

Resettlement and Ethnic Group Development Plan

March 2018

MYA: Power Network Development Project— Transmission Component

Prepared by AF-Consult Switzerland Ltd. for the Department of Power Transmission and System Control and the Asian Development Bank.

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Client **Asian Development Bank**

Project **TA 9179-MYA: Power Network
Development Project – PPTA
Consultant**

Document Type **Resettlement and Ethnic
Group Development Plan:
Transmission Component**

Project number **4272**

December 2017



**Client**

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Project	TA 9179-MYA: Power Network Development Project – PPTA Consultant
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Document path	\\nccbd05t\t\4272_en\07_Technische_Unterlagen\Reformatting Raouls Reports 03.2018\2018-01-21_Report_Transmission_SocEconStudy_rev_14.03.2018_ST_revSCT.docx



ABBREVIATIONS

ACC	Asset Compensation Committee
ADB	ASIAN DEVELOPMENT BANK
DMS	Detailed Measurement Survey
DPTSC	Department of Power Transmission and System Control
FGD	Focused Group Discussion
GAD	General Administration Department
GOM	Government of Myanmar
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IA	Implementing Agency
Km	Kilometer
kV	Kilovolts
LUC	Land Use Certificate
MMK	Myanmar Kip
MOEE	Ministry of Electricity and Energy
MONRE	Ministry of Natural Resources and Environment
PIB	Public Information Booklet
PMU	Project Management Unit
PPTA	Project Preparatory Technical Assistance
REGDP	Resettlement and Ethnic Group Development Plan
ROW	Right of Way
SPS	Safeguard Policy Statement
TOR	Terms of Reference
TL	Transmission Line
USD	United States Dollar



Inhalt

1	Project Description.....	9
1.1	Project Background	9
1.2	Transmission Lines Component and Scope of Land Acquisition.....	9
1.3	Alternative and Measures Used to Avoid and Minimize Impact on Private Assets	15
1.4	Objectives of the REGDP.....	15
1.5	Basis of Project Description and Arrangement for REGDP Updating.....	16
2	Scope of Land Acquisition and Resettlement.....	17
2.1	Affected Land and Crops	17
2.2	Tenure of Affected Land.....	17
2.3	Affected Households.....	18
2.4	Severity of Impacts.....	19
2.5	Vulnerable Groups	20
2.6	Other Affected Assets	20
3	Socio-Economic Profile	21
3.1	Survey Methodology.....	21
3.2	Population Size and Growth in Townships Hosting the TL	21
3.3	Population Characteristics of the Affected Households	22
3.4	Education of Household Members.....	24
3.5	Occupation of Household Members.....	25
3.6	Household Income and Expenditures.....	27
3.7	Land Holding.....	29
3.8	Farming Operation	29
3.9	Sanitation Facilities.....	30
3.10	Vulnerability and Risk Analysis	31
4	Ethnic Groups in the TL Corridor.....	32
4.1	Purpose of Impact Assessment for Ethnic Groups.....	32
4.2	Data Collection Methodology	32
4.3	Provenance and Cultural Profile of Ethnic Groups in TL Corridor	32
4.4	Impact of TL on Ethnic Groups and Development Actions.....	33
5	Information Disclosure and Public Consultations	34
5.1	Purpose of Public Participation Activities	34
5.2	Information Dissemination	34
5.3	Result of the Household Survey	34
5.4	Consultation Meetings	35
5.5	Planned Disclosure and Consultation Activities.....	35



6	Grievance Redress Mechanism.....	39
6.1	Asset Compensation Committee and Grievance Settlement	39
6.2	Grievance Redress Procedures.....	39
7	Policy and Legal Framework	41
7.1	Reconciliation of ADB and Myanmar Policies	41
7.2	REGDP Preparation and Implementation Principles	44
8	Entitlement	46
9	Resettlement Budget and Financing Plan	48
9.1	Budget and Valuation Method	48
9.2	Fund Source and Flow	50
9.3	Mode of Payment of Compensation	51
10	Implementation Schedule	52
11	Institutional Framework for Resettlement	54
12	Monitoring and Evaluation.....	55

Appendices

Appendix 1	Household Questionnaire
Appendix 2	Public Information Booklet

Annex 1	Minutes of Consultation Meetings
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EXECUTIVE SUMMARY

Project Description

This Resettlement and Ethnic Group Development Plan (REGDP) covers three 230 kV transmission lines (TL) composing the Transmission Component of Power Network Development Project. The three TL are as follows (i) Ahlone-Thida (Strand Road: 8.2 km); (ii) Ahlone-Thida (Dala; 18.0 km); and (iii) Mawlamyaing-Ye-Dawie (289 km). The first two TL will be in Yangon Region while Mawlamyaing-Ye-Dawie will be in Mon State and Tahnintharye Region. Mawlamyaing-Ye-Dawie TL will require two new substations in addition to one that is existing. Both Ahlone-Thida TL will be connected to two existing substations. The Department of Power Transmission and System Control (DPTSC) will implement the three TL.

Scope of Land Acquisition and Resettlement

Private land rights will be acquired for the feet of the towers: 0.97 hectares for the Mawlamyaing-Ye-Dawie TL and 0.075 hectares for the Ahlone-Thida TL (Dala). The Ahlone-Thida (Strand Road) TL will traverse on government land and 290 temporary shops will be temporarily transferred. Crops will be temporarily removed from the 46-meter wide corridor during the construction period in the two TL. For the two substations for the Mawlamyaing-Ye-Dawie TL, nine houses and a 0.48-hectare rubber plantation will be affected. The compensation for all the losses will be at replacement value to comply with ADB Social Safeguard requirements. Compensation is provided regardless of legal tenure for lost production and/or income arising from land acquisition. There will be a total of 794 affected households.

Socio-economic Profile

Based on the result of the socio-economic survey conducted, a household has 4 to 5 members and are predominantly Buddhist. There are generally more men than women. Around 85% have at least a level of elementary education. Unemployment is at double-digit for men and women. Agriculture is the main income source in Mawlamyaing-Ye-Dawie TL site and wages and salaries in the two urban TL sites. The average annual income is around 3000 USD but most households are on deficit due to higher expenditure. To bridge the income-expenditure gap, they go into debts and rely on the mutual help system in the extensive kinship network based on consanguinity as well as a final and fictive relationships. Half of the expenditure is on food. The average land holding in Mawlamyaing-Ye-Dawie 3.2 hectares per household but much smaller in the two Yangon TL. A high percentage have Land Use Certificate (LUC). Most seasonal crop farmers plant only during the wet season. Almost all have sanitary toilets but most in the Mawlamyaing-Ye-Dawie TL sites do not have sanitary water sources. Around a quarter of the households are headed by a woman. There are also households with disabled members and who are earning less than 2 dollars a day.

Ethnic Group in the TL Corridor

The Mawlamyaing-Ye-Dawie TL site is the only one where the survey covered an ethnic group. The group is the Mon composing 62% of the households. Bumar, the country's majority group, compose 100% of the households surveyed in other TL sites. Population movement, centuries of interaction, mutual subjugation and post-independence government policies resulted to high degree of amalgamation of Mon and Bumar cultures. The Mawlamyaing-Ye-Dawie TL will directly affect land used by Mon households. But the heads of 10 villages and result of the consultation meetings confirmed that it will not trespass any site with social, cultural or spiritual importance nor breach any tradition and belief. In the REGDP update, the Regional Administration Department will certify that the project avoided any adverse impact



on ethnic minorities, in particular, their physical, social, cultural or spiritual traditions or resources. The certification will be counter-signed by recognized representative of ethnic group in the area and concerned national agency.

Information Disclosure and Public Consultations

Project information was disseminated on September-October 2017 through meetings with local authorities, consultation meetings and interviews for the socio-economic survey. The survey shows that awareness of the project is still low. But more than half said that the project has no adverse impact or they just do not know at this point. Those who saw an impact mentioned the loss of agricultural land and the danger posed by the running electric current. Ten consultation meetings were held from 28 September to 20 October 2017. Among the 320 total participants, 20% were women and, in the Mawlamyaing-Ye-Dawie TL site, 65% were members of ethnic groups. The main issues raised in the meetings were compensation from damages and improved access to electricity. Once the REGDP will be revised, it will be translated into Bumar and Mon, with the Public Information Booklet (PIB), and will be made available to the affected people. Multi-level consultation meetings will be periodically held during REDP updating and construction and operation phases until the ADB's issuance of project completion report.

Grievance Redress Mechanism (GRM)

The regional/state government will form an Inter-Agency Committee to set compensation rates, manage the compensation process and pay affected households. But a three-level grievance redress mechanism will receive and resolve complaints in a free, transparent, timely and satisfactory manner. A Grievance Redress Committee (GRC) will operate at the DPTSC PMU, District Office and National Headquarter. To be activated at the start of REGDP implementation and operational throughout the project implementation period, 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 provides 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 entitlement matrix identifies the types of losses and the corresponding nature and scope of entitlements. 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 transaction. The project will offer the 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 planters who can no longer plant rubber within the TL corridor will get specialized assistance. The compensation and assistance provided are deemed sufficient to restore the income of the households. The assistance will



include support by the Ministry of Agriculture tailored to the requirements of each affected household whose crop choices are restricted due to height limit imposed in the corridor. The cut-off date will be the final day of the census and DMS. All affected households identified in the impact area on the cut-off date will be entitled to compensation for their affected assets and specific assistance.

Resettlement Budget and Financing Plan

The total budget for REGDP implementation for the Ahlone-Thida TL (Strand Road) is 62,803 USD. For Mawlamyaing-Ye-Dawie TL, its 3,078,630 USD. The Ahlone-Thida (Dala) will require 131,427 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. Upon the completion of the detailed engineering design, the affected households will be identified and the 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 DPTSC Project Management Unit (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 social monitoring program. It will also oversee the contractor's compliance to these contractual obligations.

Monitoring

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 DPTSC will consolidate the monthly reports into quarterly report for the project for submission to ADB. For every monitoring period, the GAD will identify outstanding issues, status of groups provided with special assistance and the income level of affected households.



