

Supplemental Resettlement Plan (Draft)

Project Number: 47086-002
15 June 2016

MYA: Maubin Phyapon Road Rehabilitation Project

Prepared by the Ministry of Construction for the Asian Development Bank. This is a supplement to the updated version (9 June 2014) of the draft originally posted in April 2014; available on <http://www.adb.org/projects/47086-002/documents>.

CURRENCY EQUIVALENTS

(as of June 2016)

Currency unit—kyat

K1.00 = \$0.001

\$1.00 = K1,200

NOTES

- (i) The fiscal year of the Government of the Republic of the Union of Myanmar and its agencies ends on 31 March.
- (ii) In this report, "\$" refers to US dollars unless otherwise stated.

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Ministry of Construction

Supplemental Resettlement Plan (Draft)

MYANMAR: MAUBIN-PHYAPON ROAD REHABILITATION PROJECT

15 June 2016

Abbreviations

ADB	–	Asian Development Bank
COI	–	corridor of impact
CSC	–	construction supervision consultant
DMS	–	detailed measurement survey
DOH	–	Department of Highways
GAO	–	General Administration Office
GRM	–	grievance redress mechanism
ICB	–	international competitive bidding
IOL	–	inventory of losses
km	–	kilometer
LUC	–	land use certificates
m	–	meter
MMK	–	Myanmar Kyat
MOC	–	Ministry of Construction
PMU	–	project management office
RCC	–	resettlement coordinating committee
RCS	–	replacement cost survey
ROW	–	right-of-way
SES	–	socioeconomic survey
SPS	–	safeguard policy statement
TA	–	technical assistance

Definition of Terms

Affected households	Those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated [arks and protected areas.
Cut-off date for eligibility	It refers to the date when the results of the census and inventory of losses were presented to the affected households. Any households who built after the Project's cut-off date will not be eligible for assistance.
Grievance redress mechanism	A mechanism to receive and facilitate the resolution of affected persons' concerns and grievances about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups.
Meaningful consultation	A process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project

Definition of Terms	
	design, mitigation measures, the sharing of development benefits and opportunities and implementation issues.
Vulnerable groups	Individuals and groups who may be differently or disproportionately affected by the project because of their disadvantaged or vulnerable status. Vulnerable groups are those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land.

Source: ADB Safeguard's Policy Statement.

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EXECUTIVE SUMMARY

1. **Background Information.** The Maubin Phyapon Road Rehabilitation Project (Project) aims to rehabilitate a key north-south 54.5 kilometer (km) section of road to two lanes with width shoulders, suitable for all standard highway traffic (see location map in **Figure 1**). The road improvements will provide better access to the densely populated, poor but productive agricultural area. The Maubin Phyapon Road is the principal north-south artery on the eastern edge of the Ayeyarwaddy Delta and is an essential transport link connection to economic, health, education, and employment opportunities. Project implementation commenced during the last quarter of 2015 with the mobilization and deployment of the construction supervision consultant (CSC) and two contractors for the civil work construction contracts. The Project's executing agency is the government's Ministry of Construction (MOC) and the implementing agency is the MOC's Department of Highways (DOH) and a Project Management Unit (PMU).
2. **Rationale for the Supplemental Resettlement Plan.** With the implementation of the Project Resettlement Plan, the right-of-way (ROW) within the corridor of impact had already been cleared and turned over to the contractors. However, results of the review of final road alignment showed that a number of curves need to be realigned as they are deemed to not meet the standard vehicle operating speed and safety requirement. Of the curves found in four locations, adjustment of the horizontal alignment of three can be accommodated within the existing road ROW. One curve located at station Km24+049 needs additional land to accommodate the shift of the existing alignment to a new location. The required adjustment in the horizontal alignment for the curve at Km24+049 was reviewed and approved by the MOC and the Asian Development Bank (ADB). However, the need for land acquisition would require the preparation of a supplemental resettlement plan in accordance with the ADB's Safeguards Policy Statement (SPS) on Involuntary Resettlement. The CSC is tasked to assist MOC-DOH in the preparation of a Supplemental Resettlement Plan for ADB approval.
3. **Measures Carried Out to Minimize Impacts.** Avoidance, whenever possible, and minimization of resettlement impact is a key element of the ADB's SPS on Involuntary Resettlement. For the Project to minimize land acquisition impact, optimization of use of existing ROW and road easement owned by the MOC was applied. Moreover, efficient utilization of new ROW in the design of the new alignment was pursued.
4. **Objective of the Supplemental Resettlement Plan.** The objective of the supplemental resettlement plan is to improve, or at least restore, livelihoods and living standards of affected households while allowing them to maintain their cultural identity. It is designed to provide full compensation to all individuals who stand to lose their respective houses, land, or other assets due to construction and/or upgrading of the road. The overall objective of the supplemental Resettlement Plan is to ensure all affected persons will be compensated at replacement cost based on the current market value for their respective losses. The Resettlement Plan also provides for rehabilitation measures, including transition allowances, so affected persons are at least as well off as they would have been in the absence of the Project.
5. **Scope of Land Acquisition and Resettlement.** Monitoring review carried out during the first quarter of 2016 on the implementation of 2014 Resettlement Plan showed that MOC-DOH has complied with the project loan covenant's provisions on social safeguards in its implementation of the Project Resettlement Plan. The outcome of Resettlement Plan implementation monitoring showed the following: (i) compensation, resettlement, and ROW clearance have already been completed; (ii) some households who were removed from the ROW simply transferred their affected structures to areas adjacent of the Project road but

outside the ROW and continued with their business operation. Others relocated to nearby villages and continued their livelihood activities there; (iii) all affected households and organizations¹ received cash as compensation for affected asset and support for their relocation; (iv) consultations and dialogues with the affected persons and nearby community were carried out by the MOC/DOH staff during the preparation of the Resettlement Plan and prior to conduct of ROW clearance; and (v) a Resettlement Coordinating Committee (RCC) had been organized for the respective townships responsible for management and ensuring provision of mitigation measures. However, result of design review on horizontal alignment of project road indicated the need to adjust the radius of curve at Km24+049. The required adjustment will result in shifting existing alignment outside of road ROW necessitating additional land and resulting in resettlement impacts. Approximately 0.9348 hectares is needed which will affect a portion of water channel used for irrigation and pasture/paddy land. Within the affected parcels of pasture land is a residential and a secondary structure. Located adjacent to these structures are some perennials.

6. **Methodology to Assess Resettlement Impacts.** Resettlement impacts were assessed using land cadastral survey compared with the records of the Land Department of Kyaiklat township, census of affected persons, inventory of losses (IOL), detailed measurement survey (DMS), household socioeconomic survey (SES) and replacement cost study (RCS). These were carried out jointly or separately by the Kyaiklat General Administration Office Land Records Department, the Resettlement Coordinating Committee member of Kyaiklat Township, MOC-DOH and Township engineers, the CSC and contractor of international competitive bidding 1 contract.

7. **Socioeconomic Information and Profile of the affected households.** Information on the socioeconomic condition of affected households for the Supplemental Resettlement Plan was obtained using primarily the SES survey questionnaire. The household interview was carried out during conduct of the census of affected households and IOL. The SES profile was obtained for all affected households as there are only four of them. On the other hand, the socioeconomic profile of affected village was obtained from interviews of key informants and visit of the village for conduct of observation and review of village records. Land acquisition will affect a total of 13 persons from a total of four households with an average size of 3.23 members.

8. **Information Disclosure, Consultations, and Participation of affected households.** As an integral element of Resettlement Plan preparation and implementation, substantial consultation and participation activities were carried out with the affected persons and other stakeholders. In the preparation of the 2014 Resettlement Plan, the affected households and communities along the COI of the Maubin-Phyapon Road Rehabilitation Project including the ones along the section which is subject of the supplemental Resettlement Plan, had been engaged. A number of meetings were undertaken to inform affected persons of the project, its likely impacts, and the measures to be carried out to mitigate the impacts. The affected persons were also involved in the preparation of the Resettlement Plan and informed of the mechanisms to use in case of grievance and redress. Continuing information on the progress of project construction activities is being carried out. During the preparation of the Supplemental Resettlement Plan, the affected households and concerned community are likewise involved. The schedule of Resettlement Plan preparation and implementation include various

¹ Organizations (2 village tracts [GAO] and one religious organization) referred to owners of three affected structures who were compensated for affected structures.

participatory activities including information disclosure involving the affected households and community to ensure that their concerns are always addressed.

9. **Disclosure of Draft Supplemental Resettlement Plan.** Key information of the Supplemental Resettlement Plan (project policies, impacts, compensation and rehabilitation support and grievance redress mechanism (GRM) had been disclosed by the RCC to the affected households in a number of public consultations and meetings. A copy of the Supplemental Resettlement Plan in Myanmar language will be made available at the office of the head of General Administration Office of Kyaiklat Township as RCC chair and the office of the tract chief of Suu Ganon village. The Supplemental Resettlement Plan agreed between the MOC and ADB will be uploaded on the ADB website upon approval.

10. **Grievance and Redress Mechanism.** The GRM aims to reduce the risk for the project, offers affected persons and communities a constructive and effective means of airing concerns and issues and achieving solutions. Specifically, the Project GRM is established to enable the affected persons to appeal any disagreeable decision or action arising from the implementation of the Maubin–Phyapon Road Rehabilitation Project and in particular related to the resettlement impacts and measures. A GRM has already been set up for the Project following ADB SPS requirements with the implementation of 2014 Resettlement Plan. The same mechanism will be utilized in addressing issues and concerns pertinent to the implementation of the Supplemental Resettlement Plan.

11. **Legal Framework.** The Legal and Policy Framework which provides for the ADB Policy and the current laws and regulation of Myanmar on land acquisition and compensation essentially follows the approach adopted in the formulation of the draft Resettlement Plan for the ADB-financed Eindu to Kawkareik Road Improvement Project to ensure consistency. The entitlement matrix provides replacement cost at market value based on the result of a study carried out by an Independent Valuator of current market prices of land and other assets affected. In addition to compensation for land and other assets, provision of assistance and support is provided for vulnerable households due to resettlement impacts.

12. **Entitlement Matrix and Compensation /Support Package.** The overall objective of the compensation and entitlement policy of the supplemental Resettlement Plan for the Maubin–Phyapon Road Rehabilitation Project is to ensure that all people affected by the Project receive compensation at full replacement cost and resettlement assistance. The compensation strategy for entitlements is based on the type of impact. In this case, this would be the loss of a portion of paddy land, residential and secondary structures as well as some perennials being cultivated beside the affected structures. The valuation of affected assets (land, structure, crops/trees) is based on the current market value and prices of affected assets determined through the conduct of RCS by an Independent Valuator.

13. **Resettlement Budget.** The estimated budget to implement the Supplemental Resettlement Plan is MMK 21,567,300.64 (approximately USD 17,972.76) to be financed by the Government of the Republic of the Union of Myanmar. Estimate for compensation cost for affected assets is based on the current market value, while rehabilitation measures are based on what is required following government and ADB guidelines to ensure that affected households are able to maintain their standard of living.

14. **Implementation Arrangement for the Supplemental Resettlement Plan.** The MOC-PMU is primarily responsible for preparing the Supplemental Resettlement Plan with technical assistance of the CSC. Implementation of the Resettlement Plan will mainly be under the

coordination of the RCC of Kyaiklat Township together with the DOH district and town engineers. The indicative implementation schedule is shown below.

Indicative Implementation Schedule

Activities	Schedule (2016)
Preparation of Supplemental Resettlement Plan commences	2nd week of March
Information dissemination and consultation with RCC members and stakeholders concerning additional land acquisition including briefing/orientation on ADB Safeguard Policy on Involuntary Resettlement	2nd–3rd week of March
Follow up on government administrative requirements and procedures on land acquisition	4th week of March
Staking of new ROW boundaries and identification of affected land parcels carried out jointly by Consultant, contractor, DOH/township engineers, township GAO officials and concerned RCC members with landowners	1st week of April
Public announcement of the land acquisition decision by the General Administration Office.	1st week of April
Information meetings with affected landowners to be conducted by RCC together with Consultant, contractor and DOH/township engineers	2nd week of April
Conduct of land survey and preparation of technical details in preparation for IOL/DMS	2nd–4th week of April
Conduct of IOL/DMS, census and SES by the Consultant with assistance of the RCC members.	1st week of May
Conduct briefing/orientation of RCC on conduct of RCS and ADB requirement for independent Valuator	1st week of May
RCC contract an independent Valuator for the conduct of RCS to determine current market value of affected land, structures and other non-land assets	1st–2nd weeks of May
Consultation with affected households and other stakeholders on project entitlements and compensation rates.	3rd week of May
Finalization of draft Supplemental Resettlement Plan by Consultant in coordination with MOC-PMU.	4th week of May to 1st week of June
MOC seeks endorsement of Supplemental Resettlement Plan and submits to ADB for review and concurrence.	2nd week of June
ADB reviews supplemental Resettlement Plan and provides comments. Revision of Resettlement Plan with comments (if any) incorporated and concurrence provided.	June
Information disclosure of Resettlement Plan implementation schedule to affected households including notification re date, place, required documents to bring along and from whom (office/person) to claim compensation. No land take, ROW clearance will take place until all affected households are fully paid as per compensation matrix. RCC is mainly responsible	July/August
ROW area take over by MOC DOH /GAO and land clearance	August
MOC-DOH hands over the new ROW to the contractor after completion of compensation payments and resettlement measures for all affected households.	September
Monitoring and Reporting results of Resettlement Plan Implementation	November-December

DMS = detailed measurement survey; DOH = Department of Highways; GAO = General Administration Office; IOL = inventory of losses; RCC = resettlement coordinating committee; RCS = replacement cost survey; ROW = right of way; SES = socioeconomic survey.

15. Monitoring and Reporting. Monitoring will be carried out by DOH and RCC. Semi-annual reports will be submitted to ADB. The principal indicators for monitoring includes:

- timely provision of compensation/assistance to and transfer of affected households from affected parcel to the remaining area of agricultural land;
- meaningful consultation and information dissemination;
- participation of affected households, especially women, and other stakeholders throughout the resettlement process;
- effectiveness of RCC in the planning and implementation of resettlement including the timely and satisfactory resolution of any grievances related to resettlement; and
- changes in the pre- and post-socioeconomic condition of affected households and ability of affected households to reestablish or improve their livelihoods and living standards.

I. PROJECT BACKGROUND

A. Description of the Project

1. The Republic of the Union of Myanmar has received a loan from the Asian Development Bank (ADB) for the cost of rehabilitation of the road from Maubin to Phyapon, in the Ayeyarwaddy Division of Myanmar. The Maubin-Phyapon Road Rehabilitation Project (Project) aims to rehabilitate a key north-south 54.5 kilometer (km) section of road to two lanes with width shoulders, suitable for all standard highway traffic (see location map in **Figure 1**). The road improvements will provide better access to the densely populated, poor but productive agricultural area. The Maubin-Phyapon Road is the principal north-south artery on the eastern edge of the Ayeyarwaddy Delta and is an essential transport link connection to economic, health, education, and employment opportunities. Traffic volumes in the area are currently moderate but are likely to increase rapidly as the country's economic liberalization program extends into the hinterlands. The road rehabilitation will also improve access to the agricultural hinterlands through provision of landing points at numerous locations where waterways meet the road.

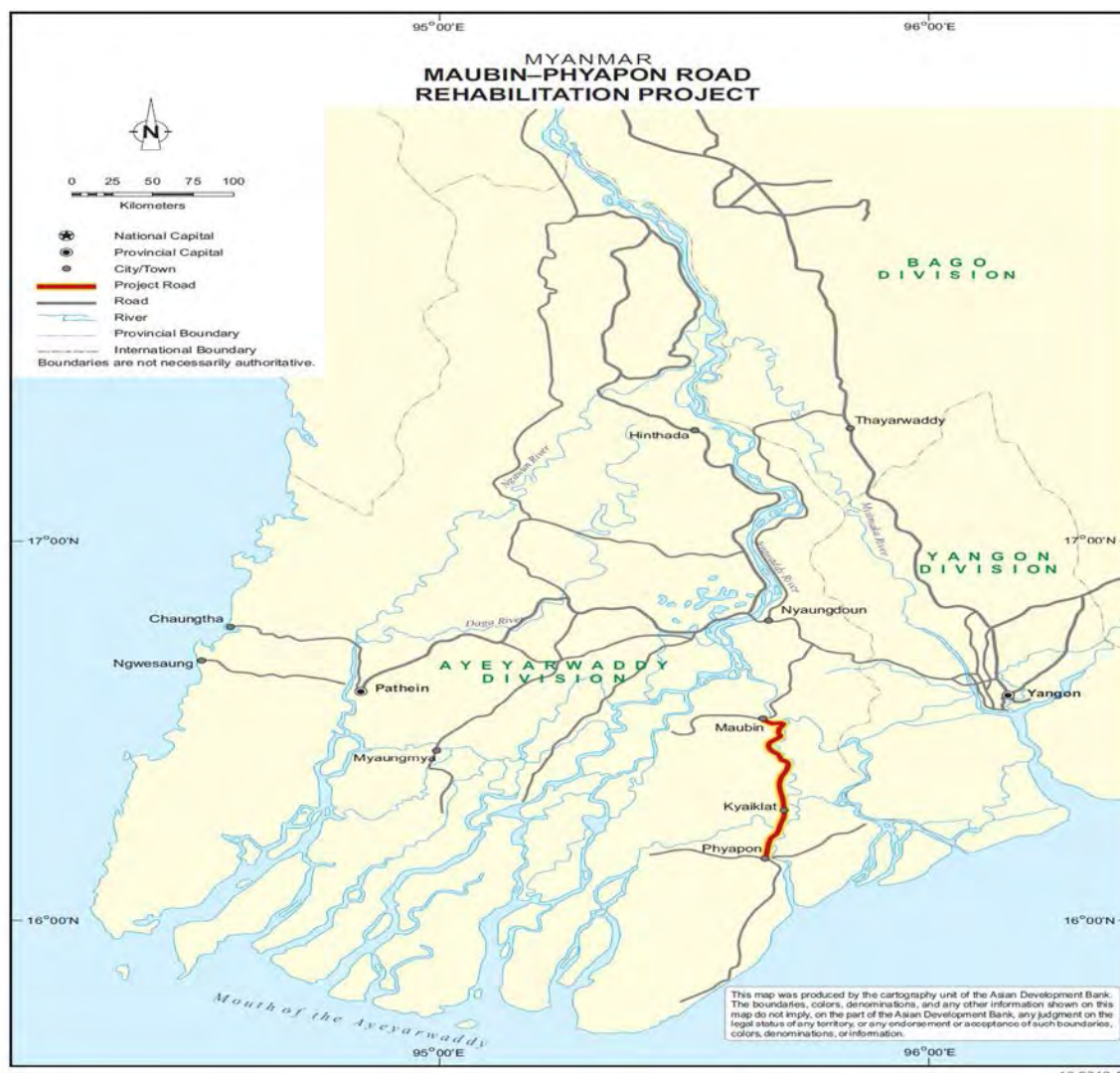


Figure 1: Project site location map

2. The Project's executing agency is the government's Ministry of Construction (MOC) and the implementing agency is MOC's Department of Highways (DOH) and a Project Management Unit (PMU). The loan from ADB includes the provision of Project Implementation Support services to provide capacity building and institutional strengthening to MOC-DOH and PMU.

3. SMEC International Pty. Ltd. in Joint Venture with Oriental Consultants Global and Pyunghwa Engineering Consultants Ltd. has been awarded the contract for consultant's services. Rehabilitation works of the 54.5 km road are undertaken under two construction contracts 25.5 km and 29.0 km in length. The two civil works construction contracts have been awarded to:

- ICB 1: Rehabilitation of Section from Km0+000 to Km25+500 – Jung Heung Construction Co., Ltd.; and
- ICB 2: Rehabilitation of Section from Km25+500 to Km54+450 – Shwe Taung, Wika, Tokyu, STK Joint Venture.

4. The contracts will be delivered using the FIDIC MDB Harmonized Edition, June 2010 Conditions of Contract for Construction. Project implementation has commenced during the last quarter of 2015 with the mobilization of the consultants and the two contractors

B. Rationale for the Supplemental Resettlement Plan

5. The Maubin-Kyaiklat-Phyapon road is classified by the MOC as a D-IV road with a total right-of-way (ROW) of 45.7 meters (m) or about 150 feet (ft). To minimize resettlement impacts, the road design essentially followed the present alignment, with an offset of 2 to 3 m left or right where necessary to avoid interfering with an existing telecommunications cable laid within or adjacent to the road embankment. The road generally follows the existing horizontal and vertical alignments, with some increase in height to improve the clearance over seasonal flood levels. The road cross section outside township areas is a typical two 3.3 m traffic lanes (i.e., 2-lane carriageway, 3.3 m wide) with surfaced shoulders on both sides, for use by non-motorized traffic and pedestrians. The pavement will be flexible, with asphaltic concrete surfacing. The cross section within the townships will be typically of two 3.5 m traffic lanes as a rigid unreinforced concrete pavement, with unsurfaced shoulders. Construction works outside the townships areas are confined within a construction corridor or corridor of impact (COI) of 21.2 m or about 69.5 ft, measured 10.6 m on both sides from the existing road centerline inside the established ROW. Construction works along the urban township which is under the jurisdiction of the General Administrative Office will be within the existing carriageway.

6. Villages traversed by the project road have always been agricultural since the road was constructed, first from Maubin to Kyaiklat in 1991, then from Kyaiklat to Phyapon in 1995. The earthen canals that border the edges of the ROW are actually borrow-pits where filling materials were extracted during the construction of the road embankment. In the early 2000s, following the enactment of the Highways Act of 2000, the DOH, formerly Public Works, installed concrete monuments demarcating the road ROW. In spite of the Highways Law of 2000, residents have been tolerated by MOC and DOH to set up temporary houses and shop, including growing crops, in parts of the ROW. In compliance with the safeguard requirements of the ADB, a resettlement plan was prepared in 2014 as part of the project feasibility study undertaking.

7. The revised Resettlement Plan of June 2014 had identified a total of 62 households and three organizational entities located within or recently displaced from the Project ROW as a result of ROW clearance carried out by the MOC prior to Resettlement Plan preparation and

reported as affected by the proposed road rehabilitation.² Resettlement Plan implementation was scheduled for completion prior to commencement of Project construction activities to ensure that ROW had been cleared and turned over to contractors.

8. During the Project construction phase, part of the task of the Construction Supervision Consultant (CSC) is the review of the implementation of 2014 Resettlement Plan including the status of ROW clearance and its turnover to the contractors.

