

Resettlement and Ethnic Group Development Plan

March 2018

MYA: Power Network Development Project— Distribution Component

Prepared by AF-Consult Switzerland Ltd. for the Electricity Supply Enterprise and the Asian Development Bank.

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ABBREVIATIONS

ADB	Asian Development Bank
ACC	Asset Compensation Committee
AH	Affected Household(s)
AP	Affected People
CBO	Community Based Organization
DL	Distribution Line
DMS	Detailed Measurement Survey
EA	Executing Agency
EMP	Environmental Management Plan
ESE	Electricity Supply Enterprise
GAD	General Administration Department
GOM	Government of Myanmar
GRM	Grievance Redress Mechanism
Ha	hectare
HH	Household
IA	Implementing Agency
kV	Kilo Volt
LAC	Land Acquisition Committee
m ²	Square meter
MALI	Ministry of Agriculture, Livestock and Irrigation
MOEE	Ministry of Electricity and Energy
MT	Metric Ton
MYK	Myanmar Kyat
NGO	Non-Governmental Organization
PIB	Public Information Booklet
PPTA	Project Preparatory Technical Assistance
ROW	Right of way
REGDP	Resettlement and Ethnic Group Development Plan
SPS	Safeguard Policy Statement
USD	United States Dollar



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EXECUTIVE SUMMARY

Project Description

This Resettlement and Ethnic Group Development Plan (REGDP) is prepared for the Distribution Component of the Myanmar Power Network Project. The component's implementing agency is the Electricity Supply Enterprise (ESE) which is under Ministry of Electricity and Energy (MOEE). The component involves the following activities: (i) upgrading of six existing substations; (ii) construction of 42 new substations; and (iii) installation of 40 new distribution lines (DL) with a total length of 843.3 km. These activities will be done in five states or regions: Ayawaddy, Bago (East and West), Mon, Kayin and Rakhine. Part of this component is to computerize asset management system to manage transmission assets and a computerized customer billing system.

Scope of Impacts and Land Acquisition and Resettlement

The DL 14-meter corridor is estimated to have a total area of 1,189.6 hectares (ha). It will have temporary impact on crops. But this impact is expected to be minimal due to the wide use of road easement, short construction period and timing this period with the dry season when most farms are left to fallow. Although land will not be acquired in the corridor of the transmission lines, trees have to be removed permanently because of the height restriction of 5.8 meters for 66kV DL and 5.5 meters for 33kV DL.

The impact of the 13,762 poles installed to hold up the DL will be also permanent. But their total land requirement will only be 0.04 hectares since each pole requires only 0.03 square meters (m²). The wide use of road easement is again expected to reduce the affected private lands to a minimum

The land requirement is already determined for 48 substations except for one. These substations will need a total of 38.1 hectares. But 71.1% of this land belongs to the government and only 10.7 ha will be acquired from 17 private owners. Around 92.5% of the private lands are agricultural with 57.0% planted with paddy rice. The rest are devoted to perennial crops and bushland. The land area to be acquired represents 12.5% of the affected households' landholding and the income derived from it is about 12.7% of their income. Nine of the 17 households will lose more than 10% or more of their landholding and four will lose 10% or more of their income. Of these, one household will lose a shop-house which also serves as its primary residence.

All lands to be acquired have Land Use Certificate (LUC). One land owner has a sharecropper. In each of the two sites owned by the government, a private person uses the land for paddy rice field cultivation. This brings the total affected households to 20. With an average household size of 4.8 members, the total affected people are 96. Three of these households can be considered vulnerable: one is woman-headed, one is earning less than 2 USD a day and one is bound to lose all his/her land.

Socio-economic Profile

The five regions/states covered by the project have a total population of 17,869,481 in 2014. Their growth rate, using the 1983 population census as a base, averages 0.9% per year or lower than national rate of 1.2 percent. The 21 households surveyed (20 affected households and one former landowner) have an average of 4.8 members. There are 127 women per 100 men among the surveyed households. They are all Buddhist.

About 9.0% of the household members (aged 6 years old and over) have no education. There is no percentage difference between genders. But it appears more women are stuck in elementary level with higher percentages of men in the middle school and university. Agriculture is the



biggest employer of both genders. But men dominate business and wage labour. Employment level among surveyed households is at 95.0% and the 2016 average annual household income is 20,991 USD. With much lower expenditure, a household has a surplus of 13,618 USD in 2016.

Income is only one indicator showing that the surveyed households are generally well-off. Their average land holding of 8.1 ha, is three times larger than the national average. LUC covers 97.7% of their land. While paddy is the main crop in Ayawaddy and Rakhine, it is rubber in Mon and Kayin States. Almost all of them have a sanitary toilet. The water source of most households is a dug well.

Ethnic Group in the Project Sites

Around 59% of the surveyed households are Bumar and 41% belong to other ethnic groups. These groups are Mon, Kayin and Rakhine. Both the Mon and Rakhine at certain points in history developed powerful kingdoms and sophisticated civilization that helped mould their strong sense of identity. The Kayin has a more heterogeneous culture and sub-groups whose collective identity evolved only in the 1800 under British colonial rule.

The substations will directly affect land used by these ethnic groups. But it will not affect their dignity, human rights and culture. In the key informant interviews and five consultation meetings, none identified any site with social, cultural or spiritual importance to them that may be affected by the DL and substations. Also, no one raised as an issue the potential adverse impact on any tradition, belief and ritual of these groups. Instead, expressions of support were given to the project. This is because the project will directly bring grid-sourced electricity to these households and will enhance their economic capability.

Information Disclosure and Public Consultations

Project information was disseminated on September-December 2017 through meetings with local authorities, consultations, key informant interviews and the socio-economic survey. Among the surveyed households, 100% are aware of the project. All of them also identified its benefit mainly for the provision reliable and affordable electricity. Around 95.0% identified no adverse impact in spite of the fact that most of them will have part of their lands acquired for the project. Eight consultation meetings were held from 30 September to 20 October 2017 with 454 participants including 121 women and representatives of ethnic groups. Although the need and urgency of the project were expressed by the participants, the issue of compensation rates was raised. Once the REGDP will be revised, it will be translated into Bumar with the Public Information Booklet (PIB), and will be made available to the affected people. Multi-level consultation meetings will be periodically held during REGDP updating and construction and operation phases until the ADB's issuance of project completion report.

Grievance Redress Mechanism (GRM)

For the substations, the regional/state government will form an Inter-Agency Committee to facilitate resettlement implementation processes as well as set compensation rates, manage the compensation process and pay affected households. These rates will be used by project and the contractors in paying damages in the DL corridor. A three-level Grievance Redress Mechanism (GRM) will operate to receive and resolve complaints in a free, transparent, timely and satisfactory manner. A Grievance Redress Committee (GRC) will operate at the ESE PMU, District Office and National Headquarter. To be activated as soon as the PMU is organized, the GRC will resolve complaints following procedures where the resolution has a time frame for completion. The three-level GRM will provide avenue for appeal. The complainant can elevate the case to a higher level in case of dissatisfaction with the judgement of the lower level.

Policy and Legal Framework



Both the State Constitution and the 2012 Farmland Law provide for state-ownership of all lands. But the latter also provides that “suitable compensation” will be paid for assets developed on the land in case of state repossession”. While it does not provide compensation for land without LUC, the 2015 Environmental Impact Assessment Procedures provides that projects involving resettlement or indigenous peoples, will comply with procedures issued by responsible ministries and in its absence, apply the standards of Asian Development Bank (ADB), World Bank and International Finance Corporation (IFC). This provision bridges all the gaps between the Myanmar laws and ADB Safeguard Policy Statement (2009).

Entitlement

The census and DMS done as part of REGDP will measure the actual losses on which the update of final entitlements will be based. Result of market price surveys and consultations will determine actual replacement rates. Compensation will be given in cash and received by husband and wife. Where feasible, the compensation will be made through bank transfer to minimize cash transactions. The project will offer unbanked affected households assistance in opening an account in husband’s and wife’s name if they meet the bank’s requirements. Vulnerable households and rubber and fruit tree planters who can no longer plant these crops within the DL corridor will get specialized assistance, in the form of livelihoods support programmes and trainings. The compensation and assistance provided are deemed sufficient to restore the income of the households. The Ministry of Agriculture, Livestock and Irrigation (MALI) will implement household level-tailored assistance to those whose crop choices are restricted by the height limit in the corridor. The cut-off date will be the final day of the census and DMS.

Resettlement Budget and Financing Plan

The total budget for REGDP implementation is 401,383 USD. The compensation rates and amount of assistance will be reviewed and adjusted based on the result of the census and DMS and the market rates at the time of REGDP implementation. The MOEE will provide all resettlement funds based on the financing plan agreed by the Government of Myanmar (GOM) and ADB. The regional General Administration Department (GAD) will prepare a cost estimate for compensation and submit this MOEE who in turn will deposit the corresponding amount to GAD’s account.

Implementation Schedule

The REGDP will be implemented in nine-month period. The affected households for the substation are already identified except for one site which location is not yet selected. But for the DL, the affected households will be identified upon the completion of the detailed engineering design. The affected households of both the DL and the substation will be go through a census and the DMS will begin. Based on the census and DMS result, the compensation rate for each affected household is estimated and paid. The GRM will be organized with the PMU and will begin to operate as soon as the PMU is operational.



Institutional Framework

The MOEE through the ESE PMU will oversee REGDP implementation. It will ensure smooth coordination with the GAD on day-to-day basis in the conduct of resettlement activities and prompt payment of agreed compensation to the affected households. The PMU will also ensure the inclusion in the contractor's contract its obligation to pay for assets destroyed due to movement of machineries and construction materials, covering the temporary use of land outside the corridor with written contract with the land user and the restoration of the land to its original condition. Payment should be in line with the set project rates and monitored as part of the monitoring program. It will also oversee the contractor's compliance to these contractual obligations.

Monitoring

Key monitoring activities will focus on the implementation of the mitigation measures identified within this REGDP, from the baseline conditions, consultation phases and upon compensation until full livelihood support programmes and trainings are delivered, with focus on severely affected households and vulnerable households. Monitoring the performance of compensation will start upon its payment. Site clearance will only begin 15 days after the affected household's receipt of payment and once it is ensured that the work site is free from any dispute and encumbrance. The GAD will provide monthly report on the progress in REGDP implementation. The ESE will consolidate the monthly reports into quarterly report for submission to ADB. For every monitoring period, with the supports of the Project Implementation Consultants (PIC), the GAD will identify outstanding issues, status of groups provided with special assistance and the income level of affected households. A compensation completion report shall be drafted once compensation is provided in full.



1 Project Description

1.1 Project Background

1. The Power Network Development Project aims support the economic development and poverty reduction in Myanmar through the expansion of its transmission and distribution network and installation of associated substations. The project consists of two components: Transmission and Distribution. This Resettlement and Ethnic Group Development Plan (REGDP) is prepared for the Distribution Component. The implementing agency of the distribution component is Electricity Supply Enterprise (ESE) which is under Ministry of Electricity and Energy (MOEE). The distribution component has the following sub-components:

- (i) Upgrading of six existing substations (1 substation to 66kV/11kV 20MVA and 5 substations to 33kV/11kV 10MVA);
- (ii) Construction of 42 new substations (with capacities ranging from 66kV/33kV 20MVA to 33kV/11kV 5MVA); and
- (iii) Installation of 40 new distribution (13 x 33kV and 27 x 66kV) with a total length of 843.3 km.

2. The substations are distributed in five states or regions: Ayawaddy, Bago (East and West) Mon, Kayin and Rakhine (Map 1). As part of the distribution component, a computerized assets management system to manage transmission assets and a computerized customer billing system for areas under ESE will also be implemented.

3. Among five regions/states, Ayawaddy Region will have the most number of new substations with 12 (Table 1). The least number will be in Bago East with only three new substations. For the DL, 672.7 km will be 66kV and 170.6 km will be 33kV. Kayin State will have the longest new DL at 253.1 km. The detailed description of the subprojects in each region/state and their location is in Appendix 1.

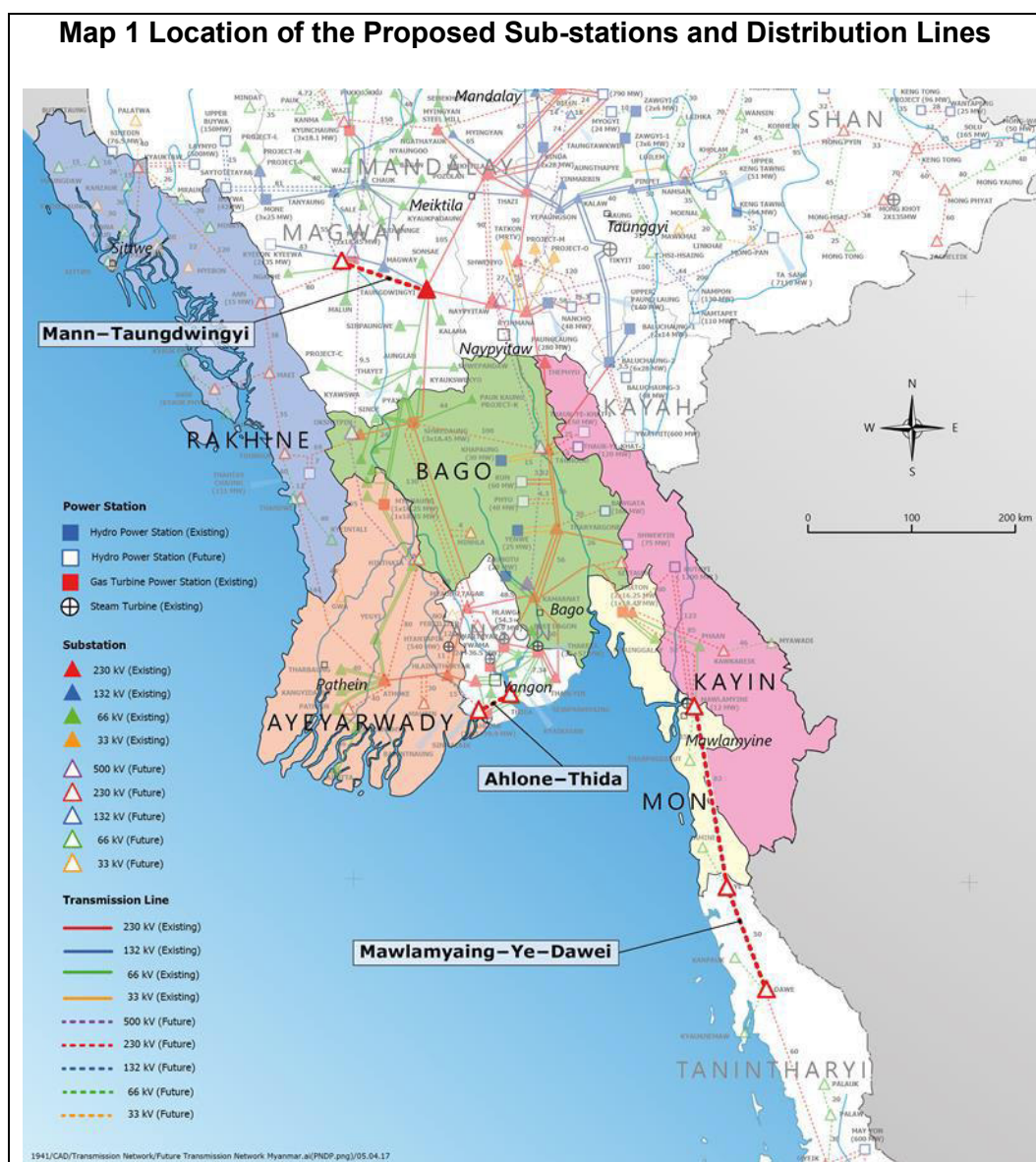
1.2 Distribution Line Component and Scope of Land Acquisition

4. Land area will be required for the DL and substations. The DL will need an area for the 14-meter corridor and the base of the pole. The land acquisition impact of the corridor will be temporary being limited to the construction period. Height restrictions shall be in place after construction, in which alternative crops shall be introduced, where necessary. Although occasional maintenance and repair work will be done in the operation phase, the area requirement of the event will be specific to a particular location where work will be carried out. The area for the pole will be permanently acquired. The requirement for each pole is 0.03 m² having a dimension of 16 x 19 centimeters.