1 Project Description

1.1 Project Background

1. This Resettlement and Ethnic Minority Development Plan (REGDP) covers the Transmission Component of Power Network Development Project.¹ Constituting this component are 230kV three transmission lines (TL) and their new substations. The TL, their substations and the TL's respective length are as follows:

- (i) Ahlone-Thida TL (Strand Road): The 8.2-km line will use 28 monopoles. It has two associated substations. The Ahlone substation is existing while the Thida substation is still to be constructed on a government-owned land.
- (ii) Mawlamyaing-Ye-Dawie TL: The 289-km line will use 722 four-legged lattice-type towers. It has three associated substations: one is existing (Mawlamyaing) and two (Ye and Dawie) are to be constructed on government owned land.
- (iii) Ahlone-Thida TL (Dala): The TL is 18.0-km with 1.5 km on the river. The land-based length of 16.5 km will have 47 four-legged lattice-type towers. It will be connected to the existing Ahlone substation and require the construction of Thida substation which will be located on government land.

2. The Ahlone-Thida TL (Strand Road)) will go through four townships in Yangon Region while the Ahlone-Thida TL (Dala) will traverse three townships (Table 1 and Map 1 and 2). The Mawlamyaing-Ye-Dawie TL will go through seven townships in two states (Mon and Thanintharye) (Map 3). The MOEE through the DPTSC will implement the Transmission Component.

1.2 Transmission Lines Component and Scope of Land Acquisition

3. The Ahlone-Thida TL (Strand Road) will affect 37.72 hectares (46 meters width x 8.2 km length) (Table 2). But 37.70 hectares will only be temporarily affected. The Mawlamyaing-Ye-Dawie TL will affect 1,329 hectares (46 meters width x 289 km length). The temporary impact will cover 1,327.84 hectares. The Ahlone-Thida TL (Dala) will affect 76.36 hectares (46 meters x 16.6 km). The temporary impact will cover 76.28 hectares. The area with permanent impact will be limited to 0.025 hectares in Ahlone-Thida TL (Strand Road), 1.15 hectares in the Mawlamyaing-Ye-Dawie TL and 0.075 hectares in Ahlone-Thida TL (Dala). The permanent impact is due to the the space for the feet of the tower for the Mawlamyaing-Ye-Dawie TL and Ahlone-Thida TL (Dala) and the foundation of the monopole for the Ahlone-Thida TL (Strand Road). Permanent limitations will also occur along the transmission line due to height restrictions.

¹ The project has two components: Transmission and Distribution. ADB. Undated. MYA 50029-001 Power Network Development Project. Project Preparatory Technical Assistance Consultant. Terms of Reference. Manila



Table 1 – States, Regions, Townships and Villages Traversed by Proposed TL

TL, Region/State and Township	Villages	Total Villages
A. Ahlone-Thida TL (Strand Rd.)		
Yangon Region		
Ahlone, Lanmadaw, Kyauktada, Butantaung	Yangon Region townships are not subdivided into villages	
B. Mawlamyaing-Ye- Dawie TL		
Mon State		
Maulamyine	Minn, Thinpangone, Phayargone	3
Mudone	Thayargone, Mudone, Talkku, Kamarwak, Kalawthauk, Hnepedaw	6
Thamphyuzayat	Warkayu, Pana, Waegalaung, Htingu, Ahnin)	5
Ye	Nhitkayin, Lamine, Taungpone, Plinekyee, Ahbaw, Ye, Kalaw, Koemine)	8
Tahnintharye Region		
Yaephyu,	Kyaukkudin, Lawthine, Yapu, Mikhaunglaung, Kyaukchut, Hnankye, Yaepone, Heinnae,	8
Kalaingaug,	Kalaing aung,	1
Dawei	Thatkawkyin	1
C. Ahlone-Thida TL (Dala)		
Yangon Region		
Ahlone, Dala, Butantaung	Yangon Region townships are not subdivided into villages	
Source: DPTSC		

Map 1 Ahlone–Thida TL (Strand Road)





Map 2 Ahlone-Thida TL (Dala)

230kV Ahlone - Dala - Thida Transmission Line (Proposal 2)



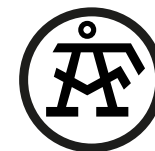


Table 2 – Summary of Area to be Affected by the Transmission Lines and Substations: 2017

Transmission Line and Component¹	Temporarily affected	Permanently affected	Total
Ahlone-Thida TL (Strand Rd.)			
ROW with 28 Poles	37.70 hectares	0.025 hectares	37.72 hectares
Substation	0	0	0
Mawlamyaing-Ye- Dawie TL			
ROW with 722 Towers	1,327.84 hectares	1.15 hectares	1,329 hectares
Substation	0	0	0
Ahlone-Thida TL (Dala)			
ROW with 46 Towers ¹	76.28	0.075	76.36
Substation	0	0	0
¹ The TL has 51 towers but 5 will be in the river			

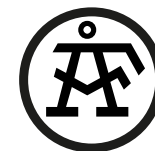
4. Each tower will require 16 square meters for its four feet and each monopole will require 9 square meters for the foundation. The temporary effect on the corridor will happen during the construction phase. The key activities during this phase will be tower and pole installation, stringing, switch-bay installation in existing substation and construction of the Ye and Dawie substations. The length of the construction phase in each TL section is estimated to be 45 days.

5. The corridor area of the Ahlone-Thida TL Strand Road) have temporary shops (69.2%) and urban road (30.7%) (Table 3). The TL will be located in-between two urban roads (old and new Strand Road). Because the area between the two roads is only few meters in some places and less than a meter in others, the corridor will cover part of the road. The 5.0 kilometer stretch between Ahlone substation and Pensodan Road has 270 temporary shops during the reconnaissance survey on 11 September 2017.

Table 3 – Estimated Area (in hectares) of Transmission Line Corridor by Land Cover Based on Google Earth Photos and Ground Reconnaissance Survey: 2017

Land Cover	Ahlone-Thida TL (Strand Rd.)	%	Mawlamyaing-Ye-Dawie TL	%	Ahlone-Thida (Dala)	%
Paddy rice	0		405.3	30.5	76.36	100
Rubber trees	0		719.0	54.1	0	
Rain Forest	0		204.7	15.4		
Temporary shops area in urban road	26.1	69,2	0		0	
Urban road	11.6	30.7	0		0	
Total	37.7	100.0	1,329.00	100	76.36	100

6. In the 2.2 kilometer stretch between Pensodan Road and the proposed location of the Thida substation, there were 20 temporary shops. The temporary shops are in folding plastic tents and beach umbrellas. They are mostly eating places although some are



selling fruits and flowers. The shops are not paying for their space to the Yangon Development Committee (YDC) which owns the space. Apart from these commercial establishments, the corridor has three public toilets and a pedestrian overpass.

7. In the corridor of Mawlamyaing-Ye-Dawie TL, the largest portion is devoted to rubber trees which composes 54.1% of the total area. The rubber trees can no longer be planted back in the corridor because the sag point of the lines, once the project is operational, is 7.6 meters. The average height of a mature rubber tree is 30 meters. But this restriction will not prevent the land users from planting shorter crops which full height is less than 7.6 meters. The trees touching lines can interrupt the flow of electricity. The paddy rice area composes 30.5 percent in the corridor of Mawlamyaing-Ye-Dawie TL. The Ahlone-Thida TL (Dala) corridor is almost all paddy field. A small patch of mangrove is found along the river.

8. The three TL will be connected to a total of five substations (Table 4). The Ahlone-Thida TL (Strand Road) and Ahlone -Thida (Dala) will be connected to the same two substations. One (Ahlone) is existing and another (Thida) is yet to be installed. The Mawlamyaing-Ye-Dawie TL will have three substations. One (Mawlamyaing) is existing and two (Ye and Dawie) are to be installed. Extension work will be done for the two existing substations but this will be accommodated within their present compound.

Table 4 – Scope of Resettlement for the Substation of the Three Proposed TL

TL and Substation	Status	Area (has)	Land Use Right	Remarks
1. Ahlone- Thida (Strand Road)				
Ahlone	Existing	3.6	Government: (MOEE)	The sub-station facilities were first installed in 1954 and upgraded in 1995
Thida	Proposed	1.9	Government: MOEE: (0.8), YCDC (0.6) Township, Ports Authority (0.5)	MOEE Staff Housing will be replaced within the same site
2. Mawlamyaing-Ye-Dawie				
Mawlamyaing	Existing	11.5	Government (MOEE)	The substation operated since 2013. The proposed switchyard extension will be within existing compound. The land was acquired from 10 farmers but not in anticipation of ADB project.
Ye	Proposed	25.6	Government (MOEE)	Mainly grassland area with 4 private structures. MOEE land
Dawie	Proposed	8.1	Government (MOF)	Shrubland with 0.48 hectare of private rubber farm and 5 houses made of light materials. MOEE land



9. All the three proposed substation will be built on government land. The area for the Ye and Dawie substations belongs to the MOEE. The regional government transferred the area to MOEE in 2016. The regional government acquired both the Ye and Dawie from private owners but not in anticipation of ADB financing.² The area for the Ye substation has four private houses while Dawie has five. One house in Dawie also serves as a food shop. A 0.48-hectare rubber farm is also in the area for the Dawie substation. For the Thida substation, the 1.9-hectare area is partly allocated to three government agencies: MOEE (0.8 hectares); YDC (0.6 hectares) and Ports Authority (0.5 hectares).

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 the TL were studied using existing maps, satellite images and field survey. All proposed substations are located in government-owned land. Expansion works are confined within the compound of existing substations without affecting any other additional users.

11. While the distance will be adjusted to the topographical condition and structures along the alignment, the need to reduce land acquisition will also be considered in determining the final number of towers through the following measures.