9. The monitoring carried out during the first quarter of 2016 noted that the MOC-DOH has complied with the project loan covenant's provisions on social safeguards in its implementation of the 2014 Project Resettlement Plan. The findings of said review³ had been reported to MOC/PMU and the ADB. The outcome of Resettlement Plan implementation monitoring showed the following:

- Compensation, resettlement and ROW clearance have already been completed as validated per 3 and 17 February 2016 field visits conducted by the CSC Safeguard/Resettlement Specialist.
- Six households, who were removed from the ROW, simply transferred their affected structures to areas adjacent of the Project road but outside the ROW and continued with their business operation. 26 households relocated to nearby villages and continued their livelihood activities there.
- All affected households and organizations received cash as compensation for affected asset and support for their relocation.
- Consultations and dialogues with the affected persons and nearby community were carried out by the MOC/DOH staff during the preparation of the Resettlement Plan and prior to conduct of ROW clearance.
- A Resettlement Coordinating Committee (RCC) had been organized for the respective townships to be responsible for management and ensuring provision of mitigation measures. However, the Grievance Redress Mechanism (GRM) has yet to be formally organized. As part of the task of the Social Safeguard Specialist, the RCC is already oriented on the systems and procedures for the operation of the GRM. The affected persons have indicated (SES 2016) that they had been informed of the mechanism to use in case there are issues they want to raise about the project.

10. In the meantime, the MOC reviewed the consultant's recommendation on the proposed design of the road horizontal alignment and noted the need to further adjust the radius of the curves along various sections of the road in order to improve vehicle operating speed and safety. Curves in four locations of the Project road were considered dangerous and adjustment to the curve alignment to increase the radius was suggested. Table 1 shows the existing, proposed and required radius to improve vehicle operating speed and safety as per standard.

² Consultant prepared and submitted to ADB and PMU a report (Stage 1 Report: Result of Resettlement Plan Monitoring (March 2016) on the outcome of the implementation of the revised Resettlement Plan of June 2014.

³ SMEC International Pty Ltd in Joint Venture with Oriental Consultants Global Co. Ltd and Pyunghwa Engineering Consultants Ltd. Report on Implementation Status of Resettlement Plan at Stage 1. Yangon: March 2016.

Table 1: Existing, Proposed and Required Radius of Curves in Four Locations to Improve Vehicle Operating Speed and Safety

Chainage Location	Radius			Length of the curve		Remarks
	Existing	Proposed by consultant	Standard to meet standard operating speed and safety	Proposed by consultant	Standard to meet required operating speed and safety	
CH: 24+049	Approx. 70 m	120 m	255 m	181.235 m	385.125 m	Consultant's design – adjustment can be accommodated within existing ROW. No additional resettlement impact anticipated Per standard to meet required vehicle operating speed and safety: additional land required for ROW will affect the irrigation canal beside the road and part of rice land along Km24+049; the other 3 adjustments can be accommodated within existing ROW.
CH: 41+487	Approx. 140 m	150 m	255 m	109.591 m	186.305 m	
CH: 45+695	Approx. 255 m	200 m	255 m	157.907 m	201.331 m	
CH: 50+630	Approx. 110 m	120 m	255 m	63.764 m	135.498 m	

km = kilometer; m = meter; ROW = right-of-way.

Note: Except for the curve at Km24+049, the adjustment of curves at three other locations can be accommodated within the existing road ROW.

11. During the ADB and MOC-PMU visit to these sites conducted in February 2016 as part of the ADB Review Mission activities, the curve alignment along Km24+049 was deemed most hazardous to safety consideration. The radius of the horizontal alignment along this section was deemed too low with the angle of the road curve found to be at almost at 90 degrees.

12. Increasing the radius of the curve along this section from the existing 70 m to standard 255 m to meet the designed vehicle operating speed and safety will shift the centerline of the existing horizontal alignment by as much as 55.153 m to the centerline of a new alignment. The shift in the alignment of this particular road chainage will result in the road section going out of the existing road ROW. The resulting shift will affect a portion of the water channel used for irrigation and will require the acquisition of new land as additional road ROW.

13. Adjusting the curves in the three other locations can be accommodated within the existing road ROW. These three sections will not require additional land acquisition to carry out the adjustment in its horizontal alignment.

14. In section Km24+049 approximately 0.9348 hectares of additional land is required for the new road ROW. Affected land beside the Project road is officially classified as pasture land with the substantial portions cultivated to rice. Four landowners of four parcels of land which are generally outside the portions cultivated to rice are going to be affected. Within these affected parcels are residential structures and a secondary structure utilized as a resting facility for the poultry animals raised by the owner. These structures will be fully affected. Some portions of the affected parcels are cultivated either as vegetable gardens and planted to some perennials and fruit bearing plants and trees like bananas and mangoes. Figures 2 and 3 provide drawings of affected plots and of the horizontal alignment along Km24+049. Photo 1 gives a view of the curve requiring the alignment adjustment.

15. The preparation of a short Resettlement Plan to supplement the 2014 Resettlement Plan of the Project was mandated by the ADB as soon as the realignment design along Km24+049 and the new right-of-way boundaries in site had been established. This supplemental Resettlement Plan had been formulated in accordance with ADB's Safeguard Policy on Involuntary Resettlement and the approach adopted in the development of this draft Resettlement Plan followed that of the ADB-financed Eindu to Kawkareik Road Improvement Project. The Supplemental Resettlement Plan for the realigned section of the Maubin Phyapon Road Rehabilitation Project will be reviewed and approved by the ADB prior to its implementation.

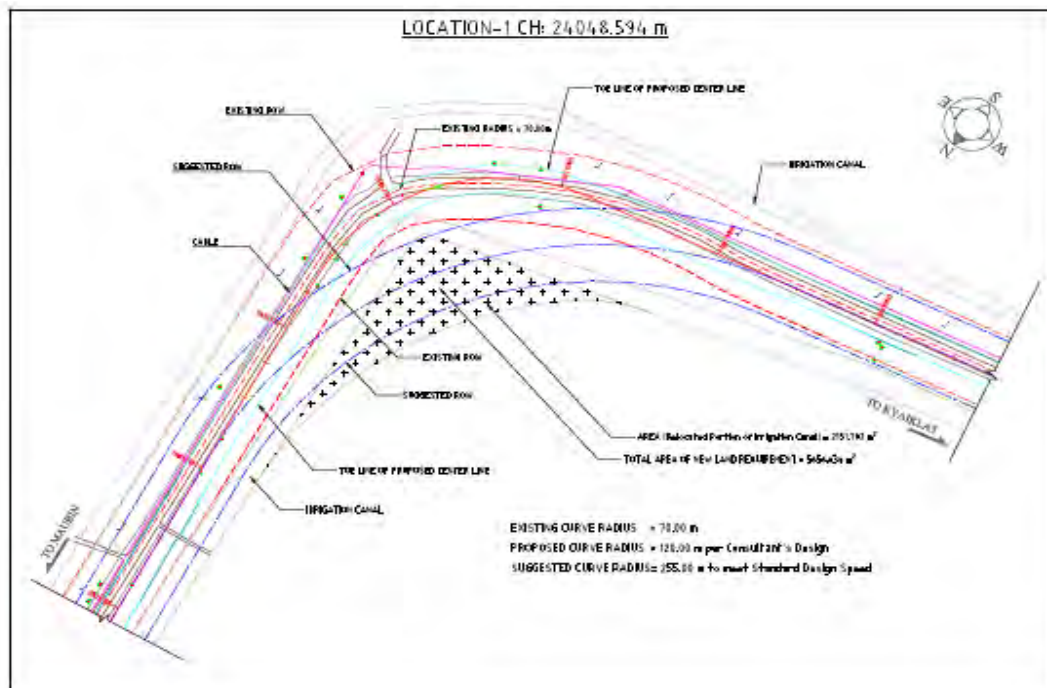


Figure 2: Adjustment required at Km24+049, ICB1 Contract

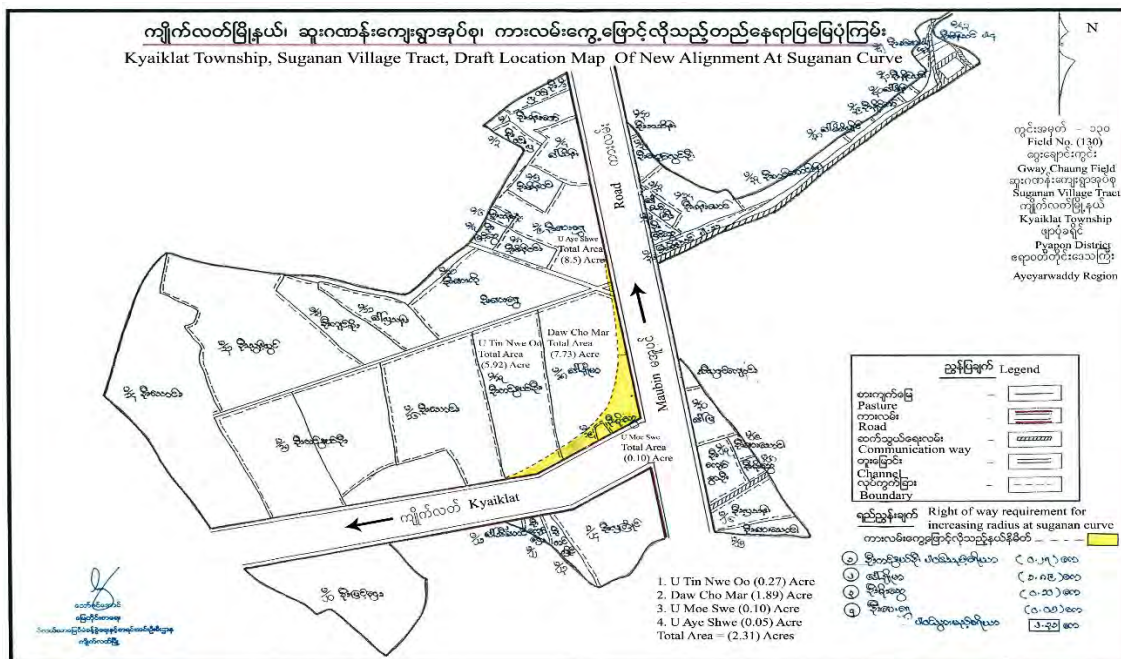


Figure 3: Map of the alignment showing the affected parcels of land for the ROW requirement



Photo 1: View of the road section where the curve alignment needs adjustment.

C. Measures to Minimize Impacts

16. The Project road has an existing ROW of 45.7 m or about 150 ft. As a general rule to minimize resettlement impacts, the Project road design follows the present alignment, with an offset of 2 to 3 m left or right where necessary to avoid interfering with an existing telecommunications cable laid within or adjacent to the road embankment. Outside of the township areas the road cross section are designed for a typical two 3.3 m traffic lanes (i.e., 2

lane carriageway, 3.3 m wide) with surfaced shoulders on both sides, for use by non-motorized traffic and pedestrians. The pavement will be flexible, with asphaltic concrete surfacing. Construction works outside the townships areas are confined within a construction corridor or COI of 21.2 m or about 69.5 ft., measured 10.6 m on both sides from the existing road centerline inside the established ROW.

17. The existing radius of the road curve along Km24+049 requires adjustment from 70 m to 255 m to meet the design vehicle operating speed and safety standard. The adjustment of the horizontal alignment will shift the existing centerline by as much as 55.153 m to the centerline of the new alignment. However, considering that the total width of the new paved road plus surfaced shoulder will only be approximately 10 m, there is adequate space remaining within the existing ROW. While additional land for ROW is still required, the proposed adjustment in the horizontal alignment of the curve along Km24+049 will generally optimize the use of the remaining ROW for the realigned section through appropriate design application, thus minimizing resettlement impacts. Adjustment of the horizontal alignment of the three other curves will be accommodated in the existing road right of way.

D. Objectives of the Supplemental Resettlement Plan

18. This Supplemental Resettlement Plan addresses impacts on land, other assets and livelihoods resulting from the adjustment of the curve horizontal alignment along a section (Km24+049) of the Maubin-Phyapon Road Rehabilitation Project in Kyaiklat Township. The objective of the supplemental Resettlement Plan is to improve, or at least maintain livelihoods and living standards of affected households. It is designed to provide full compensation to all individuals who stand to lose their respective houses, land or other livelihood assets due to construction and/or upgrading of this road section. The overall objective of the Resettlement Plan is to ensure that all affected persons will be compensated at replacement cost based on the current market value for their respective losses. The Resettlement Plan also provides for rehabilitation and support measures, including moving and transition allowances for severely affected and vulnerable households, so affected persons are at least as well off as they would have been in the absence of the Project.

II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

A. Description of Land Acquisition Requirement along Chainage Km24+049

19. ADB has concurred with the MOC proposal to adjust the radius of the horizontal curve along the section of the Project road at Km24+049 within and outside the existing road ROW in order to meet vehicle operating speed and safety standard.

20. The increase in the radius of the curve along chainage Km24+049 from the existing 70 m to standard design speed of 255 m will result in the shift of the horizontal alignment by as much as 55.153 m from the existing to the new centerline. The shift in the alignment of this particular road chainage will result in the road section going out of the existing road ROW. The shift will also require the relocation of a portion of an existing water channel (irrigation canal) along the road easement. The shift of the road section and the relocation of a portion of the water channel⁴ located alongside the existing road will require approximately 0.9348 hectares of additional land as new ROW. The new ROW requirement will affect four parcels of pasture land alongside the Project road. Within some affected parcels is a house and a secondary structure utilized as animal resting place. These structures are also going to be fully affected along with some vegetable crops and perennials cultivated beside them.

21. Since the adjustment will take the revised curve alignment outside the existing ROW and new land will need to be acquired, the ADB suggested the preparation of a supplemental Resettlement Plan to update the 2014 Project Resettlement Plan. Land acquisition and Resettlement Plan preparation will be undertaken in accordance with ADB's Safeguard Policy on Involuntary Resettlement, as well as follow the approach adopted in the formulation of the draft Resettlement Plan for the ADB-financed Eindou to Kawkareik Road Improvement Project. The supplemental Resettlement Plan will require ADB's approval.

B. Methodology to Assess Land Acquisition and Resettlement Impact

22. To assess resettlement impacts as a result of additional land acquisition, technical survey and cadastral of the affected land was carried out last April 2016. Part of the survey consisted of staking out the boundaries of the area required as additional ROW. After determining the total area required for ROW, the consultant together with staff of the Land Records Department of Kyaiklat Township and affected landowners conducted parcel identification and measurement of specific plots within the confines of the affected land. Identification through census of owners of specific parcel including verification of documents and status of tenure of landholdings were carried out.

23. When the census of landowner/holders was completed, IOL and detailed measurement survey (DMS) of specific plots and affected assets therein was conducted during the second week of May 2016 together with the affected person and village/local officials. All affected assets (i.e., structure, trees/crops, ancillary facility, etc.) within each plot were identified and recorded in a designed survey form (see Annex A for sample survey form), the result of which was duly acknowledged by the affected persons and witnessed by concerned local officials. It was during this survey that affected persons were informed of the cut-off date (date of the IOL)

⁴ The water channel was the result of the borrow pit digging during the construction of the original road. It is part of the road ROW; but the resulting canal has been converted to water channel/irrigation canal which the Ministry of Agriculture and Irrigation utilize to supply water to rice farmers in the area. Accordingly, proper coordination with the Ministry had been undertaken in the plan to relocate the affected section and farmers in the area had been properly informed.

and that additional (new structures, trees and other assets) items not identified during the original survey will not be eligible for compensation. Photo documentation of affected land and assets therein was also undertaken. In consonance with the conduct of the IOL, the socioeconomic information on each affected household was collected using the same survey form.

24. As soon as the IOL was completed, the Replacement Cost Survey (RCS) was carried out by an independent Valuator⁵ during the third week of May 2016 in close coordination with the Kyaiklat General Administration Office (GAO) official and other concerned authorities following a specified Terms of Reference (TOR). Results of the RCS (Annex B) were utilized as basis for formulating the compensation matrix and for estimating compensation budget.

C. Summary of Resettlement Impacts

25. The acquisition of land to meet the additional requirement for ROW due to the adjustment of the horizontal alignment along Km24+049 will affect both land and non-land assets located in Suu Ganan Village of Suu Ganan Village Tract in Kyaiklat Township, Phyapon District of the Maubin-Phyapon Road Rehabilitation Project. The project will affect four households. They will lose land parcels categorized as pasture/paddy land. Of these affected persons, two will experience additional losses none also losing a residential structure within the affected land parcel while another one will also lose a secondary structure utilized for housing poultry animals. Likewise, within the affected plots there are perennials owned by the three households which are also affected.

26. Of the total affected households, one will experience total loss of her residential structure. Of those losing land, one will experience loss of more than 10% of pasture land owned and is considered severely affected. Aside from the aforementioned impacts, no other losses are anticipated.

27. A summary of affected households by types of main impact is presented in Table 2. A total of approximately 0.9348 hectares of pasture land will be acquired from four landowners. Within said parcels of land, 2 structures – one residential and one utilized as occasional⁶ roosting place for ducks, and a number of fruit bearing and timber trees and other types of plants will be affected. Inventory and detailed measurement had been carried out as basis for valuation and replacement cost for compensation measure.

⁵ To assist the RCC (due to lack of technical personnel, budget and time), the consultant contracted an Independent estimator for the conduct of the cost replacement study. The estimator worked closely with concerned GAO/RCC members.

⁶ During the time of the survey, the secondary structure was not actively utilized to house poultry or any other farm animals. The structure itself, made mostly of light traditional materials, is dilapidated, run down, and on the verge of collapse.

Table 2: Total number of affected households and Types of Assets Affected by the Project

Name of affected households	Paddy/Pasture land (ha) (going to be required by project/ affected)	House/Other types of structures	Trees / crops (Number #)
U Tin New Oo	0.109	None	Mango trees – (5); Malaysian padauk (timber) – (2); guava – No fruit bearing age; bamboo cluster – approx. 40 poles; MaU (1); rain tree (i); chillies -
Daw Cho Mar	0.764	1 Residential house (full)	Mango trees – (4); drum stick tree (1); banana (5 clusters); Malaysian padauk (timber) – 3; bamboos (approx.. 200 poles); lime plant and lemon grass
U Moe Swe	0.040	1 structure for housing fowls	None
U Aye Shwe	0.020	none	Drum stick (fruit bearing – (1); Malaysian padauk (timber) – (4); bamboo cluster (10 poles); rain tree – 3; Sitpin – (1); willow tree – 1
Total	0.934	2	Verified and measured

Source: Census, IOL and DMS Survey, May 2016.

28. Table 3 shows the total area of pasture land of and the size of parcel to be taken from each affected households. The combined area of land to be taken from the total combined area of affected pasture lands represents only about 10.4% of the total 9.0042 hectares. However, individually, there is one landowner who will be severely impacted. One household, headed by a female, will experience loss of approximately 24% of her land (considered pastureland) where her residential structure stands. (The portion where paddy rice is cultivated is not going to be affected at all). A number of fruit bearing trees and plants within the acquired portion will be affected as well. The residential structure within will be completely affected. As the house is newly built most of the materials can be reused. There is an area within the remaining unaffected land that can be used as a relocation site but will require some backfilling. Such backfilling can be undertaken by the contractor. The other household who will experience total loss of the structure utilized as roosting place for his fowls will also lose the land where this structure stands. However, his paddy (which serves as main source of income) and residential lands which are located in an adjacent village are not affected at all. All affected landowners of are holders of land use certificates (LUC).

Table 3: Total area of landholding and size of parcel to be taken from Affected Landowners

Name of Affected Landowner	Total Size (hectare) of land owned by Affected persons	Size (hectare) required for ROW	Percent of total affected/required area
U Tin New Oo	2.3957	0.1093	4.56
Daw Cho Mar	3.1282	0.7648	24.45
U Moe Swe ¹	0.0405 ²	0.0405	100.00
U Aye Shwe	3.4398	0.0202	0.59
TOTAL	9.0042	0.9348	10.38

¹ U Moe Swe owns about a hectare (0.8094) paddy land of with his house beside it at an adjacent village (Chaung Lay).

² This small piece of land owned by U Moe Swe is an additional parcel purchased to serve as resting place for ducks previously raised. He has not raised ducks for sometimes now and the area is idle and unattended.

III. SOCIOECONOMIC INFORMATION AND PROFILE

A. Methodology Used in Determining the Socioeconomic Profile

29. The 2016 Project Supplemental Resettlement Plan provides a detailed socioeconomic profile of affected households in one village affected by land acquisition for the ROW requirement for the realigned section of the road of the Maubin-Phyapon Road Rehabilitation Project. Information on the socioeconomic condition of affected households for the Supplemental Resettlement Plan was obtained using primarily the SES survey questionnaire. The household interview was carried out during conduct of the census of affected households and IOL. The SES profile was obtained for all affected households as there are only four of them. On the other hand, the socioeconomic profile of affected village was obtained from interviews of key informants and visit of the village for conduct of observation and review of village records.

B. Description of Affected Land and General Socioeconomic Condition of Affected Village

(i) Socioeconomic Condition of Affected Village

30. The section (Km23+300 to Km24+700) where the road curve needs adjustment is located within the village of Suu Ganan one of the five villages under Suu Ganan Village Tract and is under the administration and jurisdiction of the township of Kyaiklat. Information on the socioeconomic condition of the village was collected on 22 March 2016 through consultation process and group interview with the village officials and representative villagers and review of records at the village and township levels. The findings are as follow:

- a. General Description: Although the village which is the largest among the five villages of Suu Ganan village tract is located beside the Project road, it is a typical rural agricultural village. Houses are made up of mostly traditional light materials although some are made of more durable construction materials such as G.I. sheet roofing and cement block walling. Being the center of the village tract, Suu Ganan has a primary school consisting of 5 levels from preschool to Grades 1-4. Another primary school is located in another village. There is a library which is located in an adjacent village. For higher education such as high schools and colleges, students go either to Maubin or Yangon. There is also a pagoda close by and another one located in a different village. A small health center is located close to the school and the pagoda. The village has no market. People/villagers go to Maubin or Kyaiklat for their major purchases such as their basic food supply and household items. At the center of the village, there is a shop which carries a variety of goods but selection and supply is limited.



- b. Demography: As of February 2016, Suu Ganan Village Tract has 568 households with a total population of 1,747 composed of 848 males and 899 females (see Table 4). Of the five villages under Suu Ganan Tract Village, Suu Ganan village where the affected land is located has 256 families with a total population of 542 composed of 261 males and 281 females. Average family size

is 2.12 members. The population is predominantly Bamar but some having intermarried with other ethnic groups are of mixed ethnicity but most consider themselves Bamar already. Almost all are Buddhist.

Table 4: Household and Population Size of villages under Suu Ganan Village Tract in Kyaiklat Town

Village Name	HH Size	Below 18 yrs. old			18 yrs. old and above			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Suu Ganan	256	56	51	107	205	230	435	261	281	542
That Yet Thaw	82	46	59	105	132	137	269	178	196	374
Ohn Pin Su	39	31	26	57	53	59	112	84	85	169
Gway Chaung Gyi	87	49	56	105	86	74	160	135	130	265
Gway Chaung Lay	104	55	61	116	135	146	281	190	207	397
TOTAL of Village Tract	568	237	253	490	611	646	1257	848	899	1747

- c. General Economy. The primary occupation and main source of income of households in the affected village is farming. Income source is primarily from cultivation of paddy rice. Other sources are services, small trading and microenterprises such as operating a variety store and small eatery.