Table 1 – Distribution of Substations and in Five Regions or States

Region/ State	Upgrade of Existing Sub- stations	Construc- tion of New Substations	New Dis- tribution line 66kV (km)	New Dis- tribution Line 33kV (km)	Total Length of New Lines (km)
Ayawaddy	0	12	154.7	14.5	169.2
Bago East	3	3	0	18.6	18.6
Bago West	2	4	48.3	58.4	106.7
Kayin State	0	9	235.4	17.7	253.1
Mon State	1	5	64.4	60.6	125.0
Rakhine State	0	9	169.9	0.8	170.7
Total	6	42	672.7	170.6	843.3





5. The total area to be used for the DL will be 1,180.64 hectares (Table 2). But 1,180.60 hectares of this area will be the corridor. This area will have permanent restriction on the height of the crops grown. The remaining 0.04 hectares will be serve as the base of the 13,762 poles that will be installed. Around 75% of the poles are for 66kV lines. Among the regions/states, the largest area affected by the DL will be the Kayin State. A total of 354.41 hectares will be affected although mostly, temporarily, being part of the corridor. The Kayin State has 47.7% of the total length of the DL.

Table 2 – Summary of Area to be Affected by the Poles and Corridor: 2018

Region/ State	kV	Length (km)	Temporarily Affected but with Perma- nent Height Restriction (ha)¹	No of Poles	Perma- nently Affected (ha)²	Total (ha)
Ayawaddy Region	66	154.7	216.6	2,380	0.007	216.61
	33	14.5	20.3	290	0.001	20.30
Bago East Region	66	0	0	0	0	0
	33	18.6	26.0	372	0.001	26.00
Bago West Region	66	48.3	67.6	743	0.002	67.60
	33	58.4	81.8	1168	0.004	81.80
Kayin State	66	235.4	329.6	3,622	0.010	329.61
	33	17.7	24.8	354	0.001	24.80
Mon State	66	64.4	90.2	991	0.003	90.20
	33	60.6	84.8	1,212	0.004	84.80
Rakhine State	66	169.9	237.9	2,614	0.008	237.91
	33	0.8	1.1	16	0.000	1.1
Total	66	672.7	941.8	10,350	0.030	941.83
	33	170.6	238.8	3,412	0.010	238.81
Grand Total		843.3	1,180.6	13,762	0.040	1,180.64
¹ The corridor is 14 meters width. The length of the line is multiplied by this width to get the temporarily affected area ² The base of a pole is 0.03 square meter (16 x19 cm).						

6. Except for one, the land requirement of the 48 substations are already determined (Table 3). These substations will need a total of 38.1 hectares. But 71.1% of this land is government land. A total of 10.7 hectares or 28.1% of the total requirement is to be acquired from private owners.



Table 3 – Summary of Area to be Affected by the Substations: December 2017

Region/State	Number of Sub-station	Permanently Affected Land (ha)			Total (ha)
		Government	Private	Additional land Needed	
Ayawaddy Region	12	2.6	4.2	0	6.8
Bago East Region	6	2.8	0	0.32	3.1
Bago West Region	6	4.3	0	0	4.3
Kayin State	9	1.7	2.2	No site selected	3.9
Mon State	6	3.1	0.4	0	3.5
Rakhine State	9	12.6	3.9	0	16.5
Total	48	27.1	10.7	0.3	38.1
Percentage		71.1%	28.1%	0.8%	100.0%

7. About 0.32-hectare for the substation in Kyetthnkhin Ward, Oaktwin Township in Bago East is in the process of acquisition by the ESE.

8. ESE has already 37.2% of the government land (Table 4). In one site in Ye Lae Kalay and Yalwe Vilages, Maubin Township in Ayawaddy, the 0.45 hectare was a donated to ESSE by a private company (Wati Paing Company Limited). The donation was done before ADB's involvement and not in anticipation of ADB financing. The other government land owners are the line ministries, state and village tract governments.

9. Among the regions/states, the biggest land requirement will be in Rakhine State. The 16.5 hectares for the nine substations composes 42.7% of the total land requirement for substations. Although Ayawaddy has the most number of substations at 12, its land requirement is only 6.8 hectares or 17.8% of the requirement for all substations. The detailed description of the location, type of facility, required area, ownership and use of each substation site is in Appendix 2.

Table 4 – Distribution of Government Land for Substation by Ownership: December 2017

Government Unit	Area (ha)	Percentage
ESE	10.1	37.2%
Ministry of Forestry	1.3	4.8%
Ministry of Industry	1.6	5.9%
MOEE	0.5	1.8%
State Government	6.9	25.6%
Village Tract Government	6.1	22.5%
General Government	0.6	2.2
Total	27.1	100.0%



1.3 Alternative and Measures Used to Avoid and Minimize Impact on Private Assets

10. To minimize the impact on private assets, the land use, terrain and potentially affected assets in the general area along DL will be studied using existing maps, satellite images and field survey. As much as possible, the DL will be placed in easement along roads to avoid any land acquisition. There will be some adjustment in selecting the site for the poles to the topographical condition and structures along the alignment but the need to reduce land acquisition will also be considered through the following measures.

- (i) The use of space will be maximized for the installation of the poles and stringing to avoid unnecessary land acquisition.
- (ii) Outside the corridor, existing roads will be used for transportation and temporary access to obviate the need to open new ones. In areas where there are no roads, the construction materials will be hauled manually or through work animals using the corridor as much as possible. In the event that access roads are required, AHs will be compensated in accordance with the entitlement matrix found within the REGDP.
- (iii) Housing for workers will be constructed in unused public land or will be provided by the contractors so that no private land will be acquired for the purpose. In the event that private land is required, the contractor shall rent land from local villagers at market value.
- (iv) The construction phase will be timed on dry season when fields are mostly left to fallow. This will avoid affecting main seasonal crop (paddy rice) which is cultivated during monsoon season and being the primary component of the farming income in Myanmar.

11. For the substations, ESE surveyed all the available government land for their location with the purpose of minimizing the acquisition of private land. Twenty-five of the 42 new substations will be in government land. Ten of these substations will be accommodated in ESE-owned lands although the land for one is still claimed by a private person. Fifteen other new substations will be located in land owned by other government units. No private persons live on these government lands although two sites (Zalun Township, Ayawaddy and Kanyut Township, Bago State) have a paddy fields cultivated by private persons. Each site is 0.8 hectare. Eight sites are established ESE compounds: six are hosting an existing substation and two have an ESE office building. One site has a state-owned structure. The rest have natural cover (brushland, residual forest and grassland).

12. The use of government land limits the acquisition of private lands to 16 substations. The land earmarked for the one substation is not yet selected. Due to ESE's continuing effort to find a government land to host the substations, the size of private land to be acquired may still be reduced. In Maeland Village, Belin Township in Mon State, ESE found a land owned by the Ministry of Industry to replace a private land which should have been acquired.

13. In the preparation of detailed engineering design, the ESE and its contractors will re-inspect the alignment and further consult with concerned agencies (e.g., Ministry of Highways and Ministry of Forestry) and local authorities on the route of the alignment. Changes will be continuously made in the design and execution plan based on the inputs of these agencies and local authorities to further minimize impacts on private assets.



1.4 Objectives of the REGDP

14. The overall objective of this REGDP is to define resettlement and compensation program for the Distribution Component and to limit as much as possible the number of affected persons and their affected income, production and assets. It will also ensure that all affected people will be compensated for their losses at replacement cost and will be provided with measures to restore if not improve their pre-project standard of living so that they will be at least as well-off as they would have been without the project.

1.5 Basis of Project Description and Arrangement for REGDP Updating

15. The project description is based on the preliminary design and field surveys on parts of the general route of the DL and the proposed sites of the substations. Based information from ESE and site visits, the project sites and the affected households for the substations were identified. The socioeconomic survey of the private owners of the land earmarked for the substations and consultation meetings in regions/states hosting the subprojects were done. The land cover of the private lands earmarked for the substations is based on actual observation done during the site visits. The result of the household and price survey and consultations done in each site with private land affected is used to estimate the potential income lost for affected assets and compensation cost based on market rate. The REGDP will be updated based on the detailed engineering design.



2 Scope of Land Acquisition and Resettlement

2.1 Affected Land and Crops

16. Private assets will be the subject to land acquisition and resettlement. The exact size of private lands that will be affected by the DL is not yet determined because the exact route of their alignment is not yet plotted. But of the 0.04 hectares that will be required to install the poles in the five regions/states, the proportion of the private land is expected to be very small considering that road easement will be largely used.

17. Although 1,180 hectare is estimated to accommodate the corridor, the impact on private lands is not expected to be extensive. Apart from the use of road easement for the corridor, the installation of the pole and stringing will be very quick. The installation of one pole and the stringing between two poles is done within a day. Impacts on crops will be avoided if the installation will be done in the dry season when most croplands are left to fallow.

18. Trees along the corridor will be removed and those privately owned will be compensated at replacement value. The owners of the trees will be consulted on the schedule of their removal and have the option to keep the timber and other parts of the tree. The compensation may be part of the contractor's financing package. The removal of the trees is part of the contractor's contract and the number of private trees that will be affected will not be determined until the DMS is done. These trees will be compensated as part of the construction impact based on the market value of the timber for timber trees or production for fruit and commercial trees. The long-term impact is the restriction to structures and plants within the corridor. The vertical clearance required in the country's Electricity Law is 5.8 meters for 66kV and 5.5 meters for 33kV.

19. The 10.7-hectare private lands to be acquired for the substations are in four regions/states: Ayawaddy Region, Mon State, Kayin State and Rakhine State. The substations in the two other regions will not acquire any private land. Around 92.5% of the private land to be acquired for the substations is agricultural. Around 57.0% of these lands are paddy fields (Table 5). The paddy fields are in the Ayawaddy Region and Rakhine State. Rubber is planted to the affected agricultural land in Kayin and Mon States. The other crops planted in the affected private lands are timber trees in Kayin State and cashew in Rakhine State. Around 0.8 ha equivalent to 7.5% of all the private lands affected by the substations are bushland.

2.2 Tenure of Affected Land

20. All private lands to be acquired for the substations are covered by a Land Use Certificate (LUC). If private lands with no LUC will be acquired for the substations, these will be compensated at replacement value if the user has legal claim or customary right to the land.

2.3 Affected Households

21. Since the private lands within the corridor of the DL are not yet determined, there is no information yet of the number of households who own these lands. But the private lands to be acquired for the substations have 17 separate owners (Table 6). Further, three more non-landowning households will be affected, one is the sharecropper of the land owner in the Township of Pyarpone in the Kyoneku Village in Ayawaddy. Two are tillers in ESE owned lands in the same region. One in the Township of Kanyut Kwin in Yangon-Mandalay Road and another in the Township of Zalun in Ngaung Bin Zay Village. The total is 20 affected households.



22. With an average household size of 4.8 members, the total affected persons are 96. If the claimant of the land for the substation in Kyetthonkhin Ward in Oaktwin Township, Bago East is included, there are 21 affected households with 101 members.

Table 5 – Estimated Area of Affected Private Land by Land Cover: December 2017

Region/State	Land Cover (ha)					Total
	Paddy	Rubber	Timber	Cashew	Brushland	
Ayawaddy Region	4.2	0	0	0	0	4.2
Bago East Region	0	0	0	0	0	0
Bago West Region	0	0	0	0	0	0
Kayin State	0	1.0	0.4	0	0.8	2.2
Mon State	0	0.4	0	0	0	0.4
Rakhine State	1.9	0	0	2.0	0	3.9
Total	6.1	1.4	0.4	2.0	0.8	10.7
Percentage	57.0%	13.1%	3.7%	18.7%	7.5%	100.0%

2.4 Severity of Impacts

23. No household is expected lose more than 10% of their land holding or their income from the DL installation because of the very small land acquisition requirement and very short duration of the pole installation and stringing operation. Although permanent height restriction to crops will be imposed in the 14-meter width of the corridor, annual and seasonal crops can still be grown mitigating the impact to livelihood. But for the substations, nine of the 17 affected landowners will lose more than 10% of their land holding (Table 7). The average loss of the total landholding among the 17 households is 12.5 percent. The household in Pyarpone Township, Kyoneku village in Ayawaddy Region will incur the largest loss at 100% of its land. The smallest loss will be in Bogale Township, Kalarchichaung Village in the same region at 5 percent.



Table 6 – Number of Affected Households by Type of Asset Ownership: December 2018

Substation	No of Affected Households			
	Land Owner	Share-cropper	Non-owner Tiller	Total
Ayawaddy Region				
Township: Leymyetha Village:: Sittkone	3			3
Township: Ingapu Village:: Nyaung Gone	1			1
Township: Dedaye Village: Chaung Phyar	1			1
Township: Pyarpone Village: Kyoneku	1	1		2
Township: Bogale Village: Kalarchichaung	1			1
Township: Zalun Village: Ngaung Bin Zay			1	1
Mon State				
Township: Thanbyuzayat Village: Wekame	1			1
Bago East				
Township: Kanyut Kwin: Village Yangon-Mandalay Road			1	1
Kayin State				
Township: Pha-An Village: Nyaung Gone	1			1
Township: Paingkyon Village: Paung	1			1
Township: Hpa-pun Village: Waison	1			1
Township: Hpa-an Village: Eindu ,Kyawt	1			1
Township: Zarthapyin Village: Kyone Phae Zarthapyin Kyar Kalay Road	1			1
Rakhine State				
Township: Gwa Village: Kyeintali	1			1
Township: Yangpye Village: Kyauk Ni Maw	2			2
Township: Yangbye Village: Aunghlapyin	1			1
Total	17	1	2	20

24. In terms of income, four households will lose more than 10% of their annual income (Table 8). One household in the Township of Ingapu in Nyaung Gone Village in Ayawaddy will lose 100%, based on its total income in 2016. Although this household has a land holding of 3.5 hectares, it experienced crop failure in 2016 resulting to massive drop in income.

25. The average loss to income is 12.7% (Table 9). The average estimated amount of income loss is 280,469 MYK (208 USD) wholly from lost land production. The products lost will be paddy rice, rubber, timber, cashew and firewood. The largest income loss will be 884,701 MYK (655 USD). The smallest is 65,116 MYK (48 USD).



Table 7 – Percentage of Permanently Lost Cropland to Total Land Holding of Affected Households: December 2017

Substation	No of Land Owners	Lost Land (ha)	Total Land Holding (ha)	% of Affected Land to Land Holding
Ayawaddy Region				
Township: Leymyetha Village: Sittkone ;	3	0.8	15.4	5.2%
Township: Ingapu Village: Nyaung Gone	1	0.8	3.5	22.9%
Township: Dedaye Village: Chaung Phyar	1	0.8	4.0	20.0%
Township: Pyarpone Village: Kyoneku	1	0.8	0.8	100.0%
Township: Bogale Village: Kalarchichaung village	1	1.0	20.1	5.0%.
Mon State				
Township: Thanbyuzayat Village: Wekame	1	0.4	5.1	7.8%
Kayin State				
Township: Pha-An Village: Nyaung Gone	1	0.4	3.1	12.9%
Township: Paingkyon Village: Paung	1	0.4	4.2	9.5%
Township: Hpa-pun Village: Waison	1	0.6	2.8	21.4%
Township: Hpa-an Village: Eindu ,Kyawt	1	0.4	4.3	9.3%
Township: Zarthapyin Village: Kyone Phae Zarthapyin Kyar Kalay Road	1	0.4	2.5	16.0%
Rakhine State				
Township: Gwa Village: Kyeintali, Chaung-Gwa- Yangon-Thandwe Main Road	1	1.5	4.2	35.7%
Township: Yangpye Village: Kyauk Ni Maw	2	0.4	1.4	28.6%
Township: Yangbye Village: Aunghlapyin	1	2.0	14.2	14.1
Total	17	10.7	85.6	
Average				12.5%



Table 8 – Estimate of Income Lost from Land Acquisition: January 2018

Substation	No of affected Land Owners	Lost Land (ha)	Use of Lost Land	Income from Lost Land (MMK)	2016 Annual Income¹ (MMK)	% of Income from Lost Land to Total Income
Ayawaddy						
Township: Leymyetha Village: Sittkone	3	0.8	Paddy	469,440	6,400,000	7.3%
Township: Ingapu Village: Nyaung Gone	1	0.8	Paddy	469,440	280,000 ²	100.0%
Township: Dedaye Village: Chaung Phyar	1	0.8	Paddy	469,440	8,000,000	5.9%
Township: Pyarpone Village: Kyoneku	1	0.8	Paddy	469,440	5,360,000	8.8%
Township: Bogale Village: Kalarchi-chaung	1	1.0	Paddy	586 801	130,000,000	0.5%
Mon State						
Township: Thanbyuzayat Village: Wekame	1	0.4	Rubber	247,730	4,800,000	5.2%
Kayin State						
Township: Pha-An Village: Nyaung Gone	1	0.4	Timber Trees	100,776	86,400,000	0.1%
Township: Paingkyon Village: Paung	1	0.4	Brush land	65,115	25,150,000	0.3%
Township: Hpa-pun Village: Waison	1	0.6	Rubber Trees	247,730	2,200,000	11.3%
Township: Hpa-an Village: Eindu ,Kyawt	1	0.4	Rubber	247,730	4,400,000	5.6%
Township: Zarthapyin Village: Kyone Phae	1	0.4	Brush-land	65,115	2,950,000	2.2%
Rakhine State						
Township: Gwa Village: Kyeintali, Chaung-Gwa-	1	1.5	Paddy	884,701	5,000,000	17.7%
Township: Yangpye Village: Kyauk Ni Maw	2	0.4	Paddy	234,720	2,100,000	11.2%
Township: Yangbye Village: Aunghlapyin	1	2.0	Cashew	209,800	7,880,000	2.7%
Total	17	10.7		4,767,978	290,920,000	12.7%
¹ December 2017 Household Survey						
² This households had crop failure in 2016 resulting to massive drop in income						