- (i) Different dimensions for tower foundation will be used to suit their functions and location. But the area for the tower will be calculated to sufficiently serve the purpose of the foundation while maximizing the use of space to avoid unnecessary land acquisition.
- (ii) Outside the corridor, existing roads will be used for transportation and temporary access to obviate the need 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, these shall be compensated in with the REGDP entitlement matrix.
- (iii) Housing for workers will be constructed in public land or will be provided by the contractors so that no private land will be acquired for the purpose. The public land to be allocated is vacant land with no users. Any users identified prior to the cut-off-date will be compensated in line with the REGDP entitlement matrix.
- (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 are cultivated during monsoon season and being the primary component of the farming income in Myanmar.

12. In the preparation of detailed engineering, the DPTSC and its contractors will re-inspect the alignment and further consult with concerned agencies (e.g., YDC and Ports Authority) and state/regional authorities. Necessary changes to further minimize impacts on private assets will be executed.

1.4 Objectives of the REGDP

13. The overall objective of this REGDP is to define resettlement and compensation program for the Transmission Component and to limit as much as possible the number of affected persons and their affected income, production and assets. It will also ensure

² The land for the Ye substation was acquired for airport construction.



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

14. The project description is based on the preliminary design and field surveys on the TL. Based on the plot of the general alignment on satellite photos, the project area and the affected villages were identified. The socioeconomic survey of the potentially affected households and the consultation meetings were made on a sample of these villages. The estimate of the land cover of the area affected was based on the satellite photos, on-ground observation and interview with the staff of substations and MOEE district offices. The result of the survey and consultations 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

15. Private assets will be subject to land acquisition and resettlement impacts. In the Ahlone-Thida (Strand Road), 26 hectares accommodate temporary shops (Table 5). In the Mawlamyaing-Ye- Dawie TL, 405.3 hectares are paddy fields while 719.0 hectares are devoted to rubber trees. Ahlone-Thida TL (Dala) will affect a total of 76.36 hectares of paddy fields. But only 0.075 hectares will be permanent to accommodate the tower feet.

Table 5 – Estimated Area of Affected Land by Type of Private Assets: 2017

Land Cover	Temporarily affected (in hectares)	Permanently affected (in hectares)	Total (in hectares)
Ahlone-Thida TL (Strand Road)			
Temporary shops area in urban road	26.00	0	26.0
Mawlamyaing-Ye- Dawie TL			
Paddy rice	404.95	0.35	405.3
Rubber trees	718.38	0.62	719.0
Total	1,123.33	0.97	1,124.3
Ahlone-Dala-Thida TL (Dala)			
Paddy Rice (TL Corridor)	76.32	0.075	76.4

2.2 Tenure of Affected Land

16. Most affected land has Land Use Certificate (Table 6). This is projected from the result of the baseline survey. In Mawlamyaing-Ye- Dawie TL, 966.90 out of 1,124.30 have LUC. For Ahlone-Thida TL (Dala), 71.42 of 76.35 hectares have LUC. The rest are occupied for free.

Table 6 – Distribution of Affected Land by Tenure Estimated From October 2017 Socio-economic Survey Result

Type of Tenure Instrument	Hectares of Affected Land		
	Temporary	Permanent	Total
Mawlamyaing-Ye- Dawie TL			
LUC	966.06	0.83	966.90
Free Occupancy	157.27	0.14	157.40
Total	1,123.33	0.97	1,124.30
Ahlone-Thida TL (Dala)			
LUC	68.658	0.06	71.42
Free Occupancy	7.63	0.01	4.94
Total	76.22	0.07	76.36



2.3 Affected Households

17. Nine household will be physically displaced on permanent basis. These households are in the area proposed for the Ye and Dawie substations. The actual number of affected households is determined in Ahlone-Thida TL(Strand Road) by counting the number of shops along its route. If each shop corresponds to one household, this TL will affect 290 households. However, since the number of temporary shops can vary from day to day and with the time of the day, their exact number cannot be pinned down.

18. The number of affected households for the two other TL cannot be determined until the on-ground alignment is finalized, tower locations are pegged and the private land within the TL corridor and their owners and users are identified. To have an indicative number of affected households for the Mawlamyaing-Ye-Dawie TL and Ahlone-Thida TL (Dala), an estimate was made based on the REMDP of another linear project in Kayin State in Myanmar: Eindu-Kawkawik Road Improvement Project.³

19. The 67-km road affected 114 households in 30 villages (Executive Summary Paragraph 1 and Main Report Paragraph 17 and 18). Per kilometer, 1.7 households were affected. The number of affected households in this road project can be considered comparable to the two TL because of their similar rural location. Kayin State has only 52 persons per square kilometer (0.5 persons per hectare). Tanintharyi Region has less at 32 persons per square kilometers (0.3 persons per hectare) (Table 7). The Mon State is more populous with 167 persons per square kilometers (1.7 person per hectare). But the concentration of its population is in Mawlamyaing and its vicinity and the road on the way to Yangon. Although Dala is a township in Yangon, the location of the TL is in the paddy field

20. Using the Mon State's density per hectare, the 1,124.3-hectare corridor area with private assets of the the TL should have 382 affected households (1.7 persons per hectare x 1,124 hectare = 1,910 persons/5 average household members). The number of households (1.7) per kilometer value of the Eindu-Kawkawik Road Improvement Project will result to a higher estimate of affected households (417) than using the population density of Mon State. The affected households of Ahlone-Thida TL (Dala) is projected at 28 using the 1.7 per kilometer value. (Table 8).

Table 7 – Population Density in Myanmar and States/Regions Traversed by Mawlamyaing-Ye-Dawie TL

State/Region	Number of Persons per Square Kilometer	Number of Persons per Hectare
Mon	167	1.7
Tahwintharye	32	0.3
National Average	76	0.7
Source: Department of Population. The Union Report. The 2014 Myanmar Population and Housing Census. Census Report Volume 2		

21. The use of the number of affected households in Eindu-Kawkawik Road Improvement Project may provide a higher-end estimate of the number of TL-affected households. The reason is that road-side areas have usually higher density than the more remote location of the Mawlamyaing-Ye-Dawie TL and paddy farm-dominated area

³ Ministry of Construction. 2015. REGDP. Myanmar: Greater Mekong Sub-region East-West Economic Corridor. Eindu-Kawkawik Road Improvement Project. Report Submitted to ADB. June .



of the alignment of Ahlone-Thida TL (Dala). The higher estimate is considered more conservative and safer basis for planning and budgeting.

Table 8 – Number of Affected Households in the Proposed TL Corridor: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
Length (in km)	8.2	289.0	16.6
Length of Line in Privately-used Built-up or Agricultural Land (in km)	5.7	245.0	16.6
Estimated Number of Households per km	50.9 ¹	1.7 ²	1.7
Estimated Number of affected Households	290 ¹	417	28
Number of Households affected by the Substation	0	9	0

2.4 Severity of Impacts

22. Nine households will lose their residence. All other remaining affected households will not lose more than 10% of the household land being used or more than 10% of their income. Based on the smallest farm land of the affected households, the loss of land of one tower using 16 square meters for the feet, is at most only 0.1 percent (Table 9). The potential loss from agriculture of this area size is less than 1% of the smallest household income (Table 10). These percentages are computed based on the result of the September-October 2017 survey of households.

23. In the Ahlone-Thida TL (Strand Road), the owners of the temporary shops are not expected to lose their income. They will be transferred to another location most likely close to their present location along Strand Road. A project's impact is considered significant if 200 persons will lose at least 10% of their income-generating assets.⁴

Table 9 – Percentage of Permanently Lost Cropland to Smallest Land Holding: October 2017

TL	Smallest Land Holding (in Hectare)	Percentage of Area Required by Four Leg Foundations of One Tower
Ahlone -Thida TL (Strand Rd.)	No crop land	Not Applicable
Mawlamyaing-Ye-Dawie TL	2.7	0.06%
Ahlone -Thida TL (Dala)	No Data	No Data

Table 10 – Amount and Percentage of Income Lost for 16 Square Meter of Land to Smallest Annual Household Income: October 2017

Crop	Income from 16 Square Meters per Year	Percentage to Smallest Annual Income of 600,000 per Year
Rice	933 MMK	0.15%
Rubber	987 MMK	0.16%
Sesame	878 MMK	0.15%

⁴ ADB. 2013. Operations Manual. Bank Policies. OM Section F1BP. October. Paragraph 9.



2.5 Vulnerable Groups

24. ADB identifies those below the poverty line, the landless, the elderly, women and children as vulnerable (SPS SR2). In Ahlone-Thida TL (Strand Road), the woman-headed households compose 23% of the total households. This is estimated using the result of the socio-economic survey. The households in this TL has also 4% with disabled members and 2% who are earning less than 2USD a day. In the Mawlamyaing-Ye-Dawie TL, the woman-headed households compose 9% of the total households. Its households with disabled members compose 2% while those earning less than 2 USD a day comprise 8 percent. In the Ahlone-Thida (Dala), the woman-headed households compose 28 percent. The households with disabled members comprise 4% while those who earn less than 2USD a day constitute 12 percent.

2.6 Other Affected Assets

25. The project will only affect nine permanent structures, The eight structures are made of light materials (wood, bamboo and grass). One structure is made of concrete. Four structures are in the proposed area of the Ye substation and five in the Dawie substation.



3 Socio-Economic Profile

3.1 Survey Methodology

26. The survey of affected households covered three TL routes. The sample size for each TL based on the estimated number of affected households is as follows: Ahlone - Thida TL (Strand Road) (57); Mawlamyaing-Ye-Dawie TL (91), and Ahlone-Thida TL (Dala): (25) (Table 11). The total sample size is 173 households. This sample size is 24% of the estimated number of affected households.⁵

Table 11 – Estimated Number of Affected Household and Sampling Size: October 2017

TL	Estimated Number of affected Households	Number of Sample Households	Percent of Sample to Population
Ahlone -Thida (Strand Road)	290	57	20%
Mawlamyaing-Ye-Dawie	417	91	22%
Ahlone-Thida (Dala)	28	25	89%
Total	735	173	24%

27. The sample households for the Ahlone-Thida (Strand Road) are distributed to two Yangon Region townships (Ahlone and Buataung) while the sample households for the Dala Line are from Dala township (Table 12). The sample households for Mawlamyaing-Ye-Dawie TL are distributed to four villages. A five-page questionnaire which was administered to sample households by trained interviewers is on **Appendix 1**.

