

# Resettlement Plan

---

March 2016 (original)

August 2016 (validated)

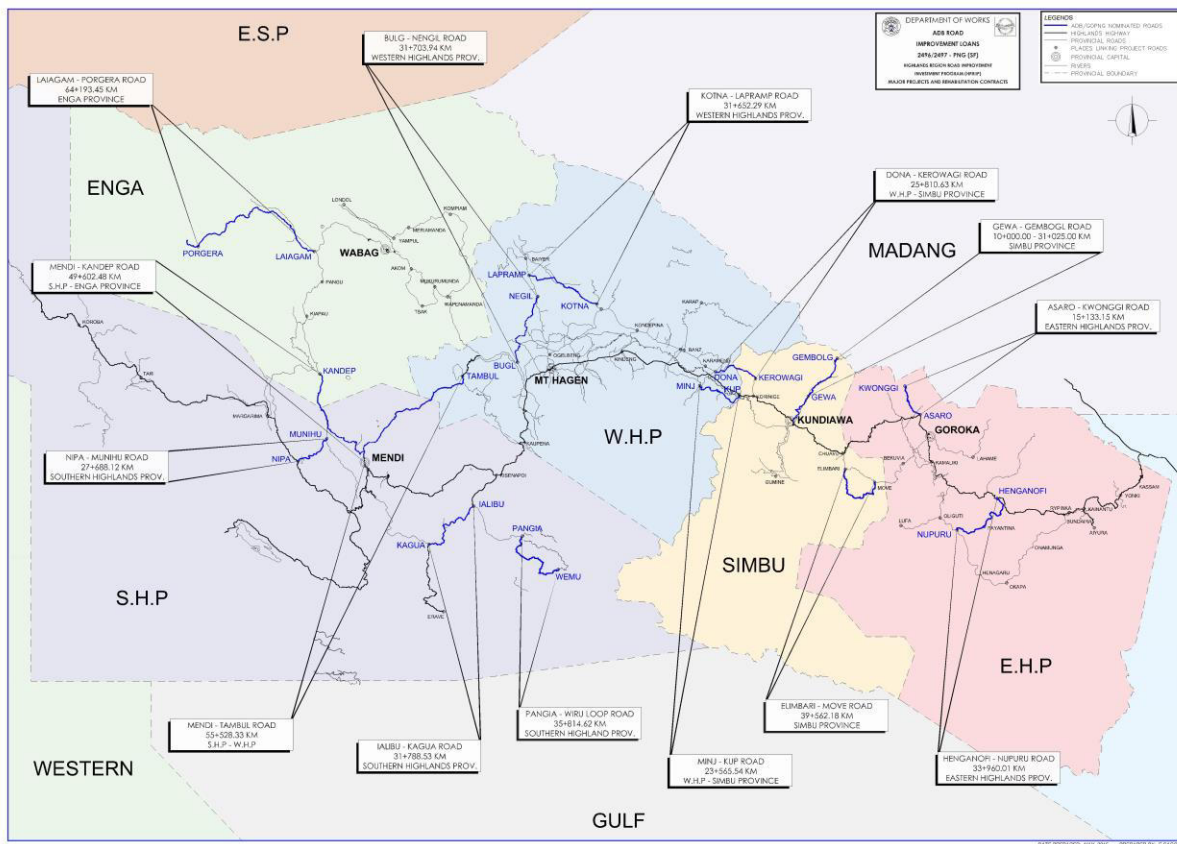
## PNG: Highlands Region Roads Improvement Investment Program, Tranche 3

Prepared by the Government of Papua New Guinea's Department of Works for the Asian Development Bank.

This resettlement plan is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

# HIGHLANDS REGION ROAD IMPROVEMENT INVESTMENT PROGRAM



## NIPA-MUNIHU SUB-PROJECT RESETTLEMENT PLAN

**FINAL REPORT  
AUGUST 2016**

**CURRENCY EQUIVALENTS**

(AS OF 21 SEPTEMBER 2015)

CURRENCY UNIT – KINA (K)

K1.00 = US\$0.3520

US\$1.00 = 2.84

**ABBREVIATIONS**

ADB	–	ASIAN DEVELOPMENT BANK
AP	–	AFFECTED PEOPLE
COA	–	CERTIFICATE OF ALIENABILITY
DA	–	DISTRICT ADMINISTRATOR
DH	–	DISPLACED HOUSEHOLD
DLO	–	DISTRICT LANDS OFFICER
DLPP	–	DEPARTMENT OF LANDS AND PHYSICAL PLANNING
DMS	–	DETAILED MEASUREMENT SURVEY
DOW	–	DEPARTMENT OF WORKS
DBST	–	DOUBLE BITUMEN SURFACE TREATMENT
EHP	–	EASTERN HIGHLANDS PROVINCE
ESSU	–	ENVIRONMENTAL AND SOCIAL SAFEGUARDS UNIT
GoPNG	–	GOVERNMENT OF PAPUA NEW GUINEA
GRC	–	GRIEVANCE REDRESS COMMITTEE
HRMG	–	HIGHLANDS ROAD MANAGEMENT GROUP
HRRIIP	–	HIGHLANDS REGION ROADS IMPROVEMENT INVESTMENT PROGRAM
IMO	–	INDEPENDENT MONITORING ORGANIZATION
ISS	–	INTERNATIONAL SOCIAL SPECIALIST
LIR	–	LAND INVESTIGATION REPORT
LLCM	–	LOCAL LAND COURT MAGISTRATE
LLG	–	LOCAL-LEVEL GOVERNMENT
LSD	–	LANDS AND SURVEY DIVISION
MFF	–	MULTI-TRANCHE FINANCING FACILITY
M&E	–	MONITORING AND EVALUATION
MOA	–	MEMORANDUM OF AGREEMENT
NARI	–	NATIONAL AGRICULTURE RESEARCH INSTITUTE
NGO	–	NON-GOVERNMENTAL ORGANIZATION
NRA	–	NATIONAL ROADS AUTHORITY
NSS	–	NATIONAL SOCIAL SPECIALIST
NTDP	–	NATIONAL TRANSPORT DEVELOPMENT PLAN
PA	–	PROVINCIAL ADMINISTRATOR
PLO	–	PROVINCIAL LAND OFFICER
PMV	–	PASSENGER MOTOR VEHICLE
PNG	–	PAPUA NEW GUINEA
PWM	–	PUBLIC WORKS MANAGER
RCS	–	REPLACEMENT COST SURVEY
RF	–	RESETTLEMENT FRAMEWORK
RP	–	RESETTLEMENT PLAN
RIZ	–	ROAD INFLUENCE ZONE
SMR	–	SEMI-ANNUAL MONITORING REPORT
SP	–	SUB-PROJECT PROFILE
SQM	–	SQUARE METER
T3	–	TRANCHE 3

## Table of Contents

I.	EXECUTIVE SUMMARY .....	1
II.	PROJECT DESCRIPTION .....	4
	A. Project Overview .....	4
	1. Existing Road Conditions .....	5
	2. Proposed Works .....	5
	B. Minimizing Land Acquisition .....	6
	C. Objectives of the Resettlement Plan .....	7
III.	SCOPE OF LAND ACQUISITION AND RESETTLEMENT .....	7
	A. Scope of Land Acquisition .....	7
	1. Land Impacts .....	7
	2. Asset Impacts .....	10
IV.	SOCIO-ECONOMIC PROFILE .....	19
	A. Sources of Data .....	19
	1. Secondary Socio-Economic Information .....	19
	1. Primary Socio-Economic Information .....	20
V.	DISCLOSURE, CONSULTATION AND PARTICIPATION .....	29
	A. Consultations during Project Preparation .....	29
	B. Consultations with Affected People .....	29
	C. Consultations during RP Preparation .....	30
	D. Wider Public Consultations during RP Preparation .....	32
	E. The Memorandum of Agreement Process .....	36
	F. Public Disclosure of RP .....	38
VI.	GRIEVANCE REDERESS MECHANISM .....	38
	A. Legal and Traditional Grievance Redress Mechanism in PNG .....	38
	B. Grievance Redress Mechanism for HRRIP .....	39
VII.	LEGAL FRAMEWORK .....	40
	A. PNG Legal Framework .....	40
	1. PNG Constitution .....	41
	2. 1996 Land Act .....	41
	3. Land Dispute Settlement Act .....	41
	4. Fairness of Transaction Act of 1993 .....	42
	5. Protection of Transport Infrastructure Act, 2010 .....	42
	6. Land Group Incorporation (Amendment) Act and Voluntary Customary Land Registration Act .....	42
	B. ADB Safeguard Policy Statement (SPS) .....	43
	C. Gaps between PNG Laws and ADB's SPS .....	43
	D. Resettlement Principles for the Project .....	44
VIII	ENTITLEMENT, ASSISTANCE AND BENEFITS .....	45
	A. Negotiation for Use Rights of Customary Lands .....	45
	B. Compensation for Affected Assets .....	46

1.	Houses and Trade Stores .....	46
2.	Crops and Trees .....	46
3.	Compensation for Fences .....	47
4.	Compensation for Graves .....	47
5.	Calculation and Payment of Compensation .....	47
C.	Income and Livelihood Restoration Measures .....	47
D.	Design Measures to Assist Communities .....	48
E.	Entitlement to Rehabilitation Assistance .....	50
1.	Business Loss Allowance .....	50
2.	Shifting Allowance .....	50
3.	Subsistence Allowance .....	50
4.	Transport Allowance .....	50
5.	Relocation and Reburial Assistance .....	51
6.	Severity Impact Allowance for Productive Assets .....	51
7.	Vulnerable Allowance .....	51
F.	Indigenous People .....	51
G.	Entitlement Matrix .....	51
H.	Eligibility for Compensation and Rehabilitation Assistance .....	56
I.	Payment of Compensation .....	56
J.	Coordination of Land Acquisition Activities with Civil Works .....	57
IX.	RESETTLEMENT BUDGET AND FINANCING PLAN .....	57
A.	Sources of Funding for Land Acquisition and Compensation .....	57
B.	No Costs to Acquire Additional Land to Upgrade Roads .....	57
C.	Costs of Compensation for Damages to Assets .....	57
1.	Cost of Affected Structures .....	57
2.	Cost of Crops and Trees .....	58
D.	Costs of Income Restoration Measures .....	60
E.	Cost of Design Measures .....	61
F.	Costs of Rehabilitation Assistance .....	62
G.	Cost of Resettlement Budget .....	64
X.	INSTITUTIONAL ARRANGEMENTS .....	65
A.	Department of Works .....	65
B.	Highlands Region Maintenance Group .....	65
C.	Environmental and Social Safeguards Unit – DOW .....	65
D.	Provincial Administrations .....	66
E.	District and LLG Administrations .....	66
F.	Institutional Capacity for Land Acquisition Activities .....	67
XI.	IMPLEMENTATION SCHEDULE .....	67
XII.	MONITORING AND REPORTING .....	69
A.	Internal Monitoring .....	69
B.	External Monitoring .....	69

## LIST OF ANNEXES

Annex 1: Issues on Acquiring Customary Land .....	70
Annex 2: HRRIP Approach in Obtaining MOA .....	71

Annex 3: Salient Provisions of the 1996 Land Act .....	72
Annex 4: Compensation in Papua New Guinea .....	74
Annex 5: Memorandum of Agreement .....	76
Annex 6: Organizational Arrangements .....	95
Annex 7: Terms of Reference .....	96
Annex 8: List of Participants and Photographs .....	101

## LIST OF TABLES

Table 1: Summary of Impacts .....	1
Table 2: Breakdown of Existing Road and Additional Land Required .....	8
Table 3: Breakdown of Affected Tribes/Clans and Their Impacts .....	8
Table 4: Summary of Affected Structures & Severity of Impacts .....	11
Table 5: Summary of Affected Graves .....	13
Table 6: Summary of Other Affected Assets .....	14
Table 7: Summary of Affected Category A Crops .....	15
Table 8: Summary of Affected Category B Crops .....	16
Table 9: Summary of Affected Category C Crops .....	16
Table 10: Summary of Affected Trees .....	17
Table 11: Summary of All Affected Trees and Plants .....	17
Table 12: Summary of Vulnerable Households .....	18
Table 13: Breakdown of Type, Age and Gender Distribution of Household Members .....	21
Table 14: Breakdown of Household Members by Gender and Age Bracket ....	22
Table 15: Highest Educational Attainment .....	22
Table 16: Highest Educational Attainment for Female Headed Households ....	23
Table 17: Source of Annual Household Income .....	24
Table 18: Sources of Annual Household Income for Female Headed Households .....	25
Table 19: Breakdown of Annual Household Expenditure .....	26
Table 20: Annual Household Expenditure of Female Headed Households ....	26
Table 21: Women's Participation in Economic Activities .....	28
Table 22: Summary of Female Participation in Decision Making .....	29
Table 23: Summary of Various Public Consultation Proceedings .....	34
Table 24: GAPs and Gap Filing Measures .....	44
Table 25: HRRIP Entitlement Matrix .....	52
Table 26: Costs of Different Structures .....	58
Table 27: Costs of Affected Fences .....	58
Table 28: Compensation for Category A (Edible Fruits and Nuts) .....	58
Table 29: Compensation for Category B (Garden Plants) .....	59
Table 30: Compensation for Category C (Other Economic Plants) .....	59
Table 31: Compensation for Category D (Forest and other Large Trees) .....	60
Table 32: Costs of Affected Crops and Trees .....	60
Table 33: Costs of Bus Bays and Waiting Sheds .....	62
Table 34: Costs of Rehabilitation Assistance .....	63
Table 35: Breakdown of Vulnerable Allowances .....	63
Table 36: Summary of Cost Estimates and RP Budget .....	64
Table 37: RP Implementation Schedule (2016) .....	68

## I. EXECUTIVE SUMMARY

1. This is the validated Resettlement Plan (RP) for Nipa – Munihu (27.73km) road section under the Tranche 3 (T3) of the Highlands Region Roads Improvement Investment Program (HRRRIIP) for Papua New Guinea to upgrade, rehabilitate and maintain roads in the Highlands Highway Network in Papua New Guinea (PNG). This RP is based on the assessment of possible impacts based on the detailed engineering design for this sub-project road conducted in 2015 (chainage 0 to 12+650) and further validation completed in July 2016. The missed out APs are in chainage 13+500 to 27+900 who were identified, verified, further assessment conducted and impacts were included in the validated RP.

2. In accordance with the HRRRIIP eligibility criteria for sub-project roads, every effort has been made to minimize impacts on land acquisition and resettlement for this road section. The engineering design for road upgrading and rehabilitation has been formulated to minimize the need to acquire additional land outside of the existing road alignment, to the extent feasible and consistent with agreed design standards and good engineering practice. Among the technical solutions applied to minimize resettlement impacts were (a) shifting the road alignment to the opposite side of the potential affected structure, (b) narrowing of the road shoulders in front of the potential affected structures, (c) clearing of only the road width required within the construction limits, and (d) adjustments on the drainage and other road furniture components.

3. The summary of impact is in Table 1. The results of the resettlement impact assessment indicated that the existing road carriage occupies a total of 10.84 hectares of customary land owned by 11 tribes and their respective clans. The upgrading and rehabilitation of the road will require an additional 22.66 hectares of customary land for the whole road section. In total, the sub-project will require a total of 33.50 hectares of customary land which is the subject matter of the Memorandum of Agreement (MOA) between the Department of Works (DOW) and the customary land owners.

4. In addition to the customary land, other affected assets are; 27 residential houses, 21 trade stores, 105 graves, 103 fences and 4 other assets (2 ceremonial grounds, 1 church building and a basketball court). The aggregated house area is 210 sq.m. whilst the 21 trade stores have an aggregated area of 80 sq.m.

5. There are 78,860 units of crops and trees to be removed. Other assets to relocate include 105 graves and 103 fences, the latter with an aggregate length of 5,064 meters. Each affected house will be given several allowances such as shifting, transport and temporary accommodation while the trade store owners will be given an allowance to compensate business losses, in addition to the shifting and transport allowance.

**TABLE 1: SUMMARY OF IMPACTS**

Types of Affected Asset	Unit	Assets Impacts		Total	Affected Persons
		Previous Section (0-13 km)	New Section (13 - 28km)		
Customary Land	Hectare	10.84 hectares existing road + 22.66 hectares strips of additional land			998

House	Number of houses	15	12	27	135
Trade stores	Number of trade store	12	9	21	60
Graves	Number of graves	35	70	105	
Fences	Meter	5,064		5,064	
Ceremonial Ground	Number of units	0	2	2	
Church	Number of units	0	1	1	
Basketball court	Number of units	0	1	1	
Trees & Crops	Units	22,277	56,583	78,860	

Source: DMS, July 2015 and July 2016

6. The 26 AHs who own 105 affected graves will receive a relocation and reburial allowance to compensate for the traditional rites for transferring the graves and other related expenses. Households whose crops and trees will be affected by the project will receive additional assistance to compensate for the loss of crops and trees.

7. Furthermore, there are 37 elderly headed households, 29 women-headed households and 4 disabled headed households. Moreover, there are 40 households whose monthly income falls under the poverty line of Kina 130 a month. Five households have reported more than one count of vulnerability. All of these households are vulnerable who will receive allowances to mitigate the disproportional effects of resettlement on them. The cut-off date for this sub-project is September 7, 2015, the day after the DMS was completed.

8. The Safeguard Policy Statement (SPS) requires resettlement plans for projects having resettlement impacts commensurate with the extent and degree of the impacts. The degree of impacts shall be determined by (i) the scope of physical and economic displacement, and (ii) the vulnerability of the displaced persons (DPs). Based on the degree of impacts and vulnerability of tribes and clans living along this road sub-project, a resettlement plan was prepared which is presented in this report. This sub-project's resettlement category is Category B as the number of affected persons who will suffer major impacts defined as physically displaced and losing 10% or more of productive assets is expected to be less than 200 persons. Several consultations in the sub-project area have been undertaken by DOW through the Highland Road Maintenance Group (HRMG), Provincial Works Office (PWO) in coordination with both Provincial and District Administration Offices, Local Level Government (LLG) presidents and ward councilors. The DPs have already been informed about their rights to file complaints and/or queries on any aspects of compensation and resettlement. Different techniques of consultations with stakeholders were used during the sub-project preparation such as in-depth interviews, public meetings and focus group discussions.

9. Consultations were held in different villages inclusive of tribal, clans and sub-clan leaders. Public disclosures have been undertaken to disseminate the resettlement plan to DPs, communities and different national and local government agencies.

10. Tribal leaders and councilors have signed the copies of the MOAs for the use of customary land in exchange of public road. The sub-project entitlements included in the MOA were explained and discussions followed the information dissemination of HRRIP program

polices. In addition, public disclosures on the resettlement plan was also conducted with provincial and district leaders.