Table 9 – Amount and Percentage of Income Lost to Total Annual Household Income: January 2018

Substation	Lost Land (ha)	Product of Lost Land	Value of Yield per Hectare ³ (MYK)	Value as Proxy to Lost Income (MYK)
Ayawaddy				
Township: Leymyetha Village: Sittkone	0.8 ¹	Paddy rice	586 801	469,440
Township: Ingapu Village: Nyaung Gone	0.8	Paddy rice	586 801	469,440
Township: Dedaye Village: Chaung Phyar	0.8	Paddy rice	586 801	469,440
Township: Pyarpone Village: Kyoneku	0.8	Paddy rice	586 801	469,440
Township: Bogale Village: Kalarchi-chaung	1.0	Paddy rice	586 801	586 801
Mon State				
Township: Thanbyuzayat Village: Wekame	0.4	Rubber gum	619,326	247,730
Kayin State				
Township: Pha-An Village: Nyaung Gone	0.4	Timber	251,940	100,776
Township: Paingkyon Village: Paung	0.4	Brushland (firewood)	162,787	65,115
Township: Hpa-pun Village: Waison	0.6	Rubber gum	619,326	247,730
Township: Hpa-an Village: Eindu ,Kyawt	0.4	Rubber gum	619,326	247,730
Township: Zarthapyin Village: Kyone Phae	0.4	Brushland (firewood)	162,787	65,115
Rakhine State				
Township: Gwa Village: Kyeintali, Chaung-Gwa-	1.5	Paddy rice	586 801	884,701
Township: Yangpye Village: Kyauk Ni Maw	0.4 ²	Paddy rice	586 801	234,720
Township: Yangbye Village: Aunghlapyin	2.0	Cashew nuts	104,900	209,800
Total	10.7			4,767,978
Average	0.71			317,865

¹ Owned by three households

² Owned by two households

³Value of rice and rubber yield is based on the farm gate price gathered during the September-October 2017 survey for the Transmission Component due to the bigger sample and use of weight as unit of measure. Value of firewood is based on the price in Yangon because there is no firewood market in rural areas (<http://www.folkecenter.net/mediafiles/folkecenter/pdf/Energy-access-in-slum-areas-of-Yangon-city-Myanmar-Aung-Phonn-Kyaw.pdf>)

Value of timber and cashew is based on the December 2017 survey for the Distribution components. For the stocking density of timber , the estimate in Dotaniya, M.L. and Others.



Substation	Lost Land (ha)	Product of Lost Land	Value of Yield per Hectare³ (MYK)	Value as Proxy to Lost Income (MYK)
2013. Teak Plantation: A Potential Source of Income Generation. October (https://www.researchgate.net/publication/258100610) was used. For the yield per hectare in Rakhine, the figure in Maug Maung Lay. Integrated Production of Cashew in Myanmar (http://www.fao.org/docrep/005/ac451e/ac451e06.htm) is used				

26. One household will lose its house of primary residence; the nine households who will lose more than 10% of their land holding are equivalent to 43 persons. The four households who will lose more than 10% of their income are equivalent to 19 persons. A project's impact is only considered significant if 200 persons will lose at least 10% of their income-generating assets or their primary residence.¹

2.5 Vulnerable Groups

27. ADB identifies those below the poverty line, the landless, the elderly, women and children as vulnerable (SPS SR2). Among the 17 affected households, one is headed by a woman and another earned less than 2 USD a day based on 2016 annual income. But the household earning less than 2 USD a day has a landholding of 3.5 hectares. The low 2016 income was due to crop failure and can be considered an aberration. No household has a disabled member. The household in Ingapu Township, Ayawaddy who will lose its land holding to a substation will also become landless and, therefore, vulnerable. His land will be compensated at replacement value and as a vulnerable household, he is entitled to assistance to improve his living standard.

2.6 Other Affected Assets

28. The project will also affect one structure functioning as a residence and a shop. The structure is in the Township of Thanbyzayat in Wekame Village of Mon State. The structure has asbestos and nipa roofing, and walls of wood and bamboo. The floor is combined earth and bamboo. Eight of the 17 affected landowner-households belong to an ethnic group. One is Mon, two are Kayin and five are Rakhine.

¹ ADB. 2013. Operations Manual. Bank Policies. OM Section F1BP. October. Paragraph 9.



3 Socio Economic Profile

3.1 Survey Methodology

29. The survey covered 21 households: 20 affected households and one previous private land owner. The affected households include the 17 landowners whose lands are earmarked for acquisition for the substations, one sharecropper and two tillers in ESE-owned land (Table 10). The previous private landowner used to own the land earmarked for the substation in Ngaung Bin Zay Village, Zalun Township in Ayawaddy. His land was first sold to the Township Development Committee. This committee later gave the land to ESE for the substation. This survey did a complete enumeration of the affected households plus one previous land owner. The purpose of including this previous land owner is to find out if there was any outstanding issue in the purchase of his land. There was none. The three-page questionnaire was administered to surveyed households by trained interviewers is on **Appendix 3**.

Table 10 – Number of Surveyed Households by Region/State: December 2017

Region/State	Landowner	Share-cropper	Non-owner Tiller	Former Land owner	Total
Ayawaddy Region	7	1	2	1	11
Kayin State	5	0	0	0	5
Mon State	1	0	0	0	1
Rakhine State	4	0	0	0	4
Total	17	1	2	1	21

3.2 Population Size and Growth in Regions/States Covered by the Project

30. The five regions/states covered by the project have a total population of 17,869,481 persons registered in the 2014 census (Table 11). Using the 1983 population census result as a base, the population growth rate in these re-gions/states averages 0.9% per year. This is lower than the national growth rate for the same period of 1.2% per year.

31. But population growth rate varies among the regions/states covered by the project. Rakhine State is the fastest growing at 1.4% per year or higher than the national average. The Ayawaddy Region and Mon State have the lowest growth rate at 0.7%, respectively. But Ayawaddy Region has the biggest population size at 6,184,829 persons. Its population composes 34.5% of the total population of the five regions/states covered by the project. Kayin State has the smallest population size with 1,574,079 persons.



Table 11 – Number Townships, Population Size and Growth in Regions/States Hosting the Project

State/Regions	Total Number of Townships	Number Townships with Sub-projects	1983 Population	2014 Population	Annual Growth
Ayawaddy Region	26	10	4,994,061	6,184,829	0.7
Bago Region	28	12	3,799,791	4,867,373	0.8
Kayin State	7	7	1,055,359	1,574,079	1.3
Mon State	10	5	1,680,157	2,054,393	0.7
Rakhine State	17	7	2,045,559	3,188,807	1.4
Total	88	41	13,574,927	17,869,481	0.9

Source: Department of Population. The Union Report. The 2014 Myanmar Population and Housing Census. Census Report Volume 2 May and Immigration and Manpower Department. 1986. 1983 Population Census. June

3.3 Population Characteristics of the Affected Households

32. The surveyed households have on average 4.8 members (Table 12). This household size is bigger than the national average of 4.4 members registered in the 2014 census.² In these households, women are numerically dominant. There are 127 women per 100 men on average. This gender ratio favoring women prevails among the surveyed households in all regions/states except in Rakhine. There are only 89 women per 100 men in this state. In terms of religion, all the surveyed households are Buddhist.

3.4 Education of Household Members

33. Only 9.0% of the members of the surveyed households (aged 6 years old and over) have not gone to school (Table 13). There is no percentage difference between genders. But among those with education, it appears that more women than men are stuck in elementary level. Among women, 44.6% reached only elementary level but only 25.0% among men stayed in that level. Around 27.3% of the men reached the middle school (versus 10.7% among women), 9.1% went to a university (versus 5.4% among women) and 11.4% graduated from the university (versus 8.9% among women).

² Department of Population. 2015. The 2014 Myanmar Population and Housing Census. Union Report Volume 2. May.



Table12 – Selected Population Characteristics of the Affected Households: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Average Household Size	4.1	6.0	6.6	3.7	4.8
Gender (%)					
Male	46%	33%	45%	53%	44%
Female	54%	67%	55%	47%	56%
Total	100%	100%	100%	100%	100%
Number of Females Per 100 Males	117	203	122	89	127
Religion (%)					
Buddhism	100%	100%	100%	100%	100%

Source: December 2017 Survey

Table 13 – Educational Attainment by Gender (6 years old and over) Among Affected Households: December 2017

Educational Attainment	Men (%)	Women (%)	Total (%)
None	9.0	9.0	9.0
Elementary	25.0	44.6	36.0
Middle School	27.3	10.7	18.0
High School	18.2	21.4	20.0
University Level	9.1	5.4	7.0
University Graduate	11.4	8.9	10.0
Total	100.0	100.0	100.0

Source: December 2017 Survey

34. Among the regions/states, the percentage of surveyed households without any education is highest in Kayin State at 12.1% (Table 14). The lowest percentage is in Rakhine at 6.8 percent. The region/state with highest percentage of university graduates is Aya-waddy and Rakhine State. Around 13.3% of their surveyed household members are university graduates.

3.5 Occupation of Household Members

35. Among the surveyed household members 15 years old and over, employment stands at 95.0% (Table 15). This means that unemployment rate is only 5 percent. There are more women than men who are unemployed (2.3% versus 7.1%). Further, 25% of the women have household work as their primary occupation. No one among the men have similar occupation.



Table 14 – Educational Attainment by Region/State (6 years old and over): December 2017

Educational Attainment	Ayawaddy (%)	Mon (%)	Kayin (%)	Rakhine (%)	Total (%)
None	8.8	0	12.1	6.8	9.0
Elementary	31.1	66.6	48.5	13.3	36.0
Middle School	15.6	0	18.2	33.3	18.0
High School	24.5	16.7	12.1	20.0	20.0
University Level	6.7	16.7	3.0	13.3	7.0
University Graduate	13.3	0	6.1	13.3	10.0
Total	100.0	100.0	100.0	100.0	100.0

Source: December 2017 Survey

Table 15 – Primary Occupation by Gender of Affected Household Members (15 years old and over): December 2017

Occupation	Men (%)	Women (%)	Total (%)
Agriculture	40.9	17.9	28.0
Own Business	15.9	7.1	11.0
Government Employment	0.0	3.6	2.0
Private Sector Employment	0.0	1.8	1.0
Wage Earner	11.4	1.8	6.0
Household work	0.0	25.0	14.0
Unemployed	2.3	7.1	5.0
Students	22.7	33.9	29.0
Others	6.8	1.8	4.0
Total	100.0	100.0	100

Source: December 2017 Survey

36. In terms of economically gainful employment, agriculture is the biggest employer for both genders. It employs 40.9% of the men and 17.9% of the women. It can be also seen that the men dominates in the business (15.8% versus 7.1%) and wage labour (11.4% versus 1.8%). The women are more likely to be employed in the government and private sector than the men.

37. Comparing by regions/states, employment level among surveyed households is highest in Ayawaddy and Mon State at 100%, respectively (Table 16). The lowest is in Rakhine at 80.0 percent. The high dependence on agriculture for employment prevails in all regions/states. The highest is in Kayin where agriculture employs 33.3 percent. The surveyed households in Ayawaddy appear to be the most entrepreneurial with 15.2% being engaged in their own business. Only 9.1% in Kayin and 6.7% in Rakhine are into business.



Table 16 – Primary Occupation of Affected Household Members (15 years old and over): December 2017

Occupation	Ayawaddy (%)	Mon (%)	Kayin (%)	Rakhine (%)	Total (%)
Agriculture	28.3	16.7	33.3	20.0	28.0
Own Business	15.2	0	9.1	6.7	11.0
Government Employment	0	0	3.0	6.7	2.0
Private Sector Employment	2.2	0	0	0	1.0
Wage Earner	6.5	0	6.1	6.7	6.0
Household work	19.6	16.7	9.1	6.7	14.0
Unemployed	0	0	6.1	20.0	5.0
Students	23.9	66.6	27.3	33.2	29.0
Others	4.3	0	6.0	0	4.0
Total	100.0	100.0	100.0	100.0	100.0

Source: December 2017 Survey

3.6 Household Income and Expenditures

38. The average income of the surveyed households is 20,991 USD in 2016. The highest earners are in Ayawaddy with 27,833 USD per year on average. The lowest earner is in Mon State with 3,996 USD per year. Since agriculture is the main employer among surveyed households, it also provides income to most households. Around 85.7% of these households earn from agriculture (Table 17). The one household in Mon earns from it so are 90% of the households in Ayeyerwaddy. In Kayin, the households earning from agriculture constitute 80.0% and 75.0% in Rakhine.

39. Salary and wages are also relied upon by 80.0% of the surveyed households in Kayin State and 50.0% in Rakhine. But only 18.2% in Ayawaddy earn salaries and wages. On average, the surveyed households derive income from two sources. The households with most income sources are in Kayin State with about four. Those in Ayawaddy and Rakhine have two. The one household in Mon State did not report income from its shop and registered only agriculture as its income source.

40. Agriculture supports more households than any other sector. But due to lower income from agriculture compared to other sectors particularly business, its average contribution to household income is only 8.1 percent. This percentage indicates that agriculture is not as productive as business. Although lower percentage of households is into business, it contributes 84.5% of the average household income. Its contribution to average household income is highest in Ayawaddy Region at 90.5 percent. Its contribution to household income in Kayin and Rakhine States amounts to 75.5% and 34.7%, respectively. As noted earlier, the one household in Mon State did not declare business income although it operates a shop.



Table 17 – Selected Data on Income Among Affected Households: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Average Amount of Household Income Per Year (USD)	27,833	3,552	24,005	27,713	20,991
Percentage of Households by Income Source (multiple response)					
Farming	90.0	100.0	80.0	75.0	85.7
Business	27.3	0	60.0	50.0	38.1
Wage and Salary	18.2	0	80.0	50.0	38.1
Remittances	9.1	0	60.0	0	19.0
Sale of Animals	27.3	0	0	0	14.0
Others	18.2	0	0	0	4.7
Average Number of Income Sources	2.0	1.0	3.8	2.0	2.0
Percentage Contribution of Income Source to Average Income					
Farming	7.3	100.0	3.0	60.3	8.1
Business	90.5	0	75.5	34.7	84.5
Wage and Salary	1.4	0	4.5	5.0	2.3
Remittances	0.5	0	17.0	0	4.9
Sale of Animals	0.2	0	0	0	0.2
Others	0.1	0	0	0	0
Total	100.0	100.0	100.0	100.0	100.0
Annual Income (in MMK) Distribution of Households (%)					
Below 600,000	9.1	0	0	0	4.8
600,000-800,000	0	0	0	0	0
800,000-1,000,000	0	0	0	0	0
1,000,000-1,200,000	9.1	0	0	0	4.8
1,200,000-1,400,000	0	0	0	0	0
1,400,000 and over	81.8	100.0	100.0	100.0	90.4
Total	100.0	100.0	100.0	100.0	100.0
Source: December 2017 Survey					

41. Due to their amount of income, 90.4% of the surveyed households are in the top-tier in terms income distribution. They earn more than 1,400,000 MYK a year. Only 4.8% are in the lowest tier earning less than 600,000 MYK or less than 2 USD a day. But as noted earlier, this household experienced a massive crop failure in 2016 resulting to very low reported income.

42. Given the average income and expenditure, the surveyed households are generally enjoying a surplus. The surplus is 13,618 USD in 2016 (Table 20). This amount of surplus indicates that the surveyed households are generally well-off. But the amount of surplus widely varies with one household in Mon State even experiencing a deficit. Those in Rakhine State have the biggest surplus at 24,863 USD. In contrast, the household in Mon State has



a deficit of 444 USD. To bridge this deficit, this household goes into debt and rely on the mutual help system of its extensive kinship network.