- d. Social Infrastructure and Basic Facilities. The village has a small generator which covers a very limited number of households mainly those close to the pagoda and the primary school. It only operates at certain hours of day. Accordingly most households rely on kerosene lamps for lighting. Fuel energy for cooking is mainly from wood and charcoal. Drinking water is sourced from community pond although other households have their own individual storage tank for rain. Water source for bathing and other domestic uses is mainly the river.



C. Socioeconomic Profile of Affected Households

31. Socioeconomic data were collected from the four affected households. Table 5 provides some demographic and selected socioeconomic information on these households. Of the four affected households, only one is female headed while the other three are male-headed. The age range of household heads is from 30 to 70 years with the average age at 45.75 years. The average household size is 3.25 members. In terms of gender composition in the household, there are more females than males at 65.5:38.5 percent. All households are Bamar and Buddhist. Household heads have generally attained average level of education ranging from 3 to 8 level of Basic Education High School (BEHS). All households are engaged in farming as the primary occupation with household income supplemented by secondary occupation such as repair of farm equipment, vending of vegetable and other garden produce or poultry raising.

Table 5: Affected Household Demographic and Selected Socioeconomic Information

Household Sample	Gender of HH head				Demographic		HH Gender composition		Highest Education of HH	Occupation Of HH Head
	Male	Age	Female	Age	HH Size	Ethnicity	Male	Female		
U Tin New Oo	Yes	44			4	Bamar	3	1	7-BEHS	Farming/handyman
Daw Cho Mar			yes	39	2	Bamar	-	2	4-BEHS	Farming and vegetable vending
U Moe Swe	Yes	30			3	Bamar	1	2	3-BEHS	Farming/duck raising
U Aye Shwe	Yes	70			4	Bamar	1	3	8-BEHS	farming
Total/Ave.	3				13	100	5	8		

32. Table 6 shows the monthly income of displaced households. Average monthly income ranges from MMK 50,000 to MMK 400,000 with the average for the four households at 162,500 kyats. It should be noted that the reported average monthly income of these agricultural households does not include the non-cash income which supplements the household requirement for food consumption. All households have vegetable or root crop garden, the products of which are used primarily for consumption. The primary expense items of households is on food which ranges from 25% to 60% of the total monthly income. Except for the female headed households, all other households reported no monthly savings. Aside from land and residential house ownership, the other major assets of households are appliances (a television, CD/DVD player and refrigerator for most) with cell phone considered a necessity owned by all. One household owns a manual farm tiller while two own a motorcycle.

Table 6: Affected Households' Additional Socioeconomic Data

Household Sample	Income Ave. mo. Income (MMK)	Major Expense Items (in %)		Average monthly Savings (MMK)	Other major assets (appliances) owned				Ownership of vehicles/farm implement
					TV	Ref	DVD/CD	Celfone	
U Tin New Oo	400,000	food	35%	None	yes	Yes	yes	yes	Motorcycle; hand tiller
Daw Cho Mar	50,000	food	25%	20,000	-	-	-	yes	-
U Moe Swe	100,000	food	55%	None	yes	-	yes	yes	motorcycle
U Aye Shwe	100,000	food	60%	none	yes	-	-	yes	-

33. Based on the poverty rate of \$1.25 per day per person at MMK 1,500 (at current exchange rate of USD1 = MMK 1,200) per day or monthly MMK 45,000, none of the household is below or within the cut-off poverty rate. The average monthly household income is MMK 162,500 based on average household size of 3.25 members. Accordingly, the average income per person of affected household is MMK 50,000 which is above the poverty cut-off rate. It should be noted that based on actual assessment (observation of condition of households during survey/visits), it would appear that there is underreporting on actual amount of cash income of households. Moreover, non-cash income derived from direct consumption of agricultural produce is often not reported as income. Accordingly of the four affected persons, only the female headed household is truly falling under the poverty line. Provision for additional compensation for the female headed household is included in the compensation matrix.

34. Social infrastructure and services available to the affected households are summarized in Table 7. All households have access to toilet facility of varying types with two households having water sealed toilets with flushing mechanism; another one has water poured flush while one has closed pit. Burning is the primary means of garbage disposal. Source of drinking water varies, with river and pond as most common supplemented by water (processed or unprocessed) bought from retailers. For bathing and washing, the major source is the river or irrigation canal. For cooking, wood is usually used while for lighting most households use rechargeable batteries; one household has a generator which is used from time to time.

Table 7: Affected Households' Access to Social Infrastructure and Services

Household Sample	toilet facility used	Means of garbage disposal	Main Source of Drinking water	Main waters source for washing/bathing	Source of power for lighting	Source of energy for cooking
U Tin New Oo	Water sealed with Flush	burning	River/retailer	river	generator	wood
Daw Cho Mar	Closed pit	burning	pond	river	Recharge battery	wood
U Moe Swe	Water poured flush	burning	River/retailer	River/retailer	Recharge battery	wood
U Aye Shwe	Water sealed with Flush	burning	river	river	Recharge battery	wood

35. Except for the female headed household, the other three affected households have other lands beside the affected pasture land as shown in Table 8. The other parcel of lands owned by the three affected male-headed affected persons are either residential and/or agricultural lands with existing land use or freehold certificate.

Table 8: Other landholding of the affected households that are away from (outside of) the affected land

Type of other lands owned	Tenure on other land owned	
	Residential	Farmland
U Tin New Oo	Land use certificate	None
Daw Cho Mar	none	None
U Moe Swe	Land use certificate	Freehold
U Aye Shwe	Land use certificate	Land use certificate

36. The affected households have mixed preferences for the type of compensation and intervention desired for lost assets particularly for land as indicated in Table 9 below. While cash compensation is preferred by most, there are households which also prefer to have the land-for-land form of compensation. This preference however was clarified considering the constraints in agricultural land availability in the affected village.

Table 9: Preferred Option for Compensation and Rehabilitation Assistance

Affected Household	Compensation Option
U Tin New Oo	Land for land
Daw Cho Mar	Combination of cash and land for land
U Moe Swe	Cash payment
U Aye Shwe	Cash payment

IV. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. Consultation and Participation

37. MOC-DOH has already significantly completed the implementation of the June 2014 Resettlement Plan (among which are project compensation, assistance, ROW clearance and turnover to contractors, formation of the RCC and activation of the GRM) as per monitoring review carried out by the CSC during the first quarter of 2016.⁷ The community within the affected area of the proposed adjustment of the horizontal alignment along Km24+049 is generally aware of the Project activities especially so that the construction activities have already commenced. As shown in Table 10 below, the affected households are also generally aware of the road rehabilitation project having been informed by local officials particularly the village leader. They also believe that the project is generally good for the community and will benefit all.

Table 10: Affected Households Awareness and Perception about the Project

Household Sample	Aware of the Project (Y/N?)	Source of Information	Perception of Project (positive/negative?)	Suggestion
U Tin New Oo	Aware	Village leader	Positive –road benefits all	Compensation necessary
Daw Cho Mar	Aware	Village leader	Positive benefits	No comments
U Moe Swe	Aware	Village leader	Positive benefits	No comments
U Aye Shwe	Aware	Village leader	Positive benefits	No comments

B. Public Information and Consultation Activities for the Supplemental Resettlement Plan

38. Prior to preparation of this Supplemental Resettlement Plan, the RCC of Kyaiklat township was convened and members were briefed on the planned adjustment to the horizontal alignment of the curve along Km24+049 including the requirement for land acquisition as additional road ROW. They were then informed of the potential resettlement impacts and thus the need to prepare a supplemental Resettlement Plan in accordance with ADB Safeguard Policy on Involuntary Resettlement. A brief orientation on ADB safeguard policies and resettlement procedures was then provided. As the body tasked with planning and implementing the Resettlement Plan, their assistance on the formulation of the supplemental Resettlement Plan was requested. The activities and schedule on Resettlement Plan preparation was then agreed. Another consultation at the village (affected) level was carried out to inform them of potential land acquisition and the preparation of the Resettlement Plan. In consonance with this was the participatory conduct of data collection on socioeconomic condition of the village and households. These consultations took place during the month of March–May 2016 in preparation of the formulation of the supplemental Resettlement Plan.

39. The formal information disclosure to affected households of the land acquisition activity was undertaken by the RCC in coordination with the DOH engineers, consultant, and contractor last 3rd week of April 2016 during the survey and staking of boundaries of the required land for the new ROW. After the completion of the technical survey, the affected households were surveyed by the CSC staff together with the Land Records Department of GAO-Kyaiklat

⁷ Draft Report on the Outcome of Monitoring/Evaluation of the 2014 Resettlement Plan Implementation was submitted by the CSC to MOC/ADB at the end of the first quarter of 2016.

Township. They were also asked to participate in the conduct of cadastral survey to determine measurement of affected individual plots and inventory the affected non-land assets therein in the 1st week of May 2016. IOL, DMS and collection of affected persons' socioeconomic profile were also carried out during the 2nd week of May 2016.

40. After the completion of the RCS and formulation of the compensation matrix, the affected households were consulted and negotiation on the actual package was done. As soon as the draft Resettlement Plan was completed the RCC members and the affected households were informed about the basic content including proposed schedule of implementation and other milestones therein. See Annex C for the highlights of consultation meetings.

C. Disclosure of Supplemental Resettlement Plan

41. The draft Supplemental Resettlement Plan was developed in close consultation with the affected households and the RCC members which included discussing and agreeing on the scope of impact, the proposed compensation and rehabilitation measures including ensuring access to appropriate mechanism in case of grievance about the package or any aspect related to the Project. The final draft before it is uploaded on the ADB website will also be discussed with the affected households. Once approved by the ADB, the Resettlement Plan will be uploaded on the ADB website. Copies of the Resettlement Plan in Burmese language will be made available in the village tract office.

V. GRIEVANCE REDRESS MECHANISM

A. Objectives

42. The GRM aims to reduce the risk for the project, offers affected persons and communities a constructive and effective means of airing concerns and issues and achieving solutions. Specifically, the Project GRM is established to enable the affected persons to appeal any disagreeable decision of action arising from the implementation of the Maubin-Phyapon Road Rehabilitation Project and in particular related to the resettlement impacts and measures.

B. Existing Grievance Redress Mechanism for the 2014 Resettlement Plan

43. A GRM has already been set up for the Project following ADB's SPS requirements with the implementation of the 2014 Resettlement Plan. The existing mechanism (see Table 11) will be utilized in addressing issues and concerns pertinent to the implementation of this supplemental Resettlement Plan.

Table 11: Grievance Redress Mechanism

ADB SPS on GRM	Project's GRM
The government/client will establish a mechanism to receive and facilitate the resolution of affected persons' concerns and grievances about physical and economic displacement and other project impacts, paying particular attention to the impacts on vulnerable groups.	The RCC, an ad hoc body, has been set-up in each township. Apart from representatives from the DOH, village tract officials and village women organization representatives are also members since they are very familiar with the socio-economic situation and needs of the affected households in their village.
The grievance redress mechanism should be scaled to the risks and adverse impacts of the project.	The RCC is set up at the project level with representatives from DOH, township general administrative office, village elders, NGOs, and affected households
It should address affected persons' concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to the affected persons at no costs and without retribution.	The village tract chief has been designated as "point of contact" in the village. RCC members are to be provided with orientation and guidance by the construction supervision consultants in order to handle grievances.
The mechanism should not impede access to the country's judicial or administrative remedies	The RCC aims to receive and address concerns and grievances at the project level as part of the Project's good management; and it does not impede with the Government's judicial and administrative remedies
The borrower/client will inform affected persons about the mechanism"	The affected households have been informed about GRM during resettlement planning and the GRM is reflected in the resettlement information booklet included in 2014 Resettlement Plan.

ADB = Asian Development Bank; DOH = Department of Highways; GRM = grievance redress mechanism; NGO = nongovernmental organization; RCC = resettlement coordinating committee; SPS = safeguards policy statement.

44. Based on the above and given the scope of the project, an RCC, an ad hoc body, has already been set-up in each township. One of its roles and responsibilities is to ensure that any queries, or concerns made by the affected households and local communities are properly heard, logged (regardless of whether it was lodged verbally or in writing), and resolved in a transparent and timely manner at the RCC level. This set-up aims to address any concerns promptly, effectively, and transparently, accessible, and at no cost and retribution, to the

affected households and communities at the project level. Lessons learned show that early and satisfactory resolutions of complaints help reduce project delays and costs to the Project. The RCC will follow a formalized process and procedures shown below.

45. The RCC of Kyaiklat Township is composed of the following representatives: Township General Administration Office Head as Chair, DOH District (Phyapon) and Kyaiklat Township engineers; village tract (Kyaiklat) chief, Kyaiklat land records officer, two representatives of women organizations, and representatives of affected households (male and female).

46. The head of Suu Ganan village tract where the affected households reside will be the point of contact for affected households. He is responsible for receiving, recording, and facilitating the resolution of the affected households' concerns and grievances whether or not they were received verbally or in writing. A database has been set up by the RCC, managed directly under the GAO head to monitor grievances. The records will show the name and contact details of the complainant, date and nature of complaint, any follow up actions, resolutions and how and where resolutions were communicated, and the status of actions carried out.

47. The indicative timeframe in addressing/resolving concerns/grievances is as follows:

- Within 7 days, send acknowledgement in writing to the affected households from date of receipt of the grievance
- Within 30 days from receipt of grievance, propose resolution. It is noted that some cases may need special and immediate attention and that earlier solution is necessary.
- The RCC will report all grievances and resolutions, and will be reflected in the progress reports as part of its monitoring function.
- If the grievance could not be resolved at the RCC level, RCC will request guidance from DOH and MOC to resolve grievance. MOC will propose resolution within 15 days.
- If there is still disagreement after discussion with MOC on proposed resolution, the case will be brought to court.

48. All costs incurred in grievance resolution will be covered out of the project funds.

49. The CSC had carried out on 27 May 2016 an orientation/training for the township and village officials on GRM and Resettlement Plan implementation monitoring and reporting. Most of the officials of the townships and villages are newly appointed and/or elected as a result of the change of government in March 2016. Accordingly, the membership of the RCC had changed as well. There is the need therefore to reconstitute the RCC and provide assistance and guidance to new RCC members in setting up and implementing the GRM and procedures. As an outcome of said orientation training, the participants agreed to adopt the same system agreed upon and committed to reconstitute the membership of the RCC with the addition of the representatives of the respective township development councils as soon as possible.

VI. LEGAL FRAMEWORK

A. Asian Development Bank Policy

50. The ADB SPS consolidates three existing safeguard policies: involuntary resettlement; indigenous peoples; and environment. the objectives of the involuntary resettlement policy are:

- avoid involuntary resettlement, wherever possible;
- minimize involuntary resettlement by exploring Project and design alternatives;
- enhance, or at least restore, the livelihoods of all displaced persons in real terms, relative to pre–Project levels; and
- improve the standards of living of the displaced poor and other vulnerable groups.

51. Involuntary resettlement covers physical displacement (i.e. relocation, loss of residential land, or loss of shelter) and economic displacement (i.e. loss of land, assets, access to assets, income sources, or means of livelihoods), as a result of either (i) involuntary acquisition of land; or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas – regardless of whether such losses and involuntary restrictions are full or partial, permanent or temporary.

52. Projects financed by ADB, including associated facilities that are financed by the Government or other sources, are expected to observe the following policy principles:

- (i) early screening to identify **involuntary resettlement** impacts and risks, and determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis specifically related to resettlement impacts and risks;
- (ii) carry out meaningful consultations with displaced persons, host communities, and concerned non-government organizations;
- (iii) inform all displaced persons of their entitlements and resettlement options and ensure their participation in various stages of the Project, especially the vulnerable and poor groups;
- (iv) establish a GRM to receive and facilitate resolution of the displaced persons concerns;
- (v) support the social and cultural institutions of displaced persons and their host population;
- (vi) improve, or at least restore, the livelihoods of all displaced persons through:
 - land-based resettlement strategies when affected livelihoods are land based, wherever possible; or cash compensation and/or assistance at replacement value for land when the loss of land does not undermine livelihoods;
 - prompt replacement of assets with access to assets of equal or higher value;
 - prompt compensation and/or assistance at full replacement cost for assets that cannot be restored; and
 - additional revenues and services through benefit sharing schemes, where possible
 - provide physically and economically displaced persons with needed assistance, including the following:

- if there is relocation, secure tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, economic and social integration of resettled persons into their host communities, and extension of Project benefits to host communities;
 - transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and
 - civic infrastructure and community services, as required.
- (vii) improve the standards of living of the displaced poor and other vulnerable groups, including female heads of households to, at least, the national minimum standards;
 - (viii) develop procedures in a transparent, consistent, and equitable manner, if land acquisition is through negotiated settlement, to ensure that those people who enter into negotiated settlements will maintain the same or better incomes and livelihood status;
 - (ix) ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets;
 - (x) prepare an Resettlement Plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule;
 - (xi) disclose both the draft and final Resettlement Plan in a form and language understandable to displaced persons and other stakeholders;
 - (xii) conceive and execute involuntary resettlement as part of a development Project or program – include the full costs of resettlement in the presentation of Project's costs and benefits;
 - (xiii) for a Project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the Project as a stand-alone operation;
 - (xiv) pay compensation, and provide other resettlement entitlements, before physical or economic displacement – implement the Resettlement Plan under close supervision throughout Project implementation; and
 - (xv) monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the Resettlement Plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring.

53. Calculation of full replacement cost will be based on the following elements:

- (i) fair current market value at the time of compensation;
- (ii) transaction costs;
- (iii) interest accrued;
- (iv) transitional and restoration costs; and
- (v) other applicable payments, if any.

54. In the calculation, depreciation of structures will not be taken into account. It is expected that qualified and experienced experts will undertake the valuation of acquired assets. Persons or households without formal legal rights nor recognized or recognizable claims to the acquired land are still entitled to be compensated for their loss of assets other than land, such as

dwellings or other improvements on the land at full replacement cost, provided that they have occupied and/or used the land or structures in the affected land prior to the cut-off date.

B. Myanmar Regulations on Land Acquisition and Resettlement

55. Myanmar does not have a written policy on land use and tenure. Myanmar's laws dictate that all land belongs to the state. The body of law governing land is expansive and some laws date back to the British colonial period.

56. Myanmar's constitution was adopted in 2008 and came into force in 2010. While it requires all other laws, rules, regulations, and policies to comply with its provisions, it also established a republic in which states, regions, divisions, and zones have authority to enact their own laws so long as they do not conflict directly with the constitution or national laws, rules and regulations.

57. The 2008 State Constitution⁸ of the Republic of the Union of Myanmar declares that the State "is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union". Moreover, while the 2008 constitution provides for citizens the right of private property, right of inheritance, and the right to settle in any place within country, these rights are subject to "existing laws". Among other, these existing laws include: (i) the Transfer of Property Act (1882); (ii) the Land Acquisition Act (1894) that empowers the State to acquire land where it is needed for any public purpose; (iii) the Land Nationalization Act of 1953, (iv) the Disposal of Tenancies Law of 1963, (v) Towns Act of 1907, (vi) Village Act of 1907, (vii) Highways Act of 2000, (viii) Farmland Law of 2011, and (ix) Vacant, Fallow and Virgin Lands Management Law of 2012. The Transfer of Property Act (1882) provides the law relating to the transfer of property (movable and immovable), including, sales, mortgages, charges, leases, exchanges and gifts. Technically, it is said that the Transfer of Property Act (1892) is still in force. However, the Land Nationalization Act (1953) replaced the provisions of the Transfer of Property Act (1892) on housing, land, and properties rights.

58. The Land Acquisition Act (1894) provides the basis for the state to acquire land for public and other purposes. Its provisions address required notice; procedures for objecting to acquisition; land valuation methods; the process for taking possession of land; the process for appeals; and rules for the temporary occupation of land (UOB Land Acquisition Act 1894; Displacement Solutions 2012).

59. Parliament adopted the Farmland Law in March 2012. The law defines rights and responsibilities relating to tenure and establishes a hierarchy of management over farmlands (Displacement Solutions 2012). The Farmland Law affirms that the state is the ultimate owner of all land and creates a private-use right that includes the right to sell, exchange, inherit, donate, lease, and "pawn" farmland. It also establishes a system of registered land-use certificates (LUC). Although this law provides that Farmland Management Bodies are to issue LUCs to farmers and that Land Records Departments are responsible for registering land rights and collecting related fees, mechanisms for realizing this scheme are not yet in place. The law (i) does not describe the process farmers should use to apply for LUCs and register their rights; (ii) provides only a very basic description of the government entities involved in the process; and (iii) leaves the details of implementation for the executive branch of government to define.

⁸ The new constitution came into force in 2010 following the holding of national elections.

60. While the Farmland Law of 2012 repealed the Land Nationalization Act of 1953 and the Disposal of Tenancies Law of 1963, the effects of these repealed laws remain unchanged. The following classifications of land in the country illustrate this. Basically, there are 11 general classifications of land in the country. These are freehold land; grant land; agricultural land; garden land; grazing land; cultivable land, fallow land and waste land; forest land; town land; village land; cantonments; and monastery.

- Freehold land can be likened to ancestral land, and ownership of such land is transferable and the owner is not required to pay land tax. Most freehold lands are located in big cities, such as Yangon.
- Grant land belongs to the government and is leased to private individuals for a lease term of 10 years or more that is renewable. The lease is transferable and the leaseholder is bound to pay land tax. Grant lands are found in cities and towns and, in very few cases, in villages.
- Agricultural land belongs to the State and farmers who have been granted plots to till, mostly rice crops, are tenants. The Village Tract Peace and Development Council is responsible for allocating agricultural land, which has to be approved and confirmed by the concerned Township Peace and Development Council. In 1988, the government set quotas on the amount of rice farmers have to produce from their allocated field in a year before they could plant other crops on their landholdings. Tenants also pay land revenue and until the promulgation of the Farmland Law of 2011, agricultural land was not transferable.⁹
- Garden land is legally part of agricultural land. However, the crops that are grown on garden lands are different, and the land revenue is higher than agricultural land. Until the promulgation of the Farmland Law of 2011, garden land was also non-transferrable.
- Grazing land belongs to the government and designated by the Village Tract Peace and Development Councils. No residences are allowed on grazing land, which is reserved for the exclusive use of the village residents for their cattle.
- Cultivable land, fallow land and wasteland are plots of land that the government may grant government and private enterprises the right to use for commercial use.
- Forestland is administered by the Ministry of Forestry in accordance with the 'Forest Law.
- Town land includes Freehold Land, Grant Land, and La 39 Land. Landholdings of residents in new towns or those that are still expanding are usually the La Na 39 type (which may be converted to grant land).
- Village lands are those located outside the towns and are either grant land or La Na 39 land. Village land is transferrable. Village land that is less than 100 m² and which has a building (residence) thereon is exempt from land revenue.
- Cantonments are lands are government lands used and administered by the military.
- Monastery lands are plots of land that the Ministry of Home Affairs may grant to religious organizations. Freehold land, grant land, or La Na 39 land that is designated by the Ministry of Home Affairs as monastery land will be acquired through the Land Acquisition Act and for which compensation is given to the

⁹ Agricultural land may be used for other purposes, but subject to the approval of the Ministry of Agriculture and Irrigation. After approval of change of use is given, the State/Division Peace and Development Council will issue a document called La 39 (with reference to the requirements of Article 39 of the Land Nationalization Act of 1953). Land with La Na 39 document is transferable and may be upgraded to Grant Land.

landholder. No compensation is given to the holder of affected agricultural land, however. Monastery land is exempted from land revenue.