11. This RP has been developed as per ADB's Safeguard Policy Statement (SPS) and the pertinent laws of Papua New Guinea. Where the laws of PNG are not clear, a program specific set of resettlement principles consistent with ADB policy has been adopted. The SPS's policy principles on involuntary resettlement are as follow: (1) Screen early and assess resettlement impacts; (2) Carry out consultations with DPs and develop a grievance redress mechanism; (3) Improve/restore livelihoods of DPs through land-based strategies, replacement of lost assets, compensation at replacement cost, and additional benefits, as appropriate; (4) Provide appropriate assistance to physically displaced APs; (5) Improve living standards of poor DPs and other vulnerable groups; (6) Develop transparent procedures for negotiations; (7) Provide assistance and compensation to non-titled DPs for loss of non-land assets; (8) Prepare RP; (9) Disclose RP to DPs and other stakeholders and document the consultation process; (10) Conceive and execute resettlement as part of the project; (11) Deliver entitlements to DPs before their physical or economic displacement; and (12) Monitor and assess resettlement outcomes.

12. Based on the consultations with stakeholders, this RP proposes special measures to restore livelihoods of the APs. These measures include assistance to improve agriculture through extension advice and the provision of materials, assistance for tree planting and a package to improve business management by APs. Several infrastructure building activities focusing on women living along the road section were identified and are adopted in this RP. These infrastructure projects involve the construction of three bus bays and three waiting sheds located in strategic areas that will serve as roadside vending and waiting areas with temporary storage facility in support of the affected households.

13. The DOW as the executing agency has overall responsibility to manage the planning, implementation and monitoring of the sub-project. The HRMG as the Implementing Agency (IA) for HRRIP has the overall responsibility delegated by the DOW to implement resettlement activities, as required. In doing so, the HRMG coordinates with Provincial and District Administrations in the implementation of this RP, following approval by ADB. A timeline for RP implementation and post implementation activities has been prepared.

14. The involvement of local government units is vital in the implementation of the RP. The Provincial Works Manager (PWM), Provincial and District Administrators will closely collaborate with HRMG to plan, implement and monitor all resettlement activities for this sub-project.

15. Grievances will be addressed adequately at all stages of sub-project development. An internal grievance mechanism will be installed at the provincial level with the primary objective of facilitating conflict resolution in a timely manner and minimizing court cases. It will also provide affected people with a forum to air their objections and address their issues and concerns adequately. An unsatisfied AP may take the grievance to the PNG Judicial System.

16. The resettlement cost estimate for this sub-project includes compensation for assets, crops and trees, graves, fences, rehabilitation allowances, in-kind assistance to refurbish community facilities, income restoration measures and support costs for RP implementation. The EA will ensure timely allocation of funds and availability of resources for compensation and assistance to the affected households. DOW will plan in advance and include in their budget its counterpart funding for this sub-project. The total estimated cost of resettlement for the Nipa – Munihu is estimated to be Kina 1,980,481.50. The cost and other details of the resettlement

plan will be checked again just prior to implementation. All compensation costs reported in this RP are subject to approval by the Valuer General prior to execution and must comply with ADB SPS (2009). The RP budget does not include the cost of Independent Monitoring as this activity is already funded from a separate source.

17. The implementation schedule for this RP has been based on the overall sub-project implementation. All related resettlement activities are planned to ensure that issues are resolved prior to displacement and commencement of civil works. Public consultations, internal and external monitoring will be undertaken intermittently throughout the sub-project duration.

18. The RP implementation will be closely monitored to provide DOW with an effective basis for assessing resettlement progress and identifying potential difficulties and issues. During the implementation of the RP, the HRMG assisted by the Environmental Social Safeguards Unit (ESSU) will prepare semi-annual safeguard monitoring reports and submit these reports to ADB in addition to regular quarterly progress reports as part of sub-project performance monitoring. The independent monitoring organization (IMO) already recruited by DOW will undertake external monitoring. The IMO will prepare bi-annual monitoring reports; and, conduct post-resettlement evaluations twelve (12) months after compensation is completed for each sub-project. All IMO reports will be submitted to HRMG, DOW and ADB.

## II. PROJECT DESCRIPTION

### A. Project Overview

19. The HRRIP is intended to upgrade, rehabilitate and maintain roads in the Highlands Region Core Network (HRCN) in Papua New Guinea (PNG). The Investment Program will focus on the Highlands' core road network of around 1,400 kilometers (km) of major national and provincial roads. The Government of Papua New Guinea (GoPNG) will undertake this program through the Department of Works (DOW) with assistance from the Asian Development Bank (ADB).

20. The Highlands Region is a major contributor to PNG's economy through its mineral and agricultural exports. It is also home to around 40% of the country's population who rely almost exclusively on the road network for movement of people and goods. The road network is vulnerable to damage because of the mountainous terrain, seismic activities, and heavy rain. The goals of the HRRIP are to support economic growth by improving rural access to market centers, leading to increased exports and integration of the Highlands Region and its population into the mainstream economy of PNG; and, to facilitate access to social and education facilities in the region. The economic and social benefits of a comprehensive road transport network will contribute to poverty reduction in the Highlands Region.

**FIGURE 1: LOCATION MAP OF THE NIPA-MUNIHUSUB PROJECT**



## **1. Existing Road Conditions**

21. The Nipa to Munihu road is located in the Southern Highlands Province and was surveyed to be 27.73 km in length. The road connects the two districts of Nipa-Kutubu and Mendi-Munihu, all located in the Southern Highlands Province. The sub-project traverses two local level governments (LLGs) of Nipa Rural LLG and Lai Valley LLG. Their common border is located at km 21+545.

22. The existing road traverses through hilly and mountainous terrain with the highest point located at km 13+290 (Elevation: 2283m) and the lowest point located at the km 22+550 (Elevation: 1806m). The road alignment is generally reasonable but minor adjustments will be required in some sections.

23. The road pavement sub-grade comprises mainly of silty clay material covered with a gravel layer consisting of poorly graded limestone material which presents a rocky and rough running surface. There are also several sections where the sub-grade has been exposed with no gravel layer. The road width varies from 3m to 8m thus giving an average road width of 4 meters.

24. There are no adequate drainage systems in terms of culverts and side ditches and erosion of cut slopes deposits material on the carriageway reducing the effective width. There are bedrocks outcropped at several sections of the road, high vegetation growth on the road sides and the carriageway, scouring in the middle of the carriageway and very soft sub-grade at some locations.

25. There is a large number of culverts in the existing road. While a few were found to be in good condition, others were found to be exposed, majority made of wood, few built by iron are rusted, distorted, blocked, and inadequate to drain off high storm water run-off. Many creeks along this road do not have culverts but only log bridges to cross. Two (2) are Compact Bailey Bridges which are in reasonable condition and the remainder are all log bridges. The Bailey bridges will require minor rehabilitation while the log bridges will be replaced with Bailey bridges. At present, traffic flows through the entire road in the dry season.

## **2. Proposed Works**

26. It is proposed to upgrade the road 5.5 meter wide carriageway sealed with Double Bitumen Surface Treatment (DBST) and 0.25 meter wide shoulders. The proposed total width is 12.00 meters that includes a minimum of 3.0 meter wide (both sides) strip for visibility. Earthworks will be required to widen the existing road bench to accommodate the final formation width and roadside drains as well as to provide for local improvements to the vertical alignment. Approximately 3,600 linear meters of retaining wall will be required at various locations to provide adequate formation width and avoid extensive embankment construction.

27. The shoulders will be sealed in selected locations to minimize scour from drainage run-off. The vertical and horizontal alignments will follow the existing alignments with improvements to horizontal and vertical curves to provide the minimum requirements in terms of stopping single distance.

28. At several locations where erosion or scouring is evident in the side drains, consideration should be given to provide erosion protection to the drains. Where the erosion is present in the drains located at the base of the cut embankments or unstable areas not subject

to surface movement stone pitching cement and stone lining or scour breaks may be used. In areas where some surface movement may be likely Reno mattress or rock scour breaks may be utilized.

29. A total of 30 additional culverts are proposed in addition to the replacement of 56 existing culverts which are of inadequate capacity (typically 450mm diameter). Approximately 28,000 meters of lined roadside drain will be provided to cater for surface run off from the road and adjacent slopes.

30. The entire road works will take place within the existing road corridor and resettlement impacts are expected between the edge of the existing road and the construction limits. In addition, there are some cut works on the mountainsides that are required to further improve the slope and turning geometry. In these areas, the road widening may exceed 5m, depending on either the width of the cut or fill in a particular road section.

31. The entire road is situated on customary land, the use of which has been agreed in consultation with the clans and communities that jointly own the land. In order to expedite implementation of the sub-project, the use of customary land required to upgrade the road have been agreed by clans and communities through Memoranda of Agreement (MOAs) (See Annex 5 Memorandum of Agreement) permitting the use of customary land for public infrastructure. This resettlement plan (RP) covers the land acquisition impacts from the edge of the existing road up to the construction limits including road clearance, and other infrastructure (e.g., drainage and culverts).

## **B. Minimizing Land Acquisition**

32. The resettlement framework provided for eligibility criteria for sub-project roads in order to qualify for inclusion in the HRRIP. Among the eligibility criteria are provisions that are intended to minimize the land requirements such as (a) it is an existing or former road, that is, the road bench exists and restitution of a trafficable road does not require major earthworks or the construction of structures; (b) the proposed works avoid the displacement of residential structures or other, permanent structures; (c) the candidate road is on State-owned land (as per the Land Act), or there is a negotiated agreement with affected communities and landowners to use customary land.

33. The engineering design for road upgrading and rehabilitation has been formulated to minimize the need to acquire additional land outside of the existing road alignment, to the extent feasible and consistent with agreed design standards and good engineering practice. Based on this principle, the area subject to involuntary resettlement starts at the edge of the existing road (both sides) and ends at the boundary of construction limit. The construction limit is defined as the area that is included within the formation width, covering carriage width, shoulders, drains and sometimes an area to improve road visibility.

34. On July 18-21, 2011, the team initially established rapport with the communities and conducted sub-project information dissemination and initial public consultations. It started to assess the assets and other land improvement impacts of the sub-project. Another series of public consultations were conducted on January 5-6, 2012 with the same purposes.

35. These two initial assessments resulted in the identification of assets that were located within the construction limits. Around 63 items such as residential houses, trade stores, graves, fences, crops and trees were estimated to be impacted by the proposed road project.

36. The design had been back to the drawing board twice to make the necessary adjustments to try as much as possible to avoid if not reduce the number of assets affected. The re-adjusted road alignment was checked in the field on August 10, 2014. It was repeated on April 16-17, 2015. After the re-adjusted road alignments were adopted, a detailed measurement survey was conducted from August 26-September 6, 2015. The results showed that the re-alignments not only reduced the customary land needed but also the number of affected assets. The number of affected assets was reduced from 63 to 30, through design changes.

37. The RP was validated in May 2016 by a team headed by PIU Resettlement Specialist, HRMG officials including the Community Relations Officer (CRO). The team travelled through the entire alignment and made observations on asset impacts. This review found that several assets in the last section of the road from chainage 13+500 to 27+900 that will be impacted have been missed out. Accordingly, a re-assessment of resettlement impacts in the last section were conducted in July by a team of HRMG officials. This assessment revealed that the number of impacted assets are 27 houses, 21 trade stores, 105 graves, 103 fences, 2 ceremonial grounds, 1 basketball court, church building and, crops and trees. Accordingly, the RP was validated and the budget was fully revised as presented in the current report.

38. On August 15, 2015, the Memorandum of Agreements between the customary land owners and DOW were signed permitting the use of the existing road carriage and the additional land required to upgrade and rehabilitate the sub-project road. This process included the full length of the road. The additional land required to upgrade and rehabilitate the road totaled 22.66 hectares.

### **C. Objectives of the Resettlement Plan**

39. The depth and scope of this resettlement plan commensurate with the minimal resettlement impacts arising out of this sub-project road. The purpose of this resettlement plan (RP) is to document and address the affected customary land, estimated at 22.66 ha and compensate the owners of the affected assets, crops and trees, graves, fences, and households who will suffer other economic losses and provide for income restoration measures and rehabilitation assistance.

40. The other objective of this RP is to establish baseline socio-economic conditions of displaced persons (DPs) for future monitoring and to present details of the public consultations and disclosures conducted along the sub-project road, including issues, concerns, grievance redress mechanism in cases of complaints from (DPs). The policies and framework on resettlement for the HRRIP will also be presented to ensure that the implementers have clear policy guidelines. The institutional framework for participation and implementation and responsibilities for monitoring during implementation will also be presented in conformity with the resettlement framework for HRRIP.

## **III. SCOPE OF LAND ACQUISITION AND RESETTLEMENT**

41. In the Nipa – Munihu sub-project, the DOW, local leaders and residents along the road indicated that the whole existing road is located on customary land that has not been alienated to the State as per the Land Act. The classification and locations of customary and state lands were confirmed by the provincial and district personnel who were consulted on the classification of affected lands.

## A. Scope of Land Acquisition

### 1. Land Impacts

42. The whole length of the Nipa–Munihu road is customary land. The first 21.545 km of the sub-project road is located in Nipa Rural LLG in Nipa/Kutubu District while the next 6.185 km is located in Lai Valley Rural LLG in Mendi/Munihu District, both in Southern Highlands Province. The existing road occupies 10.84 hectares while the additional land required to upgrade and rehabilitate the sub-project road is 22.66 hectares. The rehabilitated road will occupy a total of 33.50 hectares of customary land with an average width of 12.08 meters. The details are shown in the following Table 2: Breakdown of Existing Road and Additional Land Required.

**TABLE 2: BREAKDOWN OF EXISTING ROAD AND ADDITIONAL LAND REQUIRED**

LLG	Classification	Length (Meter)	Existing Road (Ha)	Additional Land (Ha)	Total (Ha)
Nipa Rural	Customary Land	21.545	8.64	17.12	25.76
Lai Valley Rural	Customary Land	6.185	2.20	5.54	7.74
<b>Total</b>		<b>27.73</b>	<b>10.84</b>	<b>22.66</b>	<b>33.50</b>

Source: Design Consultant's Computation

43. In the Nipa-Munihu road section, there was no previous land survey undertaken and the determination of tribal/clan lands was estimated during the community consultations by tribe and clan leaders who accompanied the team and pointed out their land boundaries. The sub-project road will start at Egenda 1, and proceed to Egenda 2, Egenda 3, Shumbi 1 and Shumbi wards, Nipa Rural LLG, Nipa/Kutubu District and further proceed to Maip 1, Maip 2 and Nera wards, Lai Valley LLG, Mendi/Munihu. There are 11 affected tribes who own the customary land in the sub-project road. The details are shown in the following Table 3: Breakdown of Affected Tribes/Clans and Their Impacts.

**TABLE 3: BREAKDOWN OF AFFECTED TRIBES/CLANS AND THEIR IMPACTS**

No	Tribe	Chainage	Length (Km)	Affected Area (sqm)	Affected Households	Affected Members
1	Nipa/Milapore	0+ 000-2+300	2.3	18,794.81	69	365
2	Nipa/Towens	2+300-5+500	3.2	26,149.30	30	163
3	Hopol	5+500-7+100	1.6	13,074.65	33	193
4	Hinn	7+100-9+200	2.1	17,160.48	31	186
5	Nipa/Tee	9+200-11+300	2.1	17,160.48	17	91
6	Hal	11+300-12+500	1.2	9,805.99	0	0
7	Inzapere	12+500-13+100	0.63	5,148.14	0	0
8	Pint	13+100-14+200	1.1	8,988.82	0	0
9	Kopol	14+200-18+600	4.4	35,955.28	0	0
10	Maip	18+600-23+500	4.9	40,041.11	0	0

11	Kupin	23+500-27+700	4.2	34,320.95	0	0
	<b>Total</b>		<b>27.73</b>	<b>226,600.00</b>	<b>180</b>	<b>998</b>

44. In terms of the number of households affected, the Nipa/Milapore Tribe is the most affected with 69 households with 365 members. This is followed by Hopol Tribe with 33 affected households with 193 members; Hinn Tribe with 31 affected households with 186 members; Nipa Towns Tribe with 30 affected households with 163 members and Nipa/Tee with 17 affected households with 91 members. In summary there are 180 affected households with a total of 998 household members in the sub-project.

45. Each tribe has its own portion of land within the customary land base. The tribe from its huge land base allocates land to each household depending on their needs. Any household that does not have enough land or one who is displaced from the allocated land is eligible to receive land from the tribe. In such circumstances, the tribe taps into the unallocated land bank to provide the land to its tribal members. Accordingly, the severity of Land Impacts on Tribal members is expected to be minimum. The relevant issues are further discussed elsewhere.

46. GoPNG has encouraged the registration of customary land since the early 1980s but the efforts were unsuccessful. It enacted two laws, the Land Group Incorporation (Amendment) Act and Voluntary Customary Land Registration Act to lay the groundwork for customary land registration. These Acts were brought into effect in 2011, following recommendations from the National Land Development Task Force. The Acts recognize the corporate nature of customary groups and allow them to hold, manage and deal with land in their customary names, and for related purposes. These acts also facilitate the voluntary registration of customary land, to be known as “registered clan land”, and make that land available for development through the use of Incorporated Land Groups (ILGs).

47. These two laws were generally ignored by the customary landowners for fear that land registration would become the basis for the assessment of real property tax or other taxes related to land holdings. Other customary landowners feared that government might use the land registration to usurp their land. Hence, very few customary lands are registered. In the areas where HRRIP has sub-projects, there is no report of any affected customary land that is registered under existing laws.

48. During the DMS, the team tried to establish if there are any documents where the land areas of the tribes can be ascertained. The tribal leaders stated that they have no documents or are unaware if any office where data on their land holdings is available. In addition, tribal leaders also do not know the area of customary land. What they know are locations of trees, bamboo clumps, rivers or ridges that are the outer boundaries of tribal land. They know the boundaries but not the land area within.

49. Tribal land ownership is not absolute and only reflects the social system of PNG. Ownership and boundaries of land can never be fixed for all time but reflect changes in power and authority. Land rights are best perceived from the center, rather than having fixed boundaries. This means that greater clarity of tenure occurs at the center of customary land, with less distinction at the boundary.

50. Land rights are held in common with other members of the tribe. The relationships between tribes influence the assertion of land rights and subsequent tenure. Land tenure is not

absolute but is repeatedly tested by competing tribes. Disputes over land are never lost; rather the loser will regroup for a further claim.

51. It is in the above context the team attempted to estimate the tribal land holding through a survey. However, the tribal elders warned the team that determining the exact areas in square meters will most probably re-ignite boundary issues that would probably lead to a war with the neighboring tribes because of the high possibility that the neighboring tribes will not agree on the boundaries set by another because of past conflicts.

52. With the high risks of resurrecting bad blood between the affected tribes, the team had to be contented with measuring the affected areas of tribal land. The boundaries are approximations where it is quite possible that the neighboring tribes point to different boundaries, the difference is divided and this point becomes the common boundary. These are the reasons why this report cannot present the severity of impacts on land because of the impossibility to establish the total tribal land holdings.