3.2 Population Size and Growth in Townships Hosting the TL

28. The four townships traversed by the Ahlone-Thiida TL (Strand Road) have a total population of 173,490 (Table 13). The TL with the largest population is Mawlamyaing-Ye-Dawie with 1,029,519 in the townships along its route. The Dala township has 172,857 people.

⁵ The ADB Involuntary Resettlement Safeguard A Planning and Implementation Good Practice Sourcebook (2012) provides the sample size is usually at least 20% of the anticipated number of people to be displaced by the project (Paragraph 31 and 48).



Table 12 – Distribution of Sample Households Among Townships and Villages: October 2017

TL, State/Region and Township	Village	Number of Sample Households	Sub-Total and Total
A. Ahlone-Thida TL (Strand Rd.)			
Yangon Region			
Ahlone	Not Applicable	27	
Botataung	Not Applicable	30	
Total Sample HH			57
B. Mawlamyaing-Ye- Dawie TL			
Mon State			
Mudone	Talkku	16	
Ye	Ahbaw	26	
Thanphyuzayat	Warkayuu	12	
Tahnintharye Region			
Kalaingaung	Kalaingaung	37	
Total Sample HH			91
C. Ahlone-Thida TL (Dala)			
Yangon Region			
Dala	Not Applicable	25	25
Total			173

29. The growth rate in the townships where the Ahlone-Thida TL (Strand Road) passes is negative 0.1 between the 1983 to 2014 census. These townships are in the old section of Yangon. The national growth rate for the period was 1.2 percent. But the Dala has 3.8% or more than three times the national growth rate. This township is apparently an expansion area for the development of Yangon. The Mawlamyaing-Ye-Dawie TL townships has also lower-than-average growth rate at 0.3 percent.

3.3 Population Characteristics of the Affected Households

30. The TL villages in rural area have bigger average household size than the TL townships in Yangon Region. The average household in the villages in Mawlamyaing-Ye-Dawie TL has 5.3 members (Table 14). The two Yangon townships covered by Ahlone-Thida TL (Strand Road) have 4.3 members. The average household in Dala has 4.4 members. The national average household registered in the 2014 census has 4.4 members.⁶

⁶ Department of Population. 2015. The 2014 Myanmar Population and Housing Census. Union Report Volume 2. May.



Table 13 – Population Size, Growth and Density in the Districts Traversed by the TL Routes

TL, State/Region and Townships	1983 Population	2014 Population	Annual Growth
Ahlon -Thida TL (Strand Rd.)			
Yangon Region			
Ahlon	51,849	55,482	0.2
Lmadaw	41,663	47,160	0.4
Kyauktada	37,634	29,853	(0.7)
Botantaung	49,168	40,995	(0.6)
Sub Total	180,314	173,490	(0.1)
Mawlamyine-Ye-Dawie TL			
Mon State			
Mawlamyine	259,990	289,388	0.3
Modone	190,523	190,737	0.0
Thanphyuzayat	122,514	170,536	1.0
Ye	160,316	152,485	(0.2)
Subtotal	733,343	803,146	0.3
Tanintharyi Region			
Yaephyu	87,455	100,768	0.5
Dawie	119,612	125,605	0.2
Subtotal	207,067	226,373	0.3
Ahlon-Thida (Dala)			
Yangon Region			
Dala	54,167	172,857	3.8
Source: Department of Population. The Union Report. The 2014 Myanmar Population and Housing Census. Census Report Volume 2, Volume 3-F (Tanintharyi Region), Volume 3-H (Magway Region), Volume 3-J (Mon State) and Volume 3-L (Yangon Region). Immigration and Manpower Department. 1987. 1983 Population Census. Magwe Division (February); Mon State (August); Rangoon (November) and Tenasserim (July).			

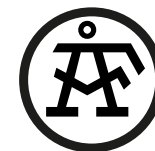


Table 14 – Selected Population Characteristics of the Affected Households: October 2017

Item	Ahlone-Thida TL (Strand Road)	Mawlamyaing- Ye- Dawie TL	Ahlone-Thida (Dala)
Average Household Size	4.3	5.3	4.4
Gender (%)			
Male	50%	45%	47%
Female	50%	55%	53%
Total	100%	100%	100%
Number of Females per 100 Males	100	122	112
Religion (%)			
Buddhism	97%	100%	100%
Christian	3%	0	0
Total	100%	100%	100%
Number of Households with Disabled Members	2	2	1
Source: September-October 2017 Survey			

31. The urban-rural differentiation is also displayed in gender distribution. The population in the villages in Mawlamyaing-Ye- Dawie TL is predominantly female. There are 122 women per 100 men in Mawlamyaing-Ye- Dawie TL. This distribution follows the national pattern where there are 107 women per 100 men. But in two Yangon townships to be traversed by the TL, the gender distribution is more balanced. In the Ahlone-Thida TL (Strand Road) townships, there are equal number of men and women. In the Dala route, the women outnumber the men (112 women per 100 men) but not as much as in the villages of the Mawlamyaing-Ye-Dawie TL

32. The population in the villages traversed by the Mawlamyaing-Ye-Dawie TL and the Ahlone-Thida TL (Dala) is 100% Buddhist. Only the two townships covered by Ahlone-Thida TL (Strand Road) break the mold. Around 3% of its population are Christians. All the TL sites have registered households with disabled member. There are two of such households in Ahlone-Thida TL (Strand Road) and Mawlamyaing-Ye-Dawie TL sites, respectively. The Dala route registered one household with disabled member.

3.4 Education of Household Members

33. Only 11 percent of the members of the affected households (aged 6 years old and over) in TL sites have not gone to school (Table 15). There is only one percentage point difference between gender in favor of the women. About a third of the population has at least a year of elementary education with slight difference between men and women. Only 21% have some high school education with slightly higher percentage among men than among women (22% versus 20%). But in terms of graduating in the university, the percentage of women is higher than of men (9% versus 5%). Only 7% of the population 6 years old and over are university graduates.

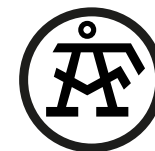


Table 15 – Educational Attainment by Gender (6 years old and over) in Villages in TL Route: October 2017

Educational Attainment	Men (%)	Women (%)	Total (%)
None	11	12	11
Elementary	30	31	31
Middle School	29	23	26
High School	22	20	21
University Level	3	5	4
University Graduate	5	9	7
Total	100	100	100
Source: September-October 2017 Survey			

34. Among the TL sites, the percentage of university graduates is highest in the most urban area: Ahlone-Thida TL (Strand Road) at 11 percent (Table 17). The lowest percentage is in the Dala route with only 4% having graduated from a university. But in terms of percentage of persons without education, Mawlamyaing-Ye- Dawie TL site tops at 14 percent. The Ahlone-Thida TL (Strand Road) site has only 6% although the Dala route has 10 percent. The difference indicates that although Yangon Region may be better-off than the more rural region, disparity exists in the condition among its population.

Table 16 – Educational Attainment by TL Site (6 years old and over): October 2017

Educational Attainment	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
None	6	14	10
Elementary	28	34	21
Middle School	25	26	29
High School	28	16	27
University Level	2	4	9
University Graduate	11	5	4
Total	100	100	100
Source: September-October 2017 Survey			

3.5 Occupation of Household Members

35. The percentage of household members 15 years old and over who are employed stands at 87 percent (Table 17). This means that unemployment is at 13 percent. There are more men than women who are unemployed (15% versus 11%). Various unidentified occupations has the highest percentage of men at 21 percent. Among women, the highest percentage is doing household work at 16 percent. More men than women are employed in the government, private sector and wage labor. The government employs 10% of the men but only 7% of the women. The private sector employs 11% of the men and only 6% of the women. Wage labor employs 13% of the men but only 7% of the women.



Table 17 – Primary Occupation by Gender of Household Members (15 years old and over) in TL Component: October 2017

Occupation	Men (%)	Women (%)	Total (%)
Agriculture	14	4	8
Own Business	14	12	13
Employed in Government	10	7	8
Employed in Private Sector	11	6	8
Wage Earner	13	7	10
Household work	1	29	16
Unemployed	15	11	13
Students	17	22	20
Others	21	2	4
Total	100	100	100
Source: September-October 2017 Survey			

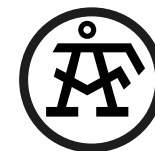
36. Employment level is highest in Ahlone-Thida TL site (Strand Road) at 89 percent (Table 18). It is lowest in Ahlone-Thida (Dala) at 85 percent. In Mawlamyaing-Ye- Dawie TL, the employment level is at 87 percent. In spite of the variation, unemployment rate is high in all sites at double-digit.

37. None in Ahlone-Thida TL (Strand Road) and the Dala route is working in agriculture as their primary occupation. In Ahlone-Thida TL (Strand Road), the highest percentage is working in their own business at 19 percent. In Ahlone-Thida (Dala), the highest percentage is working in the private sector at 16 percent.

38. Agriculture is understandably the main primary occupation in the Mawlamyaing-Ye- Dawie TL site. It is the primary occupation of the labor force at 15 percent. It has relatively low percentage of persons aged 15 years old and over who are employed in the government (4%) and the private sector (5%). But wage labor employs a high percentage in Mawlamyaing-Ye- Dawie TL site at 11 percent

Table 18 – Primary Occupation of Household Members by TL Sites (15 years old and over): October 2017

Occupation	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
Agriculture	0	15	0
Own Business	19	10	15
Employed in Government	18	4	3
Employed in Private Sector	10	5	16
Wage Earner	5	11	14
Household work	17	15	19
Unemployed	11	13	15
Students	20	21	18
Others	0	6	0
Total	100	100	100
Source: September-October 2017 Survey			



3.6 Household Income and Expenditures

39. Since agricultural work is the main primary occupation in the Mawlamyaing-Ye- Dawie TL site, the largest proportion of their households relies on it as main income source (Table 19). Around 63% in Mawlamyaing-Ye- Dawie TL site derive income from agriculture. In the Yangon TL, most households rely on wages and salaries. Around 84% in Ahlone-Thida TL(Strand Road) site and 76% in Ahlone-Thida TL (Dala) site earn wages and salaries. In contrast, only 36% in Mawlamyaing-Ye- Dawie TL site earn from the same source.