Table 18 – Selected Data on Expenditure Among Affected Households: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Average Expenditure/Year (USD)	7,131	3,996	12,200	2,850	7,373
Average Amount of Savings/Year (USD)	20,702	(444)	11,805	24,863	13,618
Percentage Distribution of Expenditure					
Food	34.6	46.3	17.1	31.1	27.8
Education	29.3	37.0	6.1	19.5	19.6
Medical Care	10.6	5.6	1.8	0.7	6.3
Housing	6.8	0	53.2	13.0	25.4
Clothes and personal effect	3.9	3.7	6.5	7.8	5.2
Entertainment and Celebrations	4.5	5.6	13.7	26.6	9.8
Others	10.3	1.8	1.6	1.3	5.9
Total	100.0	100.0	100.0	100.0	100.0
Source: December 2017 Survey					

43. On average, only 27.8% of the expenditure of the surveyed households is on food. This is consistent with their relatively high income and realized surplus because food is an inelastic consumption. It means that food consumption has its definite limit and if it is already satisfied, money tends to go to other consumption items. The result is the drop of the percentage of food expenditure relative to other consumption items.

44. Only the household in Mon State has about half of its expenditure on food. In Kayin State, slightly more than half of the expenditure is on housing. In Ayawaddy Region, expenditure on education is at 29.3% second only to food. In Rakhine State, the second-ranked expenditure item is entertainment and celebrations.

3.7 Land Holding

45. The average size of the land held by the surveyed households is 8.1 hectares (Table 19). This is three times larger than the average land holding in Myanmar which is registered at 2.7 hectares.³ The size of their land holding is another indicator that shows the surveyed households are generally well-off. Those in Ayawaddy Region have the largest average at 10.5 hectares. The households in Mon and Kayin States have less than half of that average at 5.1 hectares, respectively. The average in Rakhine State is 5.6 hectares.

³ Ministry of Agriculture and Irrigation 2013. Quoted in Raitzer, D, and Others. 2015. Myanmar Agriculture Sector: Unlocking the Potential for Inclusive Growth. ADB Economics Working Paper Series No 470. Manila: ADB. December



Table 19 – Selected Data on Landholding Size and Use Among Affected House-holds: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Average Size of Land Holding (ha)	10.5	5.1	5.1	5.6	8.1
Percentage Distribution of Landholding by Use					
Seasonal crops	94.7	19.8	20.5	88.7	80.4
Orchard	0.3	0	23.7	9.1	5.0
Rubber farm	0	79.4	52.8	0	10.4
Residential	4.4	0.8	3.0	2.2	3.8
Commercial	0.6	0	0	0	4.0
Total	100.0	100.0	100.0	100.0	100.0
Source: December 2017 Survey					

46. Cropping pattern differs between Ayawaddy and Rakhine on one hand and Mon and Kayin States on the other. In the former, seasonal crops are the mainly planted. Around 94.7% of the landholdings in Ayawaddy Region and 88.7% in Rakhine State are devoted to seasonal crops. In Mon and Kayin States, rubber is the dominant crop. It is planted to 79.4% of the land holding in Mon State and in 52.8% in Kayin State.

47. LUC covers 97.7% of the land of the surveyed households (Table 20). The lowest LUC coverage is in Kayin State at 88.2 percent. Lands without LUC are occupied for free. This land composes only 2.3% of the total.

Table 20 Tenure of Land Used by the Affected Households: December 2017

Tenure	Ayawaddy	Mon	Kayin	Rakhine	Total
LUC	99.3	100.0	88.2	99.8	97.7
Free Occupancy	0.7	0	11.8	0.2	2.3
Total	100.0%	100.0%	100.0	100.0%	100.0
Source: December 2017 Survey					

3.8 Farming Operation

48. The monsoon season is the main cropping season among surveyed households. Around 66.7% of the surveyed households plant seasonal crops during this sea-son (Table 21). Only half of that percentage plants in the dry season. The main seasonal crop is paddy rice. It is the only seasonal crop planted in Mon, Kayin and Rakhine States. In Ayawaddy State, 85.7 percent plant paddy rice. The other seasonal crop that they plant is pulses. Among the households who plant in the dry season, sesame and groundnut are the main crops.

3.9 Sanitation Facilities

49. Sanitation level is one indicator of living standard. The sanitary condition of the households is seen in their water and toilet facilities. Although the surveyed households are generally well-off, their access to sanitary water sources is very limited. None has access to tap or piped water. Only 23.8% has access to tube well (Table 22). Those who have access to tube well are confined to Ayeyarwaddy Region. The households in three states



are drawing their water from dug well or an open water bodies. But still 36.3% in Ayawaddy Region draw their water from a dug well. Around 18.2 have to rely on irrigation canal for water. For toilet facilities, water- sealed toilet is used by all surveyed households except in Rakhine State. Around 33.3% of the households in Rakhine State have no toilet.

3.10 Vulnerability and Risk Analysis

50. The vulnerable households include those headed by women or have disabled member or living on less than 2.00 USD a day. There is only one woman-headed household surveyed and one earning less than 2.00 dollars a day (Table 23). None among the households has a disabled household member. The woman-headed household who lacks manpower is likely to lose potential employment opportunities. As indicated earlier, the households earning less than 2 USD a day is a result of crop failure in 2016.

Table 21 – Cropping Patterns of the Affected Households: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Percentage of Households Planting Seasonal Crops					
Monsoon Season	63.6	100.0	60.0	75.0	66.7
Dry Season	54.5	0	0	25	33.3
Percentage of Households by Type of Monsoon Crops (Multiple Response)					
Paddy	85.7	100.0	100.0	100.0	92.3
Others	14.3	0	0	0	7.1
Total	100.0	100.0	100.0	100.0	100.0
Percentage of Households by Type of Dry Season Crops (Multiple Response)					
Paddy	33.3	0	0	0	28.6
Others	66.7	0	0	100.0	71.4
Total	100.0	0	0	100.0	100.0

Source: December 2017 Survey

Table 22 – Type of Sanitation Facilities of the Affected Households: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Water Source					
Tube Well	45.5	0	0	0	23.8
Dug Well	36.3	100.0	83.3	100.0	61.9
Spring	0	0	16.7	0	4.8
Irrigation Canal	18.2	0	0	0	9.5
Total	100.0	100.0	100.0	100.0	100.0
Toilet					
Sanitary	100.0	100.0	100.0	66.7	90.5
None	0	0	0	33.3	9.5
Total	100.0	100.0	100.0	100.0	100.0

Source: December 2017 Survey

Table 23 – Percentage of Affected Households by Type of Vulnerability: December 2017



Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Women-headed	0	0	1	0	1
With Disabled member	0	0	0	0	0
Living below 2USD a day	1	0	0	0	1



4 Ethnic Groups in the Project Sites

4.1 Purpose of Impact Assessment for Ethnic Groups

51. The SPS requires that indigenous peoples (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse impacts as a result of projects, and (iii) can participate actively in projects that affect them. Towards these ends, data were collected on the Mon, Kayin and Rakhine. These are the ethnic groups in the project sites. They are mainly found in the states bearing their names which are also the main part of their traditional homeland.

4.2 Data Collection Methodology

52. The data on the ethnic groups were obtained from primary and secondary sources. The primary sources were the household survey and public consultation meetings done on 30 September - 20 October 2017. The household survey was conducted in Bumar but the consultation in Mon and Rakhine used both Bumar and the local languages. The secondary data were obtained from past studies, government documents and ADB reports.

4.3 Profile of Ethnic Groups in Project Sites

53. Myanmar has nine main groups with Bamar as the largest group constituting 68% of the population.⁴ Among the eight smaller groups are the Mon, Kayin and Rakhine. Around 41.0% of the surveyed households ascribe themselves as part of these groups (Table 24). The Mon and Rakhine compose 100% in their respective states while Kayin comprise 36.4% in Kayin State. Mon households are also found in Kayin State constituting 24.2% of the households. The Bamar compose 100% of the households surveyed in Ayawaddy.

54. Both the Mon and Rakhine were at certain points in history developed powerful kingdoms and sophisticated civilization that helped mold their strong sense of identity.⁵ The Kayin is composed of numerous groups in the Myanmar eastern mountainous region and Irrawady Delta with heterogeneous cultures which collective identity evolved only in the 1800 under British colonial rule.⁶

⁴ International Organization for Migration. 2005. Burmese Cultural Profile: A Tool for Settlement Workers. Bangkok and <http://www.oxfordburmaalliance.org/ethnic-groups.html>

⁵ The Mon established the Dvaravati Kingdom (500 - 1000 AD) which included parts of present-day Thailand and the Pegu and Thanton Kingdoms in Lower Myanmar (800- 1200 AD) (http://factsanddetails.com/southeast-asia/Myanmar/sub5_5a/entry-2997.html). The Rakhine established the Dhanyavadi (3525 BC-326 AD) and Mrauk-U (1430-1784 AD) Kingdoms (https://en.wikipedia.org/wiki/Rakhine_people).

⁶ https://en.wikipedia.org/wiki/Karen_people



Table 24 – Ethnic Affiliation Among Households Affected by the Substations: December 2017

Ethnic Groups	Ayawaddy	Mon	Kayin	Rakhine	Total
Bamar	100.0	0	39.4%	0	59.9
Mon	0	0	24.2%	0	8.0
Kayin	0	100.0	36.4%	0	18.0
Rakhine	0	0	0	100.0	15.0
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: December 2017 Survey

55. Even with the establishment of current national borders, the traditional home range of the three ethnic groups is still apparent in their present distribution. The Mon are in Lower Myanmar while the Rakhine are in the coastal region of the present-day Rakhine State (Table 25). The Kayin are scattered in the eastern mountainous region and Irawaddy Delta. The Mon are estimated to compose 15.4% of the national population, making it the largest among the smaller ethnic groups in Myanmar. The Kayin and Rakhine, compose 7.0% and 5.5%, respectively.

56. The Mon and Rakhine share with Bamar the strong Indian cultural influence. They profess Theravada Buddhism and practice paddy rice cultivation. Their cultural elements became part of the mainstream Bumar culture. The most out-standing of these elements are writing system of the Mon and the architectural style of the Rakhine.

57. The Kayin shares with the Bumar and the Rakhine the Sino-Tibetan linguistic root. But while many Kayin also adopted Theravada Buddhism, this is mixed with animistic features. There are also substantial number of Kayin who adopted Christianity being introduced to it by Western missionaries. Their traditional livelihood system revolves around rotational farming.

58. The three groups retain their strong sense of identity. The politicization of this identity in recent history highlights this sense. But in spite of past sporadic inter-group conflicts, population movement, centuries of interaction, mutual subjugation and post-independence government policies resulted to high degree of amalgamation of their cultures.⁷

⁷ Min Zhin. 2017. Mon Culture: Dying or Reviving?. The Irrawaddy. September



Table 25 – Key Characteristics of the Ethnic Group in the Project Sites

Group	Mon	Kayin	Rakhine
Physical Distribution	Lower Myanmar	South and South-eastern Myanmar	Coastal area of southwestern Myanmar
Estimated Percentage of National Population	15.4%	7.0%	5.53%
Linguistic Root	Austroasiatic	Sino-Tibetan	Sino-Tibetan
Religion	Theravada Buddhism	Buddhism with animism and Christianity	Theravada Buddhism
Traditional main livelihood system	Paddy cultivation	Rotational farming	Paddy cultivation; Fishing
Distinctive cultural feature	Mon language and writing system	Numerous sub-groups; Scanty written records	Pagoda building and architectural ornamentation; Strong Indian influence
Sources: Pon, Nyo Mon. 2010. Identity, Image, and Ethnic Conflict in Burma: A Case Study of Mon People. Ph.D. Dissertation. Washington State University; Gupta, S. Undated. Development in Transition. The Socioeconomic Status of Rakhine State, Myanmar. Working Paper. Livelihood and Food Security Trust Fund; Okell, J. 1995. Three Burmese Dialects. Papers in Southeast Asian Linguistics. Karen Buddhist Dhamma Dhutta Foundation. 2011, The Karen People: Culture, Faith History; http://factsanddetails.com/southeast-asia/Myanmar/sub5_5a/entry-2997.html ; https://en.wikipedia.org/wiki/Mon_people ; https://en.wikipedia.org/wiki/Karen_people ; https://en.wikipedia.org/wiki/Rakhine_people			

4.4 Impact of Substations on Ethnic Groups and Development Actions

59. The ADB safeguards on indigenous peoples are triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of ethnic minorities or affects the territories or natural or cultural resources that they own, use, occupy, or claim as an ancestral domain or asset.⁸ The substations will directly affect land used by the identified households belonging to ethnic groups. As result, their livelihood will be affected as well. But it will not affect their dignity, human rights and culture, and in this light, the ADB safeguards on Indigenous People is not triggered and the AHs are identified as ethnic groups.

60. In the key informant interviews and five consultation meetings, none identified any site with social, cultural or spiritual importance to ethnic groups that may be affected by the DL and substations. No one also raised as an issue the potential adverse impact of the substations and the DL on any tradition, belief and ritual of these groups. In the consultation meetings, key informant interviews and the household survey, no ethnicity-related vulnerability was identified nor any kind of vulnerability of this type that will be exacerbated by the project. Instead, expressions of support and the immediate need of the project were expressed in the meetings. The DL and the substations are expected to directly bring grid-sourced electricity to the households of ethnic groups in the project area. Electricity will enhance their economic capability and will serve their demand for more fruitful participation in development.

⁸ Asian Development Bank. 2009 Safeguard Policy Statement . Appendix 3 Paragraph 9.



61. Nonetheless, the findings from the key informant interviews and consultation meetings on the project's impact on ethnic groups will be further validated after the detailed engineering design will be made. In the REGDP update, the GAD will audit the project for any adverse impact on ethnic groups and certify that the project avoided any impact. The certification will be counter-signed by recognized representative of ethnic group in the area and concerned national agency.



5 Information Disclosure and Public Consultations

5.1 Purpose of Public Participation Activities

62. The information dissemination and consultation activities were done to attain the following: (i) share available project information with the affected people; (ii) obtain their initial feedback on proposed activities; (iii) involve the affected people and communities in project planning; and (iv) ensure transparency in all activities related to resettlement impacts, mitigation and compensation. The primary stakeholders of the DL and substation are the affected households and the households who will connect to the DL. The other stakeholders are the MOEE, business groups and the local government authorities.

5.2 Information Dissemination

63. The information on the proposed DL and substations was disseminated on September-December 2017 through meetings with local authorities, key informant interviews, consultation meetings and household interviews during the socio-economic survey. The socio-economic survey, key informant interviews and the consultation meetings provided opportunity to draw out information on the potential adverse impacts of the construction and operation phase and their recommendations on the mitigation and compensation of these impacts.

5.3 Result of the Household Survey

64. The socio-economic survey result shows that all the surveyed households are already aware of the project (Table 26). All of the respondents except one mentioned one or two project benefits. The one household respondent who did not mention any benefit stated that he does not know enough.

65. Among those who mentioned a benefit, sufficient and affordable power is the main one being mentioned by 76.1 percent. This benefit is cited by 81.8% in Ayawaddy Region and by all respondents in Mon and Kayin States. In Rakhine State, all the respondents mentioned only increased development as the benefit from the project. Nevertheless, this benefit was also noted by 81.1% in Ayawaddy Region. The other benefit mentioned in Ayawaddy Region is reliable electricity.

66. Around 95% of the surveyed households do not see adverse project impact. The only adverse project impact mentioned by 5.0% is electrical hazard. This impact is mentioned in Ayawaddy. No one in other regions/states mentioned any adverse impact. It must be noted that although the lands of the surveyed households are acquired for the substation, none of them cited this as an adverse impact.



Table 26 – Awareness of the Project and Impact Identified Among Households Affected by the Substation: December 2017

Item	Ayawaddy	Mon	Kayin	Rakhine	Total
Households Who Are Aware of the Project (%)	100.0	100.0	100.0	100.0	100.0
Benefits Identified (Multiple Response) (%)					
Sufficient and affordable power	81.8	100.0	100.0	0	76.1
Reliable power supply	18.2	0	0	0	9.5
Increased development	81.2	0	0	100.0	57.1
Adverse Impact Identified (%)					
None	90.0	100.0	100.0	100.0	95.0
Electrical hazards	10.0	0	0	0	0
Total	100.0	100.0	100.0	100.0	100.0

Source: December 2017 Survey

5.4 Consultation Meetings

67. Eight consultation meetings with the on-site project stakeholders and affected people were held from 30 September to 20 October 2017 (Table 27). A total of 454 persons attended the meetings: 333 men and 121 women. The ESE staff led the meetings being the project owner.