#### **a. Severity of Land impacts**

53. Every tribe has a demarcated area of land which is allocated among its clans. The clan in turn allocates such land to its households to benefit from. Normally, tribal land is not occupied by any member outside the designated tribe. However, if there are encroachers on tribal lands, it is the sole duty of every member to drive the trespasser away even if this will involve tribal warfare. The real owners of the tribal land are the clan members. Hence, in determining the number of affected persons, the tribe is treated as a unique entity with its own distinct clan members each of whom has several land parcels.

54. A household has several plots located in different parts of their tribal land area. Some lands are currently used as food gardens while others are undergoing fallow period during which it is given a rest to regain the lost fertility after farming continuously for 4-10 years. In some cases, the use of food gardens after fallow is given to other members of the tribe, which is entirely a person-to-person arrangement. In the case of this sub-project, tribesmen whose lands are permanently affected will seek some redressal from their leaders by either allocating vacant lands or early activation of fallow lands to the affected households.

55. The assessment of impacts to determine whether the loss of land is significant or not, should be on the tribal level as a whole and not on individual, as determined by the unique customary laws that prevail in the Highlands Region.

56. The land impact of the project is expected to trigger the release of idle tribal lands as substitute lands in favor of the affected households. The location, size and fertility of the substitute lands will be determined by the tribal elders and leaders, taking into consideration the conditions and sizes of the affected land.

57. The determination of the percentage of their affected productive assets had been problematic because the affected households have multiple areas. Further investigations revealed that each household in a tribe has an average of at least 4 productive food gardens with the majority for household consumption while the rest are cultivated for their potential cash income.

58. In the case of trees, the person who planted it becomes the owner regardless of where it is planted. The ownership of natural grown trees goes to the household who owns the plot of

land where such trees are present. The tribal leaders will be consulted in determining the ownership of trees since some may be regarded as owned by the entire tribe.

## **2. Asset Impacts**

### **a. Residential Houses**

59. The sub-project will require the relocation of 27 houses with a total floor area of 210 sq.m. The types of houses and other details are presented in Table 3. Twenty two out of 27 houses are made of non-durable materials such as grass, straw, bamboo, etc. while 4 are made of a mixture of both non-durable and permanent materials such as corrugated sheets, timber frames, planks, cement. Only one affected house is permanent-built where durable materials have been used in the construction of roof, walls and the floor.

60. The major cost of constructing residential houses is the cost of harvesting, hauling, cutting and installation of materials. The frequently used materials are pitpit grass for thatching, shrub sticks, elephant grasses, tree bark and or pitpit stalks as walls. A typical house made of non-durable materials is round or square shaped with an average area of around 6 to 10 sq.m. Because of the cool temperature prevailing in the highlands all year round, windows made of non-durable materials are seldom seen.

61. Traditionally, the perception of the structures made of non-durable materials is only temporary, the duration of which is co-terminus to the durability of the bush material used. Seldom will structure owners undertake major repairs because culturally, they will just wait for the structure to deteriorate and construct a new structure in lieu of the dilapidated structure because it would be more onerous to build a new house in light of the availability of materials in their areas for free.

62. Without the project, replacement is at their own expense as the house becomes old and dilapidated. However, because their houses are affected by the road project, they will be compensated at full replacement costs, and in some cases, even if the remaining lifespan of the affected house is less than a year.

63. In summary, if the affected house is new, the compensation is approximately equal to the cost of building. The older the affected house is, more advantageous to the affected owner is because there is greater difference between the compensation due and the present worth of the house.

### **b. Trade Store**

64. Among AHs are 21 trade stores, 9 of them large while the rest are small, with a combined floor area of 80 sq.m. The difference between a large and a small trade store is in the area of the unit. A large trade store provides enough room for customers to go inside and pick up what they want by themselves. In the case of a smaller trade store, customers wait at the window while the owner serves them upon request. The owners of 5 trade stores use part of the building as their residences. The construction of a trade store is either non-durable or permanent materials. The trade stores sell basic commodities such as flour, cooking oil, salt, sugar and other basic items. The owners of trade stores will be compensated at full replacement costs. In addition, they will receive a shifting allowance, transport allowance and an allowance to compensate for the losses whilst in transit. The compensation was estimated through

discussions with the affected business owners. Additional discussions of allowances provided to trade store owners are found under the section on Compensation.

65. The details of houses and trade stores affected by the project are shown in the following Table 4: Summary of Affected Residential Houses and Trade Stores.

**TABLE 4: SUMMARY OF AFFECTED RESIDENTIAL HOUSES AND TRADE STORES BY SEVERITY OF IMPACTS**

Asset	Non-durable Material	Permanent Materials	Total	Affected Area < 20%	Affected Area > 20%	Total
House	22	5	27	7	15	27
Trade Store	6	15	21	4	17	21
<b>Total</b>	<b>28</b>	<b>20</b>	<b>48</b>	<b>11</b>	<b>32</b>	<b>48</b>

Source: DMS/Socio-Economic Survey, August-September 2015

66. In terms of severity of resettlement impacts, all will lose greater than 10% of the area of the asset. Hence, all items will have to be relocated.

67. The owners of affected assets have to reconstruct them a few meters (average of around 5 meters) away from the road inside their tribal land. There is more than enough space to accommodate the new construction where the tribal elders have stated that there will be no problem with these relocations. In addition to compensation at full replacement costs, the owners of the 16 affected houses, are also entitled to a other allowances such as *moving, transport and temporary accommodation allowances*.

68. Economic displacement caused by the sub-project is in respect of 21 trade stores where the owners are losing more than 10% of their income. The owners will be assisted to re-build lost assets away from the construction limit. The DPs will be compensated at full replacement costs, a *shifting allowance, transport allowance, temporary accommodation allowance and an allowance for business losses*.

69. The resettlement team consulted the engineers in the design team and DOW and they both are in the opinion that shifting or reconstructing the affected asset will entail the preparation of the new site by leveling the earth and preparing the floor and this activity will take a maximum of two days including slightly elevating the footprint of the structure and providing for a small canal around the new structure location. The next step to gather the necessary materials for roofing and external walls, usually pitpit grass, elephant grass, sticks from shrubs, wooden planks and vines for tying the materials together. These materials are readily available and harvesting and/or gathering will take around three days. The next step is to assemble the house frame by burying the wooden planks in the soil indicating the outside perimeter of the structure. Then, the top cord of the roof truss is put in place completing the complete frame of the house. This will take another two days. The roofing materials (grass tied together in bundles) are now placed on the roof and the external wall composed of either grass or bamboo slats are put in place. A wooden barrier is placed to serve as the door of the structure. Used straw sacks are used as internal wall for added insulation against cold weather. This will take another two days. In summary, two persons will take around nine days to build a replacement house made of bush materials.

### **c. Other Assets**

70. There are 2 ceremonial grounds, 1 church and a basket-ball court that will be affected by road works. The two ceremonial grounds are owned by 6 families where ceremonies such as disputes resolution, funeral rituals and other social events are conducted. There is no fee for the use of the ceremonial ground by any tribal group. The ground itself is a levelled area (about 2,000 sq meters) where trees are planted in a certain pattern in memory of ancestors. The stones used to prepare *mumu* (feast food) are also buried in the ground.

71. Part of the church building will be affected where Pastor and other members agree to relocate the church to an unaffected section of their tribal land. The area of the church is about 300 sq meters.

72. The third community asset that will be affected is the basket-ball court with an area of 200 sq meters. The road alignment cuts across the court as such it will have to be relocated to another ground.

#### **d. Affected Grave Yards**

73. In the Highlands, the dead are buried within their customary land, usually very near the residences of the deceased, wherein it is believed that the spirits of the dead would watch and protect their living relatives. The grave site within the customary land is used to place the dead of a specific clan within a tribe. The presence of spirit of dead members of the tribe within their customary land strengthens and reinforces their attachment to the land. The graves served as monuments to their tribal history including their victories and defeats. By law, it is forbidden to sell customary land. In cases of territorial conflicts with the adjacent tribes, the locations of the graves are strong evidence of their boundaries and would support their claims in a land dispute.

74. The relocation of graves and grave sites is influenced by the cultural beliefs in the project area. It is believed that the spirits of the dead are still in the area and if there is no proper showing of respect for the dead through the celebration of proper rituals, the dead will become angry with the living relatives causing unfortunate events to them. The relatives of the dead that will be relocated because of the project have insisted that these rituals including sacrificing pigs to appease the dead should be properly observed.

75. The materials used in a grave indicate the social status of the deceased and the nature of his/her occupancy over the land. Permanent graves with features indicate that the deceased had occupied high social position such as tribal leader, Parliament Member or government official when they were still living. The simpler the materials used in a grave usually indicate a lower social status of a deceased. Unmarked graves usually indicate the temporary occupation of land, usually during tribal warfare when there is no time to construct elaborate graves.

76. In summary, the loss of graves and grave sites has cultural significance because the graves are their connections to the ancestors. In the face of changing socio-economic and political environments and their consequential anxieties, their connections with ancestors are the stabilizing factor that holds their tribe together. The graves also serve as their testimonial to the commonality of ancestry between the clans and sub-clans.

77. In the sub-project, there are 105 affected graves broken down into 3 permanent graves with features; 1 permanent grave and 101 unmarked graves, owned by 58 APH. In addition to the compensation rates provided for under the Valuer General's listing, each affected household will be provided with *relocation and reburial assistance* to compensate for the ceremonial costs,

exhumation, cost of coffin and reburial expenses of the affected graves. The details are shown in the following Table 5: Summary of Affected Graves.

**TABLE 5: SUMMARY OF AFFECTED GRAVES**

Type of Grave	Number
Permanent w/features Grave	3
Permanently Marked Grave	1
Unmarked Grave	101
<b>Total</b>	<b>105</b>

Source: DMS/Socio-Economic Survey, August-September 2015 and July 2016

78. The study team had difficulties in confirming the unmarked graves. For graves that are permanently marked, there is a customary practice in the Highlands Region to put up cenotaphs (commemorative plaques and/or tombs) in memory of the dead, the actual human remain, buried elsewhere. The only time these graves can be validated is when the graves are exhumed and the human remains are found and counted.

#### **e. Fences**

79. In the Highlands, the prevailing property regime is communal ownership. The tribes are the owners of the land and the members of a tribe occupy a certain portion of the tribal land in the similar concept of beneficial occupancy from the tribe.

80. The primary purpose of fences in the project area is not to delineate ownership but to prevent farm animals in entering the garden and destroying food crops. Garden crops is the primary source of food for the affected households. Most of the time, the fences are made out of shrubs, bush materials, make-shift materials and pig wire, indicating impermanence of the fences. In comparison, fences of schools and churches in other parts of the project area are made of permanent materials, usually cyclone wires or hallow blocks. If the food gardens are in the fallow state, allowing the land to recover its fertility, the fences that protect these food gardens are abandoned because the fences had already served their purpose.

81. The sub-project impacts 103 fences with a total length of 5,064 meters. Out of this total, 90 are made of tree branches and shrubs with a total length of 4,688 meters while there are 11 affected wooden fences with a total length of 352 meters. Two fences are made of stone with a length of 24 meters. The details of the affected fences are shown in the following Table 6: Summary of Other Affected Assets.

**TABLE 6 : SUMMARY OF OTHER AFFECTED ASSETS**

Type of Fence	Number	Length
Plants/Shrubs	90	4,688
Wooden	11	352
Stone	2	24
<b>Total</b>	<b>103</b>	<b>5,064</b>

#### **f. Crops and Trees**

82. Annual crops are defined as plants and shrubs whose edible parts can be harvested within a year. The example of crops include all varieties that are cultivated in food gardens in

the sub-project area. It is a policy of the project to permit as much as possible the harvesting of the garden produce before the possession of land for construction. In this instance, there will be no compensation paid because there was no loss where the crops having been harvested and made use of by the owner before the land is taken over by the contractor.

83. It is a tradition among households to plant crops in several food gardens where the land productivity is different. A garden that has been cultivated continuously for 4-5 years is at the verge of losing its productivity whilst a newly-created garden has its fertility at the highest level. The concept of multiple garden is also a survival strategy to ensure a continuous supply of food in the event that there is crop failure in 1-2 gardens. Hence, in the event that the road project has affected one garden, the household enjoys food collected from other gardens.

84. The affected trees can be subdivided into fruit trees and timber species. The compensation rates for the loss of trees (depending on the species, age and/or diameter) has been determined by the Valuer General's Schedule Compensation (2013). However, there is a provision in the Resettlement Framework, wherein, if the rate provided is below the current market price, an additional grant will be provided to compensate for the difference between what is provided in the schedule of compensation and the current market price, even though the rates in the schedule are about 2 years old. The comparison of prices in the schedule with the actual market price of Mendi, the capital of SHP reveals that the Valuer General's rates are still current.

85. Timber trees are viewed as a mechanism of household saving similar to bank deposits. The households in the sub-project area let trees to grow on their landscape until such trees attain a commercial value in the future, ready to be cut down and sold. The money generated from the sale of timber is an important source to spend on eventualities such as enrollment in schools or the payment of bride price or for medical expenses. The loss of timber trees has no immediate effect on household income but would adversely affect their financial capacity during emergencies. Inversely, during tribal conflicts, timber trees are targeted by the opposing tribe which either cut and/or burned down to deprive their enemies of these assets, a process that prolong the economic recovery after the conflict.

86. The classification of crops and trees are provided in the Valuer General's Schedule of Compensation for Trees and Plants (August 2013). The classification of sizes for Forest and Other Large Trees (Category D) are as follows; (a) Trees with a diameter 6 cm to 15 cm shall be deemed to be small trees; (b) Trees with diameter 15cm to 60 cm shall be deemed as medium tree; (c) Trees with the diameter greater than 60cm shall be deemed as mature trees; (d) Trees that do not reach a height of 2.00 meters shall not be subject to compensation claims.

87. Trees under Categories A and C shall be assessed as follow; (a) Trees less than 1 year old, or less than 6 cm diameter, 1.00 meter above the ground level shall be deemed to be seedling; (b) Trees past seedling stage up to 2 years shall be deemed as small trees; (c) Trees over 2 years up to bearing age shall be deemed as medium trees; (d) Trees that are fully grown and bearing fruit shall be deemed as mature trees.

**CATEGORY A (EDIBLE FRUITS AND NUTS) ARE TREES AND PLANTS CULTIVATED IN SPECIFIC AREA FOR THE PURPOSE OF CASH INCOME (COMMERCIAL CROPS) OR FOR CONSUMPTION. THE MOST AFFECTED CROP IS PANDANUS KARUKA (2,769 TREES). THE OTHER DETAILS ARE SHOWN IN THE FOLLOWING:**

88. Table 7: Affected Category A Crops which presents the affected crops in this sub-project.

**TABLE 7: AFFECTED CATEGORY A CROPS**

Category A (Edible fruits & nuts)	Seedling	Small	Medium	Mature	Total
Avocado	35	146	308	292	781
Banana	0	397	1,108	932	2,437
Betel Pepper vine	0	82	432	395	909
Bread Fruit Edible	0	14	25	75	114
Guava	0	30	32	62	124
Mango	0	10	69	14	93
Pandanus (Karuka)	16	487	865	1401	2,769
Pandanus (Marita)	0	20	85	96	201
<b>Total</b>	<b>51</b>	<b>1,203</b>	<b>2,953</b>	<b>3,351</b>	<b>7,558</b>

89. Category B contains garden plants that grow as clumps or vines. The small, medium and large categories refer to the size or diameter of the clump or vine growth. Small is <0.75 m; medium 0.75-1.50 m and large is >1.50m. The two most affected crops are bean (4,493 plants) and black kumu (3,801 plants). The other details of affected Category B crops are shown in the following Table 8: Affected Category B Crops.

**TABLE 8: AFFECTED CATEGORY B CROPS**

Category B (Garden plants)	Small	Medium	Mature	Total
Bean	1,726	1,576	1,191	4,493
Black kumu	596	1,914	1,291	3,801
Broccoli	253	255	167	675
Cassava	237	253	353	843
Chinese Cabbage	126	0857	293	1,276
Choko	100	200	213	513
Corn	836	1,688	430	2,954
Edible Pitpit	117	1,314	1,463	2,894
Local Green	13	95	137	245
Onion	125	118	340	583
Passion fruit	0	69	93	162
Pawpaw	8	41	12	61
Pineapple	5	38	34	77
Pumpkin	10	511	296	817
Round Cabbage	237	776	381	1,394
Sugarcane	645	732	739	2,116
Sweet Potato	313	1,074	1,336	2,723
Taro	89	434	250	773
Taro Kongkong	291	659	731	1,688
Yam	0	116	203	309
Tomatoes	10	136	174	320
Salat	0	222	84	306

Aibika	118	619	618	1,355
Lettuce	11	0	125	136
Strawberry	0	0	15	15
<b>Total</b>	<b>5,866</b>	<b>13,697</b>	<b>10,976</b>	<b>30,539</b>

90. Category C contains other economic plants. Similar to previous categories, where plants grow as clumps or vines, the small medium and large categories refer to the size or diameter of the clump or vine growth. The most affected is tangets or Cordyline (18,858), a kind of fern and casuarinas trees (6,260). The total crops and trees under this category totaled 31,948. These two types of plants do not have commercial value as they are almost entirely being used for cooking (leaves), decorations (mature leaves) and stems in building fences. The details of affected Category C crops are shown in the following Table 9: Affected Category C Crops.

**TABLE 9: AFFECTED CATEGORY C CROPS**

<b>Category C (Other economic plants)</b>	<b>Seedling</b>	<b>Small</b>	<b>Medium</b>	<b>Mature</b>	<b>Total</b>
Bamboo	0	65	320	237	622
Casuarina	325	1,257	2,119	2,559	6,260
Coffee	110	343	874	1,274	2,601
Fern	0	389	1,135	1,676	3,200
Laportia	0	0	20	36	56
Orchids	0	33	98	210	341
Pandanus (Non-edible)	0	9	0	1	10
Tangets (Cordyline)	0	797	6,490	11,571	18,858
<b>Total</b>	<b>435</b>	<b>2,893</b>	<b>11,056</b>	<b>17,564</b>	<b>31,948</b>

91. Category D contains forest and other large trees. There are 8,765 trees included in this category. The most affected Category D trees are classified under “other trees” with 4,927 trees and trees under “lesser known useful species” with 1,599 trees. The details are shown in the following Table 10: Affected Trees.

**TABLE 10: AFFECTED TREES**

<b>Trees (Forest &amp; other large trees)</b>	<b>Small</b>	<b>Medium</b>	<b>Mature</b>	<b>Total</b>
Hard Wood	68	310	391	769
Gum Tree	13	46	138	197
Semi Hardwood	95	229	270	594
Lesser Known Useful Species	296	597	706	1,599
Red Cedar	2	75	50	127
Oak Tree	4	33	36	73
Semi Hardwood	95	49	109	253
Other Trees	1,575	1,562	1,790	4,927
Pine Tree	45	83	98	226
<b>Total</b>	<b>2,193</b>	<b>2,984</b>	<b>3,588</b>	<b>8,765</b>

Source: DMS/Socio-Economic Survey, August-September 2015 and Validation Survey July 2016

92. In summary, there are 486 seedlings, 12,155 small, 30,690 medium and 35,479 mature trees and plants in four different categories affected by the project. The total affected crops and trees amounted to 78,860. The other details are shown in the following Table 11: Summary of Affected Trees and Plants.