Table 19 – Selected Data on Income Among Affected Households in TL Sites: October 2017

Item	Ahlone-Thida TL (Strand Road)	Mawlamyaing- Ye- Dawie TL	Ahlone-Thida (Dala)
Percentage of Households by Income Source (multiple re- sponse)			
Farming	2	63	0
Business	40	35	48
Wage and Salary	84	36	76
Remittances	0	32	4
Sale of Animals	0	7	4
Others	0	3	0
Average Number of Income Sources	1	2	1
Average Amount of Household Income Per Year in USD)	3,084	3,226	2,667
Percentage Contribution of In- come Source to Average In- come			
Farming	2	29	0
Business	27	26	25
Wage and Salary	71	20	73
Remittances	0	17	2
Sale of Animals	0	7	0
Others	0	1	0
Total	100	100	100
Annual Income (in MMK) Dis- tribution of Households (%)			
Below 600,000	2	6	4
600,000-800,000	0	2	8
800,000-1,000,000	0	6	0
1,000,000-1,200,000	2	4	0
1,200,000-1,400,000	2	1	4
1,400,000 and over	94	81	84
Total	100	100	100
Source: September-October 2017 Survey			



40. In spite of the higher dependence on agriculture, the households of Mawlamyaing-Ye- Dawie TL site have the highest income at 3,226 USD per year. Farming is the the biggest contributor to household income at 63 percent. The farming income among households in the two Ahlone-Thida TL sites is less than one percent. The main contributor to income in the Yangon TL sites is wages and salaries. Their contribution to Ahlone-Thida TL (Strand Road) and Ahlone-Thida TL (Dala) sites is 71% and 73%, respectively.

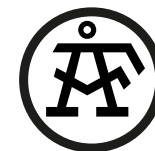
41. Partly due to higher income, there are also more households in the Yangon TL at the higher income bracket. The percentage of households in Ahlone-Thida TL (Strand Road) and Ahlone-Thida TL (Dala) sites who are earning more than 1,400,000 MMK per year is 94% and 84%, respectively. It is only 81% in Mawlamyaing-Ye- Dawie TL site.

42. Given the average income and expenditure, the households Mawlamyaing-Ye- Dawie TL site are living in deficit. The deficit is 385 USD in 2016 (Table 20). The households in Ahlone-Thida TL (Strand Road) site are enjoying a surplus of 565 USD. But those in Ahlone-Thida TL (Dala) site are in deficit as well. To bridge the income-expenditure gap, they go into debt and rely on the mutual help system of the extensive kinship network based not only on consanguinity but also affinal and fictive relationships.

Table 20 – Selected Data on Expenditure Among Affected Households in TL Sites: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye-Dawie TL	Ahlone-Thida (Dala)
Average Expenditure Per Year (in USD)	2519	3,611	2.865
Average Amount of Savings Per Year (in USD)	565	(385)	(198)
Percentage Distribution of Expenditure			
Food	57%	42%	48%
Education	11%	12%	12%
Medical Care	10%	9%	8%
Housing	1%	11%	9%
Clothing, shoes and personal effect	7%	7%	6%
Entertainment and Celebrations	5%	9%	7%
Others	10%	11%	10%
Total	100 %	100%	100%
Source: September-October 2017 Survey			

43. About half of the expenditure of the households is going to food. The highest percentage expenditure on food is in Ahlone-Thida TL(Strand Road) at 57 percent. The rural TL, Mawlamyaing-Ye- Dawie, has lower percentage expenditure on food at 42 percent. In Ahlone-Thida TL(Dala) site, the food expenditure amounts to 48 percent. The percentage spent on education is below 15% in all TL sites while medical care expenditure does not exceed 10 percent.



3.7 Land Holding

44. The average size of the land held by the households is 3.2 hectares in Mawlamyaing-Ye- Dawie TL site (Table 21). The land holding are much smaller in Yangon TL sites. In Ahlone-Thida TL (Strand Road) site, the average land holding is 1.2 hectares. But in Ahlone-Thiida TL (Dala) site, its only 0.008 hectare.

45. Only 22% of the agricultural land in Mawlamyaing-Ye- Dawie TL site are devoted to seasonal crops, mostly paddy rice. The largest portions are planted to tree crops: 32% on fruit trees and 38% on rubber trees. Land used for farming is reported in Ahlone-Thida TL (Strand Road) but since it is located in heavily built-up area, it is assumed that their agricultural land is located outside the urban area.

Table 21 – Selected Data on Landholding Size and Use Among Affected Households: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
Average Size of Land Holding (in ha)	1.2	3.2	0.0008
Percentage Distribution of Landholding by Use			
Seasonal crops	73	22	0
Orchard	18	32	0
Rubber farm	0	38	0
Residential	9	6	100
Commercial	0	1	0
Others	0	1	0
Total	100	100	100
Source: September-October 2017 Survey			

46. Most of the affected households are LUC holders (Table 22). The highest percentage of LUC holders is in Ahlone-Thida TL (Strand Road) site at 100 percent. In Mawlamyaing-Ye- Dawie TL site, only 86% have LUC. In the Ahlone-Thida TL (Dala) its 90 percent. Those without LUC are occupying their land for free.

Table 22 – Tenure of Land Used by the Affected Households in TL Sites: October 2017

Tenure	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
LUC	100%	86%	90%
Free Occupancy	0	14%	10%
Total	100%	100%	100
Source: September-October 2017 Survey			

3.8 Farming Operation

47. Only the households growing seasonal crops have a cropping cycle adapted to the monsoon. They compose only 20% in the Mawlamyaing-Ye- Dawie TL site (Table 23). In Ahlone-Thida TL (Strand Road) where some households have their farms outside the



city, 7% plant seasonal crops. These seasonal farmers plant during the wet season but very few do so in the dry season.

48. Paddy rice is the main seasonal crop in Mawlamyaing-Ye- Dawie TL site. Rubber is the only one grown by the tree farmers in Ahlone-Thida TL (Strand Road) site in their farms outside the city. In Mawlamyaing-Ye- Dawie TL site, 35 percent have rubber plants. A greater percentage have fruit trees.

Table 23 – Cropping Patterns of the Affected Households in the TL Sites: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamya-ing-Ye- Dawie TL	Ahlone-Thida (Dala)
Percentage of Households Planting Seasonal Crops			
Monsoon Season	7%	20%	0
Dry Season	0	4%	0
Percentage of Households by Type of Monsoon Crops (Multiple Response)			
Paddy	25%	100%	0
Pulses	25%	0	0
Groundnut	25%	0	0
Sesame	25%	0	0
Percentage of Households by Type of Dry Season Crops (Multiple Response)			
Paddy	0	50%	0
Sesame	0	25	0
Others	0	25%	0
Percentage of Households by Type of Trees Planted (Multiple Response)			
Rubber Trees	0% ¹	35%	0
Fruit Trees	0	69%	0
Source: September-October 2017 Survey			

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. For drinking water, there is again an urban-rural differentiation. A higher percentage of urban households has access to tap or piped water: 71% in Ahlone-Thida TL (Strand Road) and 44% in Ahlone-Thida TL (Dala) (Table 24). In Mawlamyaing-Ye- Dawie TL site only 15 percent enjoy similar facility. Around 54% of the households In Mawlamyaing-Ye- Dawie TL site depend on dug well. For toilet facilities, water- sealed toilet is widely used in all TL sites with total or almost total coverage.



Table 24 – Type of Sanitation Facilities of the Affected Households in TL Sites: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing- Ye- Dawie TL	Ahlone-Thida (Dala)
Water Source			
Tap/Piped	71%	15%	44%
Tube Well	26%	17%	8%
Dug Well	0	54%	0
Spring/Pond	3%	14%	48%
Total	100%	100%	100%
Toilet			
Sanitary	99%	100%	96%
Others	1%	0	4%
Total	100%	100%	100%
Source: September-October 2017 Survey			

3.10 Vulnerability and Risk Analysis

50. The vulnerable among the affected households include those headed by women or have disabled members and those who live with less than 2.00 USD a day. The TL sites have high percentage of woman-headed households. They compose 9% in Mawlamyaing-Ye-Dawie TL site (Table 25).. In the Ahlone-Thida TL (Strand Road) and Ahlone-Thida TL (Dala), it is 23% and 28%, respectively. The relatively high percentage of women-headed households is consistent with the gender ratio which favors the women.

51. The percentage of households with disabled member is highest in the two Yangon TL sites at 4%, respectively. The Mawlamyaing-Ye-Dawie TL site has 2% of the households with disabled member. The Ahlone-Thida TL (Dala) has also the highest percentage of households who are living less than 2 USD per day. They account for 12 percent. The two other TL sites have lower percentage of these households classified as very poor.

Table 25 – Percentage of Affected Households by Type of Vulnerability in TL Sites: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing- Ye- Dawie TL	Ahlone-Thida (Dala)
Women-headed	23%	9%	28%
With Disabled members	4	2	4
Living below 2 USD a day	2	8	12

52. The aggravation of vulnerability may result from loss of crops due to temporary or permanent land acquisition for these households. The women-headed households who lack men who can earn from wage labour, including one which the project may offer, will feel more the loss. The loss will also reduce the capacity of a households with disabled members to support itself. This impact will be further felt if they are among the very poor. The income of the very poor households with small land holding will be threatened given their dependence on farming.



4 Ethnic Groups in the TL Corridor

4.1 Purpose of Impact Assessment for Ethnic Groups

53. 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, the main ethnic group living and using the natural resources in the villages that the Mawlamyaing-Ye- Dawie TL will traverse.

