritize grievances and resolve them; (iii) immediately inform the PMU of serious cases; and (iv) report to APs on developments regarding their grievances and decisions of the GRC and the PMU. Other than disputes relating to ownership rights under the court of law, GRC will review grievances involving all resettlement benefits, compensation, relocation, replacement cost and other assistance. The GRC will meet every month (if grievances are brought to the Committee), determine the merit of each grievance, and resolve grievances within a month of receiving the complaint—failing which the grievance will be referred to appropriate court of Law for redressal. Records will be kept of all grievances received including: contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were effected, and final outcome. The GRCs will continue to function during the life of the Project including the defects liability period.

L. Institutional Arrangements

ASEB will function as the EA of the proposed MFF. The transmission company, Assam Electricity Grid Corporation Limited (AEGCL) will be the IAs for the proposed investment program. There is already an existing PMU which is functional and is responsible for implementing the ADB Phase-1 loan and is also responsible for the preparatory work for the proposed Tranche-1 sub project.

Keeping in view the capacity of ASEB and its existing PMU, it was proposed that an Environment and Social Management Unit (ESMU) would be set up within the PMU along with other engineering units to address environmental and social issues of the program, and will be headed by Environmental cum Resettlement Specialist. The ESMU has already been set up who is responsible for the overall coordination of land acquisition and resettlement issues and also responsible for the implementation of tranche-1 resettlement activities. The ESMU is assisted by designated site engineers who will be responsible for the field activities. For Tranche-1 RP, PMU will do the overall coordination, preparation, planning, implementation, and financing. The EA will ensure that key institutions including local governments are involved in RP preparation, updating and implementation. Further details on agencies responsible for RP activities are listed in **Table 11**.



Table 11: Institutional Roles and Responsibilities for Resettlement activities

Activity	Responsible Agency
Sub-project Initiation Stage	
Setting up of ESMU and staff	ASEB
Finalization of sites for sub-projects	ASEB/PMU/IA
Disclosure of proposed land acquisition and sub-project details by issuing Public Notice	PMU/ESMU/IA
Meetings at community/household level with APs	ESMU/ESMU/PMU/IA
RP Preparation and Updating Stage	
Conducting Census of all Aps	PMU/ESMU/ IA
Conducting FGDs/meetings/	PMU/ESMU
Computation of replacement values of land/properties proposed for acquisition and for associated assets	PMU/IA/ESMU/LAO
Categorization of APs for finalizing entitlements	PMU/ESMU/LAO/IA
Formulating compensation and rehabilitation measures	PMU/ESMU/LAO/IA
Conducting discussions/meetings/consultation with APs and other stakeholders	PMU/ESMU/IA
Fixing compensation for land/property with titleholders	PMU//ESMU/LAO/IA
Finalizing entitlements and rehabilitation packages	PMU/ESMU/LAO/IA
Disclosure of final entitlements and rehabilitation packages	PMU/ESMU/IA
Approval of RP	EA/PMU/ESMU/ADB
RP Implementation Stage	
Sale deed execution and payment	EA/PMU/IA/ESMU/LAO/Appropriate Government/
Taking possession of land	EA/PMU
Implementation of proposed rehabilitation measures	PMU/ESMU/IA
Consultations with APs during rehabilitation activities	PMU/ESMU/IA
Grievances redressal	PMU/ESMU/GRC/IA
Internal monitoring	PMU/ ESMU/IA
External monitoring	External Monitoring Consultant

ADB=Asian Development Bank, ASEB=Assam State Electricity Board, AP=affected person, EA=Executing Agency, ESMU=Environment and Social Management Unit, FGD=focus group discussion, GRC=Grievance Redress Committee, IA=Implementing Agency, LAO=Land Acquisition Officer, PMU=Project Management Unit, RP=Resettlement Plan

M. Resettlement Budget

The resettlement cost estimate for this subproject includes eligible compensation, resettlement assistance and support cost for RP implementation. These are part of the overall project cost. The unit cost for land and other assets in this budget has been derived through rapid field appraisal, consultation with affected families and relevant government authorities. Contingency provisions have also been made to take into account variations from this estimate.

The components of the resettlement cost include various features such as, compensation for land at their replacement value; compensation for crops; assistance for transitional allowance, shifting allowances and cost for implementation of RP. ASEB will arrange in advance in its budget to meet the requirement of land compensation and resettlement cost.

1. Compensation

Private Agricultural Land: The unit rate for agricultural land has been assessed at Rs 15, 00, 000/- per Hectare. This has been determined keeping in view the replacement cost and as decided by the revenue department.

Crop: The unit cost for the crop is assessed at Rs. 20, 000/- per Hectare annually. This has been assessed as per the yielding of the land and as revealed by the APs during the consultation.

Tea Garden Land: The unit rate for tea garden land has been assessed at Rs 15, 00, 000/- per Hectare. This has been determined keeping in view the replacement cost and as decided by the revenue department.