**TABLE 11 : SUMMARY OF AFFECTED TREES AND PLANTS**

Tree/Plant Category	Seedling	Small	Medium	Mature	Total
Category A (Edible fruits & nuts)	51	1,203	2,953	3,351	7,558
Category B (Garden plants)	0	5,866	13,697	10,976	30,539
Category C Other economic plants)	435	2,893	11,056	17,564	31,998
Category D (Forest and other large trees)	0	2,193	2,984	3,588	8,765
<b>Total</b>	<b>486</b>	<b>12,155</b>	<b>30,690</b>	<b>35,479</b>	<b>78,860</b>

93. As discussed earlier, the identification of the degree of impact of assets such as trees and plants is problematic and cannot be ascertained accurately. However, to ensure that AHs are not worse off than before resettlement, this RP is adapting an additional 20% amount as severity impact allowance for productive assets based on the value of affected crops and trees which is payable to all AHs losing trees and plants.

#### **g. Vulnerable Displaced Households**

94. The vulnerable displaced households are those who will experience severe impacts than others because of their unique status. ADB policy requires that vulnerable displaced persons are targeted by a project and that they are provided with additional measures in order to reduce impacts on them. The intent of the policy is to ensure that project's adverse impacts are not disproportionate on the vulnerable people who should share the benefits and opportunities of the development equal to others.

95. The sub-project will assist the following vulnerable households: (i) AP household heads whose age is 65 or older; (ii) female-headed household heads; and (iii) household heads who are either physically or mentally incapacitated (disabled). The vulnerability allowance is equivalent to two weeks minimum wage per count of vulnerability for each qualified household.

96. Based on the assessment, there are 37 households headed by elderly persons, 29 women-headed households, 4 households whose head is physically / mentally handicapped and 40 households below the poverty line. These households will receive vulnerability allowances because the resettlement impacts on them are likely to be greater owing to the physical and economic reasons attributable to such households. There are 5 HHs who have experienced more than one-count of vulnerability who will accordingly qualify for additional counts. No households will fall under poverty as a result of voluntary donating the land by the clan/tribes through MOA. This is because the tribal leaders will allocate unused land from the customary land base for those who have lost their land. The details of vulnerable people are shown in the following Table 12: Summary of Vulnerable Households.

**TABLE 12 : SUMMARY OF VULNERABLE HOUSEHOLDS**

Vulnerable Households	Number
Elderly Headed Households	37
Female Headed Households	29

Physically Handicapped Headed Households	4
Households below Poverty Line	40
<b>Total</b>	<b>110</b>

Source: DMS/Socio-Economic Survey, August-September 2015 and July 2016

### 3. Resettlement Category

97. The sub-project is categorized as Category B. The total affected land is 33.50 hectares where 10.84 hectares are the existing roads in the project area and additional 22.66 hectares to be acquired for road widening and other improvements. There are 180 households belonging to 11 tribes/clans who will be impacted at varying degrees. There are 27 households who will be affected by physical relocation whilst 21 AHs will lose more than 10 of their income due to the loss of trade stores. The total number of APs who will suffer severe relocation impacts (physical and economic) is 195 persons in 48 households. In addition, there are 78,860 units of trees and crops that will be affected together with 105 graves and 103 fences with a total length of 5,064 meters. The latter three items are considered not to cause severe impacts on APs.

98. In terms of the impacts on land, the overall land occupied by the affected tribes should be the basis of assessing the impact and not at the household or individual level since a decrease in the landholdings of affected clan member will be addressed by the clan/tribe through releases of idle lands. Some households are also considered affected by virtue of their membership to the tribe/clan and not necessarily considered significantly impacted from economic and physical displacement. The clan/tribes confirmed that they have sufficient lands to release for the affected households and voluntarily agreed to enter into a MOA with the DOW.

99. The determination of the percentage of affected productive assets, including loss of crops and trees, is problematic in a customary-owned land context. However, the assessment revealed that a household normally owns multiple plots or gardens located in several areas which minimize the impact of loss of crops from the project. Most of the affected plants such as tangerines, are not considered as commercial crops but are naturally grown. The leaves are used in cooking, festival decorations and festival costumes whilst stems as fencing material. The ownership of forest and large trees are not always clear-cut since tribes may claim certain rights or benefits especially for old trees located within the customary-owned land.

100. In terms of affected houses, 22 out of 27 are made of non-durable/bush materials such as grass and bamboo. The clan perceived these houses as temporary where replacement is easily made using the same materials freely available in their area. Fifteen out of 21 trade stores are made of non-durable materials.

## IV. SOCIO-ECONOMIC PROFILE

### A. Sources of Data

101. Primary data was generated by the DMS and socio-economic survey conducted from August 25 to September 6, 2015 and further assessed in July 2016. All affected households were included in the DMS. Public consultations were also conducted in July 18-21, 2011, January 5-6, 2012, August 8-25, 2014, April 16-17, 2015, August 25 to September 6, 2015 and 30 June to 15 July 2016.

102. Secondary data analysed were the Papua New Guinea District and Provincial Profile (March 2010) published by the National Research Institute and the results of the National Census conducted in 2011.

### 1. Secondary Socio-Economic Information

103. The proposed sub-project road starts from Nipa Rural LLG in Nipa/Kutubu District and ending in Lai Valley Rural, Mendi/Munihu District, both in Southern Highlands Province. The sub-project road traverses 5 council wards in Nipa Rural LLG and 3 council wards in Lai Valley Rural LLG.

104. **Nipa Kutubu District**-- covers the Wage, Nembi, Mubi, Digimu and Hegigio valleys. Lake Kutubu is in the northeast and Mt Bosavi is in the southwest. Average annual rainfall ranges from 2700 mm to over 4500 mm, increasing from north to south. Altitude varies from 100 m in the lower Hegigio Valley, to over 2500 m on Mt Bosavi. Most people live between 600 and 2200 meters.

105. Based on the 2011 National Census, the population in Nipa Kutub district is 147,005 persons. There are 22,682 citizen households and the average household size is 6.48 persons per household. There are 75,426 males against 71,579 females.

106. The highest population density is on the Nembi Plateau with 200 persons/km<sup>2</sup>. The Nembi Valley has 80 persons/km<sup>2</sup>. The Mubi, Digimu and Hegigio valleys and the Kutubu area have densities of 50 persons/km<sup>2</sup>, while the Wage Valley and Bosavi area have 20 persons/km<sup>2</sup>.

107. Nipa Kutubu District has 55 elementary, 11 community, 25 primary, 1 provincial and 1 vocational schools to service the whole population. The gross enrolment rate is 31.4% while the net admission rate is 25.1%. The literacy rate in the district is 32.3%.

108. There are 11 health centers in the district and 20 aid posts. There are 29 nursing officers.

109. The primary source of income in the district is agriculture of which the dominant activity is coffee cultivation practiced by 79% of total households. The cultivation of food crops is mostly for home consumption. Livestock is raised by 58% of households of which 55% raised it for cash.

110. Agriculture in the Nembi Valley and on the Nembi Plateau is dominated by high intensity sweet potato cultivation. There are 4–10 consecutive plantings before a fallow period of 1–3 years. Production is maintained through the use of composting, tillage, drainage and bedding. People in the Wage Valley cultivate low intensity sweet potato gardens. In the Kutubu area, Bosavi area, and the Hegigio, Mubi and Digimu valleys, sago is the most important food and is supplemented by low intensity mixed staple gardens.

111. Mendi/Munihu District covers the upper Mendi, Lai, Imilhama, and Nembi valleys. Mt Giluwe dominates the east of the district. Average annual rainfall ranges between 2,200 and 2,800 millimeters. Altitude varies from 1,700 m in the Mendi Valley, to over 4,300 m on Mt Giluwe. Most people live between 1,700 and 2,500 meters.

112. Based on the National Census of 2011, the population in the Mendi/Munihi District in the year 2011 is 144,629 persons. There are 23,236 citizen households and the average household size is 6.22 persons per household. There are 74,865 males against 69,764 females.

113. The Mendi Valley has the highest population density at 120 persons/km<sup>2</sup>. The Lai and Imilhama valleys have densities of 100 persons/km<sup>2</sup>, while the upper Nembi Valley has 80 persons/km<sup>2</sup>. The upper slopes of Mt Giluwe are unoccupied. The Mendi area has significant in-migration as people look for better access to services, wage employment in the town and other opportunities.

114. Incomes are very low to low in the entire district. People in the Imilhama, upper Lai and Mendi valleys sell potato, fresh food and firewood. Those in the upper Nembi and lower Lai valleys sell coffee and fresh food. Agriculture in the Imilhama, upper Lai, upper Nembi and Mendi valleys is dominated by high intensity sweet potato cultivation. Potato is an important crop in higher altitude areas.

115. Cultivation is continuous in the Imilhama and upper Lai valleys and production is maintained through the use of terracing, composting and mounding. People in the Mendi Valley make more than 20 consecutive plantings before a fallow period of 5–15 years. People in the Lai Valley cultivate moderate intensity sweet potato gardens.

## 2. Primary Socio-Economic Information

116. The following sections contain the results of the DMS covering all APH where impacts are registered and a socio-economic survey that represents a sample of 25% of the APHs. In addition, data were also collected via Focus Group Discussions, meetings and other types of consultations with the APs.

### a. Demographic Information

117. Out of the 250 APHs interviewed, 226 are men-headed while 24 are women-headed households. Of the total 250 AHs, 187 are nuclear families whilst 63 are extended families. The total population is 1,386 persons or an average household size of 5.54 persons. Out of the total of 1,386 members, 712 are males while 674 are females. The average household size is 5.55 persons for men-headed whilst the same figure for women-headed household is 5.53 persons.

118. There are 24 women-headed households composed of 15 nuclear households and 9 extended households. The total population of these HHs is 133, split as 68 males and 65 females. The average household size is 5.53 persons. The details are shown in the following Table 13: Breakdown of Type, Age and Gender Distribution of Household Members.

**TABLE 13 : BREAKDOWN OF TYPE, AGE AND GENDER DISTRIBUTION OF HOUSEHOLD MEMBERS**

Type of Household	Nuclear	Extended	Total	Nuclear %	Population (number)			Ave HH Size
					Male	Female	Total	
Men-Headed Household	172	54	226	76	637	616	1,253	5.55
Women-Headed Household	15	9	24	63	68	65	133	5.53
Total	187	63	250	79	712	674	1,386	5.54
Percentage	75	25			51.37	48.63		

Source: DMS/Socio-Economic Survey, August-September 2015 and July 2016

119. There are 998 persons in the economically productive age (15 – 65 yrs old) broken down into 510 males and 488 females. There are 280 young dependents broken down into 145 males and 135 females while there are 108 old dependents broken down into 50 males and 58 females. In total, the young and old dependents totaled 388 persons. There are 39 dependent persons for every 100 persons in the economically productive age. (Age Dependency Ratio -- is the ratio of persons in the “dependent” ages (generally under age 15 and over age 65) to those in the “economically productive” ages (15-65 years) in the population.

120. The men-headed households have 920 persons in the economically productive age group split down into 470 males and 450 females. There are 225 young dependents (<15 yrs) split down into 130 males and 95 females while there are 108 old dependents where there are 58 males and 50 females. In total, the young and old dependents totaled 333 persons. The dependency ratio is 79 dependents for every 100 persons in the economically productive age group.

121. The women-headed households have 65 persons in the economically productive age group, split down into 35 males and 30 females. The young dependents are 40 (<15 yrs) of which 25 are males while 15 are females. There are 28 old dependents where 13 are males and 15 are females. In total, the young and old dependents totaled 68 persons. The dependency ratio is 74 dependents for every 100 persons in the economically productive age group. The details are shown in the following Table 14: Breakdown of Household Members by Gender and Age Group.

**TABLE 14 : BREAKDOWN OF HOUSEHOLD MEMBERS BY GENDER AND AGE GROUP**

Type of Household	<15 Years		15-65 Years		>65 Years		Total
	Male	Female	Male	Female	Male	Female	
Men-Headed Household	130	95	470	450	58	50	920
Women-Headed Household	25	15	35	30	13	15	65
Total	155	110	505	480	71	65	985

Source: DMS/Socio-Economic Survey, August-September 2015 and July 2016

## **b. Education and Literacy**

122. In general, PNG has low levels of educational achievement and adult literacy. Since 2000, there has been an improvement in the literacy rate; it is estimated to be 57.3% in 2005 (UNDP, 2007), compared with 51.7% in 2000 (NSO, 2003). The adult literacy indicates that 57% of men are able to read and write but only 46% of women can. The proportions of adult men and women who have ever attended school are 51% for men and 42% for women; however, among people who have ever attended school, only 43% of men and 33% of women completed the primary level.

123. In terms of educational attainment of the APs, 21% do not have children whilst 12 % have no formal education. There are 312 persons (30 %) who are in the primary level while 271 persons (26 %) are in the secondary level. There are 110 persons (11 %) in the high school

level while there are only 21 persons (2%) in the college level. The breakdown of their educational attainment based on gender is shown in the following Table 15: Educational Attainment by Gender.

**TABLE 15 : EDUCATIONAL ATTAINMENT**

Category	Male	Female	Total	Percentage
Not of School Age	134	103	237	17
No Formal Education	200	174	374	27
Primary	182	164	346	25
Secondary	158	108	286	21
High School	65	56	121	9
College	12	10	22	1
Total	<b>712</b>	<b>674</b>	<b>1,386</b>	<b>100</b>

Source: DMS/Socio-Economic Survey, August-September 2015

124. Disaggregating the data on educational attainment by gender, the evidence points to a higher level achieved by women-headed households. The number of persons without formal education is higher for men-headed than the women-headed households. Thirty-three percent of members in women-headed households have primary education whilst the same figure for men-headed households is 29%. The exception is that the proportion of men-headed households that have reached college education is higher compared with women-headed households. The details for women-headed households are found in the following Table 16: Educational Attainment for women-Headed Households.

**TABLE 16 : EDUCATIONAL ATTAINMENT FOR WOMEN-HEADED HOUSEHOLDS**

Category	Male	Female	Total	Percentage
Not of School Age	7	4	11	13
No Formal Education	2	6	8	10
Primary	11	17	28	34
Secondary	17	10	27	33
High School	5	3	8	10
College	1	0	1	1
Total	<b>68</b>	<b>65</b>	<b>133</b>	<b>100</b>

Source: DMS/Socio-Economic Survey, August-September 2015

125. Literacy is generally defined as the ability to read, write and comprehend the meanings of written words and signs that are expressed in any language. There has never been a national literacy survey in PNG. The estimate of 56 per cent of people being literate is based on a question in the national census in 2000: 'Are you able to both read and write with understanding a short simple statement in your day to day life? This means that around 56% of the country's total population can read, write and understand basic things in either their own languages or in any of the country's common languages such as English, Motu and Tokpisin. In Nipa/Kutubu and Nipa/Munihu Districts, the literacy rate is 32.3%, well below the national literacy rate of 56%.

### **c. Economic Activities**

126. The APs in the Nipa – Munihu road section were asked about their main economic activities. Almost all of AHs (93 %) are involved in agriculture. Fifty six households are involved in roadside vending while 28 households have members who are engaged as paid labor.

127. Subsistence agriculture in this region is based on moderate-to- high intensity cultivation of sweet potato. Other common crops include beans, corn, greens, cabbage, sugarcane and peanuts. Households use techniques such as composting and mounding to maintain the productivity of their land; in areas of moderate intensity cultivation, gardens are left fallow for up to 15 years after 2-5 plantings.

128. Most households continue to raise small livestock such as pigs and poultry. Among surveyed households in the RIZ, the sale of pigs as a source of cash income is evident and the income derived from this activity ranges from K500 to K1,500 per year.

129. Coffee is the main crop sold for cash whilst the sale of pigs is the other main source of income. Nearly 90% of coffee growers sell directly to traders.

#### **d. Household Income and Expenditure**

130. The DHs have a total annual income of 596,824 kina. The average annual household income is 3,316 kina or 276 kina per month for an average household size of 5.54 persons. Agriculture remains the foundation of their economic activities in the sub-project and is being practiced by 92.78% of DHs. Income from agriculture contributed 272,454 kina a year representing 45.65% of total annual household income.

131. The second largest source contributing to household income is roadside vending practiced by 57 households (32 %) where the contribution is 11 % of total annual household income. The third largest source of household income is wage employment contributing 9 % of total annual household income. However, this is being practiced by only 8 households, meaning that wage employment is the source of the largest income of AHs. Another interesting feature of household income is remittance from relatives and tribal members. This is a source of additional income for 94 households and contributes 8 % of total annual household income. The majority of income from other sources comes from raising poultry and livestock to be sold to buyers. The other details are shown in the following Table 17: Source of Annual Household Income.

**TABLE 17 : SOURCE OF ANNUAL HOUSEHOLD INCOME**

Income Source	Number of Household	Percentage	Total Income	
			Value (Kina)	Percent
Agriculture	167	92.78%	272,454.00	46
Roadside Vending	57	31.67%	65,865.00	11
Wage Employment	8	4.44%	54,700.00	9
Remittance	94	52.22%	48,730.00	8
Business & Trading	13	7.22%	26,560.00	4
Hunting & Gathering	44	24.44%	18,530.00	3
Small Enterprises	9	5.00%	17,800.00	3
Paid Labor	28	15.56%	15,185.00	3
Transport Business	4	2.22%	13,150.00	2
Other Sources	106	58.89%	63,850.00	11

<b>Total</b>			<b>596,824.00</b>	<b>100</b>
--------------	--	--	-------------------	------------

Source: DMS/Socio-Economic Survey, August-September 2015

132. The sources of annual household income of the 15 women-headed households were disaggregated from the rest of the DH income for comparison. The results indicate that these households have a total annual income of 61,370 kina a year. This amount translates to 4,091 kina per year per household or an average monthly income of 341 kina per month, average of 5.53 persons per household.

133. The ranking of the sources of household income has some variations compared to the aggregated results. Agriculture remains the biggest source of household income with 31 % while wage employment comes second with 18 %. Income from small enterprises comes third with 11 % while it is only seventh in the aggregated results. The other details are shown in the following Table 18: Sources of Annual Household Income for Women-Headed Households.