4.2 Data Collection Methodology

54. The data on the Mon as ethnic group were obtained from primary and secondary sources. The primary sources were the household survey and public consultation meetings done on 21 September - 21 October 2017. The secondary data were obtained from past studies, government documents and ADB reports.

4.3 Provenance and Cultural Profile of Ethnic Groups in TL Corridor

55. The Mawlamyaing-Ye-Dawie TL site is the only one where the survey covered an ethnic group. The main group is the Mon composing 62% of the households (Table 26). The Mon State is its traditional territory although at some points in history, its borders had expanded even beyond the current national boundaries. It is among the many ethnic groups in Myanmar. Although the government once referred to 135 groups, this is not reportedly supported by data or list of names.⁷ But it is generally accepted that Myanmar has nine main groups with Bamar as the majority group constituting 68% of the population.⁸ Among the eight minority groups are the Mon, Karen, Shan, Chin, Kachin and Karenni. There are a number of subgroups and smaller groups. The Bamar compose 100% of the households surveyed in other TL sites.

56. The Bamar is considered the dominant group in Myanmar largely staffing the government. Their linguistic root is identified as Sino-Tibetan although they have East Asian and Indian genetic influences.⁹ They are traditionally settled in the Irrawaddy River Basin. Their current cultural identity is largely defined by Theravada Buddhism and the Burmese language which is the country's official language.

Table 26 – Ethnic Groups in the Villages Traversed by the Three TL: October 2017

Ethnic Groups	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing- Ye- Dawie TL	Ahlone-Thida (Dala)
Bamar	100%	38%	100%
Mon	0	62%	0
Total	100%	100%	100%
Source: September-October 2017 Survey			

⁷ Smith. M.1994. Ethnic Groups in Burma: Development, Democracy and Human Rights. London: Anti-Slavery International

⁸ International Organization for Migration.2005. Burmese Cultural Profile: A Tool for Settlement Workers. Bangkok and <http://www.oxfordburmaalliance.org/ethnic-groups.html>

⁹ <https://www.researchgate.net/publication/259954928>. Large-scale Mitochondrial DNA Analysis in Southeast Asia Reveals Evolutionary Effects of Cultural Isolation in the Multi-ethnic Population of Myanmar



57. The Mon are considered the earliest people to settle in Myanmar. Their linguistic root is identified as Austroasiatic. They are credited for the spread of Theravada Buddhism in Indo-China and for contributing key elements in the Burmese culture including its script. In spite of past sporadic conflicts with the Bamar group and population movement, centuries of interaction, mutual subjugation and post-independence government policies resulted in a high degree of amalgamation of Mon and Bamar cultures.¹⁰ Both the Mon and Bamar are basically paddy rice agriculturists. Nonetheless, the Mon still retain their language and sense of ethnic identity.

4.4 Impact of TL on Ethnic Groups and Development Actions

58. 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.¹¹ The Mawlamyaing-Ye-Dawie TL will directly affect land used by Mon households and as a result affecting their livelihood. But it will not affect their dignity, human rights and culture or exacerbate their vulnerability if any. The affected households regardless of the ethnic affiliation did not report any ethnic-specific vulnerability in the survey or in the consultations. In this light, the ADB safeguards on IP are not triggered although some affected people are members of ethnic groups.

59. In the review of the TL alignment in interviews of village leaders and four consultation meetings in Mawlamyaing-Ye-Dawie TL site, it was confirmed that the TL will not trespass any site with social, cultural or spiritual importance to them. It was also confirmed that the activities associated with its construction and operation will not breach any tradition and belief or disrupt any ritual. 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. This confirmation will be further validated after the detailed engineering design will be made. In the REGDP update, the Regional Administration Department will certify that the project avoided any adverse impact on ethnic minorities, in particular, their cultural, social and spiritual practices. The certification will be counter-signed by a recognized representative of ethnic group in the area and concerned national agency.

60. The proposed TL lines are expected to improve access to electricity in Mon State. By putting more Mon households in the grid, the TL will serve their demand for more fruitful participation in development projects.

¹⁰ Min Zhin. 2017. Mon Culture: Dying or Reviving?. The Irrawaddy. September

¹¹ Asian Development Bank. 2009 Safeguard Policy Statement. Appendix 3 Paragraph 9.



5 Information Disclosure and Public Consultations

5.1 Purpose of Public Participation Activities

61. 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 proposed TL are the affected households and the households who will benefit from the electricity that the project will transmit. The other stakeholders are the MOEE and the local government authorities.

5.2 Information Dissemination

62. The information on the proposed TL was disseminated on September-October 2017 through meetings with local authorities, key informant interviews with village heads, consultation meetings at the village level and household interviews during the socio-economic survey. The socio-economic survey, interviews with village heads 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

63. The socio-economic survey result shows that many households in the TL sites are already aware of the project (Table 27). The highest percentage of aware households is in Mawlamyaing-Ye- Dawie TL site at 56 percent (Table 27). The percentage of households who are aware is lower in two Yangon TL sites: 18% in Ahlone-Thiida TL (Strand Road) site and 20% in the Ahlone-Thida TL (Dala) site.

64. In the Mawlamyaing-Ye-Dawie TL site, 32% said that the TL has no adverse impact. Around 31% expressed that there will be an adverse impact although a higher percentage of 37% did not have an opinion. The anxiety over adverse impact is generally low in Yangon TL sites: 28% in Ahlone-Thiida TL(Strand Road) site and 12% in the Ahlone-Thida TL (Dala) site.

65. The main concern in the three sites is the danger from electricity. This was expressed by 86% in Ahlone-Thida TL (Strand Road) site, 61% in Mawlamyaing-Ye-Dawie TL site and 67% in the Ahlone-Thida TL (Dala) site. Those who identified the loss of farmland as adverse impact constitute only 35% in Mawlamyaing-Ye-Dawie TL site and none in the two other TL sites.

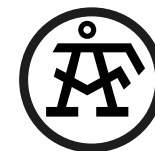


Table 27 – Awareness of the Project and Impact Identified Among Affected Households: October 2017

Item	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
Households Who Are Aware of the Project (%)	18%	56%	20%
Households by Impact Identified (%)			
No Impact	36%	32%	60%
Adverse Impact	28%	31%	12%
Do not Know	36%	37%	28%
Total	100%	100%	100%
Type of Adverse Impact Identified (%)			
Danger from electricity	86%	61%	67%
Expensive power cost	14%	4%	33%
Loss of farmland	0	35%	0
Total	100%	100%	100%
Source: September-October 2017 Survey			

5.4 Consultation Meetings

66. Ten consultation meetings with the on-site project stakeholders and affected people were held from 28 September to 20 October 2017 (Table 28). A total of 320 persons attended the meetings, 22% were women. In the meetings in the Mawlamyaing-Ye-Dawie TL site, 65% of the participants were members of ethnic group mostly Mon (Table 29). The other ethnic minority groups represented were the Kayin and Rakhine. The DPTSC staff led the meetings being the project owners.

67. The proposed line route and potential scope of resettlement impacts were disclosed during the meetings. The main social issues raised is the compensation for affected land and access to electricity. The names of the persons who attended the meetings and the documentation are in **Annex 1**.

5.5 Planned Disclosure and Consultation Activities

68. 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 and Mon and will be made available to the affected people through the village and township authorities. Burmese is widely used among affected ethnic groups.

69. The PIB draft in Appendix 2 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 and Mon languages.



Table 28 – Public Consultations Done for the Three TL at the Village-Level: October 2017

Date	Region/State, Township and Village	Number of Participants		
		Men	Women	Total
	Mon State			
28 Sept 2017	Mudone (Talkku Village)	28	13	41
28 Sept 2017	Thanphyuzayat(Warkayuu Village)	11	2	13
29 Sept 2017	Ye (Ahbaw Village)	68	15	83
	Tahnintharye Region			
30 Sept 2017	Kalaingaung (Kalaingaung Village)	44	7	51
11 Oct 2017	Minbu (Ywathaya Village)	33	12	45
12 Oct 2017	Minhla (Malum Village)	22	3	25
13 Oct 2017	Taungdwingyi (Taungdwingyi Village)	42	1	43
	Yangon Region			
18 Oct 2017	Botataung	20	4	24
17 Oct 2017	Ahlone	22	11	33
20 Oct 2017	Dala	57	18	75
Total		250	70	320

Table 29 – Participants in Public Consultation Meetings by Ethnic Affiliation: October 2017

Ethnic Affiliation	Ahlone-Thida TL (Strand Rd.)	Mawlamyaing-Ye- Dawie TL	Ahlone-Thida (Dala)
Bumar	57	65	75
Mon	0	107	0
Kayin	0	15	0
Rackhine	0	1	0
Total	57	188	75

70. Multi-level consultation meetings will be periodically held during REGDP updating and construction and operation phases (Table 30). The consultations and feedbacking 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 and entitlement package, grievance redress and income restoration. Special meetings will be held to draw out inputs from the vulnerable groups. 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.

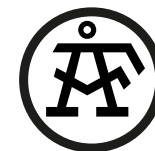


Table 30 – Planned Consultation Activities for Power Network Development Project:
Transmission Component

ACTIVITIES	STAKEHOLDER GROUPS
A. Preparation Phase (REGDP Updating)	
1. Update the concerned national government agencies on the progress of project work	<ul style="list-style-type: none">• MOEE; (Nay Pyi Taw)• Ministry of Natural Resource and Environmental Conservation (MONREC (Nay Pyi Taw))• MOF: (Nay Pyi Taw)
2. Get permit to conduct census, DMS and consultations in the villages traversed by the TL.	
3. Draw out their concerns on the project and suggestions to address these	
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	<ul style="list-style-type: none">• Chief Minister Office of Regions/States• Regional General Administration Department (GAD)• Regional MONREC and MOF regional offices
5. Draw out their concerns on the project and suggestions to address these	
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	<ul style="list-style-type: none">• Township / District GAD• MONREC and MOF township office• Township Development Committees• NGOs.
8. Draw out their concerns on the project and suggestions to address these	
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.	<ul style="list-style-type: none">• Village Tracts Leaders• Village Chiefs• Women• Fishermen and farmers• Local households• Vulnerable groups
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.	
B. Construction Phase	
1. Provide periodic update the concerned national government agencies on the progress of project work using monitoring reports	<ul style="list-style-type: none">• Concerned national, regional and township agencies and officials• NGOs
2. Draw out their concerns on the project and suggestions to address these	
3. Consult with the chiefs and local groups in villages in TL sections where construction is done to identify issues and arrange solutions.	<ul style="list-style-type: none">• Village Tract Officials• Village Chiefs• Women• Fishermen and farmers• Local households• Vulnerable groups
4. Provide copy of updated REGDP copy in Bumar language in the house of the village tract and village chiefs and post the entitlement matrix in a public place.	
5. Operate s participatory and multi-level Grievance Redress Mechanism to settle collective and individual compliant on the project	



ACTIVITIES	STAKEHOLDER GROUPS
<ol style="list-style-type: none"> 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. 	
C. Operation Phase	
<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 complaint 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 • Fishermen and farmers • Local households • Vulnerable groups



6 Grievance Redress Mechanism

6.1 Asset Compensation Committee and Grievance Settlement

71. 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.