61. The Farmland Law of 2012 encompasses agricultural land, garden land, and other types of land that are used for cultivation, including orchards and those used to grow vegetables and flowers. Farmers that are holding or allocated the aforementioned lands may secure an LUC, which provides them a form of security of tenure. The Farmland Law of 2011 does not clearly stipulate the procedures for acquiring an LUC, however. Those with LUC may transfer, lease, sell, or use as collateral their agricultural lands, provided that the government is informed about these transactions. The holder of the LUC cannot change the use of the allocated land other than what is provided in the LUC. Neither can the holder of the LUC allow the farmland to fallow for no valid reason. Violation of the conditions set in the LUC could lead to the revocation of the LUC and the confiscation of the farmland. In other words, the Farmland Law of 2012 did not change the basic land tenure arrangements in the country; with the exception of freehold lands, all other types of lands technically belong to the State. What the Farmland Law of 2012 has granted is the right of the holder to transfer, lease, sell, or mortgage the land.

62. The Vacant, Fallow, and Virgin Lands Management Law of 2012 (VFV Law) governs the allocation and use of virgin land (i.e., land that has never before been cultivated) and vacant or fallow land (which the law characterizes as for any reason “abandoned” by a tenant). As described further below, the law establishes the Central Committee for the Management of Vacant, Fallow and Virgin Lands, which is responsible for granting and rescinding use rights for such lands. The VFV Law also lays out: (i) the purposes for which the committee may grant use rights; (ii) conditions that land users must observe to maintain their use rights; and (iii) restrictions relating to duration and size of holdings (Hunt 2012; Oberndorf 2012).

63. All private tenure rights are essentially usufruct, meaning that individuals and other entities may use land but cannot own it, and tenure rights vary depending on the type of land involved (UOB Constitution 2008a). At least 12 categories, some of which have changed, existed as of 2009: freehold land, grant land, agricultural land, garden land, grazing land, cultivable land, fallow land and waste land, forest land, town land, village land, cantonment land and monastery land (UN Habitat, n.d.).

C. Gap Analysis

64. The Land Acquisition Act (1894) has provisions from informing the locality (published in the Gazette and public notice in convenient places) from planned acquisition to confirmation of acquisition of land. There is also provision of preliminary survey and offer tender payment, including any objections from any “person interested”.¹⁰ Once the land is deemed to be acquired, provisions in the Act include measurements, enquiry on the value of land at the time of publication of notification and award for compensation. The Act also has a detailed provision to the objection process and reference to court and procedures. The Farmland Law (2012) has provisions for “compensation for the interests of the State or the public interests and development by building on such land and managing by other means” to person “who has ownership right to use farmland” (Chapter IX, Article 26).

¹⁰ In the Land Acquisition Act, 1895, “persons interested” includes all persons claiming an interest in compensation to be made on account of the acquisition of land under the Act, and a person shall be deemed to be interested in land if he is interested in an easement affecting the land.

65. However, neither the Land Acquisition Act of 1894 nor the Farmland Law (2012) has any provisions for persons who have no right to use land. Table 12 discusses the gap-filling measures for the Project:

Table 12: Gap Analysis and Gap-Filling Measures

Issues	ADB Policy	National Policy	Gap Measures
Severely impacted affected persons losing productive land	The involuntary resettlement impacts of an ADB-supported Project are considered significant if 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating).	None	Losing 10% or more of the affected households' productive assets shall be considered the threshold
Differences between compensation rates and market rates	Provide physically and economically affected persons with needed assistance including: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of affected persons economically and socially into host communities, (ii) transitional support and development assistance such as land development, credit facilities, training or employment opportunities, and, (iii) civil infrastructure as required.	None	Budget has accounted for transitional support, replacement cost and vulnerable allowances The RCC/Project has engaged an external estimator to conduct the RCS
Compensation for lost land	Land-based livelihoods restoration based upon land based strategies where possible, or cash compensation at replacement value provided loss of land does not undermine livelihoods for those with legal rights to land. Provide adequate and appropriate replacement land. If land not available non-land based options built around opportunities for employment, self-employment should be provided in addition to cash compensation for land and non-land assets lost.	None	Considering that land for land based compensation was deemed not viable, the RCS ensured that project rates for various categories of losses are based on current market value. This is supplemented with other assistance and livelihood restoration measures to ensure that affected persons' socioeconomic condition and standard of living is as before land acquisition or improved.
Monitoring	Monitoring indicators specified for internal and external monitoring and reporting section of the supplemental Resettlement Plan	None	The project management unit will internally monitor Resettlement Plan implementation. Monitoring indicators are included in the resettlement plan. Monitoring reports will be posted on the ADB website.

ADB = Asian Development Bank; RCC =resettlement coordinating committee; RCS = replacement cost survey.

D. Project Principles

66. The Project principles on resettlement policy are as follows:

- (i) involuntary resettlement and impacts on land, structures and other fixed assets will be avoided or minimized, where possible, by exploring all alternative options;
- (ii) compensation and assistance will be based on the principle of replacement cost at the time of implementation;
- (iii) severely affected household is considered as such when they stand to lose 10% or more of their household's assets and shall be considered as threshold;
- (iv) displaced persons without title or any recognizable legal rights to land are eligible for compensation for non-land assets at replacement cost;
- (v) residential land and agricultural land (where available) for replacement should be close to the previous places as much as possible, and suitable to the displaced persons;
- (vi) meaningful consultations will be carried out with the displaced persons and concerned groups to ensure participation from planning up to implementation with comments/suggestions of the affected persons/communities taken into account;
- (vii) resettlement plan will be disclosed to affected persons in a form and language(s) understandable to them prior to submission to ADB;
- (viii) resettlement identification, planning and management will ensure that gender concerns are incorporated;
- (ix) special measures will be incorporated in the resettlement plan to protect socially and economically vulnerable groups, such as: households headed by women, children, disabled, the elderly, landless; and people living below the generally accepted poverty line;
- (x) existing cultural and religious practices will be respected and preserved, to the maximum extent practical;
- (xi) culturally appropriate and gender-sensitive social impact assessment and monitoring will be carried out in various stages of the Project;
- (xii) resettlement transition stage should be minimized;
- (xiii) restoration measures will be provided to displaced persons before the expected starting date of construction in the specific location;
- (xiv) budget for payment of compensation, assistance, and resettlement and support will be prepared sufficiently and made available during Project implementation and by the provinces; and
- (xv) reporting and independent monitoring should be defined clearly as part of the management system of resettlement.

67. Issuance of the "Notice to Proceed" to contractors for any given section cannot proceed until the MOC officially confirms in writing, stating that:

- (i) payment has been fully disbursed to the displaced persons and rehabilitation measures are in place;
- (ii) already compensated and/or assisted displaced persons have cleared the area in a timely manner; and
- (iii) the area is free from any encumbrances.

68. Cut-off date is the date of completion of IOL, for which land and/or assets affected by the Project were inventoried during the Resettlement Plan preparation period.

VII. ENTITLEMENT, ASSISTANCE AND SUPPORT

A. Eligibility

69. Eligibility will be determined with regard to the cut-off date, which is taken to be the date of completing the IOL for which land and/or assets affected by the Projects are measured. The affected persons have been informed of the cut-off date for each Project component, and any people who settle in or utilize the Project area for whatever undertaking after the cut-off date will not be entitled to compensation and/or assistance. Land paperwork was verified together with a Lands Officer. The IOL was completed last 17 May 2016.

70. In addition, legal rights to the concerned land determine the extent of eligibility for compensation with regard to land. Affected persons are those with formal legal rights to land and lost a portion of their land.

71. Affected persons shall be compensated for the affected lands and assets located in said affected parcels of land. The cut-off date for eligibility is the date of the completion of the IOL survey which is 17 May 2016. This was communicated to each AP verbally and in writing, as well as publicly announced in the affected areas.

B. Entitlement

72. The overall objective of the compensation and entitlement policy of the supplemental Resettlement Plan for the Maubin-Phyapon Road Rehabilitation Project is to ensure that all four households affected by the Project receive compensation for all affected assets at full replacement cost as well as resettlement assistance.

73. The compensation strategy for entitlements is based on the type of impacts. This could be major impacts such as relocating a house or minor impacts such as relocating a secondary structure to non-affected area of agricultural land. The valuation of affected assets (land, structure, crops/trees) is based on the market value at current prices. This will be determined through a conduct of RCS by an independent Valuator. Application of the RCS findings carried out last May 2016 on the compensation measures for the identified losses is discussed in more details in Annex D.

74. Table 13 shows the Entitlement Matrix to be applied in implementing the Supplemental Resettlement Plan. It incorporates the actual findings of the assets and impacts found on the ground.

Table 13: Entitlement Matrix

Impact Type	Application	Entitled Person	Resettlement Plan Entitlements	Implementation Issues
Loss of land: residential, agricultural and garden	Permanent loss of land	Eligible landowner/ occupant	Compensation at market rate or compensation through “land for land” mechanism at AP preference and if available in the area	Replacement agricultural land not available in the area. Cash compensation option
Building: residential house	House fully affected	Owner of structure whether structure was built with permit or not	<p>Cash compensation at replacement cost for materials, labor, transport of materials, construction cost. Compensation will be without depreciation or deduction for salvageable material.</p> <p>or</p> <p>Where structure can be moved: Cash and/or in-kind assistance to move and repair affected structure.</p> <p>Household whose land is fully affected and has insufficient remaining land on which to rebuild and has no alternative land will be provided with appropriate assistance either in the form of suitable land on which to rebuild or cash assistance to enable them to purchase replacement land.</p>	<p>There is one residential structure which is fully affected. Valuation cost was determined by an Independent Valuator</p> <p>The land where the residential structure stands will be fully acquired as well. The remaining land where the house can be relocated is within paddy land and needs to be back filled to elevate a portion. The contractor will assist in the backfilling. Likewise a portion of the pond where the household sourced their drinking water is affected; the contractor will ensure that it is also rehabilitated.</p> <p>Dislocation and transfer allowance as well as assistance as vulnerable and severely affected household shall be provided as per implementing guideline agreed for the Entitlement Matrix of this Resettlement Plan.</p>
Secondary structure	Permanent Secondary structure used as	Affected person who is the recognized owner, whether with	(i) Compensation in cash or materials at full replacement with cost at current market value with no deduction in compensation for depreciation or salvageable materials	Affected secondary structure is utilized as roosting place for ducks of one of the affected persons. The structure cannot be relocated anymore since the structure is made of traditional light

Impact Type	Application	Entitled Person	Resettlement Plan Entitlements	Implementation Issues
	storage facility fully affected	land title or not, and whether the structure was built with permit or not	(ii) If removal is required, for movable structures, assessment or ability to move the un dismantled structure. Assistance will be provided to cover the replacement costs of site preparation, dismantling, moving and rebuilding the structure	materials which are already very old and fragile. Cash compensation will be based on replacement value including relocation allowance.
	Temporary during construction			If land is disturbed it will be restored within 1 month.
Annual crops		Owner of crops	Affected persons will be given 4 months' notice to pick rice prior to clearance. For crops that cannot be harvested, affected persons will be awarded the full market value of production lost. Cash assistance equivalent to 6 years value of paddy in areas which affected persons can no longer be cultivated	If affected paddy rice land has crop on it, the owners will be allowed to harvest before construction will commence.
Perennial crops and trees	Timber and fruit trees Private shade trees	Owner of crops or trees Owner of trees	(i) Cash compensation at market price for loss of crops/fruits calculated as number of years needed to bear fruit. (ii) Replacement of saplings up to a factor of 15 new to one old tree included in the compensation. Wood value considered for applicable trees.	A number of fruit bearing and lumber trees are affected. The DMS included categorization of affected trees including determination of dimension and fruit bearing capacity. Replacement values are based on the RCS findings.
Moving allowance	House fully affected	Owner	For fully affected main structures: Moving allowance which is equivalent to labor and transportation will be provided based on the type of	Moving allowance for each affected household has been estimated to cover labor and transportation, between MMK 50,000 to MMK 75,000

Impact Type	Application	Entitled Person	Resettlement Plan Entitlements	Implementation Issues
			affected structure.	per affected household.
Severe impact allowance	Affected person suffering >10% income losses; affected person with totally affected house structure		One month allowance based on minimum subsistence allowance	MMK 1,462 per day or monthly MMK 43,875 based on poverty rate of \$1.25 per day per person (at current exchange rate).
Vulnerable people allowance		Affected household below poverty line or headed by woman/ disabled	3 month allowance based on subsistence level	MMK 1,462 per day or monthly MMK 43,875 based on poverty rate of \$1.25 per day per person.

VIII. RELOCATION OF HOUSING

75. Two households, one with a residential structure, another with a secondary structure utilized previously for housing poultry animals, are fully affected. The household losing the entire house as well as the parcel of land where the house stands is female headed. While she is opting for the land-for-land option, there is no available land close to her remaining pasture/paddy land. The proposed relocation site is to an area within the paddy rice land. A portion therein will be back-filled with the assistance of the ICB1 Project contractor. Damages to her house will be compensated in cash based on market values for materials used and reconstruction cost at current prices and assistance for the relocation and transfer of reusable materials will be provided. Transition allowance for approximately three months will also be given covering the time when her house will be reconstructed. A pond used as source of the household' drinking water will be rehabilitated by the contractor in case it is affected during civil works activities. The secondary structure which is used to house poultry animal cannot be salvaged anymore and will be compensated based on replacement value.

IX. INCOME RESTORATION AND REHABILITATION

76. Impacts on livelihoods are associated with the loss of productive pasture land (areas cultivated to annual crops and perennial and other trees). The household losing more than 10% of the total area of the affected land is a female headed household. However, the area she is losing is not utilized for paddy farming; rather it is the area where her residential house is located. In addition, beside her house are fruit bearing and timber trees which products provide her supplemental income are affected. The trees and other perennials are to be compensated based on productive capacity and market values.

77. Income restoration assistance for affected households losing productive land include:

- Compensation for the parcel of acquired land at full replacement value;
- Compensation for affected crops/trees at full replacement value;
- Severe impact allowance equivalent to one month subsistence living allowance at MMK 1,500 per day per person
- Allowance equivalent to three months at MMK 1,500 per day per person for all members of household as affected vulnerable (female-headed) household.
- Moving allowance at approximately MMK 50,000 as assistance when she relocates her residential structure.

X. RESETTLEMENT BUDGET AND FINANCING PLAN

78. The estimated budget (Table 14) to implement the Supplemental Resettlement Plan is MMK 21,567,300 (USD 17,972) to be financed by the Government of the Republic of the Union of Myanmar.

Table 14: Cost Estimates

Compensation Items	# of HHs	Unit	Quantity	Average Rate*	Total MMK	Total (\$)
Compensation for paddy land *	4	m ²	0.934824	MMK 2,100/m ²	19,631,300	16,359
Compensation for fully affected structures*	2	m ²	2 structures	See RCS Report	900,000	750
Compensation for perennials*	3	Per type		See RCS Report	671,000	559
Vulnerability allowance for female headed household	1	Per HH member	1 HH	Severe impact allowance equivalent to one month subsistence living allowance at MMK 1500 per day per person	45,000	37
Severe impact allowance for HHs with those losing >10% of productive land	1	Per HH member	1 HH	Severe impact allowance equivalent to one month subsistence living allowance at MMK 1500 per day per person	270,000	225
For fully affected main structures: Moving allowance which is equivalent to labor and transportation will be provided based on the type of affected structure	1	Per HH member	1 HH	Moving allowance for each affected household has been estimated to cover labor and transportation, at approx. MMK 50,000 since relocation site is just in adjacent area	50,000	41
Compensation for reconstruction of affected portion water channel, backfilling of a portion of paddy land to serve as relocation site of 1 Affected person and rehabilitation of affected water pond (to be borne by the contractor)	1	Per HH/ portion of the water channel		Under the responsibility of ICB1 contractor	Per application	
TOTAL					21,567,300	17,972

HH = household; ICB = international competitive bidding; m² = square meter; MMK = Myanmar Kyat; RCS = replacement cost survey.

Source: Rates were agreed with the affected persons based on the data obtained from the findings of the Replacement Cost Study carried out by an Independent Valuator contracted by the Project.

* Annex D provides the complete list, scope of impact and the proposed compensation per affected household.

XI. INSTITUTIONAL ARRANGEMENT

79. MOC is the executing agency of this Project, while DOH is the implementing agency. The MOC has established a project management unit in Yangon that is responsible for the day-to-day implementation of the project and in the preparation of technical, safeguards, and financial reports.

80. In addition, the ad hoc body, the RCC has been set-up in each township to carry out further planning and implementation of the resettlement plan, set-up a mechanism wherein grievances are logged and resolved at the RCC level, and to ensure the active participation of affected households throughout the resettlement process. The RCC is composed of the following representatives: DOH District and Township engineers, township general administration office; concerned village tracts chiefs, township land records officer, representatives of village women organization; and representatives of affected households (male and female). The reconstituted RCC will include representative of the Township Development Council.

81. The RCC of the township of Kyaiklat is the primary body responsible for assisting in planning the Supplemental Resettlement Plan and mainly responsible for pursuing its implementation once approved by MOC and the ADB. As part of its primary responsibility in resettlement planning, the RCC will assist the PMU and the CSC in the planning and implementation of the Supplemental Resettlement Plan through the conduct of information disclosure and consultation with the affected households, assist in the conduct of the identification and census of affected households, conduct of inventory of losses and detailed measurement survey with the assistance of the consultant and assist the independent Valuator to ensure the efficient conduct of replacement cost survey, the conduct of the GRM and monitoring and reporting of the Resettlement Plan implementation.

- The Head of the township general administration office is the chairperson of the RCC. The RCC will also be responsible for certifying to MOC the status of disbursement of compensation and clearance of obstruction within the ROW.
- As a member of the RCC, the Land Records Department of Kyaiklat Township will also assist in ensuring that land documents of the affected persons are in proper order. With its participation in the conduct of DMS and the land acquisition proceeding, it will be mainly responsible for amending cadastral records and land use document once the parcel of land for ROW has been taken out of the plot of the affected persons.
- The village tract chief is the primary link of the affected persons to the officials and organizations responsible for compensation and resettlement as well as addressing grievances and redress.

82. The CSC Social Safeguard Specialist in coordination with the PMU counterpart has provided the necessary orientation and training to the DOH District and township engineers and RCC members on ADB policies and procedures for resettlement planning and implementation.

83. As part of the overall capacity development of MOC, ADB, through a separate regional technical assistance (TA), Strengthening and Use of Country Safeguards Systems,¹¹ has provided grant funds to support MOC in strengthening its capacity on environment and social

¹¹ ADB. 2010. *Technical Assistance for Strengthening and Use of Country Safeguards Systems into Regional Cooperation*. Manila (TA 7566-REG approved on 26 July 2010 for \$9,000,000).

safeguards. The TA's objectives are to: (i) develop staff awareness and capacity within MOC DOH and its township offices¹² on involuntary resettlement, indigenous peoples, and environment safeguards that meet ADB SPS policy principles, requirements and standards, and (ii) develop safeguards guidelines and manuals on involuntary resettlement, indigenous peoples, and environment that meet ADB SPS policy principles, requirements and standards for MOC DOH. The TA commenced during the 3rd quarter of 2014 for a period of 8 months with the conduct of orientation and training of MOC-DOH national and local staff on ADB Safeguard Policy on Involuntary Resettlement carried out in early 2015. Supplemental training on GRM and Resettlement Plan monitoring had been carried out by CSC.

¹² Townships covered are those who have ongoing technical assistance/loans funded by ADB.

XII. IMPLEMENTATION SCHEDULE

A. Preparation of the Supplemental Resettlement Plan and Implementation Schedule

84. The preparation of the Supplemental Resettlement Plan and its formal approval by the MOC and the ADB will be required prior to disbursement of compensation and assistance as well as the taking and clearance of land for the new ROW. Key activities to prepare the Supplemental Resettlement Plan and pursue its formal approval and the milestones for its implementation are set out below:

- (i) Work on the formulation of the Supplemental Resettlement Plan commences with the approval by the ADB of the proposed curve realignment along Km24+049 and the requirement of additional land acquisition for new ROW of the Project road.
- (ii) Conduct of information dissemination and consultation with stakeholders concerning additional land acquisition including briefing /orientation on ADB Safeguard Policy on Involuntary Resettlement and stipulated procedures on land acquisition.
- (iii) Follow up on administrative details concerning government procedures on land acquisition such as informing the GAO officials at various administrative levels re land requirement of the Project to enable township GAO to commence with activity.
- (iv) Determination of scope of land acquisition and staking of new ROW boundaries including identification of specific parcels affected to be carried out jointly by consultant, contractor, DOH/township engineers, township GAO officials and concerned RCC members.
- (v) Public announcement of the land acquisition decision by the General Administration Office.
- (vi) Information meetings to be conducted by the RCC together with the consultant, contractor and DOH/township engineers with the affected landowners
- (vii) Conduct of land survey and preparation of technical details in preparation for IOL/DMS to be carried out primarily by consultant in coordination with the RCC and contractor
- (viii) Conduct of IOL/DMS, census and SES by the consultant with the assistance of the RCC members.
- (ix) Consultant undertakes briefing/orientation of GAO official, RCC members and DOH personnel on RCS and ADB requirement for independent valuator.
- (x) The independent Valuator carries out the Replacement Cost Survey in close coordination with the GAO/RCC and other concerned local authorities to determine current market value of affected land, structures and other non-land assets.
- (xi) Consultation with affected households and other stakeholders on project entitlements and compensation rates.
- (xii) Finalization of draft Supplemental Resettlement Plan by consultant in coordination with MOC-PMU.
- (xiii) MOC seeks endorsement of Supplemental Resettlement Plan and submits to ADB for review and concurrence.
- (xiv) ADB reviews supplemental Resettlement Plan and provides comments. Revision of Resettlement Plan with comments (if any) incorporated and concurrence provided.

- (xv) Information disclosure of Resettlement Plan implementation schedule to affected households including notification re date, place, required documents to bring along and from whom (office/person) to claim compensation. No land take, ROW clearance will take place until all affected persons are fully paid as per compensation matrix.
- (xvi) Takeover of land area for road ROW by MOC-DOH and GAO and clearance of new ROW area.
- (xvii) MOC-DOH hands over the new ROW to the contractor after completions of compensation payments and resettlement measures for all affected households.
- (xviii) Monitoring of Resettlement Plan implementation by Kyaiklat RCC and the MOC-PMU.

85. Table 15 presents the indicative activities and milestones to carry out the preparation and implementation of the Supplemental Resettlement Plan.