**TABLE 18 : SOURCES OF ANNUAL HOUSEHOLD INCOME FOR WOMEN-HEADED HOUSEHOLDS**

Income Source	Number of Household	Percentage	Total Income	
			Value (Kina)	Percent out of total income
Agriculture	13	86.67%	18,920.00	31
Wage Employment	2	13.33%	11,200.00	18
Small Enterprises	2	13.33%	6,800.00	11
Remittance	9	60.00%	6,020.00	10
Business & Trading	2	13.33%	5,520.00	9
Roadside Vending	3	20.00%	4,150.00	7
Paid Labor	4	26.67%	1,880.00	3
Hunting & Gathering	2	13.33%	1,550.00	3
Other Sources	6	40.00%	5,330.00	9
<b>Total</b>			<b>61,370.00</b>	<b>100</b>

Source: DMS/Socio-Economic Survey, August-September 2015

134. The men-headed households earn an average of 270 kina a month while women-headed households earn an average of 341 kina a month. This suggests that women-headed households earn 71 kina more a month than men-headed households.

135. Household Expenditure – The total annual household expenditure for the DHs amounted to 481,227.00. This is equivalent to 2, 643 kina per year for each household or 223 kina per household per month. Food is the largest expenditure item reported by all households that accounted for 34.27% of total expenses. The expenditure on food is likely to be under-reported because of the availability of food from their gardens for free.

136. The transport expense was the second largest expenditure item accounting for 15 % of total annual expenses. Field observations show that there were very few passenger motor vehicles (PMVs) plying either the Nipa or the Munihu road section. There are no PMVs that ply from Nipa to Munihu as the road is not passable by PMVs. Third largest expense was education accounting for 11 % of total household expenses while clothing was fourth largest with 9 %. The other details are shown in Table 19: Breakdown of Annual Household Expenditure.

**TABLE 19 : BREAKDOWN OF ANNUAL HOUSEHOLD EXPENDITURE**

Expenditure	Households	Percentage	Total HH Expenditure	
			Value (Kina)	Percent out of total expenditure
Food	180	100.00%	164,928.00	34
Transportation	153	85.00%	74,398.00	15
Education	125	69.44%	52,172.00	11
Clothing	121	67.22%	43,257.00	9
Social Function	93	51.67%	39,686.00	8
Communication	117	65.00%	35,272.00	7
Health	115	63.89%	26,725.00	6
Agricultural Inputs	68	37.78%	20,809.00	4
House Fuel	78	43.33%	18,170.00	4
Electric Power	2	1.11%	350.00	0.07%
Others	34	18.89%	5,460.00	1
<b>Total</b>			<b>481,227.00</b>	<b>100</b>

Source: DMS/Socio-Economic Survey, August-September 2015

137. The annual household expenditure of the 24 women-headed households interviewed was disaggregated from the rest of the results. The total annual expenditure for women households amounted to 46,544 kina. This is equivalent to 3,103 per household per year or 259 kina per household per month. The largest expenditure is food representing 33 % of total expenditure followed education (15 %) and transportation with 14 %). The other details are shown in the following Table 20: Annual Household Expenditure of women-Headed Households.

**TABLE 20 : ANNUAL HOUSEHOLD EXPENDITURE OF WOMEN-HEADED HOUSEHOLDS**

Expenditure Source	Households	Percentage	Total Expenditure	
			Value (Kina)	Percent
Food	15	100.00%	15,540.00	33
Education	13	86.67%	7,000.00	15
Transportation	14	93.33%	6,560.00	14
Communication	10	66.67%	3,322.00	7
Clothing	9	60.00%	3,116.00	7
Health	12	80.00%	3,092.00	7
Social Function	10	66.67%	3,000.00	6
Agricultural Inputs	10	66.67%	2,734.00	6
House Fuel	8	53.33%	1,580.00	3
Others	4	26.67%	400.00	0.86%
Electric Power	1	6.67%	200.00	0.43%
<b>Total</b>			<b>46,544.00</b>	<b>100</b>

Source: DMS/Socio-Economic Survey, August-September 2015

138. Comparing the household expenses between men-headed and women-headed households, there is a significant difference. The total average monthly household expenses of

men-headed households amounted to 220 kina while the same figure for women-headed households amounted to 259 kina or a difference of 39 kina a month.

139. Comparing the income and expenses between men and women-headed households, the former earn an average of 270 kina a month and spend an average of 220 kina or a net monthly savings of 50 kina. The women-headed household earns 341 kina a month and spend an average of 258 kina or a net savings of 83 kina. In summary, women-headed households are earning more, spending more and save more than men-headed households.

#### **e. Poverty**

140. The highest poverty rates occur among households that have little or no cash incomes, that is, families that rely primarily on subsistence agriculture, hunting, gathering and fishing to meet household consumption needs. However, farmers that grow and sell tree and other crops have high income levels. Altogether, people involved in the agricultural sector account for 86% of all poor.

141. Among the affected households, 40 are poor. Out of poor, 22 are also women-headed and 2 HHs are headed by an elderly person. The poor households do not have animals and their land is also smaller compared to the non-poor. The poor also do not have trading, vending and other small-scale income activities. All poor people also do not have accessory housing units. They cook, live and sleep in the same unit.

#### **f. Housing Information**

142. Based on the sample size of 50 DHs, the major source of domestic water is from nearby streams accounting for forty seven households. There are two families that source their domestic water from springs while one household has piped water. The main toilet type is the pit-latrline owned by almost all (49) households while only one has the flush-type. Forty nine households use wood while the remaining one household electricity as their household fuel. There are forty nine households using kerosene as their lighting fuel while one household uses electricity. The lighting source for 18 households is kerosene, 30 use pit-pit plants while one household uses electricity from a private generator.

143. Over 97% of households own their houses where all are constructed using non-durable materials, i.e., wood frames with woven bamboo walls and straw/grass thatch roofs. Few have “modernized” their traditional houses with windows and front porches have been fixed. The better-off households have used a combination of non-durable and durable materials in the construction of their houses. Only one of the AH is permanent-built where permanent materials has been utilized in the construction of all three components namely, roof, walls and the floor.

#### **g. Migration**

144. There are generally four types of migration in PNG, (a) rural to urban, (b) rural to peri-urban, (c) rural to rural and (d) rural to resource projects. These movements are associated with the ability to earn cash incomes in particular provinces, with most migrants moving from provinces where incomes are lowest, to provinces where incomes are highest. In many parts of PNG people are moving from areas they perceive as disadvantaged to areas they perceive as advantaged. That is, from poor quality land with poor access to markets and services, to higher quality land with better access to markets and services and with increased chances to engage in the cash economy.

145. The DHs were asked if they or any member of the family migrate for work outside of their district. There are no out-migrants members in the 50 households interviewed in the socio-economic component of the DMS in the Nipa-Munihu subproject road. It should be noted however that 94 DHs (52.22%) reported remittance as a source of household income. Remittance contributed 48,730 kina per year (8.16%) to the total annual household income of the 180 DHs.

#### **h. Status of Women**

146. The 50 DHs in the socio-economic component of the DMS were asked what kind of activities the female members of their families are engaged in. The question can have multiple answers. The female members of the families are responsible for the cultivation of their food gardens (88%). This is a very important source of food in their families and women are responsible for their continuous production. The household works, which is a traditional domain of women, are being done by women in 44 households (88%). Other activities are shown in Table 21: Women's Participation in Economic Activities.

**TABLE 21 : WOMEN'S PARTICIPATION IN ECONOMIC ACTIVITIES**

<b>Economic Activity of Women</b>	<b>Total Responses</b>	<b>Percentage</b>
Agricultural Cultivation	44	88
Household Works	44	88
Services	12	24
Agricultural Labor	11	22
Collection/Sales of Forest Products	11	22
Household Industries	11	22
Others(poultry, piggery)	10	20
Allied Activities	1	2
Trade and Business	1	2
Non Agricultural labor	0	0.00

Source: DMS/Socio-Economic Survey, August-September 2015

147. The same 50 AHs were also asked about female participation in decision making in the family. Based on the results of the study, the women in the study area have mainstreamed in generating income to augment family income. In addition, the female participation in decision making process on family matters is apparent in that women in this sub-project have very high participation rate. Table 22: Summary of Female Participation in Decision Making presents the summary of the female participation in decision making in the study area.

#### **i. Transport Use**

148. The AHs were asked to rate the physical condition of their existing road based on their perceptions. Only 2DHs said that their road is good, 12 DHs said that their road is average. Thirty six DHs rated their road negatively with 8 DHs saying that their road is poor while 28 DHs said that their road is very poor.

**TABLE 22 : SUMMARY OF FEMALE PARTICIPATION IN DECISION MAKING**

Female Participation on Decision Making	Total Responses	Percentage
Day to Day Activities	47	94
Financial Matters	46	92
Health Care of Child	45	90
Education of Child	43	86
On Social Functions and Marriages	40	80
Purchase of Assets	20	40
Others	11	22

Source: DMS/Socio-Economic Survey, August-September 2015

149. The DHs were asked about their willingness to pay toll tax to develop and improve their road. Eighty four DHs (87.50%) were willing to pay toll tax to improve their road. The average monthly transportation expense was around 49 kina a month.

## **V. DISCLOSURE, CONSULTATION AND PARTICIPATION**

### **A. Consultations during Project Preparation**

150. In compliance with GoPNG and ADB policies and priorities, the HRRIP will ensure a transparent and accountable process for land acquisition as required in upgrading, rehabilitating and maintaining roads in the Highlands Highway network. Dissemination of information and consultation with stakeholders has occurred at different points in the preparation and implementation of the Nipa – Munihu road sub-project to ensure that displaced people (DPs) and other stakeholders have timely information about land negotiation. The DOW through its consultants working in collaboration with Provincial and District Administrations and local authorities had organized consultation activities and disseminated sub-project information and elicited their issues and concerns as well as their opinions regarding the sub-project.

151. The project team composed of DOW consultants and staff held consultations in SHP with provincial and district authorities, as well as representatives of Provincial and District Women's Councils, development enclaves, private business houses, local radio stations, NGOs and community organizations. Community consultations and women's focus groups were conducted in several villages on each of the T3 roads including the Nipa – Munihu road section.

### **B. Consultations with Affected People**

152. All of the APs were consulted through the DMS exercise to conduct assessment of their losses. In addition, the APs were consulted using several other methods such as individual HH contacts of 50, focus group discussions with 15 and meetings with 40 APs. The focus of such consultations was to understand how APs cope-up with resettlement impacts, adequacy of resettlement assistance and to seek their views on additional assistance needed to mitigate impacts.

153. The majority of APs contacted stated that they will significantly benefit from the rehabilitated road. According to their view, such benefits are available for the entire community regardless of assets donated. However, the 40 poor APs in particular, are feeling the gravity of resettlement impacts by having to relocate to another site, donating their cultivated land.

Although they acknowledge resettlement assistance already proposed, suggested that the project considers to provide them with some special assistance to reduce impacts. The resettlement program is viewed as a strategy to support their life with less resource endowment compared to what they commanded prior to resettlement. APs pointed out that their overall socio-economic status is likely to be lower than other households in the community that do not have to sacrifice their houses and other assets. The women APs were uncertain whether they could start a new life that is better than what they enjoy now. Out of the 27 APs who undergo physical relocation of their residential houses, 25 will be relocated to the road-side non-affected tribal land whilst 2 will be relocated further inside the customary land away from the alignment. These 2 HHs do not have land holdings near the road. The 5 AHs who reside within their trades stores will be relocated to inside their customary land away from the road. Whether all relocated APs are able to build their residential houses and their living standards after resettlement will be subject to monitoring. Based on monitoring results, corrective actions will be proposed if the living standards are found to be below with their pre-resettlement living.

154. Out of the 1,130 APs who loose crops, the majority were uncertain whether they can regain the lost production in the new agricultural plots. This is because the new plots may not be as productive as their current land holdings. According to them, the loss of crop output resulting from infertile land is an issue where they may continue to suffer in the future. They suggested the project to consider some way to reduce the impact on them from loss of productive agricultural land.

155. These consultations raised the need for additional assistance that should be included in the RP which are in four main areas. First, there is a necessity to assist APs in establishing and maintaining their food gardens. Their current gardening knowledge is based on traditional skills and experiences. The women in particular raised that they are willing to listen to agricultural extension staff to learn about new methods, practices and materials that are applicable to this area. Second, many of them suggested that they are given improved seeds and planting materials. They suggested that the traditional varieties have the capacity to produce less compared to the improved cultivars. Providing assistance to improve AP's agriculture is vital as all of them will have less land area to cultivate, having donated part of it to the road. Agriculture is also the main contributor to household income as shown earlier. Third, assistance to start a business or to improve existing businesses came from several of them. After listening to their suggestions, business training appears to be the starting point to provide them with some basic knowledge on business options, in setting up a business and its management.

156. Finally, many suggested that they are going to lose several trees from their land and expressed whether the project is able to provide some assistance in tree planting. They also appreciated new knowledge on tree growing if this can be sourced for their benefit. About 20,000 trees will be lost from their land holdings due to the project. The resettlement assistance package proposed under this RP has incorporated above suggestions. The additional measures are reflected in the resettlement budget.

157. The direct consultations with the APs also revealed the necessity to monitor the implementation of resettlement program. Here their suggestion was the project to examine how well the APs are coping with the resettlement impacts after the initial assistance is provided through. They also suggested that additional ways to assist them is discussed at that time should their living standards is found to be lower than prior to resettlement. This aspect is built into the monitoring section of the RP.

### C. Consultations during RP Preparation

158. Based on the assessment of the sub-project, the key provincial stakeholders identified for Nipa – Munihu road sub-project include the Member of Parliament for the district, Provincial Governor, Provincial Administrator and DOW Provincial Works Manager. In the district and LLG levels, the key people identified include the District Administrator, Local Level Government (LLG) Council Presidents, Ward Councilors, Village Court Officials, Women and Youth Leader Representatives, Church Groups, Civic and NGO organization groups.

159. The public consultations for the candidate sub-project —Nipa – Munihu road were initially held in July 18-21, 2011 and January 5-6, 2012 with the twin objectives of: (i) informing the public that the Government of Papua New Guinea (GoPNG) through the Department of Works (DOW) will implement HRRIP and the –Nipa – Munihu Road in their area is a candidate road of the program and (ii) get the opinions, concerns and issues of the stakeholders for consideration in the design of the sub-project. The Annex 8 presents list of people who attended consultations.

160. The Project Team presented the proposed scope of works and explained the needs for the rehabilitation of the said roadway. The participants were informed of the possible positive and negative social impacts of the sub-project and the requisite mitigating measures that will be established to enhance the positive impacts and minimize, or if at all possible eliminate the adverse impacts of the proposed development. Issues and concerns were also elicited from the participants and perceptions were properly noted by the Project Team.

161. The third community consultations were undertaken from August 8-25, 2014. The team distributed project leaflets in English and Pidgin to households along the sub-project road containing project information and HRRIP policies on resettlement. Discussions on the content of the leaflet were undertaken in populated areas along the villages and many of the households.

162. The team went to the sub-project road to conduct the fourth public consultations on April 16-17, 2015 and fifth public consultations from August 26 to September 6, 2015 while conducting the DMS. During this period, while the enumerators were interviewing the DHs, it was inevitable that affected households would ask questions on what would happen to their assets. Hence, the team found this as an opportune time to re-explain the compensation policies of HRRIP. The residents of the sub-project road all agreed on the need for the upgrading and rehabilitation of their road.

163. The AP consultation was conducted along the full alignment at the time of RP validation on 21<sup>st</sup> May 2016. This was undertaken jointly by PIU and HRMG, headed by PIU resettlement specialist where about 30 people were met and discussed about likely impacts from road widening. The cost of assets re-building, availability of building materials, other local costs, adequacy of livelihoods restoration measures and socio-economic impacts were further discussed during this consultation. It was also noted that several assets such as basketball court and ceremonial grounds that are likely to be impacts have not been assessed before. All impacts in the last section of the road (chainage 13+00 to 27+900) have not been assessed. This validation urged the necessity to conduct further assessments especially those APs whose impacts have not been assessed at the time of RP preparation.

164. The final consultation was conducted during July where the focus was on the assessment of impacts not examined earlier. The consultation revealed that road works in the new section

affect 12 houses, 9 trade stores 70 graves, 25 fences, 2 ceremonial grounds, 1 church and a basketball court. There are also 56,583 units of crops and trees that will be affected by the road. These impacts were identified and their resettlement impacts assessed. Valuation of the assets was done using the 2013 rates of the Valuer General.

165. The team also conducted consultations in Nipa District Office on the day of the signing of the Memorandum of Agreement on August 15, 2015 on the use of customary land by DOW for the sub-project road. On this occasion, all the ward leaders and LLG presidents as well as the tribal and clan leaders were present. The principles governing the MOA on the use of customary land and the compensation on the affected assets were reiterated to the signatories and participants in this occasion. The LLG council presidents, ward councilors and political luminaries residing in the district attended and all gave their approval to the proposed sub-project by signing the MOA.

166. Overall, the project team discussed with the participants of the various public consultations the likely social impacts that will arise from the implementation of the sub-project. In the short-term, the rehabilitation will create employment to the people as workers will be required in civil works and ancillary activities. The rehabilitation will also need skilled workers for specialized works. Over the long-term, it will increase farmers' income due to improved road network, provide better access to basic services including necessary health services for women, children elderly, and people with disabilities (PWD), enhance transport of goods and services, trigger improved economic activities and trade and eventually uplift their living standards.

167. The project team clarified with the participants of the various public consultations that additional land will be required for the sub-project despite the fact that the rehabilitation works will be undertaken within the existing road carriage of the current roadway. The Project assured the DPs that there is a provision for assistance under the HRRIP and will be extended only to eligible DPs who are documented as of the cut-off date.

#### **D. Wider Public Consultations during RP Preparation**

168. The sub-project road was constructed in the mid 1970's and has not been well maintained. The tribes and clans being serviced by the existing road had long clamored for the repair and maintenance of their road. The improvement of some roads in the SHP connecting to the Highlands Highways especially the Mendi - Kandep sub-project in Tranche 1 which is very near to this sub-project has added to the frustrations of residents because road development has not reached their area.

169. During this time of neglect of their road, DPs had related that some of members of their tribes have died on the road going to the nearest hospital because they have to carry the sick in hammocks to be brought to the nearest point where PMVs are available. During rainy season, schools frequently had no teachers or were undermanned because of the inability of teachers to go to their respective schools.

170. During consultations, participants were telling the team their hardships in carrying their agricultural produce to the markets. Women took the brunt of the suffering because they are the ones who carry the products to the market. The hardship that these tribal members have to endure has resulted in planting crops just enough for their household needs. They are discouraged to plant surplus crops because of the extreme difficulty in bringing their products in the market. In buying their supplies from the market, they have to suffer the same hardships that are experienced in bringing their products to the markets. As a result, they just buy the

basic commodities like sugar, flour, cooking oil, soap, matches, kerosene and others. The majority have to be content to eat what they grow in their food gardens. In the meantime, the continuous promises from some quarters to rehabilitate their road have heightened their expectations to have their road repaired as soon as possible.

171. The consultation and other activities regarding the sub-project were often delayed because district and ward officials were very busy in other activities. The study team often had to wait for months for the confirmation of consultations and the scheduling of the DMS. However, when they learned that the HRRIP is closing in 2018, suddenly these local officials became readily available for the activities of the sub-project.