72. The DPTSC 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) project management unit (PMU); (ii) DPTSC District Office; and (iii) DPTSC 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 put together when the PMU is organized and will be active during REGDP implementation and throughout project implementation period. It will only handle complaints related to the resettlement impacts of the three TL and not disputes over land use rights which must be resolved by the court of law.

6.2 Grievance Redress Procedures

73. The affected people will be informed of their rights and the avenues and procedures through the PIB and consultation meetings. 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 DPTSC 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 DPTSC PMU Grievance Committee for a re-survey and re-evaluation of the affected assets.

(iii). The DPTSC 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 DPTSC PMU Grievance Committee, it may appeal its case to the DPTSC District Office Grievance Committee.

(iv). The DPTSC 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 DPTSC National Office Grievance Committee.



(v). The DPTSC 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 handover its affected assets and will notify verbally or in writing the DPTSC PMU Grievance Committee on the alleged non-compliance.

(ii) The DPTSC 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 DPTSC District Office Grievance Committee.

(iii) The DPTSC 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 DPTSC National Office Grievance Committee.

(iv) The DPTSC 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

74. The gaps between the ADB 2009 SPS and Myanmar laws on involuntary resettlement are assessed based on to their relevance to the resettlement issues in three TL (Table 28). 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 TL corridor, (iii) loss of structures, (iv) partial restriction in use of land due to TL; (v) permanent loss of crops to accommodate the feet of the tower, (iv) temporary loss of commercial structures and potential income; (v) compensation rate of affected assets; (vi) assistance to vulnerable groups and (vii) need to consult the affected people.

75. 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). 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).

76. 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).

77. 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 32). Meeting such requirements will also enable the project to follow the adhere the national laws.



Table 31 – 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 structures	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 to TL	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 De-



Issues	ADB Safeguard Policy Statement (2009)	Actions in the REGDP
		tailed Engineering Design has been finalized. Within the updated REGDP, crops that would provide equivalent if not 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

78. Since the Environmental Impact Assessment Procedures of 2015 requires 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 (200) will guide the preparation and implementation of the REGDP. These principles aim to attain the three objectives of ADB safeguards: (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.

79. 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 replacement 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 TL. 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 grievance redress mechanism 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 rehabilitation 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 and Mon 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

80. The entitlement matrix in Table 32 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 32 – Entitlement Matrix for the Three TL 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 structures in government land	All private structure owners in government land	i Advanced notice of eviction at least 60 days before removal ii Compensation of structure at replacement cost iii Option to keep salvage materials iv Transfer and subsistence allowance v Entitlement as vulnerable household if landless
Seasonal crops	All types of tenure occupants	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
Rubber and fruit trees	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 Losses	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 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.		

81. Compensation will be given in cash at the current market rates. Where feasible, the compensation will be made through bank transfer. 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. In addition to market rate compensation, the rubber planters who can no longer plant rubber within the corridor and vulnerable groups will get farming assistance. The rubber planters will be assisted in shifting to short-term seasonal crops in the land along the corridor from where they will earn an amount at least equal to rubber. The compensation and assistance provided under the entitlement matrix are deemed sufficient to restore the income and standard of living of the households and no further income restoration program is needed. The DPTSC will arrange and work with the Ministry of Agriculture, Livestock and Irrigation in delivering such assistance.

82. The average income loss of the households affected by one tower (16 square meters of land) is less than one USD per year of farm production. This amount can be recouped with little intensification of cultivation of the unaffected portion of the farm. Among the households affected by the DL height restriction, the amount to be recouped is 210USD per year. This is assuming that the household has a land wide enough to cover 100 meters of the corridor and cultivating rubber (457USD/ hectare x 0.46 hectares). If the household will plant the restricted area with sesame twice a year on the corridor, he will earn 375USD (408USD x 0.46 hectares x 2 cropping cycles) per year 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.

83. 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 subproject area 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

84. The budget for REGDP implementation for each TL is as follows: 62,803 USD for Ahlone-Thida TL (Strand Stree), 3,078,630 USD for Mawlamyaing-Ye-Dawie TL and 131,427 USD for the Ahlone-Thida TL (Dala) (Tables 33, 34, 35 and 36). 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 for land to be acquired for the feet of the tower was based on land price survey in the field on the two types of agricultural land: paddy field and rubber farm.
- (ii) Seasonal Crops: The only seasonal crops that will be affected in Mawlamyaing-Ye-Dawie TL and Ahlone-Thida TL (Dala) is paddy rice.. The compensation rate per hectare is based on the farmgate price gathered during the September-October 2017 survey. Production cost is not deducted from the farmgate price because the margin of profit of production is very low.
- (iii) Rubber Tree Production: The compensation payment for rubber tree production is simi-larly estimated using the farm gate price gathered in the September-October survey without deduction of the production cost. The equivalent of five year production is considered becau-se such period is needed for a rubber tree to be productive.
- (iv) Structure: The estimate of the structure is based on the material, labor, transport and construction cost in the locality as gathered in the September-October 2017 survey. There is no deduction for depreciation and transaction costs and taxes.
- (v) Lost Income: The estimation of lost income is based on daily gross earning of the shop mul-tiplied by the number of days of operation minus the capital outlay.

Table 33 – Budget Summary for Three TL (15 December 2017)

TL	Total Budget (USD)
Mawlamyaing-Ye-Dawie	3,078,630
Ahlone-Thida (Strand Road)	62,803
Ahlone-Thida (Dala)	131,427



Table 34 – Compensation Budget For Lost of Private Assets: Ahlone-Thida TL (Strand Road)

Item	Description	Unit Cost (USD)	Number of Units	Total (USD)
1	Transfer grant for temporary shops in Option 1: Ahlone-Thida	150/shop	290 shops	43,500.00
3	Livelihood support to vulnerable groups	250/household	24 households ¹	6,000
	Sub-total			49,500
4	Administrative Cost (15% of Items 1-3)			7,425
5	Contingency (10% of Items 1-3)			4,950
6	Monitoring and Evaluation (1.5% of Items 1-5)			928
	Grand Total (1-6)			62,803
¹ 24= 17 women-headed households+ 7 very poor ¹ 24= 17 women-headed households+ 7 very poor				

Table 35 – Compensation Budget For Lost of Private Assets: Mawlamyaing-Ye-Dawie TL

Item	Description	Unit Cost (USD)	Number of Units	Total (USD)
1	Repossed Paddy Area for Tower Foundations (214 towers x 16 square meters)	2,714/ hectare	0.35 hectares	950
2	Reposessed Rubber Area for Tower Foundations (385 towers x 16 square meters)	63,335/hectare	0.62 hectares	39,268
3	Paddy rice compensation for 3 cropping seasons within the corridor	1299/ hectare (433x 3 croppings)	405.0 hectares	526,095
4	Rubber 5-year production compensation	2,285/hectare	718.4 hectares	1,641,544
5	Technical support for rubber planters to shift to other high-yielding crop	250/hectare	718.4 hectares	179,600
6	Livelihood support to vulnerable groups	250/person	79 HH	19,750
7	Structure			
	8 houses of light materials in Dawie and Ye substations	1000/structure	8 structures	8000
	1 concrete house of I Ye Substation	2000/structure	1 structure	2000
	Transfer Grant (12% of	120/Structure	9 structures	1200



Item	Description	Unit Cost (USD)	Number of Units	Total (USD)
	value of structure)			
	Compensation for lost net income at 300/ month/household	900/household	9 households	8100
	Subtotal			2,426,507
8	Administrative Cost (15% of Items 1-7)			363,976
9	Contingency (10% of Items 1-7)			242,650
10	Monitoring and Evaluation (1.5% of Items 1-9)			45,497
	Grand Total (1-9)			3,078,630
¹ 79= 38 women-headed households+ 8 with disabled member + 33 very poor				

Table 36 – Compensation Budget For Lost of Private Assets: Ahlone-Thida TL (Dala)

Item	Description	Unit Cost (USD)	Number of Units	Total (USD)
1	Reposessed Area for Tower Foundations (46 towers x 16 square meters)	20,000/ hectare	0.075 hectares	1,500
2	Paddy land compensation for 3 cropping seasons within the corridor	1299/ hectare (433x 3 croppings)	76.28 hectares	99,088
3	Livelihood support to vulnerable groups	250/household	12 HH	3,000
	Sub-total			103,588
4	Administrative Cost (15% of Items 1-4)			15,538
5	Contingency (10% of Items 1-4)			10,359
6	Monitoring and Evaluation (1.5% of Items 1-5)			1,942
	Grand Total (1-6)			131,427
¹ 12= 8 women-headed households+ 1 household with disabled member + 3 very poor				

9.2 Fund Source and Flow

85. 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 (crops, trees, structures and income) and submit this MOEE who in turn will deposit the corresponding amount to the account of the Regional Administration.