Table 15: Indicative Implementation Schedule of Supplemental Resettlement Plan Implementation

Activities	Schedule– 2016
Preparation of Supplemental Resettlement Plan commences	2nd week of March
Information dissemination and consultation with RCC members and stakeholders concerning additional land acquisition including briefing/orientation on ADB Safeguard Policy on Involuntary Resettlement	2nd–3rd week of March
Follow up on government administrative requirements and procedures on land acquisition	4th week of March
Staking of new ROW boundaries and identification of affected land parcels carried out jointly by consultant, contractor, DOH/township engineers, township GAO officials and concerned RCC members with landowners	1st week of April
Public announcement of the land acquisition decision by the General Administration Office.	1st week of April
Information meetings with affected landowners to be conducted by RCC together with consultant, contractor and DOH/township engineers	3rd–4th week of April
Conduct of land survey, designation of the required ROW and preparation of technical details in preparation for IOL/DMS	1st week of May
Conduct of IOL/DMS, census and SES by the consultant with assistance of the RCC members.	1st week of May
Arrangement for contracting of Independent Valuator	1st week of May
Conduct briefing/orientation of RCC on conduct of RCS and ADB requirement for independent Valuator	2nd week of May
Conduct of RCS to determine current market value of affected land, structures and other non-land assets	3rd week of May
Consultation with affected households and other stakeholders on project entitlements and compensation rates.	4th week of May
Finalization of draft Supplemental Resettlement Plan by consultant in coordination with MOC-PMU.	4th week of May to 1st week of June
MOC seeks endorsement of Supplemental Resettlement Plan and submits to ADB for review and concurrence.	2nd week of June
ADB reviews supplemental Resettlement Plan and provides comments. Revision of Resettlement Plan with comments (if any) incorporated and concurrence provided.	June
Information disclosure of Resettlement Plan implementation schedule to affected households including notification re date, place, required documents to bring along and from whom (office/person) to claim	July/August

Activities	Schedule– 2016
compensation. No land take, ROW clearance will take place until all affected households are fully paid as per compensation matrix. RCC is mainly responsible	
ROW area take over by MOC-DOH / GAO and land clearance	August
MOC-DOH hands over the new ROW to the contractor after completion of compensation payments and resettlement measures for all affected households.	September/October
Assessment/Monitoring the implementation outcomes of Supplemental Resettlement Plan	November
Reporting to MOC/ADB the result of Resettlement Plan implementation monitoring	December

ADB = Asian Development Bank; DMS = detailed measurement survey; DOH = Department of Highways; GAO = General Administration Office; IOL = inventory of losses; PMU = project management unit; RCC = resettlement coordinating committee; RCS = replacement cost survey; ROW = right of way; SES = socioeconomic survey.

XIII. MONITORING AND REPORTING

86. Monitoring will be carried out by the respective DOH and RCC. Semi-annual reports will be submitted to ADB. The principal indicators for monitoring will include the following:

- timely provision of compensation and assistance to and transfer of affected households from the affected parcel to the remaining area of agricultural land;
- meaningful consultation and information dissemination;
- participation of affected households, especially women, and other stakeholders throughout the resettlement process;
- effectiveness of RCC in the planning and implementation of resettlement including the timely and satisfactory resolution of any grievances related to resettlement; and
- changes in the pre- and post-socio economic condition of affected households and ability of affected households to reestablish or improve their livelihoods and living standards.

Annex A: Inventory of Losses and Socioeconomic Survey of Affected Households Form

Maubin–Phyapon Road Rehabilitation Project 2016 Supplemental Resettlement Plan

Inventory of Losses and Socioeconomic Survey of Affected Households

INSTRUCTION: To be accomplished for all persons/households and organization/institutions with affected assets (e.g., land, houses, shops, sheds, warehouse, water well, toilet outhouse, fence/gate, crops and trees) located within the parcel of land required as additional right-of-way (ROW) for the realigned section of the Maubin – Phyapon Project Road.

I. Location of Affected Land and Other Assets of the Affected Person (AP), Affected Household, or organization.

a) Location of affected land and/or other assets: Township: Village: Chainage/Station:
b) Name* of Occupant and/or Owner of the affected land/other assets

* If a single person household, write the name of the affected person; if an affected household, write the name of the head of the affected household; if an institution or organization, write the name of the institution or organization. A person who lives alone by himself or herself is considered a single person household.

II. Detailed Measurement Survey of Affected Assets (This section WILL BE filled up for all affected households and organizations or institutions affected by the loss of assets)

A. Affected Land:

A1. Category of land and impact

Category or Type of Use of Land	Indicate whether cultivated to what type of crop/trees or whether fallow	Total area (m ²) of land	Area of the affected portion of land	State whether the land will have to be acquired PARTIALLY OR TOTALLY
(i) Agricultural				
(ii) Residential				
(iii) Forest				
(iv) Pasture				
(v) others				

A2. Tenure status of affected land

Category of Land	Tenure (Indicate the appropriate response with a check)				
	Owner*	Renter	Tenant	Sharecropper	Occupying without permit
(i) Agricultural					
(ii) Residential					
(iii) Forest					
(iv) Pasture					
(v) others					

* If owner of land, check tenure arrangement: (i) land use certificate, (ii) Freehold, (iii) Gay-an, (iv) La Na 39. (v) Others (specify; _____)

A3. If not the owner, indicate name of land owner.

1. Name of owner of affected land	Address of owner of affected land.
2. Does the renter, tenant/ sharecropper own/cultivate another land elsewhere?	{ } NO; { } YES: Where: _____

A4. If renter, indicate how much is the rent per year. If tenant how much is the share per year; and if sharecropper how much is the share per harvest?

Category of Land	Category of tenure of land other than owner					
	Renter?		If YES, how much is the rental per month or per year?	Tenant or Share cropper?		If YES, how much is the sharing per harvest?
	NO	YES		NO	YES	
(i) Agricultural						
(ii) Residential						
(iii) Forest						
(iv) Pasture						
(v) others						

B. Affected Main Structures (see Note1 below)

B1. Category / Type of affected main structures within the affected lands

Type or Use of the affected main structure	Structure Classification (see Note2 note below)	Total area (m ²) of the structure	Area (m ²) of the affected portion of the structure	State whether the structure will have to be acquired PARTIALLY OR TOTALLY
(i)				
(ii)				

Note 1: Regardless of structural condition and construction materials used, these are buildings that are fixed on the ground with four posts, with roof and used as residence, shop or place of commerce, residence and shop at the same time, etc.,

Note 2: Specifics of Classification: Use structure classification system of the local government (district or township)

B2. Tenure status of affected main structure

Category of main structure	Tenure (Indicate the appropriate response with a check)			
	Owner	Renter	Occupying with permission	Occupying without permit
(i) Residential				
(ii) Commercial				
(iii) Commercial/residential				
(iv) Religious				
(v) Public buildings				

B3. If the affected house/store/building does not belong to the AP/AH:

(i) Name of owner of affected main structure	Address of owner of affected main structure	Paying rent? (check appropriate box below)		If Paying Rent, How much is the monthly rent? (Indicate in Kyat)
		NO	YES	
U/Daw _____		{ }	{ }	
(ii) Does the tenant affected household own a house elsewhere? { } NO, { } YES. Please indicate Location: _____				

C. Secondary Structures* found in the affected land.

Type of affected secondary structure	Structure Classification <i>Use structure classification system of the local government (district or township).</i>	Total area (m ²) / length (lm) of the structure	Affected area (m ²) / length (lm) of the structure

* Secondary structures: Structures that are not moveable and not part of the main structures such as fence, driveway, waiting sheds, farm sheds, irrigation canal, etc.

D. Annual crops found in the occupied Project affected land

Name/type of annual crops	Actual Area planted to the crops (m ²)
1	
2	
3	

Example of Annual Crops: corn, rice, sugarcane, cassava, etc.

E. Type and number (count) of perennial found within the affected land for ROW

Name of perennial	Young and not yet fruit bearing	Fruit bearing and within peak of production	Fruit bearing but already old
Total Number (as per count)			

F. Count of timber trees of commercial value found in the Project affected land

Name of tree	Actual count

G. Loss of business and income:

Nature of business*	Net Monthly Income (in kyat)	Duration of Disruption in Business Operation (check appropriate box)	
		Permanent	Temporary
		{ }	{ }

Example of business: * Grocery, eatery, motor vehicle, repair shops, etc.

H. Verification and Certification of Census/Inventory of Losses Activity:

Participants of Census/IOL Activity	Name/Organization Represented	Signature	Date
1. Surveyor			
2. Landowner/Landholder or Representative of AP			
3. Village Official			
4. Township Official			

5.			
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I. Additional Notes:

III. **Socioeconomic Information:** (This section will not be filled-up of the affected asset belongs to an organization or institution)A. Basic Information about the head of the affected household

1 Name	2 Home Address: Village: _____ Township: _____ District: _____		
3 Gender: a. Male ____ b. Female ____	4 Age: _____	5 Physical condition: a. Normal ____ b. Disabled ____	
6 Civil Status: a. Single ____ b. Married ____ c. Widow/Widower ____ d. Divorced ____		7 Religious Affiliation: _____	
8 Ethnic Affiliation: a. Bamar/Burman ____ b. Shan ____ c. Rakhine ____ d. Karen ____ e. Chinese ____ f. Mon ____ g. Indian ____ h. Others (specify): _____			
9 Educational Attainment: _____		10 Main livelihood activity of head of households: a. _____ (specify); b. Not working/ not looking for work ____ c. Retired/ not looking for work _____	

B. Socioeconomic information on the Affected Household

1 Number of persons presently living with the household: 1 2 3 4 5 6 7 8 Others (specify number) _____							
2 Basic information on person presently and actually living with the affected household							
Household Members							
i. Household Head							
ii.							
iii.							
iv.							
v.							
3 Average monthly income of the affected household (combined from all working members) Kyat: _____				4 Average monthly savings: a. MMK ____ b. none			
5 By percentage, how much of the average monthly income of the affected household go to the following expense items? (Total should not exceed 100%) a. Food: ____%; b. clothing: ____%; c. Health: ____%; d. House maintenance: ____%; e. Education: ____%; Productive assets ____%; others (specify: _____): ____%							
6 Health Concerns:							
a. Most common ailments (sickness) that afflicted members of the affected household in the past one year: i. _____; ii. _____; iii. _____							
b. For ailments of members of the affected household the past year that required professional help, did you go to a doctor, medical clinic, or hospital? YES: ____; ii. NO: _____, WHY NOT: _____							

<p>c. Where is the nearest medical clinic or hospital located from where you live?</p> <p>i. Same village of the affected household: ____; ii. In another village in same township: ____; iii. In the district/township center: ____</p>
7 Sanitation Concerns:
<p>a. Source(s) of water for drinking:</p> <p>i. Ground well belonging to the affected household ____; ii. Pump well belonging to the affected household: ____; iii. Piped water from public provider: ____; iv. Public/neighbor's open well: ____; v. Public/neighbor's pump: ____; vi. River/canal: ____; vii. Buy from retailers: ____; viii. Others (specify: ____)</p>
<p>b. Source(s) of water for washing:</p> <p>i. Ground well belonging to the affected household ____; ii. Pump well belonging to the affected household: ____; iii. Piped water from public provider: ____; iv. Public/neighbor's open well: ____; v. Public/neighbor's pump: ____; vi. River/canal: ____; vii. Buy from retailers: ____; viii. Others (specify: ____)</p>
<p>c. Toilet facility used by the affected household:</p> <p>i. Simple water sealed (use pail for flushing): ____; ii. Water sealed with flushing mechanism: ____; iii. Open pit: ____; iv. Closed Pit: ____; v. None: ____.</p>
<p>d. Bathing Facility used by the affected household:</p> <p>i. Enclosed bathroom in the house: ____; ii. Open bathing area beside the house: ____; iii. River/canal: ____</p>
<p>e. Garbage disposal practice by the affected household:</p> <p>i. Bury by the affected household: ____; ii. Collected by the local government unit: ____; iii. Burn by the affected household: ____</p>
8 Power Source:
<p>8.1 Main fuel/power used for lighting:</p> <p>i. Electricity from public provider: ____; ii. Kerosene: ____; iii. Rechargeable battery: ____; iv. Own generator: ____; v. Other: ____</p>
<p>8.2 Main fuel/power used for cooking:</p> <p>i. Electricity: ____; ii. Kerosene: ____; iii. LPG: ____; iv. Wood: ____; v. Others: ____</p>
9 Other Asset Ownership:
<p>9.1 Ownership of Home Appliances:</p> <p>i. Television: ____; ii. Refrigerator: ____; iii. Radio/cassette recorder: ____; iv. Telephone/cellphone: ____; v. DVD/CD Player: ____; vi. Oven/stove: ____; vii. Electric fan: ____; viii. Other (specify ____): ____</p>
<p>9.2 Ownership of Transportation:</p> <p>i. Car: ____; ii. Pick-up: ____; iii. Truck: ____; iv. Motorcycle: ____; v. Others: ____; vi. None: ____</p>
10. Availability of Social Facilities/Services:
<p>a. Primary School:</p> <p>i. Same village: ____; ii. In another village of same township: ____; iii. In the district/town center: ____</p>
<p>b. Elementary School:</p> <p>i. Same village: ____; ii. In another village of same township: ____; iii. In the district/town center: ____</p>
<p>c. High School:</p> <p>i. Same village: ____; ii. In another village of same township: ____; iii. In the district/town center: ____</p>
<p>d. Vocational School:</p> <p>i. Same village: ____; ii. In another village of same township: ____; iii. In the district/town center: ____</p>
<p>e. College/University:</p> <p>i. In the district/town center: ____; ii. In another district/ township</p>
<p>f. Place of worship:</p> <p>i. Same village: ____; ii. In another village of same township: ____;</p>

iii. In the district/town center: _____				
g. Market:				
i. Same village: _____; ii. In another village of same township: _____;				
iii. In the district/town center: _____				
11. Other landholding of the affected households that are away from (outside of) the affected land:				
Tenure/Proof of Ownership	Area of land in m ²			
	Residential/commercial	Farmland	Forestland	Pond
Land use certificate				
Freehold				
Gay-an				
La Na 39				
Total Land Area				

IV. Compensation/Reconstruction Options

A. Compensation Option for Affected Land

1. Compensation preference for affected land:
 - i. Cash payment: _____;
 - ii. Land for land exchange: _____;
 - iii. Combination of i. and ii: _____

B. Reconstruction Option for Affected Structures

2. Reconstruction option of affected household losing entire house and/or store. (***This section will not be filled up in case affected asset belongs to organization or institution***):
 - i. Build in the remaining area of affected land: _____
 - ii. Build on land of another person beside affected land: _____;
 - iii Relocate to another plot of land owned by the affected household: _____;
 - iv. Relocate to land owned by relatives/friends in another village: _____
 - v. Other option (Specify _____): _____

V. Public Participation and Perception about the Project:

A. Awareness about the Project. (***This section will not be filled up in case affected assets belong to institution or organization***).

1. Are you aware about the proposed rehabilitation of this road which traverses your village? NO: _____; YES: ____; From whom did you learn about the proposed project and its impact on your properties?

B. Perception of impact of Project on households (***This section will not be filled up in case affected assets belong to institution or organization***)

1. What is your positive and negative reactions about the proposed plan to improve the said road?

(i) Positive:

(ii) Negative:

C. Suggestion to Minimize Impacts (***This section will not be filled up in case affected assets belong to institution or organization***)

1. What are your suggestions if any on how to ensure that local residents and affected households like yourself are adequately informed and suggestions/recommendation are considered for the proposed road project that will affect you and your community?

VI. **Grievance Redress: (*This section will not be filled up in case affected assets belong to institution or organization*)**.

A. Mechanism used by affected household to bring complaint

1. If there is any potential complaint or concern about the manner of land and other asset acquisition as well as other concerns related to the road Project, who do you think should be approached to air the complaint?

Suggested person and/or institution:

2. What should be the best way to bring attention to the problem to concerned authorities: i. Oral _____ ii. In Writing: _____

3. In event not satisfied with the decision made by the person where complaint was brought, who do you think should be approach to address the dissatisfaction? _____

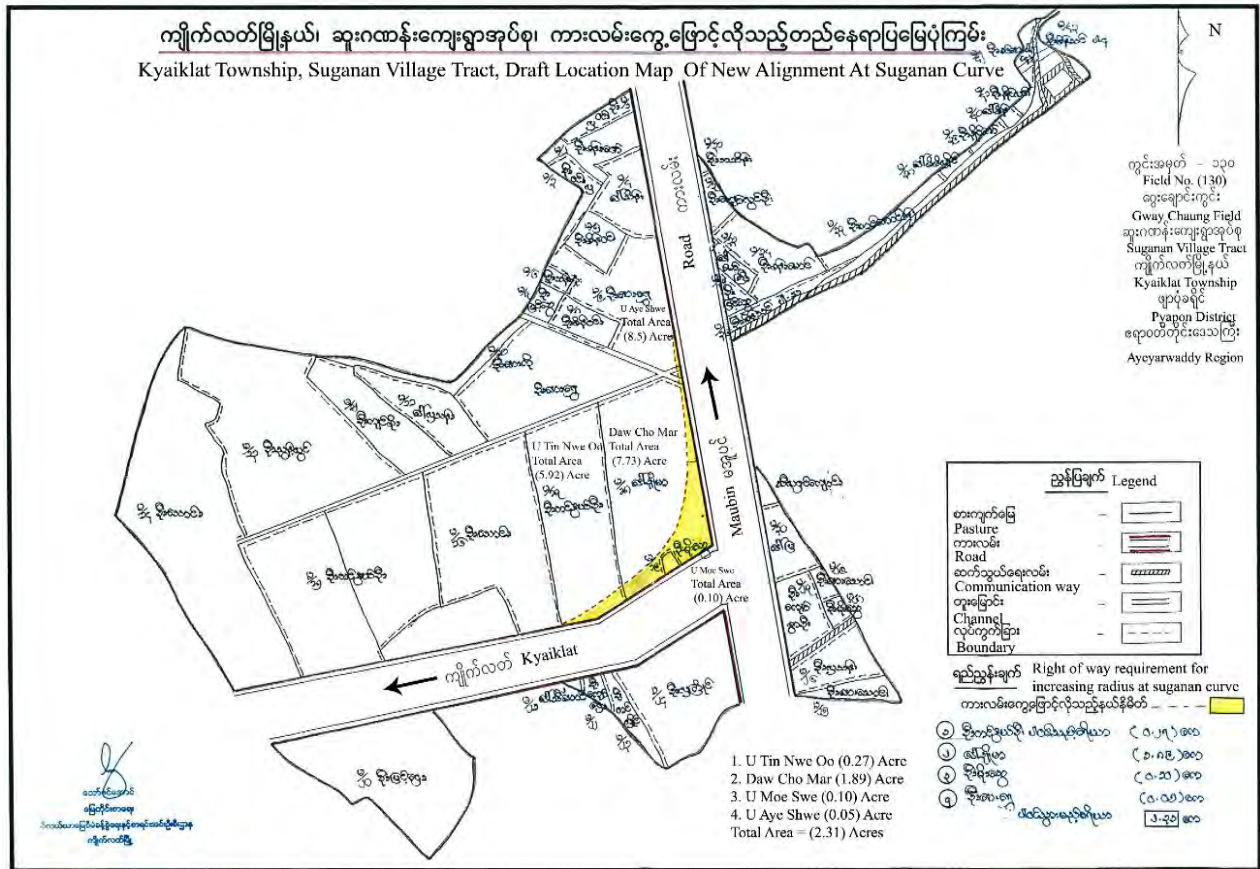
Suggested person and/or institution:

Name and Signature of affected household or Representative (Also indicate name of Representative): Name and Signature _____:

Name and signature of Interviewer: _____

Date accomplished: _____

- B. Indicate in the attached map of the concerned section the location of the specific affected land of the respondent affected household.



Annex B: Replacement Cost Study Results



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Report

on

THE FINDINGS OF THE REPLACEMENT COST STUDY MAUBIN-PHYAPON ROAD REHABILITATION PROJECT

30th May 2016

Future Engineering Group

1. INTRODUCTION

1. The Maubin–Phyapon Road Rehabilitation Project (the Project) funded by the Asian Development Bank (ADB) will rehabilitate a key north south 54.5 km section of road to two lanes with appropriate width shoulders, suitable for all standard highway traffic.

2. A Supplemental Resettlement Plan is developed only for a curve section along Km24+049 of the Project to adjust the horizontal alignment in order to meet vehicle design speed and safety. Adjustment of said alignment will result in the section going out of the existing ROW thus the requirement for additional land as part of the road right-of-way (ROW). Approximately one hectare of new land will be required. Land acquisition for the new ROW will affect agricultural land cultivated to rice alongside the existing road as well as residential structures and vegetable gardens and perennials. There may be several households who will be affected by the acquisition of new land.

3. To meet with the objectives and principles set forth in the ADB Safeguard Policy on Involuntary Resettlement, the supplemental Resettlement Plan developed for this road section will pursue compensation and rehabilitation measures in consonance with the policy of full replacement value for the lost assets (land and non-land assets) of project affected persons.

4. This Terms of Reference (TOR) outlines the principles, tasks and activities that will be carried out by an independent estimator in coordination with the Resettlement Coordinating Committee (RCC) with the assistance of the Ministry of Construction (MOC)-Project Management Unit (PMU) and the Project consultant for the conduct of a replacement cost survey (RCS).

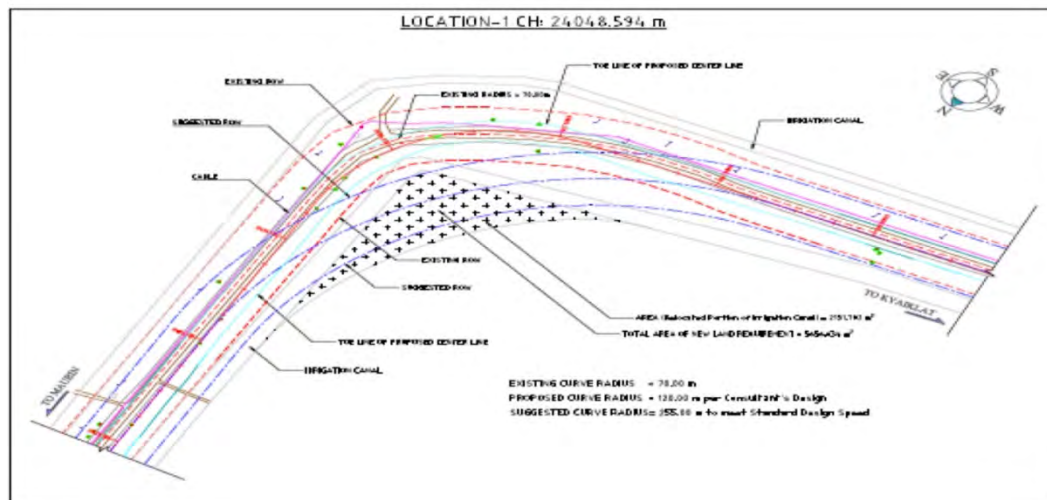


Figure 1: Curve Alignment Section near Suu Ganan Village

2. RATIONALE FOR THE CONDUCT OF THE RCS

2.1 Background of the Survey

5. A survey is required to determine land and structure costs for a curved section of the Project road along Km24+049. The horizontal alignment of the curve within this section will be adjusted in order to meet the standard vehicle operating speed and safety. The shift will result in the new alignment going out of the existing ROW of the road, thus the need to acquire land for additional ROW. Acquisition of land will affect paddy land as well as structure, crops and trees within. In accordance with the ADB Safeguard Policy on Involuntary Resettlement, the affected households or

persons will have to be compensated based on replacement cost at current market prices of affected assets. The purpose of the survey is to estimate the replacement cost of land, structure and crops/trees which are affected.