172. Despite the three public consultations, the queries coming from the participants seem to indicate that there is a need to conduct additional consultations in certain sections of the sub-project. Hence, a fourth public consultation was conducted. In addition, information dissemination about the project was also conducted on the day of the MOA signing.

173. There was a participant who asked what government will do if they do not permit the use of their customary land. It was pointed out that under the Land Act, government may exercise its power of expropriation to purchase the subject land to be used for road construction. However, based on one of the criteria of HRRIP, the road should be on state land or there is an agreement on the use of the customary land, otherwise, the project cannot proceed and other candidate roads would be considered in lieu of this project. The person who asked this question was booed by his tribesmen because it was pointed out that their suffering should end as soon as possible and the value of the affected land is nothing compared to their sufferings.

174. The question of who should receive the compensation on graves surfaced again in this project after they were informed that a relocation and reburial allowance will be given to owners of the affected graves. Who among the siblings will receive the compensation for the affected graves of their parents? The decision of who among the siblings will receive the compensation is better left to the wisdom of the elders of the tribe and not to DOW.

175. A question regarding who will receive compensation on affected forest trees was raised in one of the public consultations. It was explained that compensation will be paid for all affected assets including forest trees. The general principle is that the owner of the tree should receive compensation. However, the tree is growing on customary land owned by the tribe. It would be better if the tribe decide on who shall receive the compensation because the tribe will know whether the tree was planted by the occupant or it grew naturally without anybody planting the tree. Hence compensation for forest trees would be subject to the decision of the tribe because it owns the land where the tree grew.

176. Another question was about compensation on affected orchids. It was pointed out that based on the Valuer General's Schedule of Compensation, affected orchids will only be compensated if these are cultivated. Hence, natural occurring orchids which have not been cultivated are not compensable. It was also pointed out that seedlings will only be included in the DMS if the seedling is hand planted or tended as per the schedule of compensation. The team left a copy of the Valuer General's Schedule of Compensation (2013) to the elders of the tribe for their perusal.

177. The project involves the widening of certain portions of the road section, will the cutting of the mountainside to widen the road make the area prone to landslides which may endanger residents and other travelers? The slope angle in cutting the mountainside will be constructed

taking into consideration the type of soil in the area. The engineering design will take this into consideration and will propose mitigating measures to stabilize the slope and make the road safer. There is also a construction supervision team that will ensure that the approved design is implemented according to the specifications by the contractor.

178. The other sub-projects had requested the construction of bus bays and waiting sheds and these concepts were floated to the DHs to gauge their reactions. Leaders said that they are very concerned about the possibility of loss of income once the road is sealed. There were many requests if it is possible for them to have a permanent selling area as one of the benefits of the rehabilitation of the sub-project. These are the reasons that support the construction of bus bays as a part of the sub-project for the benefit of the affected community.

179. It should be pointed out that the bus bays are not included in the original road design but part of additional measures to assist community to cope-up with disturbances caused. The construction of bus bays and waiting sheds emerged from the community consultations.

180. The summary of the rest of the questions, comments and concerns raised during the series of public consultations is presented in the following Table 23: Summary of Public Consultation Proceedings.

**TABLE 23 : SUMMARY OF PUBLIC CONSULTATIONS**

Questions/Comments and Concerns	Remarks
What is really the project and how long is the road?	The proposed project will start at the junction of Nipa and will end at Munihu at km 27.73. The project will entail the upgrading and rehabilitation of the existing road. To ensure continuous use of the completed road, there is a maintenance component of 3 years that will be also undertaken by the winning contractor.
How wide is the proposed road and what assets will be affected by the road project?	The existing road has an average width of 4 meters and it will be improved to around 12 meters. Hence, there is a need to use an additional of 8 meters or around 4 meters of each side of the existing road. All assets within the average of 4 meters each side and called the construction limits will be affected by the project.
What is the construction limit?	The construction limit is the width required to upgrade and rehabilitate the road. This will include the road carriage, shoulders, drainage and set back. There may be cases wherein the impact of construction will be beyond the construction limits as in heavy equipment placed beyond. In these cases, affected assets will be properly compensated. Hence, there will be a provision for compensation in case assets outside of the construction limits will be affected.
What will happen to our customary land, will government pay for the	The project is negotiating for the use of the land required with the tribes and clans who own the required land needed for the

land?	project. Ownership will still be retained by the tribes by the use will now be open to the public. If the negotiations are successful, there will be no payment for the affected land (MOAs have been signed).
How about our houses, trade stores, graves, fences, and crops and trees, will we be paid and how much?	A detailed measurement survey (DMS) will be conducted to determine assets within the construction limits. Affected structures will be paid based on replacement costs. This means that if the structure will be constructed as of today, how much it will take to construct a similar structure as present prices. Graves, fences, crops and trees will be paid based on full replacement cost or the Valuer General's rates of 2013 if still application to the current market rates.
The tribes who own the customary land have agreed as evidenced by the signed MOAs to permit DOW to use the land for the road. We assure DOW and ADB of our full cooperation because we need badly the road.	The team thanked the speakers who promised full cooperation for the construction of their road. Their comments and needs for a sealed road will be noted and communicated to the proper authorities.
What can we do if we do not agree with the compensation being offered for our affected assets?	The rates are replacement rates based on present prices or according to the Valuer General's rates. If you do not agree with the amount of compensation, there is a grievance redress mechanism wherein you can file your complaints and grievances.
What are the steps in filing a complaint with the GRM?	File the complaint with the PWM who will investigate and decide the merits of the case. If the complainant is not satisfied with the decision, the case can be elevated to an arbitration panel composed of district administrator, LLG president, representatives of HRMG, religious sector and civil society. If the complainant is still not satisfied with the decision, the case can be elevated with the proper courts. Anytime, the complainant can go directly to the proper court.
How do you know the real owners of the affected assets?	The ward leaders and elders of the tribe are welcome to also participate during DMS so that they can already inform the survey team the real owners of the affected properties. In addition, there is also a validation survey wherein before the actual payments, representatives from HRMG will visit the chainages of the affected assets to confirm the results of the DMS and ensure that the real owners will be paid the necessary compensation.
We saw the rates for affected graves and it is too low to reimburse our expenses. Is there any additional assistance from the project? It is customary in this area to offer a	The project will provide for relocation and reburial assistance for households whose graves will be affected by the project. The amount will be computed based on actual expenses. (The project is allocating an additional amount of 1,600 kina per affected grave for expenses for exhumation and reburial plus

farewell to the departed after exhumation. This will involve slaughter of a pig. Can the project support us in this area?	cost of coffin and a pig. Applause by participants!!
What is the cut-off date?	After the completion of the DMS, new improvements including structures, crops and trees, graves, fences and other assets introduced inside the designated construction limits will no longer be compensated. This will prevent speculators to unnecessarily earn at the expense of the project.
The proposed project will be of great assistance to bring our farm products to the markets, help in educating our children and facilitate the delivery of health services to our families. What are we supposed to do to hasten the construction of our road?	Your utmost cooperation will be needed to have your permission for the use of your customary land. In addition, please observe the cut-off date wherein newly introduced improvements will not be compensated. Avoid building structures and/or planting crops and trees because after the cut-off date, new improvements will not be compensated.
Who will construct the road? Are the bridges included?	The sub-project will undergo an international bidding process and the winning bidder will be awarded the construction contract. The rehabilitation of all bridges is included in the proposed works. Local contractors are encouraged to apply with the winning contractor as sub-contractors to ensure that residents can partake in the employment and livelihood opportunities arising out of the sub-project.
Can we participate in the road construction as workers so that we earn additional income?	Qualified and willing tribal members are encouraged to apply and work in the project. It is a policy of both DOW and ADB to encourage active participation of residents along the sub-project. Interested members may apply directly with the winning contractor or any authorized sub-contractor.
Are there benefits that women will get out of the project?	The sub-project will benefit men and women alike. In addition, women are encouraged to apply for work in the project. Aside from this, there are also proposed roadside vending areas to be funded by the project located in strategic position along the road. Considering that almost all of the roadside vendors are women, this project will specifically for the benefit of women.
Considering the socio-economic benefits that we will derive from this road project and the funds will come from the government and our only contribution is our customary land, we unanimously approve and support the proposed road project.	The team thanked the participants in a series of consultations and their approval and full support will be communicated with the pertinent authorities.
A large number of our people will lose their crops, shrubs and trees.	The team suggested that the RP includes some special provisions for the benefits of AHs. These include assistance to

This will be a huge loss to us as agriculture is our main livelihoods. Will the project help us in this area?	crop production such as the distribution of seeds and planting material combined with agricultural extension. The APs hugely supported this activity.
Project team asked whether the bus bays and shelters proposed in the RP are acceptable to APs?	The APs in replying to the question said that this is a predominantly rural area and having some bus bays and shelters will add value to our area. They wished the facilities already included are retained in the RP
Can we get an income by selling food to construction team?	Yes, this is allowed. Once the contractor is mobilized, its employees will require fresh garden produce, animals and other items. The contractor may call on you to provide such materials for an agreed price. Project team can assist you to establish the contact with the contractor
Is it possible for the project to provide us some training on agriculture? No extension officer has ever visited this area!	The livelihood component of the RP is designed to assist APs to raise their agricultural production through the application of new technical know-how. This is already included and budgeted. Another applause!!

181. The series of public consultations and sub-project disclosures conducted in several places along the sub-project road were held in accordance with ADB's Public Communication Policy (2005). The DPs and other stakeholders were given leaflets and several opportunities to air their issues and concerns and express their opinions regarding the proposed sub-project.

### **E. The Memorandum of Agreement Process**

182. Based on the resettlement framework, land acquisition impacts of the upgrading, rehabilitation and maintenance of the Highlands Highway network of roads may include one or more of the following (i) permanent use of customary land, as required to permit upgrading and rehabilitation of the road; (ii) temporary use of customary land, as required to establish construction camps; and, (iii) damages to crops, trees and/or structures on affected lands and/or due to ancillary works. The MOA covers only the permanent use of customary land to permit the upgrading, rehabilitation and maintenance of the sub-project. The Annex 5 provides signed MOAs that include the missed section also.

183. After the team computed the minimum land required to upgrade and rehabilitate the sub-project based on the detailed engineering design, the team started to conduct public consultations to inform the stakeholders along the full length of the road and elicit their comments, issues and concerns. The mechanics of the MOA was one of the major topics in every public consultation because it affects their customary land. The actual area for each tribe and council ward was determined first in the plans and was confirmed during the actual measurements in the field.

184. The ward leaders and tribal elders were also mobilized to assist in explaining to their members the implications of such a MOA. Then these leaders and elders notify the district administrator who inform HRMG that they are ready to sign the MOA. Copies were given to the Member of Parliament, Provincial Governor, District Administrator and the Provincial Works Manager of SHP among others, before the actual signing of the MOA.

185. The signing of the MOA is an occasion for the leaders of the area to meet together with the Member of Parliament, other officials of national government agencies who are from the sub-project, local leaders and tribe members. During the actual signing, leaders speak in support of the project pointing at community benefits. The Land Officer of the province, if present, is tasked to explain for the last time the consequences of their signing of the MOA, otherwise this task done by the District Administrator.

186. It should be noted that during the signing of the MOA in Nipa District, leaders of two wards did not immediately sign the MOA but requested additional time to really understand the contents of the MOA. These ward leaders went to the district office the following day and met with the leaders of the district including the Parliament Member and a high ranking officer of the Department of Transport who is from this district. It was explained to them that the MOA has nothing to do with the contractor who will be awarded the construction project but only involves the grant of permission to DOW to permit the use of the land for the upgrading and rehabilitation of the road. After a lengthy discussion and assurance that the road contract will undergo an international bidding process, the leaders of the two wards signed the MOA. Many leaders in the district were of the opinion that the road is only a collateral matter and the real reason is the intensity of politics in the district.

187. The MOA process is witnessed by a third-party verifier engaged by DOW, whose role is twofold. First, it validates that the assets that will be lost were properly assessed, the applicable compensation rates were applied and the price offered is a fair reflection of what it costs to replace the lost assets. Second, the verifier observes the actual signing process and determine whether it is fair, open and transparent. He also observes whether there is threat, intimidation or duress exerted on the signatories or if the signing of the signatories are based on their own free will by listening to speeches and observing the demeanor of the participants. In some instances, the independent verifier approaches certain speakers to interview them about their speeches. This role is normally undertaken by a Magistrate or another senior officer/ retired person or an independent organization employed for this purpose by HRMG. In the case of the present sub-project, MOA process undertaken in the Lai Valley LLG and Nipa Basin LLG has been verified by Carter Education Management Consultancy which is an independent organization. The third-party verification is attached to the relevant MOA itself.

188. The MOA negotiations started in Tranche 1 and through the years the MOA has been amended and refined by results of the many discussions with stakeholders. There are provisions in the MOA that were the results of discussions with the tribes such as the integration of the compensation policy of HRRIP, the reversion of possession of the land to the tribe subject of the MOA if the government abandons the road, the annulment of the MOA in case the road is not included in the HRRIP. In short, the MOA is the result of various consultations starting from Tranche 1 and not a contract of adhesion wherein one party prepares the agreement and the only participation of the other party is to agree or disagree with the terms and conditions. It is a bilateral agreement wherein both parties took active part in the formulation of the terms and conditions.

## **F. Public Disclosure of RP**

189. The list of Aps whose names are in the master list based on resettlement assessment was posted to several notice boards along the alignment. They were requested to review and to confirm the list. Few adjustments were made to the final list based on their further suggestions. This RP will be properly endorsed and disclosed by DOW to concerned national and local

government agencies, communities and to directly displaced persons before DOW's submission to ADB. After the approval of this RP by ADB, it will be posted in ADB web site.

## **VI. GRIEVANCE REDRESS MECHANISM**

### **A. Legal and Traditional Grievance Redress Mechanism in PNG**

190. Land and land-related disputes are common to all regions of Papua New Guinea and cause social and economic disruptions. PNG's Land Disputes Settlement Act 1975 created a three-tiered structure for settling disputes--mediation, arbitration and appeal--based on a combination of Melanesian customs, principles and practice, and formal law of British origin. Papua New Guinea's system for settling customary land disputes provides clear benefits from using existing customary norms and institutions as well as emphasizing local expertise and decentralising decision making.

191. The Land Disputes Settlement Act sets out three stages for the attempted settlement of disputes over customary land. Stage one is compulsory mediation by a land mediator, an appointed local person-in practice always a male-who the local community agrees possesses the knowledge required. If mediation does not settle the dispute, stage two allows for the dispute to be taken to a Local Land Court for arbitration. A Local Land Court comprises a Local Land Magistrate as chairman and either two or four land mediators. The court has wide powers under the Act to reach a settlement between the parties, but if no agreement can be reached, it can impose settlement.

192. In general, disputes cannot be taken further than the Local Land Court, but the Act does allow a limited right of appeal (against a Local Land Court's decision) to the Provincial Land Court (stage three). Grounds for appeal are confined to errors of jurisdiction, decisions made contrary to natural justice or cases of manifest injustice.

193. Mediated settlements are evidence of land rights but they do not bind the parties (unless approved by a Local Land Court), whereas arbitrated settlements do bind the parties. The Local Land Court is also authorised to deal with other matters 'inextricably involved' with the land dispute before it.

194. The Act is largely administered by the Provincial Land Disputes Committee for the province concerned, lawyers are in general excluded from appearing in Land Court hearings and the Land Courts are not bound by any laws other than the Act itself or any other Act expressly applied to them. In special circumstances under Section 4 of the Act, the national government may declare that a land dispute should be settled by some means other than those provided by the Act. Such special circumstances include that the dispute is longstanding and previous attempts at mediation have failed, or the dispute has already resulted in serious breaches of the peace. This section of the Act was included as a 'safety valve' to help resolve intractable cases.

195. Papua New Guinea's Land Disputes Settlement Act was designed by Melanesians for a Melanesian society. Its structure of mediation, arbitration and appeal is based on a combination of Melanesian customs, principles and practice, and formal law of British origin. The mandatory involvement of the disputing parties in mediation is based on the principle that a resolution by consensus is more permanent than one imposed by authority. The system is decentralised to district level to bring it closer to the community it is designed to serve.

**B. Grievance Redress Mechanism for Sub-project**

196. Based on the experiences learned in Tranche 1 of the HRRIP, a grievance redress mechanism (GRM) has been established in the 2 provinces. The aim of the mechanism is to provide displaced persons (DPs) with the opportunity to seek redress of their complaints and grievances in a timely and satisfactory manner. The lessons will be useful to make the GRM works better for this sub-project.

197. In Tranches 1 and 2, an AP may file his/her complaint directly with HRMG which is based in Mt. Hagen, WHP. Upon receipt of the complaint, HRMG will send its personnel to the site to investigate on the complaint. It is a discouragement to APs to air their grievances because of the long travelling time and the expenses involved in visiting HRMG.

198. At the same time, the investigations of the complaints by HRMG were often delayed because of limited personnel who were busy doing their regular tasks. The HRMG personnel who were tasked to investigate are often not familiar with the prevailing tribal system in place, including boundaries, relationships among and sub-clans and historical perspective of the location of the complaint because they come from different areas and provinces.

199. Based on lessons learned in Tranche 1, the GRM mechanism has been improved. The up-graded GRM entertains both complaints arising from the implementation of this RP as well as environmental grievances. It encourages APs to lodge grievances within the province. The PWM receives the complaint that makes it more convenient for APs lodge the complaint. It is easier for the PWM to resolve the issue. A grievance redress committee (GRC) is established in the province. The GRC has 5-6 members, four from the district or province where the sub-project is located. The members from the district or province are District Administrator (chairperson), LLG President (deputy chair), PWM (secretary), representative of APs and a church nominee. The representatives of HRMG are the Community Relations Officer and Environmental Officer.

200. DPs can initiate a project related resettlement complaint by filing a written or oral complaint addressed to the Provincial Works Manager (PWM). Within 10 days upon receipt of complaint, the PWM shall furnish a written summary of the complaint to the DP, his/her tribe/clan and to HRMG as the implementing agency of the RP with a notice of a mediation meeting not later than 10 days from the receipt of the written summary of the complaint of the complainant.

201. During the mediation meeting, the PWM will receive, clarify and simplify the issues involved and would try its best efforts to resolve the issues involved which would be acceptable to both to the DP and HRMG. If there is meeting of the minds between the DP and HRMG, a written agreement will be signed summarizing the points of agreements. If there was no such agreement, the matter is presented to the GRC.

202. The GRC meets at short intervals subject to the number of grievances to resolve. Both parties may re-negotiate the offer made during the first hearing and may introduce new arguments and evidences to support their respective positions. After the summation of their respective positions, the GRC shall make a decision based on the policies governing HRRIP, prevailing laws of PNG and customary laws of the place where the dispute arose.