Table 27 – Participants in Public Consultation Meetings by Location and Gender

Location	Men	Women	Total
Thegon Township, Bago	51	9	60
Bago Township, Bago	26	12	38
Pathein Township, Ayawaddy	54	18	72
Zalun, Township, Ayawaddy	35	10	45
Kyeik Hto Township, Mon State	33	19	52
Mawlamyine Township, Mon State	29	7	36
Zar Tha Pyin Township, Kayin State	84	34	118
Hpa-An Township, Kayin State	21	12	33
Total	333	121	454

68. The project components and potential scope of resettlement impacts were disclosed during the meetings. The main social issues raised were on compensation for affected land and crops (Table 28). The other issues raised were on safety, employment availability in the project and environmental impact. The documentation of the meetings is in Annex 1.



Table 28 – Public Consultations for the Distribution Component and Issues Raised: September–October 2017

Date	Region/State, Township and Village	Issues Raised
	Bago West	
30 Sept 2017	Thaegon	<ul style="list-style-type: none"> • Availability of employment • Crop compensation • Responsible agency for compensation • Safeguards Taken
9 October	Bago	<ul style="list-style-type: none"> • Need to expand the service area
	Ayawaddy	
11 Oct 2017	Pathein	<ul style="list-style-type: none"> • Compensation rate
12 Oct 2017	Zalun	<ul style="list-style-type: none"> • Distance of DL from gas station
	Kayin Region	
20 Oct 2017	Zar Tha Pyin	<ul style="list-style-type: none"> • Land compensation rate
19 Oct 2017	Hpa-An	<ul style="list-style-type: none"> • Impact on crops • Land acquisition needed • Safety measures • Distance of substation from houses
	Mon State	
16 October	Kyeik Hto	<ul style="list-style-type: none"> • Need for advance notification • Environmental impact
17 October	Mawlamyine	<ul style="list-style-type: none"> • Loss of trees • Excessive demand for compensation • Environmental impact

5.5 Planned Disclosure and Consultation Activities

69. The REGDP will be revised based on the detailed engineering design and result of the DMS. The plan and its summary will be translated into Bumar, Mon, Keyin and Rakhine and will be made available to the affected people through the village and township authorities.

70. The PIB draft in Appendix 4 will be updated based on the revision of the REGDP and distributed to the affected people. The booklet contains the following information: (i) project description, (ii) expected project impacts, (ii) compensation and entitlements policy, (iii) institutions responsible for setting the compensation rates and payment, (iv) procedures for setting the compensation rates; (v) eligibility for compensation; (vi) grievances and appeal procedures; and (vii) role of the affected households in facilitating compensation process. The PIB will be available in Bumar, Mon, Kayin and Rakhine languages. The PIB will be distributed after the DMS and the update of the REGDP.

71. Multi-level consultation meetings will be periodically held during REGDP updating and construction and operation phases (Table 29). The consultations and feedback cycle will be held until the ADB's issuance of project completion report. The regional, township and village authorities would be involved on forging agreements on compensation, assistance options, entitlement package, grievance redress and income restoration. Special meetings will be held to draw out inputs from the vulnerable households. The project will regularly update the local authorities and affected people on the implementation activities. Issues will be continuously identified and measures will be formulated during consultation sessions.



Table 29 – Planned Consultation Activities for Power Network Development Project: Distribution Component

ACTIVITIES	STAKEHOLDER GROUPS
A. Preparation Phase (REGDP Updating)	
1. Update the concerned national government agencies on the progress of project work 2. Get permit to conduct census, DMS and consultations in the villages traversed by the DL and affected by substations. 3. Draw out their concerns on the project and suggestions to address these	<ul style="list-style-type: none"> • MOEE; (Nay Pyi Taw) • Ministry of Natural Resource and Environmental Conservation (MONREC) • MOF: (Nay Pyi Taw)
4. Update the regional government units on the progress of project work and inform them on result of meetings with national agencies and the work plan for the field 5. Draw out their concerns on the project and suggestions to address these	<ul style="list-style-type: none"> • Chief Minister Office of Regions/States • GAD • Regional MONREC and MOF regional offices
6. Update the township officials on the progress of project work and inform them on result of meetings at national and regional levels and the work plan for the field 7. Obtain introduction letter from regional government to the chiefs of the village tracts and villages 8. Draw out their concerns on the project and suggestions to address these	<ul style="list-style-type: none"> • Township / District GAD • MONREC and MOF township office • Township Development Committees • NGOs.
9. Present introduction letter from regional government to the chiefs of the village tracts and villages and obtain permission for field activities and arrange for the announcement of cut-off date. 10. Inform the community of the cut-off date, conduct the census, DMS and consultations 11. Present census and DMS result to the community to validate results and draw feedback and suggestions 12. Explain the mechanisms for setting compensation rates, compensation payment and grievance redress mechanism and draw feedbacks and suggestions 13. Incorporate workable stakeholders' suggestions to the design of the mechanisms.	<ul style="list-style-type: none"> • Village Tracts Leaders • Village Chiefs • Women • Farmers • Local households • Vulnerable groups
B. Construction Phase	
1. Provide periodic update the concerned national government agencies on the progress of project work using monitoring reports 2. Draw out their concerns on the project and suggestions to address these	<ul style="list-style-type: none"> • Concerned national, regional and township agencies and officials • NGOs
3. Consult with the chiefs and local groups in villages in DL sections where construction is done to identify issues and arrange solutions. 4. Provide copy of updated REGDP copy in local language in the house of the village tract and	<ul style="list-style-type: none"> • Village Tract Officials • Village Chiefs • Women • Fishermen and farmers • Local households



<p>village chiefs and post the entitlement matrix in a public place.</p> <ol style="list-style-type: none"> 5. Operate s participatory and multi-level Grievance Redress Mechanism to settle collective and individual compliant on the project 6. Prioritize the employment villagers including women whenever they are qualified for the job 7. Establish mechanism to enable the villages producers to supply the food requirements of workers camps 8. Conduct community and sector meetings as requested by the village officials 9. Jointly manage an emergency response program with the community for project related incidents affecting community welfare. 	<ul style="list-style-type: none"> • Vulnerable groups
<p>C. Operation Phase</p>	
<ol style="list-style-type: none"> 1. Update the concerned national government agencies on the progress of project work 2. Draw out their concerns on the project and suggestions to address these 	<ul style="list-style-type: none"> • Concerned national, regional and township agencies and officials • NGOs
<ol style="list-style-type: none"> 3. Work with the chiefs and local groups in implementing solutions to issues affecting them 4. Operate s participatory and multi-level GRM to settle collective and individual compliant on the project 5. Conduct community and sector meetings as requested by the village officials 6. Jointly manage an emergency response program with the community for project related incidents affecting community welfare. 	<ul style="list-style-type: none"> • Village Track Officials • Village Chiefs • Women • Local households • Vulnerable groups



6 Grievance Redress Mechanism

6.1 Asset Compensation Committee and Grievance Settlement

72. Due to minimal impact, the DL installation will not require land acquisition but affected privately-owned trees and crops will be compensated at market rate. Although the contractors will compensate these assets as part of the construction damage, a GRM will operate for the DL in case of complaints. This means that a GRM will be established in all regions/states, including Bago East and West where there will be no land to be acquired for the substations.

73. In the four other regions/states where private land will be acquired for the substations, the regional/state administration will form an Asset Compensation Committee (ACC) which main tasks include the following: (i) carry out the DMS, (ii) determine the market rates of each type of asset and production, (iii) set the compensation rates at replacement cost, and (iv) negotiate with each affected household to achieve and agree upon replacement cost. Government agencies will compose the committee. The agencies which will constitute the committee will be agreed upon in each region/state and will vary from region/state to region/state.

74. The ESE will have a committee in every level of its organization to receive and resolve complaints in a free, transparent, timely and satisfactory manner. The levels are as follows: (i) PMU; (ii) ESE District Office; and (iii) ESE national office in Nay Pyi Taw. The persons who will serve as committee members will be oriented on the compensation rules and process and will be trained in handling grievances and resolving disputes. The grievance committee will be activated as soon as the PMU is organized and will stay active throughout project implementation period. It will only handle complaints related to the resettlement impacts and not disputes over land use rights which must be resolved by the court of law.

6.2 Grievance Redress Procedures

75. The affected people will be informed of their rights and the avenues and procedures through the PIB, one-one meetings and consultations. If an aggrieved affected person feels inadequate to express the complaint in writing, assistance maybe sought from any recognized local group, NGO, family member, village elders and officials to do the writing. The ESE will shoulder all costs involved (i.e., for meetings, consultations, communication, reporting and information dissemination) in resolving the complaints. The procedures to be followed to resolve each type of grievance are as follows:

A. DMS Result

(i). The household who is not satisfied with the DMS result on its affected assets will indicate so in the signed accomplished DMS form and will request the ACC for a review and re-evaluation of the result by another ACC survey team.

(ii). If the household is still dissatisfied with the review and re-evaluation result, its representative will accomplish the DMS form, sign it and will request verbally or in writing the ESE PMU Grievance Committee for a re-survey and re-evaluation of the affected assets.

(iii). The ESE PMU Grievance Committee has 15 days upon receipt of the complaint to constitute a new survey team, re-measure the affected assets and rectify errors if found. If the household is still dissatisfied with the result or action taken by the ESE PMU Grievance Committee, it may appeal its case to the ESE District Office Grievance Committee.



(iv). The ESE District Office Grievance Committee has 15 days to resolve the complaint. If the household is still dissatisfied with the judgement at the district level, the case may be brought to the ESE National Office Grievance Committee.

(v). The ESE National Office Grievance Committee has 15 days to resolve the complaint. If the household is still dissatisfied with the judgement at the national level, it may bring its case to the judicial process for resolution.

B. Ownership and Right of Affected asset

(i). If the complaint concerns ownership, right and control of affected assets, the ACC will consult and mediate with the contending parties to settle it.

(ii). If the consultation and mediation process will not resolve the case, the ACC will advise the concerned households to bring it to court.

C. Non-compliance with the Negotiated Valuation of Assets

(i) The household who thinks that the ACC is not adhering to the valuation of its assets as agreed in computing and paying the amount of compensation, may refuse to hand-over its affected assets and will notify verbally or in writing the ESE PMU Grievance Committee on the alleged non-compliance.

(ii) The ESE PMU Grievance Committee has 15 days upon receipt of the complaint to address it. If the household is still dissatisfied with the judgement at the PMU level, it may bring the case to the ESE District Office Grievance Committee.

(iii) The ESE District Office Grievance Committee has 15 days to resolve the complaint. If the household is still not satisfied with the judgement at district level, it may bring the case to ESE National Office Grievance Committee.

(iv) The ESE National Office Grievance Committee has 15 days to resolve the complaint. If the household is still dissatisfied with the judgement at the national level, the case may be elevated to the judicial process.

D. REGDP Implementation and Construction Impacts

(i) The procedures for complaints on REGDP implementation and unanticipated or unmitigated construction impacts are the same as those for complaints on non-compliance with negotiated valuation of assets.



7 Policy and Legal Framework

7.1 Reconciliation of ADB and Myanmar Policies

76. The gaps between the ADB 2009 SPS and Myanmar laws on involuntary resettlement are assessed based on their relevance to the resettlement issues in DL and substation (Table 30). The issues are on the impact of the project on private assets and are as follows: (i) loss of land (ii) temporary loss of crops and trees to the DL corridor, (iii) loss of structure, (iv) partial restriction in use of land due to DL; (v) compensation rate of affected assets; (vi) assistance to vulnerable households and (vii) need to consult the affected people.

77. Myanmar has no law specifically on involuntary resettlement. But three laws are relevant to the issues in the project: (i) 2008 State Constitution of the Republic of Union of Myanmar, (ii) The Farmland Law of 2011 and, (iii) Environmental Impact Assessment Procedures of 2015 (Notification No – 616/2015). The State Constitution of the Republic of Union of Myanmar designates the state as the owner of all land of the country (Section 37).

78. The Farmland Law 2012 reiterates the state ownership of all lands by providing for the granting of permission of the right to use farmlands through the LUC. The LUC is basically a leasehold and not a freehold instrument. Due to the procedures in acquiring an LUC, not all households have obtained it. This law also provides “suitable compensation” to the LUC holder for assets developed on the land in case of its repossession by the state (Section 26).

79. The Environmental Impact Assessment Procedures of 2015 is significant because it bridges all the gaps between the Myanmar laws and ADB Safeguard Policy Statement (2009). The specific provision that bridges such gap is as follows:

All projects involving resettlement or potentially affecting indigenous peoples shall additionally comply with separate procedures issued by responsible ministries and, in the absence of such procedures all such projects shall adhere to international best practice applied by ADB, World Bank and IFC on involuntary resettlement and indigenous people (Section 7).

80. Further, the Environmental Impact Assessment Procedures of 2015 emphasized the need of public participation as part of the project planning and implementation process. The requirement for consultation is provided in eight provisions (Sections 13, 16, 34, 36, 37, 39 50 and 61) of this law. ADB Safeguard Policy Statement (2009) considers consultation and participation central to the achievement of safeguard policy objectives (Paragraph 32). The REGDP will carry out actions to meet the relevant requirements of ADB Safeguard Policy Statement (2009) (Table 29). Meeting such requirements will also enable the project to follow the adhere the national laws.



Table 30 – TL Impacts, Relevant Provisions in ADB Safeguard Policy Statement (2009) and REGDP Actions

Issues	ADB Safeguard Policy Statement (2009)	Actions in the REGDP
Permanent loss of land	The rate of compensation for acquired housing, land and other assets will be calculated at full replacement costs. The calculation will be based on the following: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. (Appendix 2 Paragraph 10)	Compensation of land at full replacement cost The calculation will be based on the following: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any.
Permanent loss of structure	The rate of compensation for acquired housing, land and other assets will be calculated at full replacement costs. The calculation will be based on the following: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. (Appendix 2 Paragraph 10)	Compensation of structure full reconstruction cost; Option to keep the salvage materials Transfer and subsistence allowance provision
Temporary and permanent loss of crops and trees	Promptly compensate for loss of income or livelihood sources at full replacement cost. Also provide assistance so that they can improve, or at least restore their standards of living to pre-displacement level (Appendix 2 Paragraph 12)	Compensation of seasonal crop equivalent to three cropping seasons. Compensation of rubber trees equivalent to 5 years of yield. Compensation of fruit trees equivalent to 5 years of yield. Full replacement cost includes investments and maintenance costs provided until impact.
Partial restriction in use of land due DL	Involuntary resettlement requirements apply to involuntary restrictions on land use (Appendix 2 Paragraph 5)	Compensation for the lost asset and its production value is provided at replacement cost. Livelihood restoration strategies shall be developed in collaboration with the Ministry of Agriculture and AHs can access ongoing. Alternative cropping options will be determined prior to the development of the updated REGDP which will be provided after Detailed Engineering Design has been finalized. Within the updated REGDP, crops that would provide equivalent if not



Issues	ADB Safeguard Policy Statement (2009)	Actions in the REGDP
		higher income will be documented. Meaningful consultations will be conducted with AHs to promote interest and involvement ¹
Loss of commercial structure and income	Where acquisition affects commercial structures, affected business owners are entitled to the costs of re-establishing their activities, the net income lost during the transition period; and the costs of transferring and reinstalling (Appendix 2 Paragraph 12)	Compensation for destroyed structures and lost net income and transfer assistance will be provided with options to keep salvage materials.
Compensation rate of affected assets	The rate of compensation for acquired housing, land and other assets will be calculated at full replacement costs. The calculation will be based on the following: (i) fair market value; (ii) transaction costs; (iii) interest accrued, (iv) transitional and restoration costs; and (v) other applicable payments, if any. (Appendix 2 Paragraph 10)	Compensation of crops, trees and structures at full replacement cost.
Inclusion of vulnerable groups among the affected people	For vulnerable persons, the resettlement plan will include measures to provide extra assistance so that they can improve their incomes in comparison with pre-project levels. (Appendix 2 Paragraph 21)	Farming support and training ¹ Preferential project employment Cash grant on top of compensation
Need for disclosure and consultations	Provide resettlement information in a timely manner in accessible place and a form and language understandable to affected persons. Conduct meaningful consultation for project having involuntary resettlement impacts. (Appendix 2 Paragraph 27 and 28)	Disclosure and consultations were conducted and more are planned to meet ADB's and the national law's requirements of meaningful consultations in appropriate languages and visual aids.
Any other loss not identified	The borrower/client will compensate them for the loss of assets other than land, such as dwellings, and also for other improvements to the land, at full replacement cost. (Appendix 2 Paragraph 8)	Unanticipated involuntary impacts will be documented, mitigated and compensated based on ADB's social safeguard policies

¹ The type and intensity of support and training will be needs-driven and will be determined based on technical studies and household level consultations.