Tea Plant: The unit cost for the tea plant is assessed at Rs. 1, 94,040/- per Hectare annually. Productive life of each Tea plant affected is assumed to be 30 years on an average. This has been assessed as per the variety of the tea plant and its yielding pattern through consultation with the affected tea garden authorities or its owners.

Solatium and Interest for Land: 30% solatium is added to the award. For delayed payments, an additional 9% per annum is paid for the first year and 15% for subsequent years.

Government Land: The cost for the government land transfer has been calculated as per the royalty transfer of land from other government agencies to the ASEB for the transmission line.

2. Assistance

Transitional Assistance: This has been calculated based on three months of minimum daily wage rates. The usual wage rate per day is Rs. 120/- and therefore the unit rate per family is Rs. 10,800/-.

Shifting Allowances: This has been calculated on a lump sum basis of Rs.10, 000/- per displaced family

Assistance to Vulnerable Families: This has been calculated on a lump sum basis of Rs. 10, 000/- per vulnerable family

3. RP Implementation and Support Cost

Resettlement Specialist/Consultants at ESMU/PMU: One environment cum resettlement specialist will be involved for a period of 12 person months. The unit cost of the Resettlement Specialist per person-month has been assessed as Rs 100,000/-. This estimate has been included in the RP budget for Nagaon-Samaguri TL.

Independent Monitoring and Evaluation Consultant: No IMA consultant will be involved since project impact has been categorized under Impact Category B by ADB

Based on the above parameters the resettlement budget has been prepared. The total cost of compensation for this subproject is estimated to be ` 10.223 million equivalents to **USD 230,321.04**. The details are given in **Table 12**.

Table 12: Budget Estimate

	Item	Unit	Unit Rates (Rs.)	Quantity	Total Cost (Rs.)
A	Compensation for Land and Crops				
A1	Agriculture Land (Private)	Hectare	1500000	0.11	165000
A2	Tea Garden Land	Hectare	1875000	0.82	1537500
A3	Barren Land	Hectare	1125000	0.02	22500
A4	Temporary loss of crop	Hectare	20000	10	200000
A5	Loss of tea plant	Hectare	5821200	0.82	4773384
A6	Solatium 30% on land value				517500
A7	Transfer of Government Land	Hectare	112500	0.05	5625
	Sub Total for A				7221509
B	Trees				
B1	Trees	Nos.	1500	1362	2043000
B2	Bamboos	Nos.	50	380	19000
	Sub Total for B				2062000
C	Assistance to Vulnerable Families				
C1	Assistance to Vulnerable Affected Families (both socially & economically) @10000/family	Nos.	10000	1	10000



Item	Unit	Unit Rates (Rs.)	Quantity	Total Cost (Rs.)
Sub Total for C				10000
Total (A+B+C) (In Rs.)				9293509
Contingency (10%) on (A+B+C)				929351
Grand Total				10222860
Grand Total in Million				10.22286

N. Implementation Schedule

Payment of compensation and resettlement work will be completed before the start of civil works. All land required will be provided free of encumbrances to the contractor prior to handing over of sub-project sites and the start of civil works. However, public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Implementation schedule for R&R activities in the subproject including various sub tasks and time line matching with civil work schedule is prepared and presented in **Table 13**.

Table 13: Implementation Schedule

Subproject R&R Component/ Activities	2010-2011															
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Identification of sub project and notification	*															
Community Consultation				*	*	*	*	*	*	*						
Identification of land and Census Survey									*	*	*					
Submission of RP for ADB Approval															*	
Disclosure of RAP																*
Establishment of PMU and PIU	*															
Establishment of ESMU	*															
Establishment of GRC										*						
Issue of compensation to APs																*
Payment of all eligible assistance																*
Initiation of Rehabilitation Measures																*

Schedule for Civil Work																*
Internal Monitoring by PMU and PIU																*

O. Monitoring and Reporting

Monitoring will be the responsibility of the EA (ASEB) through its PMU/IA/ESMU. The extent of monitoring activities, including their scope and periodicity, will be commensurate with the project's risks and impacts. ASEB is required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic monitoring reports on their implementation performance. ADB will require ASEB to:

- establish and maintain procedures to monitor the progress of implementation of safeguard plans,
- verify the compliance with safeguard measures and their progress toward intended outcomes,
- document and disclose monitoring results and identify necessary corrective and preventive actions in the periodic monitoring reports,
- follow up on these actions to ensure progress toward the desired outcomes,(v) retain qualified and experienced external expert to verify monitoring information for projects with significant impacts and risks,
- Submit periodic monitoring reports on safeguard measures as agreed with ADB.

The ASEB/PMU monitoring will include daily planning, implementation, feedback and trouble shooting, individual AP file maintenance, community relationships, dates for consultations, number of appeals placed and progress reports. Monitoring reports documenting progress on resettlement implementation and RP completion reports will be provided by the PMU to ADB for review. Additionally, ADB will monitor projects on an on-going basis until a project completion report is issued.