203. If the AP is not satisfied with the decision of the GRC, s/he may take the grievance to the PNG judicial system. In this case, HRMG will hold the compensation amounts in escrow. Compensation will be paid in full upon final resolution of the case in the courts or in any other fora, in accordance with the entitlements of the affected person as decided by the court of competent jurisdiction.

## **VII. LEGAL FRAMEWORK**

204. The policy framework and entitlements for land acquisition/resettlement are based on the laws, regulations and policies of the Government of Papua New Guinea (GoPNG) and the ADB safeguard policy. The principal PNG laws include: (i) the 1975 Constitution; (ii) the 1996 Land Act; (iii) the 2000 Land Disputes Settlement Act; (iv) Fairness of Transaction Act (1993) (v) Land Group Incorporation (Amendment) Act (2009), and (vi) Customary Land Registration Act (2009).

205. While Tranche 1 (T1) was prepared under the ADB Policy on Involuntary Resettlement (1995), all subsequent tranches including Tranche 3 where the Nipa-Munihu road section is included will follow ADB's Safeguard Policy Statement 2009 (SPS).

206. In the HRRIP, Tranche 3 sub-projects including this sub-project and subsequent tranches will be governed by the SPS. In addition, land acquisition, compensation and resettlement for all HRRIP sub-projects will be carried out in compliance with ADB policies for gender and development (1998), accountability (2011) and public communications (2011).

### **A. PNG Legal Framework**

207. Majority of the lands in PNG are classified as customary lands wherein specific territories are owned or vested on the clans. Clan members or "primary right holders" are co-owners of their customary lands with the right to use but not to alienate or sell the lands. They own/possess these lands as stewards for future generations. Land ownership and use is an integral part of the identity, the sustenance and the social relations of clans; property rights are inherited from ancestors and maintained in trust for future generations. The State has no authority over customary land other than the provisions of the Land Act to acquire customary land for public purposes.

208. During the colonial administration, the 1963 Customs Recognition Act stated that "custom shall be recognized and enforced by, and may be pleaded in, all courts..." (Art. 3(1) (a)). Following independence, these principles were reaffirmed in the Constitution and subsequently elaborated in the 2000 Underlying Act. Customary law is defined as the rules, rights and obligations pertaining to an individual or group by custom and tradition; and, according to the 2000 legislation, shall apply and be recognized by the courts where written and underlying laws do not apply and except as it is inconsistent with written law.

#### **1. PNG Constitution**

209. The 1975 Constitution explicitly provides for the adoption of custom as part of the underlying law of PNG (Schedule 2), thus recognizing the property rights attached to customary land. During the colonial administration, the 1963 Customs Recognition Act stated that "custom shall be recognized and enforced by, and may be pleaded in, all courts..." (Art. 3(1) (a)).

Following independence, these principles were reaffirmed in the Constitution and, subsequently, in the 2000 Underlying Act. Customary law is defined as the rules, rights and obligations pertaining to an individual or group by custom and tradition; and, according to the 2000 legislation, shall apply and be recognized by the courts where written and underlying laws do not apply and except as it is inconsistent with written law.

210. The Constitution also guarantees the right of PNG citizens to protection from unjust deprivation of property (Art. 53). No land or interest in land may be acquired compulsorily by the State except as it is required for public purposes or other justifiable reasons. Moreover, in the event of expropriation of land, “just compensation must be made on just terms by the expropriating authority” (53(2)).

## **2. 1996 Land Act**

211. The Land Act (No. 45 of 1996) sets out the conditions and procedures for the State to acquire customary land required for public purposes such as roads, tracks, bridges, culverts and quarries. These legal provisions and procedures apply to the acquisition of land and assets by the State, legally owned/leased by other parties (persons) than the State. PNG does not avail of any national, provincial or local government policies for relocating and resettling people. Acquisition of land and assets by the State for public purposes and the related legal procedures, compensations, and the legally defined procedures for appeals, grievance redress, etc are all arranged for under the Land Act 1996 (See additional pertinent provisions in Annex 3 Salient Provisions of the 1996 Land Act).

## **3. Land Dispute Settlement Act**

212. The Land Disputes Settlement Act (No. 10 of 2000) was initially adopted in 1975. It sets out rights and procedures related to the resolution of disputes involving customary land. It recognizes as parties to these disputes, customary kinship groups, customary descent groups and customary local groups or communities (S2). It also requires that proceedings take into account relevant customs (S35 (1) (d)). The Act provides for the establishment of a Provincial Land Disputes Committee, as well as Land Courts at the local (LLG), district and provincial levels. The Committee can appoint land mediators for specified land mediation areas where disputes occur; a mediator may be the Local Land Court Magistrate (LLCM), a Village Magistrate, a Local Councilor or other senior person of good standing with the litigants. The Act promotes a process for resolution of land disputes through (i) a first step of mediation; if mediation fails, it is followed by (ii) arbitration, and (iii) appeal to the designated courts. The mediation and arbitration processes are based on the principles of traditional dispute settlement in PNG.

## **4. Fairness of Transaction Act of 1993**

213. The Fairness of Transaction Act of 1993 relates to the effect of certain transactions, to ensure that they operate fairly without causing undue harm to, or imposing too great a burden on, any person, and in such a way that no person suffers unduly because he is economically weaker than, or is otherwise disadvantaged in relation to, another person. The purposes of this Act are to (a) ensure the overall fairness of any transaction which (i) is entered into between parties in circumstances where one party is for reasons of economic or other advantage predominant and the other is not able to exercise a free choice; or (ii) for one reason or another, without attaching any evil design or bad faith, appears to be manifestly unfair or not to be genuinely mutual; and (b) allow for the re-opening and review of any transaction irrespective of

fault and validity, enforceability or effect of any agreement; and (c) ensure the fair distribution and adjustment of rights, benefits, duties, advantages and disadvantages arising out of a transaction. Transaction means any contract, promise, agreement, dealing or undertaking of an economic or commercial nature whether supported by consideration or not entered into between parties, and includes (a) an informal, complete or incomplete transaction; and (b) a transaction governed by customary law.

## **5. Protection of Transport Infrastructure Act, 2010**

214. The Protection of Transport Infrastructure Act was enacted unanimously by PNG Parliament to protect all types of roads and road reserves from unlawful entry, occupation or use when ordered to do so. It also penalizes anyone who stops people from using transport infrastructure by blocking them, and/or destroys or damages any transport infrastructure. It also prohibits the demand for compensation and other related payments and the use of threats to induce any compensation and other related payments regarding the use of transport infrastructure. In addition, it also punishes any person who fails to stop members of his family or other people from committing an offence under this act.

215. This Act applies to all roads built on land acquired by the State or built on land yet to be acquired by the State. If the land has not been acquired by the State and roads have been built on them, the owners cannot block the roads or damage the transport infrastructure. The legal remedy is to file complaints or grievances with the proper courts and not undertake these prohibited acts enumerated in the law.

## **6. Land Group Incorporation (Amendment) Act and Voluntary Customary Land Registration Act**

216. These Acts were brought into effect in 2011, following recommendations from the National Land Development Task Force. The Acts recognize the corporate nature of customary groups and allow them to hold, manage and deal with land in their customary names, and for related purposes. These acts also facilitate the voluntary registration of customary land, to be known as “registered clan land”, and make that land available for development through the use of Incorporated Land Groups (ILGs). These laws encourages (a) greater participation by local people in the national economy by the use of the land; (b) better use of such land; (c) greater certainty of title; (d) better and more effectual settlement of certain disputes; (e) legal recognition of the corporate status of certain customary and similar groups, and (f) conferring on them, as corporations, of power to acquire, hold, dispose of and manage land, and of ancillary powers; and (g) encouragement of the self-resolution of disputes within such groups.

## **B. ADB Safeguard Policy Statement (SPS)**

217. The Safeguard Policy Statement (SPS) became effective and applicable in January 2010. The SPS was formulated to address the emerging challenges of development, respond to lessons learned from experience with its previous safeguard policies, and adapt to new lending modalities and financing instruments. Under an MFF arrangement such as the HRRIP, if the management review on any tranche is done after the effectivity of the SPS, the tranches are governed by the SPS. This means that the applicable ADB involuntary resettlement policy for tranche 3 (T3) and subsequent tranches will be the SPS.

218. The SPS, Safeguard Requirements 2: Involuntary Resettlement aims to avoid or minimize the impacts on people, households, businesses and others affected by the land

acquisition required by a sub-project. The scope of the policy includes physical and economic displacement as a result of (i) involuntary acquisition of land, (ii) involuntary restriction on land use and (iii) involuntary restriction of access to legally protected areas. The objectives are to: (i) avoid involuntary resettlement wherever feasible, and minimize involuntary resettlement through assessing sub-project alternatives and alternative project designs. (ii) enhance or at least restore the livelihoods of all affected people (DPs) in real terms relative to pre-project levels and improve the standards of living of the affected poor and other vulnerable groups.

219. The SPS's policy principles on involuntary resettlement are as follow: (1) Screen early and assess resettlement impacts; (2) Carry out consultations with DPs and develop a grievance redress mechanism; (3) Improve/restore livelihoods of DPs through land-based strategies, replacement of lost assets, compensation at replacement cost, and additional benefits, as appropriate; (4) Provide appropriate assistance to physically displaced DPs; (5) Improve living standards of poor DPs and other vulnerable groups; (6) develop transparent procedures for negotiations; (7) provide assistance and compensation to non-titled DPs for loss of non-land assets; (8) Prepare RPs; (9) disclose RPs to DPs and other stakeholders and document the consultation process; (10) conceive and execute resettlement as part of the sub-project; (11) deliver entitlements to DPs before their physical or economic displacement; and (12) monitor and assess resettlement outcomes.

### C. Gaps between PNG Laws and ADB's SPS

220. The gaps between the PNG laws and ADB SPS requirements on land acquisition and resettlement have been identified and necessary gap-filling measures developed to meet the requirements of ADB's SPS. The following Table 25: Gaps and Gap Filling Measures shows the gaps identified between the PNG legal framework and the ADB Safeguard Policies.

Table 24 : Gaps and Gap Filling Measures

PNG Laws	ADB SPS Requirements	Gap-Filling Measures
There is neither provision for persons who lost their land they occupy partially or entirely and who have neither the legal rights nor any recognizable rights to such land.	ADB SPS provides for payment of compensation for all affected assets, except payment of occupied land, including non-title holders.	RP will include payment of compensation for affected assets of all DPs including non-title holders and provide provisions to improve or at least restore livelihood. (There are no non-title holders in this particular subproject).
There are no provisions to prepare RP based on meaningful consultations with DPs, including the poor, the landless, elderly, women, and other vulnerable groups	ADB SPS requires that RPs must be prepared based in consultations with DPs, and that poorer and vulnerable people are also consulted and informed of their entitlements and resettlement options	RPs will be prepared in consultation with DPs, including vulnerable groups, and uploaded on ADB website; translated or summary versions will be available at the provincial, district and local level. Local clan leaders whose members are affected will also receive a copy of the summary RP or brochure with relevant information.
There are no provisions to improve or at least restore the livelihoods of all DPs	It is needed to improve or at least restore livelihoods of DPs by a range of strategies targeted at DPs	RPs will include measures for improvement or at least restoration in living standards of DPs to pre-subproject levels
Very limited provisions to provide assistance/ compensation to DPs who lose access to non-land assets (e.g. Valuer General has 2013 Schedule for valuation).	Requires that DPs are compensated for all losses, including non-land assets, at full replacement cost	The sub-project will follow the principle of replacement cost for compensation of affected assets. DOW will conduct a replacement costs survey to update compensation rates. Valuer-General will provide updated schedule for valuation of sub-project affected assets

There is no requirement for the monitoring and assessment of resettlement outcomes.	It requires that resettlement outcomes be monitored and assessed.	RPs will include indicators and baseline data to monitor impacts on living standards of DPs. The monitoring reports will also be disclosed including to DPs.
---	---	--

#### **D. Resettlement Principles for the Project**

221. This RP has been developed as per ADB's Safeguard Policy Statement (SPS) and the pertinent laws of Papua New Guinea. Where the laws of PNG are not clear, a project-specific set of resettlement principles consistent with ADB policy has been adopted. The resettlement principles of this RP consistent to the resettlement framework are as follow:

- I. Land acquisition and resettlement will be avoided or minimized through careful engineering design.
- II. DPs will be consulted meaningfully and effective mechanisms will be established for hearing and resolving grievances.
- III. Social assessment will be undertaken and RPs will be prepared for roads involving land acquisition/resettlement.
- IV. DPs will receive compensation at full replacement cost for their loss of assets and necessary assistance to ensure that they will be as well off as without the project.
- V. Loss of assets may be compensated through cash compensation or in kind compensation commensurate to actual losses, at the option of the DPs;
- VI. Such compensation will be paid to DPs prior to commencement of civil works.
- VII. Absence of formal title will not be a bar to compensation or assistance. Particular attention will be paid to women, the elderly and other vulnerable people.
- VIII. Land acquisition and resettlement will be conceived of as part of the sub-project and related costs will be included in and financed out of the project cost.
- IX. Resettlement impacts, including any unforeseen losses that may occur during construction will be monitored and remedial steps taken as required.

### **VIII. ENTITLEMENT, ASSISTANCE AND BENEFITS**

222. In PNG, 97% is customary land owned by the tribes and clans. For lands and other communal properties required to implement this sub-project, the units of entitlement are the tribes and clans who own the affected lands needed by the sub-project. For individually owned properties such as structures and other land improvements, the units of entitlement are the owners of these individual affected properties. The background information on compensation in PNG is provided Annex 4: Compensation in Papua New Guinea.

223. In the Nipa – Munihu road section, land acquisition impacts in the rehabilitation and upgrading activities include the following; (i) permanent use of customary land, as required to permit upgrading and rehabilitation of the road; and (ii) temporary use of customary land, as required to establish construction camps and other construction facilities.

#### **A. Negotiation for Use Rights of Customary Lands**

224. For most public works in PNG, the government authorities often consult with landowners who claim an interest in the land and obtain land through negotiation. The sub-project will

continue this tradition of negotiation. When an HRRIP sub-project involves a road that is located on customary land, the HRMG will collaborate with the Provincial and District Administrators and Provincial Works Managers in order to enter into negotiations with landowners to acquire the right to use additional land required to upgrade and rehabilitate the road or on a temporary basis to accommodate other activities related to the HRRIP (See Annex 2 HRRIP Approach in Obtaining MOA).

225. The use of customary land needed to upgrade or rehabilitate the road has been negotiated through a Memorandum of Agreement (MOA) with the community leaders and affected landowners (See Annex 5 Memorandum of Agreement). The subject matter of the MOA covers the (a) existing road carriage and (b) the additional land between the edge of the existing road carriage and the construction limits. This is the minimum additional land required to upgrade and rehabilitate the Nipa – Munihu road section. There are no private affected lands in the whole sub-project road.

226. The MOAs did not cover land improvements such as trees, crops, etc. located in the affected area. Full compensation will be paid to owners of these improvements who will experience physical and/or economic displacement because of the project based on full replacement cost or the latest Valuer General's Compensation Schedule for Trees and Plants (All Regions) if applicable to existing market rate. These will be paid before any civil works will be undertaken in this road section.

## **B. Compensation for Affected Assets**

### **1. Houses and Trade Stores**

227. There are 27 houses, 9 large trade stores and 12 small trade stores that have been constructed within the construction limits. It will be necessary to shift or reconstruct these assets outside the construction limits in order to upgrade the road. The owners are entitled to compensation at full replacement cost and several other allowances. In addition, the owners of the assets will be entitled to a temporary accommodation allowance of up to a maximum of two weeks whilst the owners of trade stores are eligible for an allowance to cover their business losses. The business loss allowance is for two weeks.

### **2. Ceremonial Grounds, Church and Basket-ball Court**

228. Two ceremonial grounds, **one church** and a basket-ball court are affected by road works. The resettlement team discussed impacts with the owners of above assets who agreed to relocate to another section of land which is unaffected. Twenty-five per cent of the church building will be affected by road widening. Hence, the building has to be relocated to an unaffected land. The building is made of semi-permanent materials. As the road is critically important to them, the owners suggested that they be given some materials and other form of assistance to relocate. The owning families will prepare a list of materials to supply them with. This will be done procured and delivered to HRMG as part of in-kind assistance. The RP includes a block sum to assist relocate the ceremonial grounds, the church and the basketball court. The church building has an area of 32 sqm. The payment will also include other costs such as labor charges.

### **3. Crops and Trees**

229. Crops and trees planted within construction limit will be damaged or lost due to the civil works. DPs who own crops and trees that will be damaged or lost are entitled to compensation to replace these assets based on the Valuer General's rates (August 2013). The compensation rates and amounts shall be determined in the following manner:

#### **a. Annual Crops**

230. In the first instance, DPs will be encouraged to harvest annual crops; the clearance of the additional land will be timed, to the extent possible, to enable DPs to harvest. In this case, no compensation will be paid for crops because DPs will be able to use the crops to meet household consumption needs and/or to generate cash income.

231. If DPs are unable to harvest prior to clearance of the land, compensation will be paid at replacement cost based on Valuer General's Rates of 2013.

#### **b. Perennial Crops and Trees**

232. For perennial crops and fruit trees, DPs will be encouraged to harvest the current year's crop; the clearance of the additional land will be timed, to the extent possible, to enable DPs to harvest. In this case, no compensation will be paid for the current crop because DPs will be able to use the crops to meet household consumption needs and/or to generate cash income.

233. Compensation for lost plants and/or trees will be paid at replacement cost based on Valuer General's rates of 2013. For timber trees, DPs will be required to cut the trees prior to clearance of the additional land; they will be permitted to harvest the trees and either use it for building activities or to sell the timber.

234. The owners of affected crops and trees will also be compensated equivalent to 20% allowance of the value of their affected crops and trees for severity of impacts on affected assets.

#### **4. Compensation for Fences**

235. The Valuer General's list provides appropriate rates for permanent fences made of stone or wood and others made out of local materials. Trees used as fences or part of fences will be compensated separately as fruit or timber trees.

#### **5. Compensation for Graves**

236. In the first instance, compensation will be paid in accordance with the provisions of the 2013 Valuer General's rates (unmarked grave site K130; permanently marked grave site K330; with permanent features K1, 300). As necessary, the HRRIP will pay an additional grant of 1,600 kina per grave to ensure that the owners are able to conduct proper re-burial rituals including ceremony as appropriate.

#### **6. Calculation and Payment of Compensation**

237. All compensation rates and the amount of the compensation for damaged crops, trees and structures will be based on Valuer General's rates (August 2013). They will directly receive the rates as assessed. The assessed values will be increased by an average of 5.01 % of inflation rate over 2013 to 2016. The rate increase will be given to the affected community by way of in-kind building materials to refurbish community facilities such as schools, health-aid posts, etc. APs are entitled to payment of all compensation based on the DMS prior to clearance of land and start of civil works. DOW will ensure that all procedures are followed to facilitate payment of APs prior to the start of civil works.