7.2 REGDP Preparation and Implementation Principles

81. Since the Environmental Impact Assessment Procedures of 2015 require projects with resettlement and indigenous peoples concerns to adhere to international best practice including those applied by ADB, the relevant principles of ADB Safeguard Policy Statement (2009) will guide the preparation and implementation of the REGDP. These principles aim to attain the three objectives of ADB safe-guards: (i) avoid adverse impacts of projects on the environment and affected people, where possible; (ii) minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and (iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks.



82. Also considered in the formulation of these principles is the objective of ADB Policy on Gender and Development. It aims to promote gender equity and ensure that women participate and that their needs are explicitly addressed in the decision-making process. These principles are the following:

i. Acquisition of land and other assets, and resettlement of people will be avoided or minimized as much as possible by identifying possible alternative project designs and appropriate social, economic, operation and engineering solutions that have the least impact on populations in the project area.

ii No site clearing will be done in anticipation or before being considered for inclusion in the project site.

iii Affected households residing, working, doing business and/or cultivating land within the impact area during the conduct of the census and in the DMS, are entitled to be compensated for their lost assets, incomes and businesses at re-placement cost, and will be provided with assistance to improve or at least maintain their pre-project living standards, income-earning capacity and production levels.

iv Affected households will be eligible for compensation and rehabilitation assistance, irrespective of tenure status, social or economic standing and any such factors that may discriminate against achievement of the resettlement objectives. Lack of legal rights to lost assets or tenure status and social or economic status will not bar the affected households from entitlements to compensation and assistance.

v Affected households will be fully consulted and given the opportunity to participate in matters that will affect their lives during the design, implementation and operation of the project. Moreover, plans for the acquisition and use of assets will be carried out in consultation with the affected households who will receive prior information of the compensation and other assistance available to them.

vi Any acquisition of, or restriction on access to, resources owned or managed by the affected households as a common property such as pasture area will be mitigated by arrangements that will ensure they have access to equivalent resources.

vii There will be no deductions in compensation payments for structures or other affected assets for salvage value, depreciation, taxes, stamp duties, fees or other payments.

viii If land use right over any affected asset is under dispute the case will be handled in accordance with the GRM in this REGDP.

ix Temporarily affected land and structures will be restored to pre-project conditions.

x There will be effective mechanisms for hearing and resolving grievances during the planning and implementation of the REGDP.

xi Existing social, cultural and religious practices will be respected.

xii Special measures will be incorporated in the REGDP to complement mitigation and enhancement activities to protect socially and economically vulnerable groups at high risk of impoverishment. Appropriate assistance will be provided to help them improve their socio-economic status.

xiii Adequate resources will be identified and committed during the preparation of this REGDP. This includes adequate budgetary support fully committed and made available to



cover the costs of compensation, resettlement and re-habilitation within the agreed implementation period for the project; and, adequate human resources for supervision, liaison and monitoring of land acquisition, resettlement and rehabilitation activities.

xiv Appropriate reporting, monitoring and evaluation mechanisms will be identified and set in place as part of the resettlement management system.

xv The REGDP or its summary will be translated into Burmese, Mon, Kayin and Rakhine and placed in township and village authority offices for the reference of affected households and other interested groups.

xvi Civil works contractors will not be issued a notice of possession for any given geographic location in accordance with the approved REGDP until (i) compensation payment have been satisfactorily completed for that area; (ii) agreed rehabilitation program is in place; and (iii) the area is free from all encumbrances.

xvii Cash compensation for affected households losing commercial structures will be made available well ahead of civil works to allow the affected households sufficient lead time for reconstruction. No demolition of assets and/or entry to properties will be done until the affected household is fully compensated and relocated.



8 Entitlement

83. The entitlement matrix in Table 31 provides the main types of losses identified and the corresponding nature and scope of entitlements. During REGDP updating, the census and DMS will be the basis for determining the final entitlements based on actual losses including appropriate special assistance to vulnerable groups. Market price surveys will be carried out to determine actual replacement rates. Standards described will not be lowered but can be enhanced in the updated REGDP as required.

Table 31 – Entitlement Matrix for the Distribution Component under the MYA: Power Network Development Project

Type of Losses	Entitled Household	Entitlement
Loss of land	All households with LUC and recognizable claims to land	i. Compensation to lost land rights at market rate
Lost structure in private land	All private structure owners	i Compensation of structure at replacement cost ii Option to keep salvage materials iii Transfer and subsistence allowance
Seasonal crops	Tillers in government land	i. Compensation equivalent to the value of harvests for three cropping cycles. ii. Option to harvest the crop before construction begins iii 60 days advance notice to harvest standing crop
Seasonal crops	Sharecropper	i Landowners will pay from his compensation the amount equivalent to the share of the harvest of the sharecropper; ii 60 days of notice to harvest standing seasonal crops. If notice cannot be given, compensation for share of crops will be provided. Iii Assistance if vulnerable household
Rubber and fruit trees in the DL Corridor	All types of land tenure	i. Compensation for harvest equivalent to 5 years for mature trees. Iii Compensation of trees less than 5 years old or at non-productive stage will be based on the current market value of the timber. iv.Option to cut the tree and other perennials and keep the timber free of charge as long as they will not delay the project activities. v Assistance in growing short-term crops within the corridor to replace rubber trees ¹
Commercial Structure and income	Legal Owners of structures	ii. Compensation equivalent to replacement value of structure based on the census and DMS result and will be determined further by Compensation Committee iii. Reconstruction cost of the structure iv. Option to keep all salvage materials free of charge. v Compensation for lost income vi Transfer cost



Type of Loses	Entitled Household	Entitlement
Temporary impact during construction	All types of tenure and type of ownership	i. The contractor will pay for any impact on crops and structures resulting from movement of machineries and construction materials at replacement value ii. All temporary use of lands outside proposed ROW must have written agreement between the land user and contractor. iii. Land used temporarily will be returned to user after being restored to the original condition or preferably after being rehabilitated into better condition.
Losses of the vulnerable groups	All vulnerable groups	i. Farming support and training ¹ ii Cash grant on top of the compensation
Any other loss not identified	All affected people	Unanticipated involuntary impacts will be documented, mitigated and compensated based on ADB's social safeguard policies
¹ The type and intensity of support and training will be needs-driven and will be determined based on technical studies and household level consultations.		

84. Compensation will be given in cash at the current market rates. Where feasible, the compensation will be made through bank transfer. The project will assist unbanked affected households to open an account when requested. Since the prices set at the time of REGDP preparation may no longer correspond to the market rate by the time the project is implemented, adjustment will be made.

85. In addition to market rate compensation, the rubber and fruit tree planters who can no longer grow these crops within the DL corridor and vulnerable groups will get farming assistance. The compensation and assistance provided under the entitlement matrix are deemed sufficient to restore the income and standard of living of the households. The ESE will arrange and work with the Ministry of Agriculture, Livestock and Irrigation (MALI) in delivering such assistance.

86. The average income loss of the households affected by substation is 208USD (range 48-655 USD) per year. This amount can be recouped if the household can buy land with equivalent characteristics and productivity of the lost land. Among the households affected by the DL, the amount to be recouped is 37USD per year. This is assuming that the household has a land wide enough to be covered by one DL segment (pole-to-pole distance) and cultivating rubber (457USD/ hectare x 0.08 hectares). If the household will plant the restricted area with sesame twice a year, he will earn 65USD (408USD x 0.08 hectares x 2 cropping cycles) or almost double the lost income. The MALI will assist these households to plant sesame or other commercial seasonal crops (e.g., peanuts and pulses) through technical assistance and some inputs.

87. All affected people who are identified in the impact area on the cut-off date will be entitled to compensation for their affected assets, and specific assistance to improve or at least maintain their pre-project living standards, income-earning capacity and production levels. The cut-off date will be the final day of the census and DMS. Those who encroach into the DL corridor and land earmarked for the substations after the cut-off date will not be entitled to compensation or any other assistance. The affected households will receive compensation before construction work will begin.



9 Resettlement Budget and Financing Plan

9.1 Budget and Valuation Method

88. The total budget for REGDP implementation for the Distribution Component is 401,383 USD (Table 32). The compensation rates and amount of assistance to the affected people will be reviewed and adjusted based on the result of the census and DMS and the market rates at the time of REGDP implementation. The methods in computing the compensation per type of loss are as follows:

- (i) Land: The compensation of the land to be acquired for the substations is based on land price survey in the field. The price in all townships where land will be acquired is obtained and the average is computed to represent the price at the region/state level. The price is obtained for each type of land based on land cover.
- (ii) . Seasonal Crops: The only seasonal crop affected by the substations is paddy rice. The compensation rate per hectare is based on the farm gate price gathered during the September–October 2017 survey for the Transmission Line.⁹ Production cost is not deducted from the farm gate price because the margin of profit of production is very low.¹⁰
- (iii) Structure: The estimate of the structure is based on the material, labor, transport and construction cost in the locality as gathered in the December 2017 survey. There is no deduction for depreciation and transaction costs and taxes.
- (iv) Lost Business Income: The estimation of lost income is based similar shop in Mon State because the affected household did not give an estimate of his shop's income.

Table 32 – Compensation Budget for Private Assets Lost Due to the Substation

No	Description	Unit Cost (USD)	No of Units	Total (USD)
1	Ayawaddy Region			
	Paddy field	13,243/ha	4.2 ha	56,041
	Crop compensation: Non-owner cultivator	1,299 (433/ha/harvest x 3)	0.8 ha	1,039
	Assistance to Vulnerable	250/HH	2 HH ¹	500
	Subtotal			57,580
2	Bago East			
	Crop compensation: Non-owner cultivator	1,299 (433/ha/harvest x 3)	0.8 ha	1,039
	Subtotal			1,039
3	Kayin State			
	Rubber Plantation	45,695/ha	1.0	45,695
	Teak Tree Farm	31,986/ha	0.4	12,794
	Brushland	26,198/ha	0.8	20,948

⁹ The values for rice yield obtained in the December 2017 household survey for the Distribution Component are expressed in Myanmar unit of measure (*tin*) which is a measure of volume. The REGDP uses metric measurement and rice yield is measured in MT, which is a measure of weight. Conversion from the measure of volume to weight is not possible.

¹⁰ The World Bank estimates that the production cost per hectare in Myanmar for paddy rice is 510 USD which is higher than the value of yield (433 USD) reported in the September-October survey. World Bank. 2016. Myanmar: Analysis of Farm Production Economics. Economic and Sector Work Report No. 10006-MM. Washington D.C. 24 February



No	Description	Unit Cost (USD)	No of Units	Total (USD)
	Assistance to Vulnerable	250/HH	1 HH ²	250
	Subtotal			79,687
4	Mon State			
	Rubber Plantation	24,675/ha	0.4	9,870
	Structure: Shop house (Light Materials)	1000/structure	1 shop house	1,000
	Transfer Grant (12% of value of structure)	120/structure	1 structure	120
	Lost Business Income	75/month ³	3 months	225
	Subtotal			11,215
5	Rakhine State			
	Paddy Field	16,907/ha	1.9	32,123
	Cashew Farm	5,483/ha	2.0	10,966
	Subtotal			43,089
6	Lump-sum Allocation for MALI Farming Assistance to Affected Rubber Planters in DL Corridor and vulnerable households			120,000
7	Administrative Cost (15% of Items 1-6)			46,892
8	Contingency (10% of Items 1-7)			35,950
9	Monitoring and Evaluation (1.5% of Items 1-8)			5,932
	Grand Total (1-9)			401,383
<p>¹ one very poor household and one who will be rendered landless due to land acquisition</p> <p>² one woman-headed household</p> <p>³ The affected household did not declare income from the shop. The estimate is based on income similar shops in Mon State.</p>				

9.2 Fund Source and Flow

89. MOEE will provide all resettlement funds based on the financing plan agreed between the GOM and ADB. The amount of funds will be based on the implementation cost of the final REGDP approved by ADB. The Regional GAD will prepare a cost estimate for compensation of losses (land, crops, trees, structures and income) and submit this to MOEE who in turn will deposit the corresponding amount to the account of the Regional Administration.

9.3 Mode of Payment of Compensation

90. Payment will be made in cash. Whenever feasible, payment will be personally received by husband and wife and both will sign the acknowledgement receipt. If the affected person has a bank account, bank transfer will be the preferred option. The project will assist unbanked affected households to open a bank account if they qualify for the transfer of compensation.



10 Implementation Schedule

91. The REGDP will be implemented in nine-month period (Table 33). Upon the completion of the detailed engineering design, the affected households will be identified. The affected households will participate in the census and the DMS where the result will be the basis for estimating the compensation rate that each affected household will receive. Information about the project (objectives, location, activities and schedule) will be disclosed to the affected people and other stakeholders. The affected households will also be closely consulted on the DMS result and in setting the compensation rate.

Table 33 – Implementation Schedule of the REGDP for the Distribution Component under the MYA: Power Network Development Project

No	Activity	Quarter 1			Quarter 2			Quarter 3		
		1	2	3	1	2	3	1	2	3
1	Identify the affected household based on detailed engineering design	—	—							
2	Notify affected households on proposed project and potential losses	—	—	--						
3	Arrange for the participation of affected people in the census and DMS	--	--	--						
4	Conduct census and DMS among affected households		--	--	--	—				
7	Conduct market price survey				—					
6	Disclose information disclosure and consult affected people on DMS and market survey result and compensation rate				--	--				
5	Update the REGDP based on census and DMS result					---				
7	Submit updated REGDP to ADB for approval					---				
8	Prepare cost estimate of compensation by DC and submit to ESE						---			
9	Remit funds to the account of the GAD									
10	Prepare cost estimate of additional compensation and funds for assistance						---			
11	Pay the affected people the compensation						---	---	---	
12	Operate grievance redress mechanism				---	---	---	--	---	--
13	Conduct site clearance									---
14	Implement income restoration measures and other assistance								—	--
15	Monitor and evaluate REGDP implementation							--	--	--

92. A GRM will operate to receive and settle complaint from the affected people on resettlement impacts and compensation. Monitoring evaluation on the performance of compensation will start upon its payment. Site clearance will only begin 15 days after the affected household's receipt of payment and once it is ensured that the work site is free from any dispute and encumbrance.



11 Institutional Framework for Resettlement

93. The MOEE through the ESE PMU will oversee REGDP implementation (Table 34). It will ensure the following: (i) smooth coordination with the GAD in the conduct of resettlement activities; (ii) adherence to schedule and assurance given to ADB in the planning, implementation and monitoring of resettlement activities; (iii) availability of budget and funds for resettlement activities; (iv) timely disclosure of resettlement information to affected people and conduct of consultations; (v) prompt payment of agreed compensation to the affected people; (vi) formation and operation of GCM and prompt resolution of complaints and (vii) preparation of monitoring reports and prompt submission to ADB.

Table 34 – Groups Responsible for REGDP Implementation Activities of MYA: Power Network Development Project (in USD)

No	Activity	Responsible Groups
1	Identify the affected household based on detailed engineering design	GAD, Local Authorities affected people
2	Notify affected households on proposed project and potential losses	GAD and Local Authorities affected people
3	Arrange for the participation of affected people in the census and DMS	GAD and Local Authorities affected people
4	Conduct census and DMS among affected households	GAD and Local Authorities
7	Conduct market price survey	GAD and Local Authorities
6	Disclose information disclosure and consult affected people on DMS and market survey result and compensation rate	Local Authorities
5	Update the REGDP based on census and DMS result	ESE and Local Authorities
7	Submit updated REGDP to ADB for approval	ESE
8	Prepare cost estimate of compensation	ESE, GAD and Local Authorities
9	Remit funds to the account of the GAD	ESE
10	Prepare cost estimate of additional compensation and funds for assistance	ESE and GAD
11	Pay the affected people the compensation	GAD, Local Authorities
12	Operate GRM	ESE, Local Authorities and affected People
13	Conduct site clearance	Affected people and Contractor
14	Implement income restoration measures and other assistance	ESE, MALI, Local Authorities and affected People
15	Monitor and evaluate REGDP implementation	ESE and affected People

94. Further, the PMU will ensure the inclusion in the contractor's contract its obligation to pay for assets destroyed due to movement of machineries and construction materials, covering the temporary use of land outside the corridor with written contract with the land user and the restoration of the land to its original condition. The PMU will also oversee the contractor's compliance to these contractual obligations. The PMU will work with the GAD, local authorities and the affected people on the day-to-day implementation of the REGDP.