6. During the ADB Review Mission in February 2016, several sections of the Project road were visited to review the alignment issues therein. The curve alignment along Km24+049 was deemed most precarious to safety consideration. The radius of the horizontal alignment along this section was deemed too low with the angle of the road curve to be almost at 90 degree. There is need to increase the radius of the curve along this section from the existing 70 m to standard 255 m to meet the standard vehicle operating speed and safety consideration. The realignment will result in the shift of the center line of the existing horizontal alignment by as much as 55.153 m to the center line of a new alignment. The alignment shift will bring out the road section from the existing ROW.

7. Approximately 9,348.24 m² of additional land is required for the new road ROW. The newly aligned section will impact on a portion of an irrigation canal and agricultural land cultivated to rice located alongside the Project road. Adjacent to this rice land are structures used as residence as well as fowl roosting facility which may also be affected. The plots beside the structures are cultivated to vegetable crops with some perennials.

2.2 Scope of the Survey

8. The survey is conducted village level, township level and district level in order to get market values from different sources. The survey will acquire market values of similar lands along the Project road in the same village, nearby villages and similar types on lands in the district and region. The execution of field survey and report has to finish within two weeks.

2.3 Focus on Affected Assets

9. The survey team examined the project affected people, structures, trees and plant. Four people were affected on their land, structures, trees and plants by the project. There is one electricity pole fallen in the project area and need to be moved to new location. That electricity pole belongs to Myanmar Electric Power Enterprise, Kyaiklat Township. The detailed results are shown in following pages.

3. METHODOLOGY

10. The on-site visual observations and interview based on formulated interview guide were used in this survey. Information recorded during the survey visit from 19–27 May 2016 and included in the report. There is some common vegetation within these areas, including some trees and grasses. Domestic animals such as chickens and ducks are also associated with the inhabited houses in these areas.

11. The survey team of Future Engineering Group includes the following:

Win Naing Tun	Team Leader
Thapyay Tun	Surveyor
Thiri Htet Naing	Surveyor
Phway Phway	Surveyor
Tin Tun Oo	Driver

3.1 Determining Current Market Prices/Values of Affected Assets

12. Determining current market prices / values of affected assets is very important for RCS. It is the process of determining the value required to compensate and replace lost assets and properties based on prevailing market prices.

3.2 Review of Historical Prices and Values of Affected Assets

13. The survey team collected and reviewed the historical prices and values of similar affected assets such as land, construction materials, trees and plants. There are no officially recorded prices for historical prices and it is based only on said prices (from key informant interviews of those who had recent land transactions). The prices are nearly double in comparison with market prices.

3.3 Determining Owners' Asking Prices

14. The survey team also determined owner's asking prices whether these are close to prices from other sources and market prices. There is no real estate agency in Maubin, Kyaiklat, and Phyapon, so it is difficult to get reliable market price for 2016 to be used as a reference.

4. INVENTORY AND MEASURES OF AFFECTED ASSETS

4.1 Affected Land

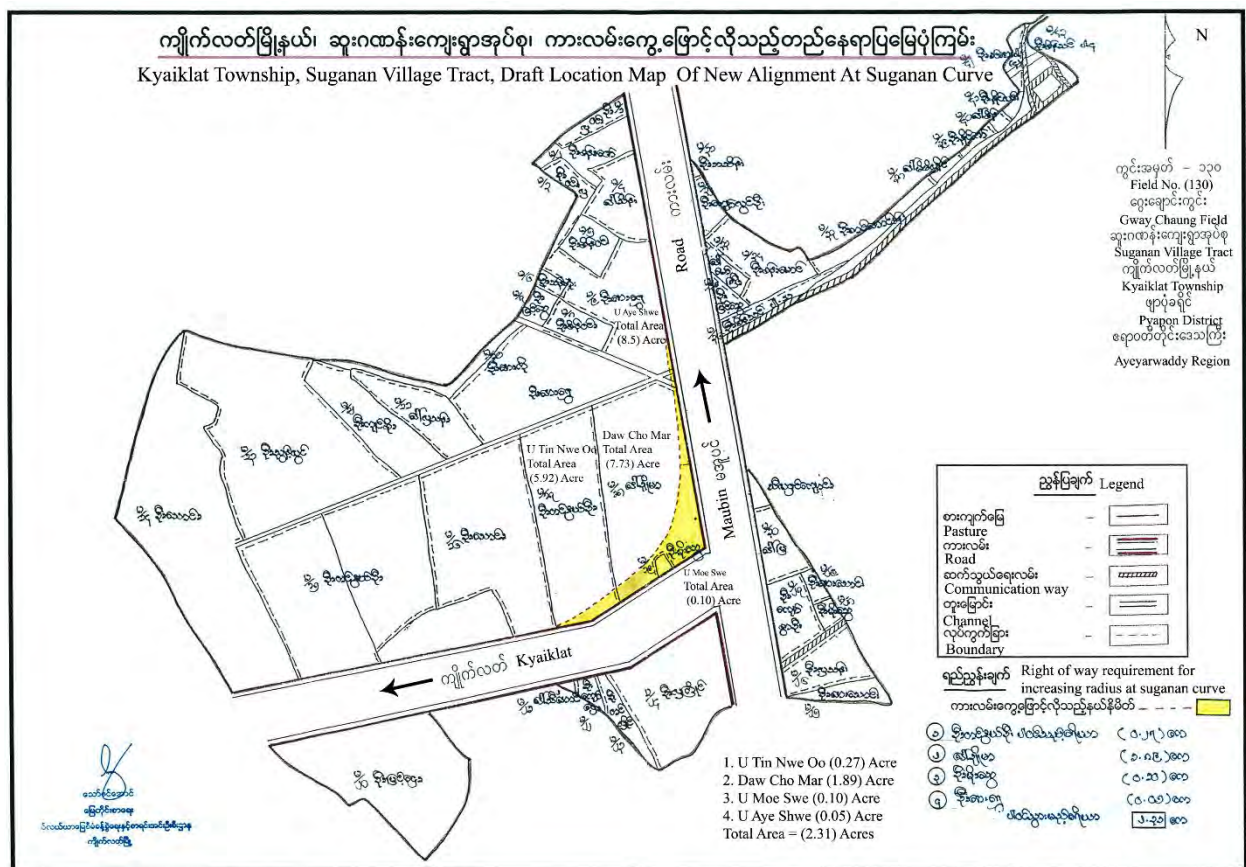


Figure 2: Draft Location Map of Affected Land Area

Table 1: Size of affected land by Land Owner

Sr.	Land Owner	Area (m ²)	Remark
1	Daw Cho Mar	7,648.559 m ²	Including house
2	U Tin New Oo	1,092.651 m ²	
3	U Moe Swe	404.685 m ²	Including secondary structure
4	U Aye Shwe	202.342 m ²	
	Total Area	9,348.278 m²	

4.1 Affected Structures

4.2.1 Daw Cho Mar

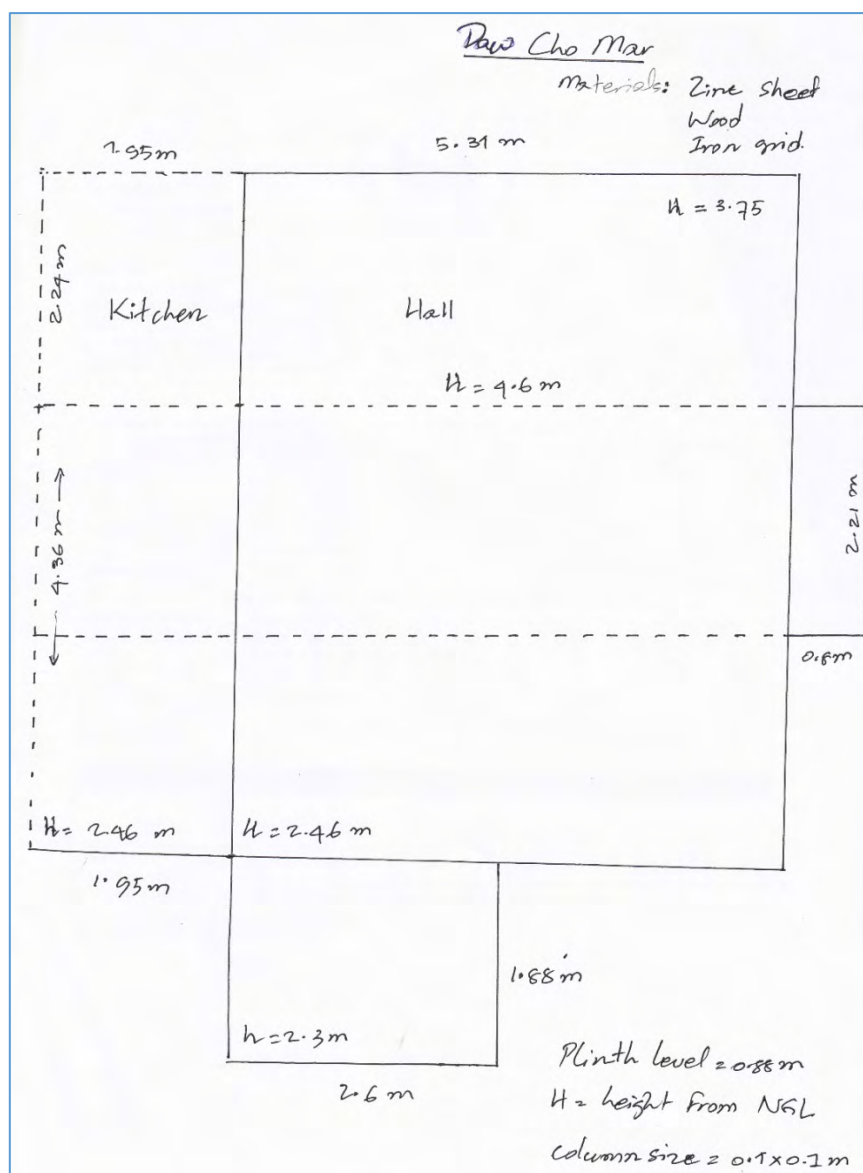


Figure 3: Drawing of Daw Cho Mar's House



Photo 1: Daw Cho Mar's House (8.48 m x 7.26 m x 4.6 m H)

4.2.2 U Moe Swe

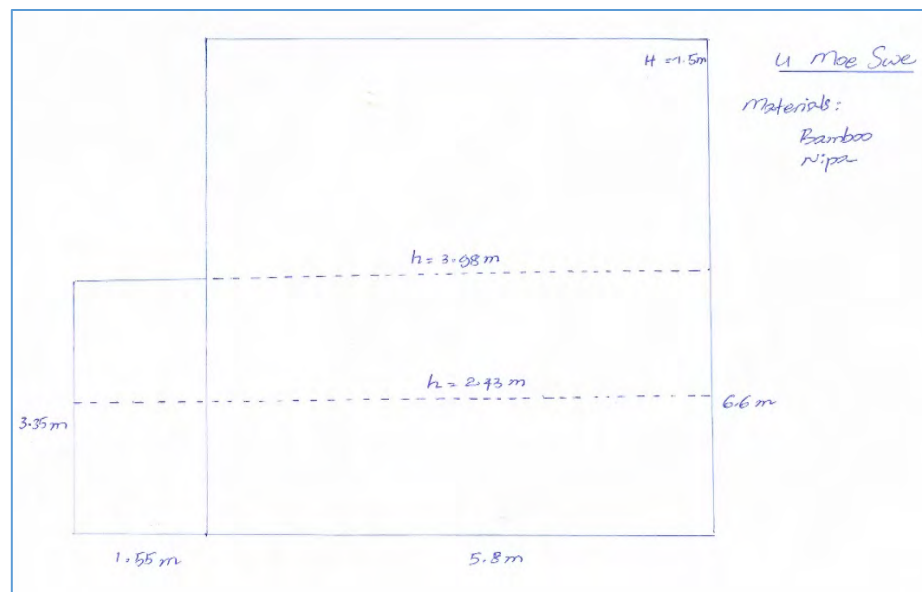


Figure 4: Drawing of U Moe Swe's House (7.35 m x 6.6 m x 3.98 m H)



Photo 2: U Moe Swe's Bamboo and Nipa House (front view)



Photo 3: U Moe Swe's Secondary Structure made of Bamboo and Nipa (side view)

4.2.3 U Aye Shwe



Photo 4: Pigsty of U Aye Shwe

Note: The pigsty is movable and useable; the labor cost is about MMK 6,000.

4.3 Affected Crops and Trees

Table 2: Daw Cho Mar's Affected Crops and Trees

Category	Measures and Prices					Estimated Prices
	Dimension/Size/Fruit bearing Capacity	Price/Value in Kyat/unit				
		Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)		
Fruit bearing Trees/Plants						
Mango 1 st	Dia 1' x 1", H 15 ft	100-300	100	50-75	N/A	20,000
Mango 2 nd	Dia 1' 4" , H 15 ft	100- 350	100	50-75	N/A	25,000
Mango 3 rd	Dia 7" x H 15 ft	50-150	100	50-75	N/A	15,000
Mango 4 th	Dia 6" x H 15 ft	50-150	100	50-75	N/A	15,000
Drum Stick / Horse Radish Tree	Dia 5" x H 20 ft	300	100	100-150	N/A	10,000
Banana	Group	5 clusters	2,000-3000	3,000-4,000	N/A	25,000
None fruit bearing						
Malaysian Padauk 1 st (Aurisia)	Dia 6" x H 20 ft			15,000-20,000*	N/A	15,000
Malaysian Padauk 2 nd (Aurisia)	Dia 6" x H 20 ft			15,000-20,000*	N/A	15,000
Malaysian Padauk 3 rd (Aurisia)	Dia 6" x H 20 ft			15,000-20,000*	N/A	15,000
bamboo	Perimeter 20 ft	200 poles	500	500	N/A	100,000
Lime	Eat leaves	10	500	500	N/A	3,000
Lemon grass	Eat leaves	8	400	400	N/A	500
	Total					285,000

ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.

Source: Markets (Kyaiklat, Phyapon, Maubin), U Myint Htay (Villager, Suu Ganan)

Table 3: U Tin Nwe Oo's Affected Crops And Trees

Category	Measures and Prices					Estimated Prices
	Dimension/ Size/ Fruit bearing Capacity	Price/Value in Kyat/unit				
		Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)		
Fruit bearing Trees/Plants						
Mango 1 st	Dia 7” x H 15 ft	50-250	100	50-75	N/A	15,000
Mango 2 nd	Dia 9” x H 15 ft (4 branches)	50-250	100	50-75	N/A	20,000
Mango 3 rd	Dia 8” x H 10 ft (4 branches)	50-250	100	50-75	N/A	20,000

Category	Measures and Prices					Estimated Prices
	Dimension/ Size/ Fruit bearing Capacity	Price/Value in Kyat/unit				
		Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)		
Mango 4 th	Dia 6” x H 15 ft (2 branches)	50-250	100	50-75	N/A	15,000
Mango 5 th	Dia 5” x H 15 ft	50-250	100	50-75	N/A	15,000
Drum Stick/ Horse Radish Tree	Dia 3” x H 8 ft	200	100	100-150	N/A	10,000
None fruit bearing						
Malaysian Padauk 1 st (Aurisia)	Dia 3” x H 20 ft			10,000-15,000*	N/A	10,000
Malaysian Padauk 2 nd (Aurisia)	Dia 7” x H 20 ft			15,000-20,000*	N/A	15,000
Guava	Dia 2” x H 6 ft			N/A	N/A	5,000
bamboo	H 20 ft	40 poles	500	500	N/A	20,000
MaU	Dia 11” x H 15 ft			25,000*	N/A	25,000
Rain Tree	Dia 4” x H 11 ft			10,000	N/A	10,000
Chilies	For eat	3 viss				6,000
	Total					186,000

ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.

Source: Markets (Kyaiklat, Phyapon, Maubin), U Myint Htay (Villager, Suu Ganan)

Table 4: U Aye Shwe's Affected Crops And Trees

Category	Measures and Prices					Estimated Prices
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit			
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)	
Fruit bearing Trees/Plants	Size	Unit				
Drum Stick/ Horse Radish Tree	Dia 5” x H 20 ft	300	100	100-150	N/A	10,000
None fruit bearing						
Malaysian Padauk 1 st (Aurisia)	Dia 10” x H 20 ft	1	N/A	15,000-20,000*	N/A	15,000
Malaysian Padauk 2 nd (Aurisia)	Dia 1 ft x H 20 ft	1	N/A	15,000-20,000*	N/A	15,000
Malaysian Padauk 3 rd (Aurisia)	Dia 9” x H 20 ft	1	N/A	15,000-20,000*	N/A	15,000

Category	Measures and Prices					Estimated Prices
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit			
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)	
Malaysian Padauk 4 th (Aurisia)	Dia 9” x H 20 ft	1	N/A	15000-20000*	N/A	15,000
bamboo	Dia 2” x H 20 ft	10 poles	500	500	N/A	5,000
Rain Tree	Dia 3 ft x H 20 ft	1	20000	20000	N/A	20,000
Rain Tree	Dia 5 ft x H 20 ft	1	50000	45000	N/A	45,000
Rain Tree	Dia 3’ 4” x H 20 ft	1	50000	45000	N/A	45,000
Sitpin	Dia 7” x H 20 ft	1	N/A		N/A	10,000
Willow Tree	Dia 1 ft x H 15 ft	1	N/A		N/A	15,000
	Total					200,000

ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.

Source: Markets (Kyaiklat, Phyapon, Maubin), U Myint Htay (Villager, Suu Ganan)

5. FINDINGS

15. The survey team investigated and found that houses of Daw Cho Mar and U Moe Swe were affected by the project and U Aye Shwe's pigsty also affected but easy to move to another location. Trees and crops of Daw Cho Mar, U Tin Nwe Oo and U Aye Shwe were affected by the project. All the estimated cost of all PAPs are shown in Table (11).

9.2 Current Market Prices and Values as collected from buyers and seller and/or real estate agents (if there are)

16. The survey team investigated and found out no real estate agents in Maubin, Kyaiklat and Phyapon. The buyer and seller normally agreed on negotiable prices since there were no fixed prices by the government.

17. Myanmar used British system as feet/yard/mile for distance and acre for area measurement. One acre is equivalent to 4046.856 square meters and here converted British system to Metric system.

5.1.1 Affected Paddy Land

Table 5: Affected Paddy Land

Category of Land	Prices and Values in Various Location in the Project Area (kyat/m ²)			
	In Suu Ganan	In Kyaiklat Area	In Maubin Area	In Phyapon Area
Paddy rice land	2,471	7,413	6,000–37,000	11,000–81,000
Residential land	45,000	200,000–700,000		200,000–1,350,000
Pasture land				
Fish Pond				
Others				

Source: 1. Ko Sai, Land/Hotel owner, Phyapon 2. U Myint Htay, Suu Ganan 3. Aung Ko Latt, Land/ construction shop owner, Maubin.

5.1.2 Historical Prices and Values of Lands

Table 6: Historical Prices And Values Of Lands

Category of Land By Location	Prices and Values in Various Location in the Project Area (kyat/m ²)			
	In Suu Ganan	In Kyaiklat Area	In Maubin Area	In Phyapon Area
Paddy rice land	1,500–19,000	7,413	3,000–20,000	5,500–50,000
Residential land		100,000–400,000		100,000–750,000
Fish Pond				
Others				

Source: 1. Ko Sai, Land/Hotel owner, Phyapon 2. U Myint Htay, Suu Ganan 3. Aung Ko Latt, Land/ construction shop owner, Maubin 4. U Tin Aye, Project Manager, Shwetaung Construction

Note: above mentioned historical prices are 2-3 years ago.

5.1.3 Owners' Asking Prices for Land

Table 7: Owners' Asking Prices For Land

Category of Prices	Prices and Values from Land Owners in the Project Area (kyat/m ²)			
	Daw Cho Mar	U Tin New Oo	U Moe Swe	U Aye Shwe
Expected prices	2,100	2,100	2,100	2,100
Historical prices	1,500–1,900	1,500–1,900	1,500–1,900	1,500–1,900

Note: There is no land offer to sell in project area during survey period and asked for expected prices to land owners. They responded using comparison with land prices from other villages which closed to project location.

5.2 Affected Structures

5.2.1 Interview with Owners of structures affected persons and non -affected persons)

18. Daw Cho Mar's house is affected by the project. Her house was built one month ago and she moved from nearby place where she lived for almost 28 years. Her house built using wood, zinc sheet, iron nail, Formica, concrete foots, tools and iron grid. 3.0" x 1.5" wood cuttings are used as columns and 6.0" x 0.6" wood cuttings used for flooring and walls. Corrugated zinc sheet and 4 angles zine sheets are used for wall and roofing. She purchased all the materials from "Shwe Zin Oo" construction materials and hardware shop in Kyaiklat town. The materials are from Yangon and Ayeyarwaddy Regions. The materials were purchased one month ago and costs of materials are as follows:

- 3" x 1.5" wood cutting 1 ft = MMK 325 (Low quality)
- 6" x 0.6" wood cutting 1 ft = MMK 325 (Low quality)
- Iron Nails 1 Viss > 1.5" = MMK 1,500 and < 1.5" = MMK 2,000
- Zinc sheet 1 ft = MMK 500 – 1,000
- Iron Grid 2" x 2" 1 ft = MMK 1,800

19. The total cost of material is about MMK 700,000. The cost of carpenters and labor charges are about MMK 200,000 and food for labors is MMK 100,000. Total cost of Daw Cho Mar's house is about MMK 1,000,000. The distance from her location to construction material shop is about 4.5 kilometers and transportation cost is about 25,000 Kyats. The wood and iron roofing materials are reusable. Half of materials cost (350,000) should be calculated for replacement cost estimate while labor cost should be considered for overall construction.

20. The estimated replacement cost for Daw Cho Mar is 650,000 Kyats.

21. U Moe Swe's secondary structure was affected by the project. His structure was built with bamboo and nipa. He purchased the bamboo and nipa from Kyaiklat and transported by tractor to his location.

Bamboo pole	1 pole	= MMK 500–1,000
Nipa	100	= MMK 8,500–10,000

22. He used about 800 nipa and 200 bamboo poles. The labor charge is about MMK 100,000. The estimated cost for U Moe Swe's structure is MMK 250,000.

5.2.2 Interview with Construction Materials Vendors

23. The survey team made an interview with construction materials vendors from Kyaiklat, Phyappon and Maubin. According to information from construction materials vendors, the local people used wood block, wood column, wood cutting, zinc sheets, iron grids, cement, sand, bricks, iron nails, Taplin, plastics, bamboo pole, bamboo weaving and nipa. The materials are from Yangon except bamboo and nipa which are produced from nearby villages.