9.3 Mode of Payment of Compensation

86. Payment will be made in cash. Whenever feasible, payment will be personally received by hus-band and wife and both will sign the acknowledgement receipt. If the affected person has a bank account, bank transfer will be the preferred option. Compensation will be made through bank transfer to minimize cash transaction. The project will offer the unbanked affected households assistance in opening an account in husband's and wife's name if they meet the bank's requirements.



10 Implementation Schedule

87. The REGDP will be implemented in nine-month period (Table 37). 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 37 – Implementation Schedule of the REGDP for the Three TL under the MYA: Power Network Development Project (in USD)

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 DPTSC						---			
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							--	--	--



88. 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

89. The MOEE through the DPTSC PMU will oversee REGDP implementation (Table 37). 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.

90. 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.

Table 38 – 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	DPTSC and Local Authorities
7	Submit updated REGDP to ADB for approval	DPTSC
8	Prepare cost estimate of compensation	DPTSC, GAD and Local Authorities
9	Remit funds to the account of the GAD	DPTSC
10	Prepare cost estimate of additional compensation and funds for assistance	DPTSC and GAD
11	Pay the affected people the compensation	GAD, Local Authorities
12	Operate grievance redress mechanism	GAD, Local Authorities and Affected People
13	Conduct site clearance	Affected people and Contractor
14	Implement income restoration measures and other assistance	GAD, Local Authorities and Affected People
15	Monitor and evaluate REGDP implementation	DPTSC and Affected People



12 Monitoring and Evaluation

91. 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. 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 39). DPTSC will consolidate the monthly reports into quarterly report for the project for submission to ADB.

Table 39 – 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 • Number of shops transferred by location • Unexpected issues by type 	Review and validate supervision reports; Review procurement documents; Interview implementing local authorities, GAD and DPTSC staff Interview the affected people Review and validate compensation and management expenses	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 • 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 	Review and validate supervision reports; Review procurement documents; Interview implementing local authorities, GAD and DPTSC staff Interview the affected people socio-economic survey result Conduct sample survey and compare the result with the baseline	One year after completion of compensation payment



Aspect	Indicators	Methodology	Time Frequency
	<ul style="list-style-type: none"> • 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 • Number of shops transferred by location • Household income of affected households • Unexpected issues by type 	Conduct FGD with affected rubber planters, shopkeepers and vulnerable groups	

92. One year after compensation payment, monitoring will 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.



APPENDIX 1

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. Transmission Line : _____

B. Demographic and occupational data

B1. Total family members: 7 _____ 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 (Farmgate)

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 (Farmgate)

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 6,200,000 _____ Thousand Kyat

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

- Yes / No

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

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

K. Socio-economic Rider Questions

K1. House

(Main Wall Material): Dhani or Theke or Leaf /Bamboo / Earth / Wood / Brick or Concrete / Corrugated Iron Sheet

(Floor Material): Dhani or Theke or Leaf /Bamboo / Earth / Wood / Brick or Concrete / Tiles

(Roof Material): Dhani or Theke or Leaf /Bamboo / Wood / Tiles / Corrugated Iron Sheet



K.2 Household Energy Use

What kind of energy do you use for the household activities below?	Electricity	Kerosene	LPG	Paraffin	Candles	Torches	Batteries	Rice Husks (as fuel)	Generator	Fuel wood	Private water mill	Solar System	Other (please specify)
Cooking													
Lighting													
Space Cooling (e.g. air conditioning)													
Water heating													
Television													
Refrigeration													
Water Pumping													
Other (please specify)													

K.3 Annual Expenditure for Energy

Tick item	Please give expenditure estimation per year	
	Electricity	Kyat
	LP Gas	Kyat
	Batteries	Kyat
	Fuel Wood	Kyat
	Candles	Kyat
	Coal	Kyat
	Charcoal	Kyat
	Kerosene	Kyat



APPENDIX 2

PUBLIC INFORMATION BOOKLET (PIB)

GOVERNMENT OF THE REPUBLIC OF UNION OF MYANMAR Ministry of Electricity and Energy Department of Power Transmission Power Network Development Project Transmission Component

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

The project is part of the effort of the Ministry of Electricity and Energy (MOEE) to provide electricity and 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 so that this can be distributed to homes, industries, commercial establishments and other users through the distribution lines.

The project will install three transmission lines with a total estimated length of 478.2 kilometers. The lines will transmit 230 kilovolts (kV). The force of electricity transmitted by the lines is measured by kilovolts (kV). The lines will be installed in five state/regions of the country. The location and length of each transmission lines are the following:

- Mann-Taungdwingyi Line in Magway Region: 150 kilometers
- Mawlamyaing-Ye-Dawei Line in Mon State and Tahnintharye Region: 320 kilometers
- Option 1: Ahlone-Thida Line in Yangon Region: 8.2 kilometers
- Option 2: Ahlone-Thida Line In Yangon Region: 19.2 kilometers

The line that will connect Ahlone and Thida sub-stations are not yet fixed. There are two options. Option 1 (Ahlone-Thida TL) will traverse the Strand Road. Option 2 will go through Dala Township by crossing the river twice.

2. WHAT ARE THE MAIN PARTS OF TRANSMISSION LINES?

For public safety and convenience of operation, the transmission lines will be put overhead held up by towers or poles. Towers with four legs will be used for the Mann-Taungdwingyi and Mawlamyaing-Ye-Dawei Lines. Option 2 (Ahlone-Dala-Thida) will also use towers.

Due to the limited space in city center of Yangon, Option 1 (Ahlone-Thida TL) will use poles. One tower or pole will be constructed about every 450 meters. This means that about 333 towers will be erected for Mann-Taungdwingyi Line and 712 towers for the Mawlamyaing-Ye-Dawei Line. Option 1 (Ahlone-Thida TL) will require about 19 poles and Option 2 (Ahlone-Dala-Thida TL) will have about 43 towers.

But a transmission line will also need substations to manage the flow of electricity. The Mann-Taungdwingyi Line and Option 1 (Ahlone Thida Line) have two substation each -- one substation at the end of each line. The two substation for Mann-Taungdwingyi Line are existing. But for Option 1 (Ahlone Thida Line), one substation is existing and another is still to be constructed. Option 2 (Ahlone-Thida Line) will have three substations. One substation is existing and two will be constructed. The Mawlamyaing-Ye-Dawei Line will have three substations. One substation is existing and two have to be constructed on government land.



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

The transmission lines will provide electricity to more people when these are operational. But to install the lines, a space of 46-meter wide will be needed on the entire route for the equipment, material, people and activities needed to erect the towers and poles and put the lines in place. This space is called the corridor. Crops and structures within the corridor will have to be removed temporarily during the construction period.

But due to availability of space, no structure will be affected in the Mann-Taungdwingyi and Mawlamyaing-Ye-Dawei corridor. The lines will also be designed to avoid as much as possible areas with crops. For the rubber plantations in the Mawlamyaing-Ye-Dawei line, replacement of rubber with annual and seasonal crops will be necessary because the crop height restriction of 2 meters will be enforced within the corridor. For Option 1 (Ahlone-Thida Line), the temporary shops in the middle of Strand Street may be affected.

For substations, Option 1 (Ahlone-Thida Line) will require the construction of one (Thida) substation in government land. In Option 2 (Ahlone-dala-Thiida), two sub-stations (Thida and Dala) will be constructed. The Dala substation will be in a land with private users. Two substations will be constructed for the Mawlamyaing-Ye-Dawei Line in government land. But in land for the one substation (Dawie), one restaurant made of light materials have to be removed.

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

The affected crops in the Mann-Taungdwingyi and Mawlamyaing-Ye-Dawei lines will only be known after the earmarking on the ground of the exact location of the towers and the demarcation of the corridor. These activities will be done when the detailed engineering design is already done. 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 shop -owners in the middle of Strand Road will know if their shops will be affected when the final location of the line is decided. Two other options are still considered. One is putting the line on the one side of the Strand Road in an area within the compound of the Ports Authority. Another is to take the line across the river from Ahlone substation, put it in the towers through Dala township and cross the river again to Thida substation. The Ahlone-Dala-Thida option will affect rice crops fields and will require a new substation in Dala. The substation will require 12.5 hectares of land.

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

5 year

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 completed within 45 days which may 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.



For the temporary shops, the option is to transfer these in another location in Strand Street. The government will provide assistance for the transfer. Because the shops are in foldable tents and beach umbrellas, income lost due to the transfer is not expected.

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

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.

7. WILL THE GOVERNMENT PAY FOR THE LAND OCCUPIED BY THE LEG FOUNDATIONS OF THE TOWERS AND BY THE DALA SUBSTATION?

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.

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. HOW WILL THE PROJECT HELP ME IF THE MY TEMPORARY SHOP BE TRANSFERRED TO ANOTHER LOCATION?

The Yangon Development Committee (YDC) will determine the area where the temporary shops will be transferred. They will preferably be transferred along Strand Road so that they will not lose their customers. If income will be lost because of the transfer, compensation will be paid equivalent to the lost income. The amount of lost income will be determined through consultation with the affected shopkeepers.

11. CAN ANYBODY IN OUR COMMUNITY CAN 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.

12. 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 will the construction activities will take place.

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

No. There is 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 or project



staff please report this directly to the Regional Committee, the Project Management Office (PMO), DPTSC, or to ADB Resident Mission in Nay Pye Taw. .

14. 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 reevaluation or the amount of compensation, you can present your question or complaint to the DPTSC 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 DPTSC District Grievance Committee. If you are still dissatisfied with the district-level judgement on your case, you can file an appeal to the DPTSC National Grievance Committee. If the national-level decision is not to your satisfaction, you can bring your case to court.

15. 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 actively participating 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.

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

The Ministry of Electricity and Energy (MOEE) through the Department Power Transmission and System Control (DPTSC) 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 DPTSC 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:

Department of Power Transmission and System Control (DPTSC) of Ministry of Electricity and Energy (MOEE), Building No. 27, Naw Pye Taw, Myanmar .

Tel. 095 67-8104285

Fax. 095 67-8104287

District Offices in Magway, Mawlamyaing and Yangon

Enclosed Entitlement Matrix as per Annex 1