12 Monitoring and Evaluation

95. Key monitoring activities will focus on the implementation of the mitigation measures identified within this REGDP, from the baseline conditions, consultation phases and upon compensation until full livelihood restoration support programmes and trainings are delivered, with focus on severely affected households and vulnerable households. Monitoring will start with the conduct of the socio-economic survey of the affected households. The result of the survey indicates the baseline condition of the affected households before the project interventions. With the supports from PIC, the GAD will provide monthly report on the progress in REGDP implementation. The report will cover the status of REGDP implementation and the compliance of the conduct of activities and results to the REGDP (Table 35). ESE will consolidate the monthly reports into quarterly report for the project for submission to ADB. Table 35 Indicators, Methods and Monitoring Frequency for Internal Monitoring

Aspect	Indicators	Methodology	Time Frequency
REGDP Implementation	<ul style="list-style-type: none"> • Amount of compensation paid • Number of affected households paid by type of losses • Number of consultations done • Number of participants in consultations by gender • Number of complaints received and settled on compensation by type of complaint • Number of complaints received and settled on contractor's management of temporary impacts by type of complaint • Number of compensation payment receipts with signature of wife and husband • Number of vulnerable groups receiving special assistance by type of assistance • Number of rubber planters receiving assistance to shift to seasonal crops in the corridor • Unexpected issues by type 	<p>Review and validate supervision reports; Review procurement documents; Interview implementing local authorities, GAD and ESE staff Interview the affected people Review and validate compensation and management expenses</p>	Monthly during the period of REGDP implementation and until all objectives of the REGDP are reasonably met.
Operation Phase	<ul style="list-style-type: none"> • Number of consultations done • Number of participants in consultations by gender and ethnic affiliation 	<p>Review and validate supervision reports; Review procurement documents; Interview implementing local authorities, GAD and ESE staff</p>	One year after completion of compensation payment



Aspect	Indicators	Methodology	Time Frequency
	<ul style="list-style-type: none"> • Number of complaints received and settled on compensation by type of complaint • Number of complaints received and settled on contractor's management of temporary impacts by type of complaint • Number of compensation payment receipts with signature of wife and husband • Number of vulnerable groups receiving special assistance by type of assistance • Number of rubber planters receiving assistance to shift to seasonal crops in the corridor • Number of rubber planters who has shifted to seasonal crop in the corridor • Household income of affected households • Unexpected issues by type 	<p>Interview the affected people</p> <p>Socio-economic survey result</p> <p>Conduct sample survey and compare the result with the baseline</p> <p>Conduct FGD with affected rubber planters, and vulnerable groups</p>	

96. Monitoring will continue, including after compensation payment, to identify outstanding issues, status of groups provided with special assistance and the income level of affected households. A sample survey may be conducted among affected households. The survey will use the questionnaire used in the baseline survey. The results of the two surveys will be compared to show the difference of the living conditions of the affected households, particularly the vulnerable ones, before and after the project interventions. Based on the result of the survey and other methods of information gathering, corrective measures will be designed with the affected people and carried out to ensure that they are as well off if not better-off as they would have been without the project. A compensation completion report shall be drafted once compensation is provided in full.



APPENDIX 1

DESCRIPTION OF SUBPROJECTS BY REGION/STATE, TOWNSHIPS AND VILLAGES

No	Name	Description
1.0	Ayawaddy	
1.1	Nga Yoke Kaung	New construction of 33/11 kV 10 MVA substation at Nga Yoke Kaung 66/33/11 kV 10 MVA substation. Only the 33/11 kV is part of the ADB loan. New construction of 33/11 kV 10 MVA substation at Nga Yoke Kaung 66/33/11 kV 10 MVA substation. Only the 33/11 kV is part of the ADB loan.
1.2	Laymyatnar	New construction of 66 kV Transmission line 15 miles single circuit from Hinthada 66 kV substation to Laymyatnar Township and 66/11 kV 5 MVA new substation at Laymyatnar Township
1.3	HtookYi (Ingapu)	New construction of 66 kV Transmission line 0.5 miles double circuit from Myanaung - Hinthada 66 kV line to HtookYi (Ingapu) and 66/11 kV 5 MVA new substation at HtookYi (Ingapu)
1.4	Inpin (Myanaung)	New construction of 66 kV Transmission line 0.1 miles double circuit from Myanaung - Hinthada 66 kV line to Inpin village (Myanaung) and 66/11 kV 5 MVA new substation at Inpin village (Myanaung)
1.5	Dedaye	New construction of 66 kV Transmission line 15 miles single circuit from Kyaiklat 230 kV substation to Dedaye and 66/11 kV 10 MVA substation at Dedaye Township
1.6	Yelwe (Maubin)	New construction of 33 kV Transmission line 9 miles single circuit from Maubin 33/11 kV substation to Yelwe village, 33/11 kV 5 MVA new substation at Yelwe (Maubin) and 2 sets of 33kV outgoing switch bays at Maubin substation
1.7	Pyarpon 66/33	New construction of 66/33 kV 10 MVA substation at Pyarpon Township
1.8	Bogale 66/33	New construction of 66/33 kV 10 MVA substation at Bogale Township
1.9	Pyarpon 66/11	New construction of 66 kV Transmission line 15 miles single circuit from Kyaiklat 230 kV Main substation to Pyarpon and 66/11 kV 20 MVA new substation at Pyar-pon Township
1.10	Bogale 66/11	New construction of 66 kV Transmission line 21 miles single circuit from Pyarpon 66/11 kV substation to Bogale Township and 66/11 kV 10 MVA new substation at Bogale Township
1.11	Nyaungpin (Zalun)	New construction of 66 kV Transmission line 13.5 miles single circuit from Yekyi - Hinthadeline line to Zalun Township and 66/11 kV 5 MVA new substation at Nyaungpin market (Zalun)
1.12	Danubyu	New construction of 66 kV Transmission line 16 miles single circuit from Zulun substation to Danubyu and 66/11 kV 10 MVA new substation at Danubyu
2.0	Bago East	
2.1	Pyontazar	New construction of 33 kV Transmission line 2 miles double circuit from existing Nyaunglaypin - Daik U 33 kV line to Pyontazar, 33/11 kV 10 MVA new substation at Pyontazar
2.2	Taw Kywe Inn (Kyauk Ta Khar)	New construction of 33 kV Transmission line 5.1 miles single circuit from Penewgone - Kanyutkwin 33 kV line to Taw Kywe Inn, 33/11 kV 10 MVA new substation at Taw Kywe Inn (Kyauk Ta Khar)
2.3	Kanyutkwin	Upgrading 33/11 kV 5 MVA Present substation to 33/11 kV 10 MVA substation at Kanyutkwin
2.4	Oktwin	Upgrading 33/11 kV 3 MVA Present substation to 33/11 kV 10 MVA substation at Oktwin
2.5	Swar	New construction of 33 kV Transmission line 3.9 miles single circuit from Thargaya substation to Swar Township (near graveyard), 33 kV line 0.55 miles double circuit from near graveyard to Swar township office, 33/11 kV 10 MVA new substation at Swar township office and 2 sets of 33 kV outgoing switch bays at Thargaya sub-station



No	Name	Description
2.6	Kawa	Upgrading 33/11 kV 3 MVA Present substation to 33/11 kV 10 MVA substation at Kawa
3.0	Bago West	
3.1	Thegon	Upgrading 33/11 kV 3 MVA Present substation to 33/11 kV 10 MVA substation at Thegon and new construction of 33 kV Transmission line 0.5 miles double circuit from Pyay-Paungde line
3.2	Pateegon	Upgrading 33/11 kV 1.25x2 MVA Present substation to 33/11 kV 10 MVA substation at Pateegon and new construction of 33kV Transmission line 0.8 miles double circuit from Pyay-Paungde 33 kV line
3.3	Paungde	New construction of 66 kV Transmission line 30 miles single circuit from 230/66 kV Shwedaung Gas Turbine to existing 33/11 kV Paungde substation and 66/33 kV 20 MVA new substation at Paungde substation
3.4	Hteintaw (Monyo)	New construction of 33 kV Transmission line 15 miles single circuit from Monyo 33/11 kV substation to Hteintaw (Monyo), 33/11 kV 10 MVA new substation at Hteintaw (Monyo) and 2 sets of 33kV switch bays at Monyo substation
3.5	Innma	New construction of 33 kV Transmission line 12 miles single circuit from Paungde substation to Innma and 33/11 kV 10 MVA new substation at Innma Township
3.6	Hmattaing (Paungde)	New construction of 33 kV Transmission line 8 miles single circuit from Paungde substation to Hmattaing township office and 33/11 kV 10 MVA new substation at Hmattaing (Paungde)
4.0	Mon	
4.1	Wekame (Thanbyuzayat)	New construction of 33 kV Transmission line 19 miles single circuit from Thanbyuzayat 66/33 kV substation to Wekame village and 33/11 kV 10 MVA new substation at Wekame (Thanbyuzayat)
4.2	Bilin	New construction of 66 kV Transmission line 40 miles single circuit from 230 kV Thahton substation to Bilin and 66/33 kV 20 MVA new substation at Bilin
4.3	Melan (Bilin)	New construction of 33 kV Transmission line 12.5 miles single circuit from Bilin 33/11 kV Office substation to Melan village, 33/11 kV 5 MVA new substation at Melan (Bilin) and 2 sets of 33 kV outgoing switch bay at Bilin township office sub-station
4.4	Kyaikhto	New construction of 33 kV Transmission line 6 miles single circuit from Kyaikhto (Saungnaingyi) 33/11 kV substation to Kim Pun Sakham and 33/11 kV 10 MVA new substation at Kyaikhto Township
4.5	Pankone (Paung)	New construction of 33 kV Transmission line 0.14 miles double circuit from existing Thahton - Paung 33kV line to Pankone village, 33/11 kV 10 MVA new substation at Pankone (Paung)
4.6	Nantay (Mawlamyine)	Upgrading Nantay 66/11 kV 10 MVA Present substation to 66/11 kV 20 MVA sub-station at Nantay (Mawlamyine)
5.0	Kayin	
5.1	Nyaung Gone (Hpa-An)	New construction of 66 kV Transmission line 0.5 miles double circuit from Thaton - Warboetaw - Kanmamaung 66 kV line to Nyaung Gone and 66/11 kV 10 MVA new substation at Nyaung Gone (Hpa-An)
5.2	Warboetaw (Hpa-An)	New construction of 66 kV Transmission line 0.5 miles double circuit from Thaton - Warboetaw - Kanmamaung 66 kV line to Warboetaw (Hpa-An) and 66/11 kV 5 MVA new substation at Warboetaw (Hpa-An)
5.3	Paung (Paingkyon)	New construction of 33 kV Transmission line 11 miles single circuit from Paingkyon 33/11kV substation to Paung village and 33/11 kV 5 MVA new substation at Paung village (Paingkyon)
5.4	Hpapon	New construction of 66 kV Transmission 34 miles single circuit from Kataingti 66/33kV substation to Hpapon and 33/11 kV 10 MVA new substation at Hpapon township
5.5	Eaindu (Hpa-An)	New construction of 66 kV Transmission line 12 miles single circuit from Hpa-An (Hpa Yar Kone substation) to Eaindu, 66/11 kV 5 MVA new substation at Eaindu (Hpa-An) and 1 set of 66kV outgoing switch bays at Hpa Yar Kone substation
5.6	Kyone Pe (Zarhapyin)	New construction of 66 kV Transmission line 0.3 miles double circuit from Mawlamyine - Payargoneline 66 kV line to Zarhapyin and 66/11 kV 5 MVA new substation at Zarhapyin
5.7	Kyainseikgyi	New construction of 66 kV Transmission line 41 miles single circuit from Mudon substation to Kyainseikgyi and 66/11 kV 10 MVA new substation at Kyainseikgyi



No	Name	Description
5.8	Kanmamaung	New construction of 66 kV Transmission line 35 miles single circuit from Thaton GT Factory to Warboetaw - Kanmamaung 66 kV line and 66/11 kV 5 MVA new substation at Kanmamaung
5.9	Kataingti (Kanmamaung)	New construction of 66 kV Transmission line 23 miles single circuit from Kanmamaung to Kataingti and 66/33 kV 10 MVA new substation at Kataingti (Kanmamaung)
6.0	Rakhein	
6.1	Kyain Ta Li (Gwa)	New construction of 66 kV Transmission line 42.8 miles single circuit from Thandwe to Kyein Ta Li and 66/11 kV 5 MVA new substation at Kyain Ta Li (Gwa)
6.2	Apauk We (Kyauk Taw)	New construction of 66 kV Transmission line 0.5 miles double circuit from Ponnagyun - Kyauk Taw 66 kV line to ApaukWa village, 66/11 kV 5 MVA new substation at ApaukWa (Kyauk Taw) and 1 set of 66kV outgoing switch bays at Ponnagyun substation
6.3	Apauk We (Kyauk Taw)	New construction of 66 kV Transmission line 0.5 miles double circuit from Ponnagyun - Kyauk Taw 66 kV line to ApaukWa village, 66/11 kV 5 MVA new substation at ApaukWa (Kyauk Taw) and 1 set of 66kV outgoing switch bays at Ponnagyun substation
6.4	Shew Hlay (Thandwe)	New construction of 66 kV Transmission line 1.2 miles double circuit from Taungkote - Thandwe 66 kV line to ShewHlay village and 66/11 kV 5 MVA new substation at ShewHlay (Thandwe)
6.5	Yoetayoak (Ponnagyun)	New construction of 66 kV Transmission line 0.7 miles double circuit from Ponnagyun - Kyauktaw 66 kV line to Yoetayoak village and 66/11 kV 5 MVA new substation at Yoetayoak (Ponnagyun)
6.6	Kyauk Ni Maw (Ramree)	New construction of 66 kV Transmission line 25.2 miles single circuit from Ramree 66kV substation to Kyauk Ni Maw village, 66/11 kV 5 MVA new substation at Ky-auk Ni Maw (Ramree) and 1 set of 66kV outgoing switch bays at Ramree substation
6.7	Aung Hla Pyin (Ramree)	New construction of 66 kV Transmission line 13.2 miles single circuit from Ramree substation to Aunghlapyin village, 66/11 kV 5 MVA new substation at Aunghlapyin (Ramree) and 1 set of 66kV outgoing switch bays at Ramree substation
6.8	Teinnyo (Mrauk U)	New construction of 66 kV Transmission line 12 miles single circuit from Mrauk U substation to Teinnyo village, 66/11 kV 5 MVA new substation at Teinnyo (Mrauk U) and 1 set of 66kV outgoing switch bays at Mrauk U substation
6.9	Thabyugyaing (Thandwe)	New construction of 66 kV Transmission line 10 miles single circuit from Kyaukgyi substation to Thabyuchaing village, 66/11 kV 5 MVA new substation at Thabyuchaing (Thandwe) and 1 set of 66 kV outgoing switch bays at Kyaukgyi substation



APPENDIX 2

SUBSTATIONS BY LOCATION, AREA REQUIRED, OWNERSHIP AND USE

No	Location of New Substation	Substation's Required Area (in acres)	Ownership	Use
A. Ayawaddy				
1	Township: Nga Putaw Village: Nga Yoke Kaung Taung	1 acres	ESE	Fallow Land
2	Township: Leymyetha Village: Sittkone ;	2.0	3 private owners	Paddy field
3	Township: Ingapu Village: Nyaung Gone	2.0	1 private owner	Paddy field
4	Township: Myanaung Village: Inpin	1.0	ESE	Existing Substation
5	Township: Dedaye Village: Chaung Phyar	2 acres	1 private owner	Paddy field
6	Township: Maubin- Villages: Ye Lae Kalay and Yelwe	1.0	Already donated to ESE by previous owner (Wati Paing Co.Ltd)	Brushland
7	Township: Pyarpone Village: Kyoneku	2acres	1private owner with share-cropper	Paddy field
8	Township; Bogale Village: Kalarchichaung	2.38	1 private owner	Paddy field
9	Township: Pyarpone Villages: Phyar Phone Tamann	Same area as No.7		
10	Township: Bogale Villages: Kalargyichaung	Same area as No.8		
11	Township: Zalun Ward: Ngaung Bin Zay	2.0	ESE. Donated by township development committee but with non-owner tiller .	Paddy field.
12	Township: Danubyu Ward: No. 17 Ward/1 Road	1.52	Government (State Government)	Brushland
B. Bago East				
13	Township: Pyontazar Ward: Myoma 1 St. Minte (beside Yangon-Mandalay Road)	0.90 acres	ESE	Brushland
14	Township: Taw Kywe Inn Village: Kyauk Ta Khar (Beside Yangon-Mandalay Road)	0.92	ESE	Brushhland
15	Township: Kanyut Kwin	2.07acres	ESE but with non-owner tiller	Paddy Field