24. The wood cuttings are sold in tonnage for volume sales. Sometime, wood cuttings are sold by length such as feet or yards or meters. The hardwood like Pinkado is 1 ton = MMK 1,400,000; In is 1 ton = MMK 750,000; Hardwood (Htaukkyant) 1 ton = MMK = 900,000; and Taungthayat 1 ton = MMK 600,000. The zinc sheets available in different sizes 1 ft to 12 ft in length and prices vary from MMK 500–1,200. Iron nails are normally sold by weight: 1 viss = MMK 1,500–2000. One pack of first grade cement is about 6,000.

5.2.3 Interviews with contractors

25. The survey team made an interview with contractors. Most of the contractors are not locally-based and they all are from Yangon. They worked on PAE system and 1 square feet is roughly MMK 16,000–23,000 without M & E installation.




26. They purchased predominant building materials from local construction materials shops. The local shops included transportations cost and add-up on prices.




27. The labor costs are varied and depending on skills. The senior carpenters and brick mason costs is between MMK 10,000 and 15,000. The unskilled labor cost is MMK 4,000-6,000.



28. The average construction cost per square meter is about MMK 150,000–230,000. The provincial construction prices for different types or categories of structures are valid for one month.



5.3 Affected Crops and Trees



Table 8: Daw Cho Mar's affected crops and trees

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity	Price/Value in Kyat/unit						
		Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)				
Fruit bearing Trees/Plants								
Mango 1 st	Dia 1' x 1", H 15 ft	50-300	100	50-75	N/A	20,000		indica
Mango 2 nd	Dia 1' 4", H 15 ft	50- 350	100	50-75	N/A	25,000		indica
Mango 3 rd	Dia 7" x H 15 ft	50-250	100	50-75	N/A	15,000		indica

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)			
Mango 4 th	Dia 6" x H 15 ft	50-250	100	50-75	N/A	15,000		indica
Drum Stick	Dia 5" x H 20 ft	200	100	100-150	N/A	10,000		oleifera
Banana	Group	5 bunch	2000-3000	3,000-4,000	N/A	25,000		acuminata

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity	Price/Value in Kyat/unit						
		Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)				
None fruit bearing								
Malaysian Padauk 1 st (Aurisia)	Dia 6” x H 20 ft			15,000-20,000*	N/A	15,000		auriculiformis
Malaysian Padauk 2 nd (Aurisia)	Dia 6” x H 20 ft			15,000-20,000*	N/A	15,000		auriculiformis



Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)			
Malaysian Padauk 3 rd (Aurisia)	Dia 6” x H 20 ft			15,000-20,000*	N/A	15,000		auriculiformis
bamboo	Perimeter 20 ft	200 poles	500	500	N/A	100,000		



Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price/ Unit (MMK)	Assessed price (MMK)	Government price (Agriculture/ Forestry)			
Lime	Eat leaves	10	500	500	N/A	3,000		Limon
Lemon grass	Eat leaves	8	400	400	N/A	500		citratus



ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.



Source: Markets (Kyaiklat, Phyaapon, Maubin), U Myint Htay (Villager, Suganan)



Table 9: U Tin New Oo's affected crops and trees


Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Fruit bearing Trees/Plants								
Mango 1 st	Dia 7" x H 15 ft	50-200	100	50-75	N/A	15,000		indica
Mango 2 nd	Dia 9" x H 15 ft (4 branches)	50- 250	100	50-75	N/A	20,000		indica


Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Mango 3 rd	Dia 8” x H 10 ft (4 branches)	50-250	100	50-75	N/A	20,000		indica
Mango 4 th	Dia 6” x H 15 ft (2 branches)	50-250	100	50-75	N/A	15,000		indica

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Mango 5 th	Dia 5” x H 15 ft	50-250	100	50-75	N/A	15,000		indica
Drum Stick	Dia 3” x H 8 ft	200	100	100-150	N/A	10,000		oleifera
None fruit bearing								

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Malaysian Padauk 1 st (Aurisia)	Dia 3” x H 20 ft			10000-15000*	N/A	10,000		auriculifor mis
Malaysian Padauk 2 nd (Aurisia)	Dia 7” x H 20 ft			15000-20000*	N/A	15,000		auriculifor mis

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Guava	Dia 2” x H 6 ft			N/A	N/A	5,000		
bamboos	H 20 ft	40 poles	500	500	N/A	20,000		



Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity	Price/Value in Kyat/unit						
		Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)				
MaU	Dia 11” x H 15 ft		25,000*	N/A	25,000			
Rain Tree	Dia 4” x H 11 ft		10,000	N/A	10,000		saman	



Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Chilies	For eat	3 viss				6,000		annuum



ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.

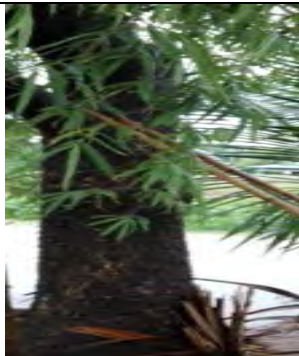

Source: Markets (Kyaiklat, Phyapon, Maubin), U Myint Htay (Villager, Suganan)



Table (10) U Aye Shwe's affected crops and trees


Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Fruit bearing Trees/Plants	Size	Unit						
Drum Stick	Dia 5" x H 20 ft	300	100	100-150	N/A	10,000		oleifera
None fruit bearing								
Malaysian Padauk 1 st (Aurisia)	Dia 10" x H 20 ft	1		15,000-20,000*	N/A	15,000		auriculiformis

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Malaysian Padauk 2 nd (Aurisia)	Dia 1 ft x H 20 ft	1		15,000-20,000*	N/A	15,000		auriculiformis
Malaysian Padauk 3 rd (Aurisia)	Dia 9" x H 20 ft	1		15,000-20,000*	N/A	15,000		auriculiformis

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Malaysian Padauk 4 th (Aurisia)	Dia 9" x H 20 ft	1		15,000-20,000*	N/A	15,000		auriculiformis
bamboo	Dia 2" x H 20 ft	10 poles	500	500	N/A	5,000		rostrata

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Rain Tree	Dia 3 ft x H 20 ft	1	20,000	20,000	N/A	20,000		citratus
Rain Tree	Dia 5 ft x H 20 ft	1	50,000	45,000	N/A	45,000		citratus

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Rain Tree	Dia 3' 4" x H 20 ft	1	50,000	45,000	N/A	45,000		citratatus
Sitpin	Dia 7" x H 20 ft	1			N/A	10,000		lebbeck

Category	Measures and Prices					Estimated Prices	Photo	Scientific Name
	Dimension/ Size/ Fruit bearing Capacity		Price/Value in Kyat/unit					
			Owner Asking Price / Unit (MMK)	Assessed price (MMK)	Government price (Agriculture / Forestry)			
Willow Tree	Dia 1 ft x H 15 ft	1			N/A	15,000		tetrasperma

ft = feet; H = height; MMK = Myanmar Kyat; N/A = not applicable.

Source: Markets (Kyaiklat, Phyapon, Maubin), U Myint Htay (Villager, Suganan)

6. SUMMARY, CONCLUSION AND RECOMMENDATION

29. The purpose of this report is to collect market values from Maubin District, Phyapon District and Kyaiklat Township for the road rehabilitation of Maubin – Kyaiklat – Phyapon in order to determine compensation rates for Supplemental Resettlement Plan.

30. According to the TOR provided by the SMEC, Future Engineering Company collected the market value for land, structures, tree and crops in the area. Data obtained by the survey is submitted to SMEC.

31. The survey was conducted during 19th – 26th May 2016 along the Maubin – Kyaiklat – Phyapon road. There were 4 PAPs and one electricity pole which belong to Myanmar Electric Enterprise. The team identified in the survey area using visual observation and interviews. Four of the PAP's lands were affected by the project and found that these lands are not registered as farmland originally known as pasture land according to interview with Land Record Department, Kyaiklat Township. But according to interview with PAPs, they worked and lived there for more than 20 years. The team identified that two houses, perennial trees and plants were affected by the project.

32. The survey also team visited to General Administrative Department, Agricultural Land Management Committee, Construction Department, Construction Materials Shops, Hardware Shops, Markets, Villages, Project Affected People and Maubin University. The team collected all possible information from different sources against the bad weather which is raining all the day after the cyclone in west coast of Myanmar and Bangladesh.

33. This report could not have been possible without the support and the help of a number of people especially, PAPs, authorities and local people for their active participation in interviews and giving a hand to me. Here I would like to thank and appreciation my team members and Ko Myo Min Kyaw and Ma Thin Thin from SMEC for those who supported me in many different ways.

34. The survey team collected prices based on different categories of land, buildings, trees and plant. The RCS survey is very important for determining compensation rates and the most reliable information for market values is very important to prepare for compensation scheme. On the other hand, the project area is different with big cities where we can get more reliable information such as prices from real estate agencies, markets rates from construction companies, etc. Most of the construction contractors were hired from Yangon based on PAE (Per Area Estimation) system or piece works. So, the costs are not much different with Yangon except raw labor cost. The team checked data quality and confirmed with sources if required and prepared draft report on 27th – 29th May 2016.

35. The Republic of the Union of Myanmar follows British Common Law system and still used most of the Laws from colonial period, i.e. Panel Code. The following documents should use for consideration for the resettlement issues.

- Farmland Rules - Notification No 62/2012 (English)
- Vacant, Fallow and Virgin Lands Management Rules – Notification No. 1/2012
- Vacant, Fallow and Virgin Land Management Act – Pyidaungsu Hluttaw Law No. 10/2012

36. According to the interviews with PAPs and non PAPs, there is no reliable current or market prices for land and perennial trees. So, all the issues should be resolved amicably for mutual benefit. The PAPs understand that project will provide most benefit to local communities and regions. They cannot say how much they want to get compensation amount but it should be based on current market prices and they like to negotiate in order for both parties to reach an agreement. The project owner should be informed by at least 2 months prior to any construction activities being undertaken; by doing so the PAPs can prepare for whatever necessities.

Table 11: Estimated Cost for PAP's properties

Name of affected households	Compensation for Land Loss	Compensation for Structure Loss	Compensation for loss of Trees/Crops	TOTAL
U Tin New Oo	2,294,567.10		186,000.00	2,480,567.10
Daw Cho Mar	16,061,973.90	650,000.00	285,000.00	16,996,973.90
U Moe Swe	849,839.76	250,000.00		1,099,839.76
U Aye Shwe	424,919.88		200,000.00	624,919.88
Total	19,631,300.64	900,000.00	671,000.00	21,202,300.64

APPENDIX

1. **Land Registration Cost.** The Land Registration Cost is MMK 500/land owner and not the on size of the land.
2. **Taxes on crop.** The above mentioned crops taxes are based on the yield of the crops.

Table 12: Taxes on crops

Sr.	Land Class	Kyats/ Acre	Remarks
1	R1	6.00	
	R2	5.75	
3	R3	4.75	
4	R4	3.50	
5	R5	3.00	
6	R6	2.25	

Source: U Thang Khant, Deputy Officer, Agricultural Land Management Committee, Kyaiklat Township.
Source: U Thaung Khant, Deputy Officer, Land record department (0949722989)



Photo 5: Interview with Daw Khin Tin, AE, DOH, Kyaiklat
Photo 6: Interview with U Tin Aye, Project manager, Shwe Taung Co. Ltd.



Photo 7: Interview with Ko Saing, Hotel and Land owner
Photo 8: Interview with Villager from Thaleik Village, Phyapon
Aung Naing Thu Hotel, Phyapon





Photo 9: Interview with House Owner in Kyaiklat
Photo 10: Interview with PAPs in Suu Ganan Village



Photo 11: Interview with Land owner, Kyonsote Village, Phyapon Township



Photo 12: Interview with Land, House, Construction

Photo 13: Measuring dimension of PAPs' structure

Materials Shop owner, U Aung Ko Latt, Maubin

Table 13: Residential Land Price / m² (2014–2016)

Location	Class 1	Class 2	Class 3	Class 4
Phyapon	1,750,000	900,000	450,000	230,000
Maubin	1,750,000	900,000	450,000	230,000
Kyaiklat	1,000,000	700,000	350,000	150,000
Suu Ganan / Kyaiklat				45,000
Poeswar / Phyapon				45,000
Kyonsote / Maubin				45,000

Source: Land/ House/ Hotel owners (Kyaiklat, Maubin, Phyapon)

Table 14: Paddy Land Price / m² (2014–2016)

Location	Class 1	Class 2	Class 3	Class 4
Phyapon	8,000-37,000	1200	500	200
Maubin	8,000-37,000	1200	500	200
Kyaiklat	8,000	1200	500	200
Suu Ganan / Kyaiklat	1,800-3,500	1,200	500	200
Poeswar/ Phyapon	1,800-3,500	1,200	500	200
Kyonsote / Maubin	1,800-3,500	1,200	500	200

Source: Land/ House/ Hotel owners (Kyaiklat, Maubin, Phyapon)

Table 15: Material Prices

Location	Wood / Ton	Bamboo/ Pole	Nipa/ 100 pcs	Cement/ Package	Zinc Sheet/ Feet	Iron Grid/ Feet
Phyapon	600,000–1,400,000	300–1,200	8,500–10,000	6,000	500–1,200	1,200
Maubin	600,000–1,400,000	300–1,200	8,500–10,000	6,000	500–1,200	1,200
Kyaiklat	600,000–1,400,000	300–1,200	8,500–10,000	6,000	500–1,200	1,200

Construction Cost

PAE system = 1 square feet

Carpenters

Masons

Raw Labor

Agricultural Labor

MMK 16,500–23,000 (source: Shwetaung Construction Co., Ltd.)

MMK 8,000–15,000/day

MMK 8,000–15,000 Kyat/ Day

MMK 4,000–5,000 Kyat/ Day

MMK 4,000/day (Female); MMK 5,000/day (Male)

Annex D. Application of the RCS Findings on the Compensation Measures for the Identified Losses

Complete List, Scope of Impacts and the Proposed Compensation per Affected Household

1. Total number of affected households and Types of Assets Affected by the Project

Name of affected households	Paddy land (ha)	House/ Other types of structures	Number/Categories of trees/plants affected
U Tin Nwe Oo	0.1092651	None	Mango trees – (5); Malaysian padauk (timber) – (2); guava – No fruit bearing age; bamboo cluster – approx. 40 poles; MaU (1); rain tree (i); chillies -
Daw Cho Mar	0.7648559	1 Residential house (full impact)	Mango trees – (4); drum stick tree (1); banana (5 clusters); Malaysian padauk (timber) – 3; bamboos (approx. 200 poles); lime plant and lemon grass
U Moe Swe	0.0404685	1 structure for housing fowls	None
U Aye Shwe	0.0202342	None	Drum stick (fruit bearing – (1); Malaysian padauk (timber) – (4); bamboo cluster (10 poles); rain tree – 3; Sitpin – (1); willow tree – 1
Total	0.9348237	2	

Source: Census, IOL and DMS Survey, May 2016

2. Proposed Compensation Measure for Lost Assets

2.1 For Loss of Paddy Land

Name of affected households	Paddy land (ha)	Replacement Cost per m ²	Total Compensation
U Tin Nwe Oo	0.1092651	2,100	2,294,567.10
Daw Cho Mar	0.7648559	2,100	16,061,973.90
U Moe Swe	0.0404685	2,100	849,839.76
U Aye Shwe	0.0202342	2,100	424,919.88
Total	0.9348237		19,631,300.64

2.2. For Loss of Structures

Name of affected households	House/ Other types of structures	Details: Dimension and description of materials used	Replacement Cost at full replacement price	Total Compensation
U Tin Nwe Oo	None			
Daw Cho Mar	1 Residential house (full)	8.48 m x 7.26 m x 4.6 m H	Per findings of RCS	650,000.00
U Moe Swe	1 structure for housing fowls	7.35 m x 6.6 m x 3.98 m H	Per findings of RCS	250,000.00
U Aye Shwe	None			
Total	2			900,000.00

m = meter; RCS = replacement cost survey.

2.3 For loss of crops and trees

Name of affected households	Trees/ crops (Number#)	Basis for replacement cost	Total Compensation
U Tin Nwe Oo	Mango trees – (5); Malaysian padauk (timber) – (2); guava – No fruit bearing age; bamboo cluster – approx. 40 poles; MaU (1); rain tree (i); chillies -		186,000.00
Daw Cho Mar	Mango trees – (4); drum stick tree (1); banana (5 clusters); Malaysian padauk (timber) – 3; bamboos (approx.. 200 poles); lime plant and lemon grass		285,000.00
U Moe Swe	None		
U Aye Shwe	Drum stick (fruit bearing – (1); Malaysian padauk (timber) – (4); bamboo cluster (10 poles); rain tree – 3; Sitpin – (1); willow tree – 1		200,000.00
Total			591,000.00

Appendix 1: TOR for Replacement Cost Survey

MAUBIN PHYAPON ROAD REHABILITATION PROJECT TERMS OF REFERENCE REPLACEMENT COST SURVEY FOR YEAR 2016

I. INTRODUCTION

1. The Maubin-Phyapon Road Rehabilitation Project (the Project) funded by the Asian Development Bank (ADB) will rehabilitate a key north south 54.5 km section of road to two lanes with appropriate width shoulders, suitable for all standard highway traffic. A Supplemental Resettlement Plan is developed only for a curve section along Km24+049 of the Project to adjust the horizontal alignment in order to meet vehicle design speed and safety. Adjustment of said alignment will result in the section going out of the existing ROW thus the requirement for additional land as part of the road right-of-way (ROW). Approximately one hectare of new land will be required. Land acquisition for the new ROW will affect agricultural land cultivated to rice alongside the existing road as well as residential structures and vegetable gardens and perennials. There may be several households who will be affected by the acquisition of new land. To meet with the objectives and principles set forth in the ADB Safeguard Policy on Involuntary Resettlement, the supplemental Resettlement Plan developed for this road section should pursue compensation and rehabilitation measures in consonance with the policy of full replacement value for the lost assets (land and non-land assets) of project affected persons.

2. This Terms of Reference (TOR) outlines the principles, tasks and activities that will be carried out by the consultant in close consultation and coordination with the Resettlement Coordinating Committee (RCC) and the MOC-PMU for the conduct of a replacement cost survey.

II. REASONS FOR SURVEY

3. A survey is required to determine land and structure costs for a curved section of the Project road along Km24+049. The horizontal alignment of the curve within this section will be adjusted in order to meet the standard vehicle operating speed and safety. The shift will result in the new alignment going out of the existing ROW of the road, thus the need to acquire land for additional ROW. Acquisition of land will affect paddy land as well as structure, crops and trees within. In accordance with the ADB Safeguard Policy on Involuntary Resettlement, the affected households or persons will have to be compensated based on replacement cost at current market prices of affected assets. The purpose of the survey is to estimate the replacement cost of land, structure and crops/trees which are affected.

III. GENERAL REQUIREMENTS

A. Location

4. During the ADB Review Mission in February 2016, several sections of the Project road were visited to review the alignment issues therein. The curve alignment along Km24+049 was deemed most precarious to safety consideration. The radius of the horizontal alignment along this section was deemed too low with the angle of the road curve to be almost at 90 degrees.

5. There is need to increase the radius of the curve along this section from the existing 70 m to standard 255 m to meet the standard vehicle operating speed and safety consideration. The realignment will result in the shift of the centerline of the existing horizontal alignment by as much as 55.153 m to the centerline of a new alignment. The alignment shift will bring out the road section from the existing right of way (ROW).

6. Approximately 0.9348 hectares of additional land is required for the new road ROW. The newly aligned section will impact on a portion of an irrigation canal and agricultural land cultivated to rice located alongside the Project road. Adjacent to this rice land are structures used as shelter as well as fowls' roosting facility which will also be affected. The plots beside the structures are cultivated to vegetable crops with some perennials. See **Figure 1** below for the drawing of the horizontal alignment along Km24+049. **Photo 1** gives a view of the curve requiring the alignment adjustment.

7. This will be the section that will be surveyed and replacement cost estimated based on market values of similar lands along the Project road in the same village, nearby villages and similar types on lands in the district and region.

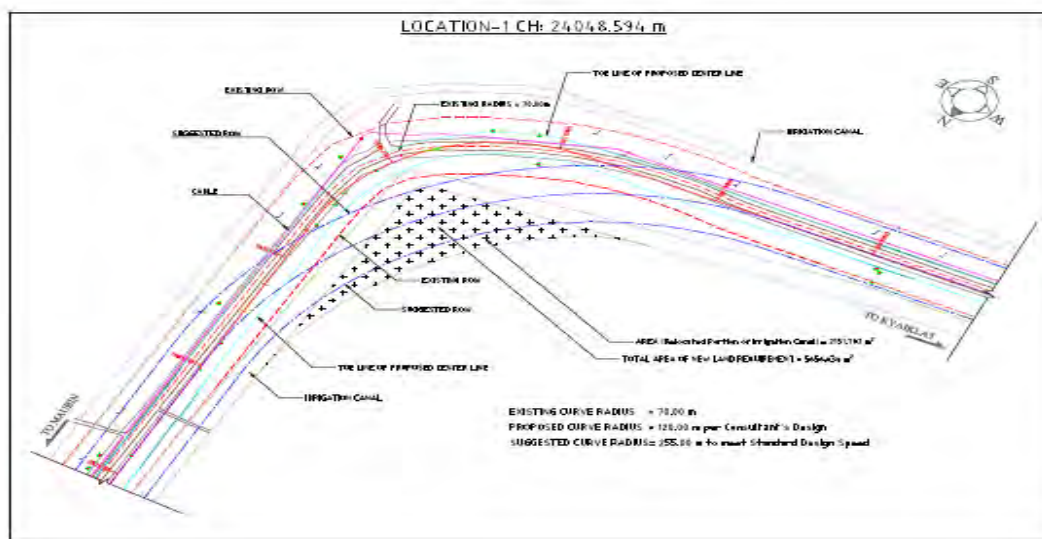


Figure 2: Adjustment required at Km24+049, ICB1 Contract



Photo 1: View of the road section where the curve alignment needs adjust

B. Procedure for the conduct of Replacement Cost Survey

8. Replacement cost survey (RCS) is the process of determining the value required to compensate and replace lost assets and properties based on prevailing market prices. Under the ADB safeguard policies, compensation for lost properties will be calculated based on full replacement values; in other words, compensation equal to that which will enable the AP/H to replace lost assets and restore livelihood to the level prior to resettlement.

- (i) Approach. Replacement Cost = Current Market Value + Transaction Cost. The determination of replacement costs will be carried out based on information collected from both desk research and direct interviews (survey) with people (project affected and non-affected) and relevant institutions, real estate players (buyers and sellers), etc. in project location. Desk research will focus on relevant records, associated documents of government authorities (land administration office, tax departments, etc.), both at central and local levels (division, district and township). However, these documents will serve as reference only. As the work is aimed at obtaining reasonable replacement costs for different types of affected assets, **market evidences** are the factors on which the formulation of these costs will be based primarily. The survey hopes to generate relevant and reliable information to make reliable estimation of cost needed to compensate for lost assets.
- (ii) Basis for Valuation of Affected Assets. The basis for value assessment of various categories of land (agricultural, garden, residential, etc.) and other affected assets (structures, trees/crops) will be (i) research and market investigations carried out by a Valuator¹³, (ii) accumulated market evidences already held by valuation organizations (if any), (iii) the results of any valuation

¹³ In this case, the Valuator maybe appointed by the Resettlement Coordinating Committee (RCC) of Kyaiklat Township. It should be an independent entity (individual or organization) not related in any way to the local government entity or public operation.

surveys carried out by any other organization/individual expert that is available (similar projects); (iv) documents from the local (township/district) land administration records office; and (v) survey maps of the affected land with other affected assets therein as well as the adjacent lands in the area to be valued.

- (iii) Data collection. Interviews will be conducted based on a formulated interview guide. The number of respondents to be interviewed (surveyed) will be based on representation of samples of different categories of affected assets (land, structures and other fixed assets/properties).

Land. Price of land will be differentiated based on the use of land, including: Residential land; Garden land; Agricultural land (rice land, corn land, fruit orchard, etc.); Land with water surface (fishpond) for aquaculture.

The objective is to establish the **base rate** for various categories of land in order to determine whether land prices promulgated by national and local authorities are congruent with actual value as basis for compensation and whether the amount of compensation for such categories of land is sufficient or not to purchase the same quality and quantity of land. The establishment of compensation for the loss of land is based on its market value. The best way to obtain this market value is to gather data of some sales of land, which have just taken place. However, the transfer of land use right does not always go along with such sales, which makes details of such sales not recorded. The Valuator will make the best effort to collect sales evidence to support the verification of prices similar to Kyaiklat condition. In addition, information to base the establishment will be collected from direct interviews with owners of land in Project affected area, including those, whose land is affected and those whose land is not. The interviews will cover the following issues: (i) recent land use rights transfer in the area and (ii) price, at which owners (affected and not affected persons) are willing to sell their land and buyer willing to buy the lands (willing sell-willing buy).

Apart from determining the rates for various categories of land, the Valuator also needs to determine the transaction costs related to land acquisition/purchase, such as administrative charges, taxes, registration and titling costs. The Valuator should bear in mind that when establishing replacement cost for each type of assets, transaction costs should be clearly specified and should be shouldered by the Project and added as part of compensation to the affected households.

Structures: (a) Interviews with owners of structures (main materials used for the existing structures; category (size and type/variety of materials sold) of shops where construction materials were purchased; distance to transport materials from store to AP location; origin of the materials (local or overseas); costs of various materials; labor cost); and (b) interviews with designers and construction contractors (main materials which are most used by the local people to build their structures; costs of those main materials; cost of labor; average construction cost (cost per m² – floor area) for different types of houses according to different categories; and (c) validation of provincial construction prices (cost per m² – floor area for each category).

The valuation of affected structures is based on the ***principle of replacement cost***. Affected structures are inventoried and measured based on its dimension, materials used in the construction, labor cost and basic amenities present therein. Replacement value is then calculated based on all of these considerations. A survey of the cost of similar materials in the area is undertaken and compared with the price index of comparable materials in the recent records of the concerned district/township, which has already been undertaking similar price inventory based on their experience on compensation for similar items in similar projects.

Other privately-owned immovable assets and properties that are affected will be valued according to the principle of replacement value.

Crops and Trees. As for the affected trees, an inventory of all affected trees in terms of type, age, size, fruit-bearing capacity is undertaken and considered in pricing the replacement value. Crop on the other hand is allowed to be harvested but if unavoidably affected by the scheduled construction will also be valued based on replacement (category of crop and potential harvest and gross income generated in consideration of production input). The objective of this procedure is to determine whether the local prices paid to affected persons are equivalent, lower or higher than the average market price. The basis of the establishment is to determine the average market price for each type of crops and trees. The information to base the establishment will be collected from (a) interviews with people who own the same crops and trees in the locality. The interviews will cover price, at which owners are willing to sell each type of their crops and trees. The prices for perennial trees will be differentiated by the (a) age of the trees and (b) the average market cost to replace such trees. The Valuator will investigate the sales price of outputs of different types of crops and trees in the market.

The Valuator also needs to determine the transaction costs involved such as administrative charges, taxes, registration and building permit costs. The Valuator should bear in mind that when establishing replacement cost for each type of assets, transaction costs should be clearly specified to ensure that these expenses or costs are shouldered by the Project and should not be deducted from the compensation payment that each AP will receive. A separate section in the report should present how transaction costs are calculated.

C. Qualifications of Survey Consultant Staff

9. The Replacement Cost Survey shall be carried out by a qualified Land Valuation Specialist with appropriate background and experience capable of rapidly assessing the market value of affected land, structures, crops and trees in the areas of the Maubin - Phyapon Road Rehabilitation Project. The Valuator for the conduct of the RCS needs to comply with the following requirements:

- Experienced with the service on evaluation with the replacement costs for lands and non-land assets and prepare the report on this survey for the international source financed projects in Myanmar such as the projects financed by the Asian Development Bank (ADB) etc.; and
- Individual not under the management of the concerned township or district.

IV. SCOPE OF WORK

A. Land Valuation

10. Determining compensation rates for land will be based primarily on prevailing market values. Information on prevailing market values is obtained from records, with private persons or relevant government authorities, of recent land sales. However, the purchase/transfer of land use rights is sometimes not recorded. In some places, there are no recent purchase/transfers of land use rights; and if there are, the cost are often undervalued to avoid the excessive taxation that goes with it. In this situation, the RCS will rely on the opinions of authorities, people in real estate business, and the local population in approximating the replacement cost of land based on productivity and locational attributes. The RCS will also take into consideration the opinions of the potentially affected persons (AP) on how much they are willing to sell their land.

11. In addition to establishing the replacement cost of various types of land, the RCS will determine the transaction costs involved in land use rights transfer, such as administrative charges, taxes, registration and titling costs. The RCS will bear in mind that when establishing replacement cost for each type of assets, transaction costs are clearly specified.

12. Based on the data collected, prices of land shall be summarized following the tables below. The definition of different categories of land shall be as follows:

- Residential land: land along the Project road to be acquired as ROW.
- Garden land: recorded for some time as used for garden purposes. They are normally adjacent to the residential land.
- Agriculture land: land within the Project road ROW cultivated for agriculture purposes.
- Aqua-land: land within the Project road ROW utilized for shrimp and fish culture.
- Forest/Pasture land: land within the Project road ROW utilized for planting mangroves or other forest trees and products or fallow and utilized as grazing area. Forest/pasture land plots within the project road ROW may either be government-owned and/private owned.

B. Cost Calculation of Existing Structures: Residential and Commercial

13. The affected structures in the project area can be physically identified and classified into houses and shops.

14. Below is the summary list on cost calculation for constructions. The rates indicated in the Table 2 below are based on Government (division, district, township) dictated rates as well as prevailing market prices (2016). As all affected shops are built based on same principle as a house, of which cost estimates used are the house prototype and category.

Table 2: Summary of unit cost for different types of structure by location and construction types

Type	Government Rates (2016) (kyat/m ²)			Estimated Market Rate (2016) (kyat/m ²)		
	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township
House (residential)						
Class 1						
Class 2						
Class 3						
Class 4						
Shop/commercial structures						

Note: Class Type -Please check construction type used to categorize building structures in Project township/district/division and apply herein.

Table 3: Other secondary structures affected within the required land, if there are

Type	Government Rates (2016) (kyat/m ²)			Estimated Market Rate (2016) (kyat/m ²)		
	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township
Bus stops						
Fence						
Institutional facilities						

C. Cost Estimates of Affected Crops and Trees

15. As much as possible, crops in current cultivation within the affected parcel of land should be allowed to be harvested. If construction schedule will not accommodate such harvesting then compensation should be provided based on value estimated from prevailing market price (per kilo or other measure) of harvested crop multiplied from projected volume of production from the size of affected land. As for trees, estimate of replacement cost should be based on type of affected trees, whether fruit bearing or for lumber/wood fuel purposes. Estimate would be based on type and market value of produce of such fruit bearing trees taking into consideration its productive years multiplied by the number of such affected categories of trees and so on. The calculation and formula used in arriving at the estimates presented should be documented and appended in the report as summarized in Table 4 below.

Table 4: Summary of Estimated Value of Potentially Affected Crops and Trees.

Type of crop/trees currently cultivated and will be affected	Proposed Project Unit Rate (2016) (kyat/unit of calculation)			Proposed Project Unit Rate (kyat) (kyat/unit of calculation)		
	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township	Ayeyarwaddy Division	Phyapon District	Kyaiklat Township
Rice						
Corn or other types						
Vegetables						
Fruit trees (mango, coconut...)						
Timber (identify species.....)						

D. Working location and schedule

16. Survey will be in the project area and the work will be started beginning of May 2016. Result will serve as input to the formulation of compensation matrix to be incorporated in the supplemental Resettlement Plan.

Annex C: Highlights of Meetings on Supplemental Resettlement Plan Preparation

I. Minutes of Briefing/Orientation with the Kyaiklat Resettlement Coordinating Committee (RCC)

Date and Time: 10 March 2016 at 9:30-11:30 am

Venue: Project Office Conference Room, Kyaiklat Township

Total Number of Participants: 15 (3 females and 12 males):

Township Administration and RCC Chair
 2 staff of the General Administration Department, Kyaiklat Township
 2 staff of the Land Records Department, Kyaiklat Township
 2 representatives of the ICB1 contractor
 1 MOC-PMU Deputy Director for Safeguard concerns
 1 MOC-DOH Engineer
 1 MOC-Township Engineer
 Team Leader, SMEC Consultant
 International Social/Resettlement Specialist
 4 Project staff, SMEC

A. Purpose of the Orientation/Briefing:

- Inform the participants re proposed land acquisition along Km24+049 of ICB1 contract, which is within the administrative boundary of Kyaiklat Township
- Consult on status of affected land and process of land acquisition in the township
- Orient the township officials, RCC members, MOC-DOH/township engineers and ICB1 contractor on ADB Safeguard Policy on Involuntary Resettlement
- Discuss ADB policy and procedural guidelines and MYA rules and regulations on land acquisition, resettlement and compensation.
- Discuss requirement for Supplemental Resettlement Plan preparation including milestones and schedule
- Determine roles and responsibilities for Resettlement Plan preparation and implementation.

B. Highlights of the Meeting:

Introduction on the purpose of the briefing/orientation was given by Mr. Paul Clarke, Team Leader of the Consultant Team.

1. The International Social/Resettlement Specialist of the Consultant Team, Mr. Miguel Lopez provided the overview on the requirement for additional land as new right-of-way (ROW) for the proposed adjustment to the horizontal alignment of curve along Km24+049 of ICB1 contract. He proceeded to explain that as a result of this additional land acquisition there is a need to develop a supplemental Resettlement Plan following the ADB Safeguard Policy on Involuntary Resettlement. The members of the Kyaiklat Resettlement Coordinating Committee (RCC), other township officials, MOC-DOH district and township engineers as well as representatives of the contractor (ICB 1 contract) was given a “walk-through” of the ADB Safeguard Policy on involuntary resettlement and the recommended procedures for the formulation of the Resettlement Plan. The activities, milestones as well as tentative schedule to be pursued in the development, review and approval as well as implementation of the Resettlement Plan was also discussed.

2. The following are the summary of issues and concerns raised and discussed:
3. The township administrator expressed full support for the Project and understands the need to acquire additional land for the Project road. He also appreciated the need to comply with the requirement of the ADB. He however emphasized that land acquisition activities and everything related to them specially entering the affected area and dealing with the affected landowners, should involve all relevant parties, who must coordinate and work closely together to avoid misunderstanding and confusion later.
4. It was also pointed out that before the Township General Administration Office can initiate land acquisition activities there should be appropriate directives from the higher up (e.g., divisional and district General Administration Office). Thus the need to inform them officially about the Project and the requirement for additional land for road right of way.
5. It was also recommended that before land acquisition activities can be initiated the final land requirement details (technical) be provided to them. At least six copies of the final technical drawing of the alignment with relevant captions in Myanmar language should be provided to them.
6. The consultant pointed out the need to conduct land/technical survey to finalize the details on land area required and determine individual plots affected.
7. It was suggested that at the start of the land/technical survey all parties (township land administration office, contractor, MOC-DOH/township offices and consultant) be represented during staking of boundaries and determining affected areas.
8. Likewise, it was suggested that as early as possible potentially affected landowners be already formally informed about the Project's requirement for land acquisition and its potential impact on their parcels of land and assurance be given that appropriate mitigation measures will be provided and that procedures followed on land acquisition will be highly participative.
9. It was also recommended that the RCC as the body tasked at the local body with Resettlement Plan implementation be closely involved in the development and formulation of the supplemental Resettlement Plan.
10. The consultant advised the RCC that implementation of land acquisition should await the formal approval of the supplemental Resettlement Plan by MOC and the ADB.
11. At the end of the discussion, the following were agreed:
12. Staking of the boundaries and technical survey of land required for the Project will be a joint effort of the consultant, contractor, MOC-DOH staff and township officials.
13. That prior to initiation of the activities related to land acquisition, a formal directive from higher authorities of General Administrative Office to the township official should be awaited. To enable the higher offices to provide such directive, the MOC-PMU should communicate to the Divisional and District General Administrative Office officials concerning the Project and the requirement for land acquisition. SMEC consultant will be responsible for informing the PMU concerning such requirement.

14. That as soon as the land/technical survey is completed, the census, inventory of losses (IOL), determining socioeconomic profile of affected household, and cost replacement survey will be carried out.

15. As part of the task of the RCC, regular information and consultation activities with affected persons will be carried out.

16. The orientation concluded with the agreement on continuing close coordination of the parties involved in the Project.



Figure 1: Briefing/Orientation with the Kyaiklat Resettlement Coordinating Committee

Maubin-Pyapon Road Rehabilitation Project
Briefing/Orientation of Section Realignment and Resettlement Implications
Project Conference Room, Kyaiklat Township
(0 March 2016)

LIST OF PARTICIPANTS

No.	Name	Gender	Designation	Organization	Contact # or email	Signature
1	U Thein Win	M.	DTL	SUNTAC	09-73163610	
2	Mr. Phet Zau Win	M	AD	DOH	098601097	
3	Mr. Khin My Tun	m	AD	DOH PMU	09-4927104	
4	PAUL CLARKE	m	TL	SMEC		
5	Myo Min Kyaw	M	NES	SMEC	0979554407	
6	San Khin Tent	F	Staff Officer	DOH	09-5396491	
7	Tun Myint Kyaw	M	Procurement Manager	J.H	09784408091	
8	U SOE PHAN	m.	Staff Officer	I.R.D.	09-49722989	
9	U Myaw Soe	M.	Second	"	09-461290402	
10	U Shaw Lin Aye	M	Second	"	09-794336538	
11	U Aung Naing	M.	AD	G.A.D.	09-8800951	
12	Sau Soe Thiri Khin	F	D.S.O	G.A.D.	09-8590920	
13	Miguel Lopez	M	SME Representative	SMEC		
14	Yan Naing Myo	M	RE	DC	09960276550	
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II. Minutes of Meeting with the Suu Ganan Village Tract officials

Date and Time: 22 March 2016 at 10:00-11:30 am

Venue: Primary School classroom, Suu Ganan Village Tract center

Total Number of Participants: 13 (3 females and 11 males):

Suu Ganan Village Tract Leader, Incoming and Outgoing (2 males)

Village Secretary (1 male)

Farmers of Tha Yet Taw village (2 males)

Villager – female farmer (1)

Villagers – male farmers (2)

Primary school teacher – female (1)

Consultants – 1 female; 3 males

A. Purpose of the Orientation/Briefing:

17. To inform them about the project and need to adjust alignment along Km24+049 including potential land acquisition impacts and assure them that the project will undertake continuing participatory activities. Also to collect socioeconomic information about the villages.

B. Highlights of the Meeting:

18. Introduction on the purpose of the meeting was given by the Resident Engineer of ICB 1 contract. Background information about the Project was also provided.

19. The International Social/Resettlement Specialist proceeded to explain the primary purpose of the meeting. The participants were informed that to ensure road safety the Project authorities plan to adjust the horizontal alignment of the curve along Km24+049. It was pointed out that since road construction in 1992, there had been a number of accidents along that particular section of the road. They appreciated the fact that the authorities had recognized the risk and are doing something to address it.

20. It was also explained that as part of the alignment adjustment, the road will require additional land for ROW and that part of the paddy field beside the road will be affected. As a result of land acquisition some households will experience negative impacts thus the necessity to prepare a resettlement plan to mitigate the impact as required by the ADB Safeguard Policy on Involuntary Resettlement. The affected households will be fully consulted and engaged once the final design had been completed and the plan had been approved by concerned authorities. They participants were also assured that continuing consultation and participation will continue.

21. Accordingly as part of the preparation of the Resettlement Plan, socioeconomic condition of the village and the population need to be gathered where data collection also becomes a participatory process.

22. The participant villagers and officials readily agreed to the process and provided the required information to the group.

23. The consultant also appreciated the fact that the incoming village officials (a change in the government at all political levels was taking place as a result of the general election) were able to participate in the process.

24. In conclusion, the villagers expressed their full cooperation with the project and willingness to participate in the scheduled activities in the next months.



Figure 2: Meeting with the Suu Ganan Village Tract officials

မေ့ပင်-ရပ်ကွက် တားလမ်း အဆင့်မြှင့်တင်ရေးပီပီစီ
Meeting on Supplemental RP Requirement
မနက်တော်တွဲ ပြန်လည်နေရာချထားရေးအစီအစဉ် လိုအပ်ချက် ဆိုင်ရာ အထူးအစည်းအဝေး
Venue: _____, Kyaukse Township
နေရာ: _____၊ လှိုင်ကုန်းကျေးရွာ စာသင်တိုက် (သို့) လတ်ပျို့နယ်
22 March 2016
မတ်လ ၂၀၁၆
LIST OF PARTICIPANTS
တက်ရောက်သူများ စာရင်း

Date 22.3.2016
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No. နံပါတ်	Name အမည်	Gender ကျား/မ	Designation ရာထူး(အလုပ်အကိုင်)	Organization အဖွဲ့အစည်း	Contact # or email စုံနံပါတ်(သို့)အီးမေးလ်စာ	Signature လက်မှတ်
၁	U Kyi Win	M	Village Head	Suu Ganan Village Tract	09793376804	
၂	U Tin Tun	M	General Worker	Thayettaw Village		
၃	U Than Win	M	Agriculturer	Thayettaw Village		
၄	U Aung Zay Thaw	M	Village Tract Clerk	Suu Ganan Village	09789867221	
၅	U Aung Maung	M	New Village Head in coming April	Suu Ganan Village	09963186916 09782828948	
၆	Daw Khin Win Cho	F	Farmer	Ohn Pin Su Village	09782829659	
၇	U Kyaw Win	M	Farmer	Ohn Pin Su Village		
၈	U See Myint	M	Farmer	Ohn Pin Su Village		
၉	U Myo Min Kwe	M	NEC	Smea Co., Ltd.	09795514407	
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Annex D. Application of the RCS findings on the compensation measures for the identified losses. (Complete list, scope of impacts and the proposed compensation per affected household. Letter code is used to identify the respective households for reason of confidentiality. Please refer to PMU official records for actual names of PAPs).

1. Affected households by Types of Assets Affected and Compensation/ Rehabilitation to be Provided

Name of affected households	Paddy land (ha)	House/Other types of structures	Trees / crops (Number #)
A	0.1092651	None	Mango trees – (5); Malaysian padauk (timber) – (2); guava – No fruit bearing age; bamboo cluster – approx. 40 poles; MaU (1); rain tree (i); chillies -
B	0.7648559	1 Residential house (full)	Mango trees – (4); drum stick tree (1); banana (5 clusters); Malaysian padauk (timber) – 3; bamboos (approx.. 200 poles); lime plant and lemon grass
C	0.0404685	1 structure for housing fowls	None
D	0.0202342	none	Drum stick (fruit bearing – (1); Malaysian padauk (timber) – (4); bamboo cluster (10 poles); rain tree – 3; Sitpin – (1); willow tree – 1
Total	0.9348237	2	To be verified and measured

Source: Census, IOL and DMS Survey, May 2016

2. Proposed Compensation Measure for Lost Assets

2.1 For Loss of Paddy/Pasture Land

Name of affected households	Paddy land (ha)	Replacement Cost per m2	Total Compensation
A	0.1092651	2,100	2,294,567.10
B	0.7648559	2,100	16,061,973.90
C	0.0404685	2,100	849,839.76
D	0.0202342	2,100	424,919.88
Total	0.9348237		19,631,300.64

2.2 For Loss of Structures

Name of affected households	House/ Other types of structures	Details: Dimension and description of materials used	Replacement Cost at full replacement price	Total Compensation
A	None			
B	1 Residential house (full)	8.48 m x 7.26 m x 4.6 m H	Per findings of RCS	650,000.00
C	1 structure for housing fowls	7.35 m x 6.6 m x 3.98 m H	Per findings of RCS	250,000.00
D	None			
Total	2			900,000.00

RCS = replacement cost survey.

2.3 For Loss of crops and trees

Name of affected households	Trees/ crops (Number#)	Basis for replacement cost	Total Compensation
A	Mango trees – (5); Malaysian padauk (timber) – (2); guava – No fruit bearing age; bamboo cluster – approx. 40 poles; MaU (1); rain tree (i); chillies -	Per findings of RCS	186,000.00
B	Mango trees – (4); drum stick tree (1); banana (5 clusters); Malaysian padauk (timber) – 3; bamboos (approx.. 200 poles); lime plant and lemon grass	Per findings of RCS	285,000.00
C	None		
D	Drum stick (fruit bearing – (1); Malaysian padauk (timber) – (4); bamboo cluster (10 poles); rain tree – 3; Sitpin – (1); willow tree – 1	Per findings of RCS	200,000.00
Total			591,000.00

2.4 Other Types of Assistance to be provided

Name of affected households	Other Assistance or Rehabilitation Measures		
	Moving Allowance for fully affected main structures: Moving allowance which is equivalent to labor and transportation will be provided based on the type of affected structure.	Severe impact allowance: AP suffering >10% income losses; AP with totally affected house structure	Vulnerable people allowance: affected household below poverty line or headed by woman/ disabled
A	Not Applicable	Not Applicable	Not applicable
B	For fully affected main structures: Moving allowance which is equivalent to labor and transportation (approx. MMK 50,000) will be provided based on the type of affected structure = MMK 50,000	1 month allowance based on minimum subsistence allowance. 45,000 based on poverty rate of \$1.25 per day per person (at current exchange rate*). = MMK 45,000	3 month allowance based on subsistence level. MMK 1,462 per day or monthly MMK 45,000 based on poverty rate of \$1.25 per day per person. = MMK 43,875 x 2 person x 3 months = MMK 270,000
C	Not Applicable	Not Applicable	Not applicable
D	Not Applicable	Not Applicable	Not Applicable
Total	MMK 50,000	MMK 45,000	MMK 270,000

* USD:MMK Exchange Rate as of June 2016 was about USD1 = MMK 1,200

2.5 Summary of Compensation in MMK to be provided to affected persons

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