No	Location of New Substation	Substation's Required Area (in acres)	Ownership	Use
	Village: (Yangon-Mandalay Road)			
16	Township: Oaktwin Ward: Golf Resort St., Kyetthonkhin (2)	0.79 acres	ESE is presently acquiring the land	Paddy Field
17	Township: Swar Village Tract: Swar Factory (Yangon-Mandalay Road)	0.54	ESE	Timber trees
18	Township: Kawa Ward: Kawa Ywar Thit	2.5 acres	ESE	Existing substation
C. Bago West				
21	Township: Hmattaing Village: Paungde .:	3.5 acres	ESE	Brushland
22	Township: Moe Nyo Road: Bo Tayza (existing substation): Wards: Ta Nin Lar ward, Htein Taw Group (new substation)	0,77 acres	ESE	Existing substation
23	Township: Innma Road: Yangon-Pyay Road	1.24 acres	ESE	ESE Office
24	Township: Hmattaing Road: Paungde-Hmattaing Road	1.1 acres	ESE	ESE Office
C Mon State				
25	Township: Thanbyuzayat Village: Wekame	1,0 acre	1 private owner	Rubber farm and one structure and shop
26	Township: Bilin Village: Naungbo Thaton GT factory,	2.0 acres	Ministry of Industry	Brushland
27	Township: Belin, Village: Maelan	2 acre	Ministry of Industry	Brushland
28	Township: Kyaikhto Ward: Taung Thusu	1.0 acre	ESE	Existing Substation
29	Township: Paung Village: Pan Kone	1.4 acres	ESE	Brushland
30	Township: Mawlamyine Ward: Nyan Tae Road: Kyaik Mayaw	_1.24_ acres	MOEE	Existing substation
E Kayin State				



No	Location of New Substation	Substation's Required Area (in acres)	Ownership	Use
31	Township: Pha-An Village: Nyaung Gone	1 acre	1 private owner	Timber trees
32	Township: Kamamaung Ward: Ward 3, Phapon-Kamamaung Road	1 acre	Government (State Government)	Teak Trees
33	Township: Paingkyon Village: Paung	1 acre	1 private owner	Brushland
34	Township: Hpa-pun Village: Waison village	1.45 acres	1 private owner	Teak and rubber trees
35	Township: Hpa-an Village: Eindu ,Kyawt Village	1.1 acre	1 private owner	Rubber trees
36	Township: Zarthapyin Village: Kyone Phae Zarthapyin Kyar Kalay Road	1.0 acre	1 private owner	Brushland
37	Township: Kyainseikgyi Ward: Cemetery Road No. 2, No. 2 Site, Pyo Ye Main Road	1.5 acres	Government (State Government)	Government structures
38	Township: Hpa-An Village: Warboetaw	Site not Selected	Site not Selected	Brushland
39	Township: Ka Ma Maung Village: Kataingti	1.6 acres	Government Land(State Gov)	Fallow land
E Rackhine State				
40	Township: Gwa Village: Kyeintali, Chaung-Gwa-Yangon-Thandwe Main Road	3.67 acres	1 private owner	Paddy field
41	Township: Kyauk Taw Village: Apauk Wa	4 acres	Government Land(State Government)	Grazing land
42	Township: Thandwe- Village: Shewlwe	10.0 acres	Village Tract	Fallowland
43	Township: Ponnagyun Village: Yoetayoak	5 acres	Government Land(State Government)	Grazing land
44	Township: Yangpye Village: Kyauk Ni Maw	1.0 acre	2 private owners	Paddy field
45	Township: Yangbye Village: Aunghlapyin	5.02 acres	1 private owner	Cashew trees
46	Township: Minpya Village: Kyaukkhoke	3.2 acres	Government Land(Ministry of Forestry)	Preserved Forest Land



No	Location of New Substation	Substation's Required Area (in acres)	Ownership	Use
47	Township: Mrauk U Village: Tainnyo	4 acres	Government Land(State Government)	Fallow land
48	Township: Thandwe Village: Thaphuchine (Yayphyueine)	5.0 acres	Village Tract	Brushland (use for fire wood)



APPENDIX 3 HOUSEHOLD QUESTIONNAIRE

Name of Interviewer: _____ Date of Interview: _____
 ____/____/2017

A. Survey respondent

1. Name : _____
2. Relation with HH Head : _____
3. Age (in year) : _____
4. Gender : (a) Male (b) Female

5. Ethnic Group : _____
6. Religion : _____
7. Village : _____
8. Township : _____
9. Substation Name transmission Line : _____
10. Total Size of Land Owned : _____
11. Land Size for Acquisition : _____
12. Land Cover of Land to be Acquired : _____

B. Demographic and occupational data

B1. Total family members: _____ Male _____ Female _____

2: Data on Household Members

SL	Relation to the interviewee	Gender	Age	Education (6 years old and over)	Primary occupation (15 years and over)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					



Coding instruction:

Education: 1. No Education 2. Elementary 3. Middle School 4. High School 5. University Level 6. University Graduate 7. Vocational

Occupation: 1. Agriculture, 2. Business, 3. Employed in Government 4. Employed in Private Sector, 5. Wage Earner 6. Household work 6. Unemployed 7. Student 8. Please Specify

B3: Number of Disabled members (deaf, mute, blind, crippled) in the family: _____

C. Land Holding

1.1 Agricultural: _____ acres 1.2 Tenure: _____ (LUC, Lease, Free Occupancy)

2.1 Fruit Farm _____ acres 2.2 Tenure: _____ (LUC, Lease, Free Occupancy)

3.1 Rubber tree farms _____ acres 3.2 Tenure: _____ (LUC, Lease, Free Occupancy)

4.1 Residential: _____ acres 4.2 Tenure: _____ (LUC, Lease, Free Occupancy)

5.1 Business : _____ acres 5.2 Tenure: _____ (LUC, Lease, Free Occupancy)

6.1 Others 0 _____ acres 6.2 Tenure: _____ (LUC, Lease, Free Occupancy)

Total: _____ acres

D. Crops in 2016

1. Seasonal

Monsoon Season Dry Season Selling price of Harvest (Farm gate)

1.1 Paddy Rice Yes / No Yes / No _____ Kyat/ _____

1.2 Pulses Yes / No Yes / No _____ Kyat/ _____

1.3 Groundnut Yes / No Yes / No _____ Kyat/ _____

1.4 Sesame Yes / No Yes / No _____ Kyat/ _____

1.5 Sunflowers Yes / No Yes / No _____ Kyat/ _____

1.6 Others (specify) _____

2 Tree Crops : No of Trees Selling Price of Product (Farm gate)

1.1 Fruit Trees: _____ _____ Kyat/ _____

2.2 Rubber Trees: _____ _____ Kyat/pound

E. Water and Sanitation

E.1 Source of Drinking Water: Piped Water/Tube well/Dug well/Spring/Pond or River or Irrigation Canal

E.2 Toilet: Flush or water sealed /Pit /Bucket/Other /None

F. Gross Income in 2016

Agriculture: _____ Kyat

Business: _____ Kyat

Wage and Salary: _____ Kyat

Remittances: _____ Kyat

Sale of Animals: _____ Kyat

Others (rental of properties, forest product sale, gift): _____ Kyat

Total _____ Kyat



G. Annual Household Expenditure 2016

Food _____ Kyat

Education _____ Kyat

Medical Care _____ Kyat

Housing _____ Kyat

Clothing, shoes and other personal effect: _____ Kyat

Entertainment and Celebrations _____ Kyat

Others _____ Kyat

Total _____ Thousand Kyat

H. Awareness of the Distribution Line Project (Encircle the Correct Answer):

- Yes / No

I. Expected beneficial impact of this Distribution Line Project in your community

J. Expected adverse impact of this Distribution Line Project in your community



APPENDIX 4

PUBLIC INFORMATION BOOKLET (PIB)

GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR
Ministry of Electricity and Energy
Electricity Supply Enterprise
Power Network Development Project
Distribution Component

1. WHAT IS THE POWER NETWORK DEVELOPMENT PROJECT: DISTRIBUTION COMPONENT?

The project is part of the effort of the Ministry of Electricity and Energy (MOEE) to provide electricity to a wider area in Myanmar and improve the reliability of power supply. To do this, it will increase the length of its transmission and distribution lines. The project has two components: transmission and distribution. The transmission lines carry large amount of electricity over long distances and bring it to the substations. The distribution lines bring electricity to homes, industries, commercial establishments and other users through the direct connection.

The Distribution Component of this project will involve the following: (i) upgrading of six existing substations (ii) construction of 42 new substations; and (iii) installation of 40 new distribution lines with a total length of 843.3 km. The substations and are distributed in five states or regions: Ayawaddy, Bago (East and West) Mon, Kayin and Rakhine. As part of the distribution component, a computerized assets management system to manage transmission assets and a computerized customer billing system for areas under ESE will also be implemented.

2. WHAT ARE THE MAIN PARTS OF DISTRIBUTION LINES?

The distribution lines will be put overhead held up by poles. Given the length of the lines and their kilovolts, the number of poles per region/state is follows: Ayawaddy (2,670); Bago East (372); Bago West (1911); Kayin State (3,976); Mon State (2,203); Rakhine State (2,630)

But a distribution lines will also need substations to manage the flow of electricity. While it will use six existing substations, it will also install 42 new ones. The new substations will be in the distributed to the six regions/states as follows: Ayawaddy (12); Bago East (3); Bago West (4); Kayin State (9); Mon State (5); Rakhine State (9)

3. WHAT ARE THE MAIN IMPACTS OF THE DISTRIBUTION LINES TO PEOPLE?

The distribution lines will provide electricity to more people when these are operational. But to install the lines, a space of 14-meter wide corridor will be needed on the entire route for the equipment, material, people and activities needed to install the poles and lines. This space is called the corridor. Crops within the corridor will have to be removed temporarily during the construction period. But construction will be very short with a pole and the lines between two poles installed within a day. The distribution line will also make use of the road alignment as much as possible to minimize impact of privately-owned crops. It will also install the poles and the lines in dry season when most croplands are left to fallow.



No structures will be affected because these will be avoided. But trees in the corridor will be permanently removed. Anything that will reach the height of 5.5 meters will touch the lines and will interrupt the flow of electricity. This means that anything with a height higher than 5.5 meters vertical clearance cannot be grown or put in the corridor.

For the new substations, 25 will use government land but will have to acquire private lands 16 others. No site is selected yet for one substation. It is estimated a total of 10.7 hectares of private land will be acquired for the substation.

4. WHEN WILL WE KNOW IF OUR CROPS AND TREES WILL BE AFFECTED?

The crops affected by the distribution lines will only be known after earmarking on the ground of the exact location of the poles and the demarcation of the corridor. These activities will be done when the detailed engineering design is ready. The crops within the demarcated boundary will be documented through the detailed measurement survey (DMS). If your crops are within the demarcated corridor, you will be informed and consulted on your potential losses. You will be informed on the date of DMS and will be requested to participate in the public consultation meeting prior to the DMS and participate in the DMS. The DMS will also be done for the private lands earmarked for the substations.

5. WHAT CAN THE CROP OWNERS EXPECT FROM THE GOVERNMENT IF THEIR CROPS AND SHOPS ARE AFFECTED?

If seasonal or short-term crops will be affected, the government will pay the owner equivalent to one cropping season of harvest at market price. The construction period will be shorter than one cycle of seasonal crops. The crop owner can negotiate for a higher price if the valuation of the regional/state administration is unsatisfactory.

Rubber trees will be compensated according to the maturity of the trees. The trees will be classified into three: i) 1-3 years old, ii) 3-5 years old and iii) above 5 years old. The trees above 5 years old are considered productive and will be compensated equivalent to 5 years of harvest because it takes 5 years for a rubber tree to be productive. For rubber trees below 5 years old, the value of the wood will be determined and the compensation will be based on it.



6. WHO IN THE GOVERNMENT WILL MANAGE THE PROCESS OF DETERMINING THE MARKET VALUE OF THE POTENTIALLY DAMAGED CROPS AND TREE, NEGOTIATE WITH THE OWNERS AND PAY THE COMPENSATION?

For the substations, the regional/state administration will form a compensation committee composed of regional/state agencies to manage the process. The composition of the committee will depend on the region or state. For the Distribution Line where the impact is not considered extensive, the compensation rates set by the committee based on market rates will apply to damaged crops and trees. But the contractor will pay the compensation as part of the construction damage.

7. WILL THE GOVERNMENT PAY FOR THE LAND OCCUPIED BY THE POLE FOUNDATION?

The government is not liable to pay for the land because in the laws of Myanmar including the Constitution, it is the owner of all the lands. The government only gives land use rights to private users but not land ownership. One pole will only use 0.02 square meter and compensation for its land rights will not be paid .

8. WILL A LAND USE CERTIFICATE (LUC) BE REQUIRED IN ORDER TO RECEIVE CROP COMPENSATION?

No, the LUC is not a requirement for your crops to be compensated. But you have to show an evidence that you are the owner of the crops and the local authorities must recognize your ownership of the crop.

9. HOW WILL THE REPLACEMENT COST FOR CROPS BE DETERMINED?

The regional administration will consult with crop cultivators and buyers to ensure that the compensation rates are at market value.

10. CAN ANYBODY IN OUR COMMUNITY CLAIM COMPENSATION?

No. Only crop owners who are surveyed during the final DMS can claim compensation. The cut-off date for determining eligibility for compensation will be the beginning of the DMS. People who plant crops on the surveyed areas after the cut-off date will not be entitled to compensation.

11. DO I HAVE TO IMMEDIATELY CLEAR THE LAND WHEN THE DMS ESTABLISHES THAT IT IS AFFECTED?

No. The crops can be grown until compensation is paid. No crops should be cleared until after compensation is fully paid. Depending on the need of the construction contractors, the crops may even stay until the construction work will begin even if these are already paid. The project will allow a reasonable time and if requested by you, assist you in clearing your land for the construction to begin. The project will inform you when the construction activities will take place.

12. DO I HAVE TO PAY ANY ADMINISTRATIVE OR SERVICE FEES TO THE PROJECT TO GET THE COMPENSATION?

No. There are no service fees or any form of payment required to get the compensation. If you are asked for service fees or any form of payment by any government, project staff or contractor's personnel, please report this directly to the Regional Committee. the Project Management Unit (PMU), ESE, or to ADB Resident Mission in Nay Pye Taw. .



13. CAN I COMPLAIN IF I DISAGREE WITH THE VALUATION METHOD OR THE AMOUNT OF COMPENSATION OR ADVERSE IMPACTS DIRECTLY AFFECTING ME DURING PROJECT IMPLEMENTATION?

Yes. If you have any questions or if you disagree with result of the DMS, you can request the Asset Compensation Committee for a review and re-evaluation of the result by another ACC survey team. If you are not satisfied with the result of the re-evaluation or the amount of compensation, you can present your question or complaint to the ESE PMU Grievance Committee. The question or complaint can be sent in writing or you can arrange to meet the designated person face-to-face.

The Committee is tasked to answer your questions and receive and resolve complaints in a free, transparent, timely and satisfactory manner. If you are dissatisfied with the judgement passed on your complaints, you can bring your case to the ESE District Grievance Committee. If you are still dissatisfied with the district-level judgement on your case, you can file an appeal to the ESE National Grievance Committee. If the national-level decision is not to your satisfaction, you can bring your case to court.

14. WHAT CAN AN AFFECTED HOUSEHOLD DO TO FACILITATE THE COMPENSATION PROCESS AND THE PROJECT IMPLEMENTATION?

The affected household can help the project by keeping informed about the project and participating in the activities where its inputs are needed. Information about the project can be obtained from reading materials that will be distributed and active participation in consultation meetings. By participating in these meetings, the household can contribute to minimizing and mitigating anticipated adverse by making known these impacts and suggesting measures to address them. The other activity where the participation of the household is necessary is the DMS where it can help the Compensation Committee establish an actual and acceptable market value of crops and lost income if any.

15. HOW WILL YOU KNOW IF THE OBJECTIVES OF THIS PROJECT ARE MET?

The Ministry of Electricity and Energy (MOEE) through the ESE will monitor all project activities. An External Monitoring Team will also be engaged to monitor, at least twice a year, the project's impacts and the implementation of the mitigating and compensation measures. Based on its findings, it will submit a report to ESE and ADB. ADB will also regularly monitor the activities through loan review missions during the project implementation.



IF YOU HAVE ANY QUERIES OR SUGGESTIONS, PLEASE CONTACT US:

Electricity Supply Enterprise (ESE) of Ministry of Electricity and Energy (MOEE), Naw
Pye Taw, Myanmar .
Tel. 095 67-8104285
Fax.095 67-8104287

District Offices in Ayawaddy, Bago East, Bago West, Kayin State, Mon State and Rakhine
State

Enclosed Entitlement Matrix as per Annex 1