### **C. Income and Livelihood Restoration Measures**

238. As discussed earlier in this RP, the loss of agricultural land and trees is felt by many APs, the vulnerable households in particular. They suggest that new income restoration measures are implemented for the benefit of those who lost their productive assets. Hence, the following income restoration measures aim to mitigate income losses for APs. All activities will be coordinated by HRMG.

#### **a. Assistance to Improve Agriculture**

239. Agriculture contributes heavily to the household income of APs. The loss of agricultural land will have a negative impact on the livelihood of APs. The discussions with APs have suggested that measures such as the free issue of seeds and planting materials with appropriate technical advice is provided to them. Accordingly, this RP has proposed several measures to assist APs. Each of 1,130 APs will be given one-time free seeds and planting material up to a total value of Kina 100. The HRRIP will engage an experienced service provider to provide technical advice to APs. The service provider will work in collaboration with

the relevant staff of the National Agricultural Research Institute (NARI) based in Lae. The service provider will conduct AP training on the establishment of gardens in new locations and on improved crop husbandry methods, business training, among other topics suggested by them.

### **b. Business Development**

240. Income from small businesses is a significant contribution to the household economy. The majority of interviewed APs suggest that they are given an orientation to business development and management with subsequent assistance to initiate business of their choice. There are few organizations (such as ANIS based at Lae) that can provide business training and assist APs to start their businesses. A block sum of Kina 50,000 is proposed in the RP to be utilized for the development of business skills among APs.

### **c. Assistance to Tree Planting**

241. It is estimated that the clearing of road alignment will remove about 25,000 trees from AP's land. Although the APs will receive compensation for such losses, they are concerned that lack of trees will cause other impacts on their settlements. APs will be given saplings for free for planting on their unaffected land. This activity will be entrusted to the service provider mentioned above.

## **D. Design Measures to Assist Communities**

242. The following additional measures are proposed to mitigate non-measurable effects such as the presence of construction crews and their equipment and temporary inconvenience arising out of the construction activities on their customary land through provisions for the construction of bus bays and waiting sheds in favor of affected communities which would enhance their household income.

243. It should be pointed out that in the design plans or in any document for the project, there are no provisions for the construction of bus bays and waiting sheds. These are not design measures included in the project. These ideas were the results of consultations with the DHs and they have recommended the construction of these facilities to take advantage of the anticipated increase in traffic brought about by the upgrading and rehabilitation of the sub-project and earn additional household income. Construction of these infrastructures will ensure no environmental impacts according to the approved EMP.

### **a. Construction of Bus Bays**

244. The construction of bus bays is included as an income restoration measure because road side vending is an important economic activity for the DHs. These bus bays are included in the RP to provide vending facilities to road side vending, an income generating activity mostly involving women who sell directly to passers-by their garden produce. It seeks to create a substantial mass of roadside vendors to encourage more buyers to go to these areas rather than buy fruits, vegetables and other food from isolated sellers along the road.

245. Bus bays (loading and unloading areas of public motor vehicles) with provisions for roadside vending will be constructed in at least 3 locations as income restoration measures for women who traditionally sell their own agricultural products to have cash for their families. These proposed bus bays are usually located in village centers/ markets or in the vicinity of

important junctions connecting interior villages to the Nipa Munihu sub-project road. Safety provisions will be incorporated in the design to ensure that these roadside vendors have adequate protection from wayward vehicles.

246. The host tribes or clans of these proposed bus bays will have the responsibility to supply the required additional land to accommodate the bus bays and the vending area free of charge so that their tribesmen or clansmen would have opportunities to sell and earn additional income. This is a precondition for the establishment of bus bays with provisions for roadside vending and will be presented in details under the sub-section on costs of income restoration measures.

#### **b. Construction of Waiting Sheds**

247. The construction of waiting sheds is an income enhancement measure that seeks to augment the income of DHs and other stakeholders living within the RIZ. There are interior roads which are not part of the sub-project but connect interior villages to the sub-project road. Stakeholders living in these interior villages carry on their backs their agricultural produce going out of the sub-project road to the markets by bringing them first to the junctions. Depending on the volume of their produce, they make several trips. After they bring all of their produce to these junctions, this is the only time that they hail PMVs to bring all of their produce together to the markets.

248. Returning home, they carry their house supplies from the market to their homes by unloading these supplies in the junctions and carrying them back to their houses. In both trips, these junctions serve as temporary areas to consolidate their products and supplies. Presently, these junctions also serve as vending areas of DHs of household goods targeting the immediate area to buy from them. The construction of these waiting sheds with temporary storage facilities will provide the anchor activity which would attract additional businesses to develop in these junctions. In effect, these junctions will provide vending opportunities for the DHs for a residents living in these interior villages. The stakeholders from the RIZ may also vend in these junctions, saving transportation costs going to the markets. Buyers and transporters of agricultural products will also be encourage to set up buying activities in these areas because of availability of storage spaces.

249. Based on the several consultations conducted around these junctions, residents living in the interior villages were desirous of having some sort of waiting sheds that can also serve as temporary storage areas for their agricultural produce and household supplies. The details are shown under the sub-section on costs of income restoration measures. Waiting sheds with provisions for temporary storage facilities will be constructed on at least 3 locations within the sub-project road.

250. Both the construction of bus bays and waiting sheds will be undertaken by DOW through HRMG and will be constructed during the rehabilitation of the road. The timing of the construction will be just after the sealing of the particular road section where these facilities will be located to ensure that these facilities will be undertaken in coordination with the whole road sub-project.

#### **c. Project Employment**

251. People affected by permanent or temporary loss of land or by damage or loss of crops, trees or structures will be given priority for employment by contractors for civil works and/or maintenance works on the road, assuming qualifications to do the work. The implementation of this priority for employment will be the responsibility of DOW as the executing agency.

Provisions will be made to include this priority for employment in the contract with the winning contractor. This employment provision will also be encouraged through local sub-contractors as appropriate.

#### **d. Employment Opportunities for Women**

252. DOW will use existing church-based women associations or encourage women to form associations so that they can take advantage of the opportunities in the construction camps of the contractor and in construction works. The contractor will require janitorial services, management of dormitories, operations of kitchens and mess halls and maintenance of the camp perimeter and these associations will be contracted by the contractor as part of the sub-project's income restoration measures. The construction works will also create outdoor opportunities such as women traffic wardens.

253. The contractor will be instructed to assist the community especially APs by purchasing the needs for fresh garden produce from them. This is an on-going practice well-tested out in the on-going road rehabilitation projects. Lessons from the review of on-going arrangements will be incorporated into this sub-project.

### **E. Entitlement to Rehabilitation Assistance**

254. In addition to customary land, there are also some physical and economic displacements in the sub-project. In addition, there might be some assets that are located outside of the construction limits that may be affected during civil works. In these events, the HRRIP will support DPs to restore their living conditions and will provide assistance in the following situations:

#### **1. Business Loss Allowance**

255. All DPs whose trade stores must be shifted or reconstructed a short distance to a location outside the construction limits of the sub-project road are entitled to a daily allowance of 250 kina for a large store and 150 kina for a small store to cover the loss of business income from the removal to the installation of the store in a new location.

#### **2. Shifting Allowance**

256. DPs who will shift or reconstruct their structures are entitled to a shifting allowance to cover the costs of shifting of possessions, temporary storage and then to the permanent accommodation in the new location. This allowance will be paid to all owners of affected houses and trade stores.

257. At the time that the shifting allowance is paid, the structure owner will sign an agreement with HRMG and/or DLO regarding the date by which the structure will be removed from the land required to upgrade/rehabilitate the road.

#### **3. Subsistence Allowance**

258. All owners of impacted residential houses (27 houses and 5 trade store owners who are also using the stores as residential) will receive a daily subsistence allowance of 100 Kina per HH for a maximum period of two weeks to assist their daily expenses while shifting or reconstructing their affected structures in the new locations.

#### **4. Transport Allowance**

259. Each affected house and trade store owner will be given a transport allowance calculated as follows: 100 Kina for a residential house or a small trade store and 150 Kina for a large trade store. They can also use part of this allowance to transport building materials to the new site.

#### **5 In-kind Assistance to Ceremonial Grounds, Church and Basket-ball Court**

260. The owners of 2 ceremonial grounds, the pastor and the family who owns the basket-ball court agreed to relocate these assets. In appreciation of their gesture, DOW has offered in-kind assistance worth of Kina 10,000 each per asset. The value of these items as assessed is greater than the in-kind assistance agreed with the owners.

#### **6. Relocation and Reburial Assistance**

261. In addition to the compensation rates provided for under the Valuer General's listing, each affected household will be provided with relocation and reburial assistance amounting to 1,600 per grave to compensate for the ceremonial costs, exhumation, costs of coffin and reburial expenses of the affected graves.

#### **6. Severity Impact Allowance for Productive Assets**

262. To ensure that DHs are not worse off than before the project, this RP is adapting an additional 20% amount as severity impact allowance for productive assets based on the value of all affected crops and trees of DHs as income restoration allowance for severe impacts on productive assets. The severity impact allowance will be paid in cash similar to the payment of values for other assets.

#### **7. Vulnerable Allowance**

263. The vulnerable are individuals or groups who will experience adverse impacts from a proposed project more severely than others because of their vulnerable status. ADB policy requires that vulnerable displaced persons be targeted with measures that ensure that a project's adverse impacts do not fall on them disproportionately and that they share the benefits and opportunities of the development equally with others.

264. The proposed sub-project will assist the following vulnerable households: (i) DPs with household monthly income of less than Kina 130 (i.e., the country's national poverty threshold or US\$60, the international poverty threshold); (ii) DP household heads whose age is 65 or older; (iii) female-headed household heads; and (iv) household heads who are physically and/or mentally incapacitated (disabled). DHs earning less than Kina 130 a month will receive a one-time vulnerability allowance of Kina 300 while elderly headed households, women-headed households and physically incapacitated headed households will all receive a onetime vulnerability allowance of Kina 240.

265. There are 5 DPs who have registered multiple counts of vulnerability. They are therefore eligible to receive the allotted entitlements for each count of vulnerability. Nearly all households in the Highlands are headed by men and those headed by women are among the poorest.

#### **F. Indigenous People**

266. Following the ADB definition of Indigenous People “as those with a social or cultural identity distinct from the dominant or mainstream society which makes them vulnerable to being disadvantaged in the processes of development”, the sub-project will not need an Indigenous People Plan because while DP’s may fall under different tribal/linguistic groups, they are considered as part of the mainstream society and of the population living in Highland areas which generally characterizes PNG.

267. Inspection of the sub-project areas and interaction with the people in the proposed sub-project sites reveals that the people experience the same social problems and opportunities as other tribes and linguistic groups. Social divides are more pronounced in clans and sub-clans, and living in urban or rural areas rather than by tribe or linguistic group.

268. The last PNG census figures for the year 2011 show that the population was just over five million. Approximately 95 per cent of people are Melanesians. There is no particular ethnic group that dominates another. Given this backdrop, there is no indigenous or ethnic minority peoples as “those with a social or cultural identity distinct from the dominant or mainstream society, which makes them vulnerable to being disadvantaged in the processes of development.” As such, it is not deemed necessary to prepare separate IP related documents. The RF and the RP address the issue of use of customary land for road widening.

## G. Entitlement Matrix

269. The following Table 25: HRRIP Entitlement Matrix summarizes the entitlements to compensation, income restoration measures and rehabilitation assistance for the Nipa – Munihi road section under the HRRIP.

**TABLE 25 : HRRIP ENTITLEMENT MATRIX**

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
<b>Affected Land</b>				
Temporary use of land	Customary land:	Use of the land will be acquired through negotiated lease with landowners. Rent as negotiated under the lease.	Compensation (in form of land lease) for use of land.	The agreement to use customary land whether temporarily or permanently will be negotiated based on the following conditions: a) landowners agree to support the upgrading and rehabilitation of the road; b) landowners are consulted and make informed decisions regarding agreements to use land; and
	Land users as recognized by clan leaders	In the case of extraction of materials (e.g., gravel) from the land, the civil works contractor will negotiate directly with the landowner to reach agreement regarding the payment of royalties.		
	State-owned land:	No compensation will be paid for use of the land.		
	Users or occupants	Cash compensation at replacement cost will be paid for any damaged crops		

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
		and trees		<p>c) landowners guarantee on behalf of all clan members that they will not disrupt the sub-project in other ways.</p> <p>In the case of customary land used temporarily, the cost of restoration of the land following its use will be the responsibility of Contractors as part of their Contracts. The temporary use of land will be monitored and results included in semi-annual monitoring reports.</p>
Permanent use of land	<p>Customary land:</p> <p>Land users as recognized by clan leaders</p>	<p>Use of the land will be acquired through a negotiated Memorandum of Agreement with landowners.</p>	<p>Memorandum of agreements on use of customary land.</p>	
	<p>State-owned land:</p> <p>Users or occupants</p>	<p>No compensation will be paid for use of the land. Cash compensation at replacement cost will be paid for any damaged crops, trees, fences or other structures on sub-project-affected land (see below).</p>		
Other Affected Assets				
Annual crops	Owners of the crops	<p>Compensation for loss of or damage to annual crops on sub-project-affected land as follows:</p> <p>DPs given notice to harvest crops before clearance or removal from required land;</p> <p>OR, if DPs are not able to harvest</p> <p>b) cash compensation calculated at replacement costs based on local market price;</p> <p>c) Seeds and planting material cost of Kina 100 as a grant for a period up to 2 years from resettlement.</p>	<p>Compensation for damage to or loss of standing crops to ensure income restoration</p>	<p>DOW will compensate at replacement cost based on market prices.</p> <p>All compensation rates and amounts will be verified and approved by the office of the Valuer General.</p> <p>All compensation assessed according to the DMS shall be paid in full prior to the beginning of civil works. If further damage or loss occurs during civil works, HRMG will carry out supplementary assessments and</p>
Perennial crops and trees, including timber	Owners of crops and trees	<p>Compensation for losses or damages as follows:</p> <p>a) DPs given notice to harvest crops before clearance or removal from</p>	<p>Compensation for damage to or loss of perennial crops and</p>	

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
trees		required land; AND, b) cash compensation for lost plant or tree calculated at replacement cost based on market prices.; AND, c) in the case of perennial crops and trees, a grant equal to the lost income for the period of time until new plants or trees produce a yield similar to the lost plants/trees; OR d) in the case of timber trees, DPs will be permitted to harvest trees and sell the timber.  c) Free issue of tree seedlings at the rate of Kina 2 per poly-plant. 3,000 poly-plants to be distributed among APs	trees to ensure income restoration.	take steps to get approvals for and payment of additional compensation to which DPs are entitled as rapidly as possible. All compensation shall be paid to the owners of the affected assets.
Graves	Closest relative of the dead person	Compensation based on Valuer General's Schedule of Compensation (2013) and; Additional compensation of kina 1,600 for the costs of ceremony, exhumation, coffin, and reburial of the dead	Compensation for damage for graves	
Fences	Owner of the affected fence	Compensation based on replacement costs of the affected fences	Compensation for affected fences	
Income Restoration Measures				
Loss of crops and income	All APs who loose crops	An one-time grant of Kina 100 to purchase seeds and planting material; Participation in agricultural training course conducted by a service provider engaged by HRRIP Opportunity to purchase improved seeds/planting materials from NARI	APs able to cope-up with loss of agricultural land	HRMG will coordinate visit and monitor Business development work is to be handled by a competent organization
Loss of trees	All APs and tribes who loose	Poly-plant seedlings will be distributed among all APs and tribal leaders for	Loss of trees from community is	

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
	trees	planting in their gardens and tribal lands respectively. A forestry technician to visit twice and provide advice on tree planting / management	compensated	
Loss of income / livelihoods	All APs who are willing to learn about business management	Business development agency to visit and advise APs on establishment / management of small-scale business. Two subsequent follow-up visits to assist / monitor business development	APs are given an opportunity to enhance their livelihoods that may be lost by resettlement	
Communal Assets	Members of affected tribes, clans and sub-clans.	Construction of bus bays with road vending stalls  Construction of waiting sheds with temporary storage areas in strategically located junctions  Two ceremonial grounds, basket-ball court and church	Creation of livelihood opportunities and additional support for marketing  In-kind assistance of their choice worth Kina 10,000 per unit	HRMG will be responsible for the construction, timed after the sealing of the particular road section.
Project Employment	Members of affected tribes, clans and sub-clans.	Priority for paid work for civil works and/or ongoing maintenance for sub-project road, assuming qualifications to do the work.	Provision for additional household income	Part of the conditions in the procurement process for contractors
Generation of Livelihood opportunities	Members of affected tribes, clans and sub-clans.	Focused for women's participation to provide services and food supplies to address the needs of contractors	Creation of livelihood opportunities	Part of the conditions in the procurement process for contractors

Rehabilitation Allowances				
Shifting back of Semi permanent and temporary	Owners of structures	Shifting allowance of Kina 100 and handling/transport cost of Kina 100 for owners of each affected house/business. Owners of residential buildings will be	Restoration of livelihood /economic activities.	The allowances for shifting structures and loss of business income have discussed with APs and the allowance is

units		given Kina 100 per day for their temporary accommodation allowance per HH for a maximum period of 2 weeks until fixing the house/business in new location. Cost for house forming ceremony calculated as Kina 500 per unit.		adequate to support structure shift.
Disruption of business activities due to civil works	Owners of trade stores and other roadside businesses	Full-replacement cost of the structure at market value Shifting allowance of Kina 100 per business Transport allowance of Kina 100/150 per small/large trade store A disruption allowance equal for the number of days that business is disrupted due to lack of access or other consequences of civil works calculated as Kina 150/250 for a small/large trade store per day for 2 weeks	Restoration of livelihood / economic activities	The shifting allowance will be paid to the owner of the trade store based on the duration of the disturbance.
Relocation of housing	Owners of residential structures	Full-replacement cost at market value as assessed A moving allowance of Kina 100 per APH to cover the costs of moving personal possessions, paid in cash or in kind (e.g., provision of transport). Temporary accommodation grant of Kina 100 per HH per day for a period of 2 weeks until the new house becomes inhabitable	Restoration of living conditions.	
Vulnerable DPs	Vulnerable household determined during the social surveys	Additional one-time cash grant of Kina 240 to head of DP household according to severity of impacts and vulnerability.	Livelihood restoration, poverty reduction and social development	
Sub-project affected people	Members of affected tribes, clans and sub-clans.	Contractor specifications for provision of HIV/AIDS awareness and prevention programs in construction camps and surrounding	Poverty reduction measure and social development	

		<p>communities</p> <p>Extensive community relations and participation program involving women linked to different aspects of sub-project preparation and implementation</p> <p>Long-term participatory social monitoring study to track benefits among different road user groups</p>		
Unforeseen Impacts	Unforeseen impacts will be documented and mitigated based on the principles agreed in this RP and ADB SPS.			

270. In instances where there is a gap existing between GoPNG laws and regulations and the policies of the ADB, for HRRIP road sub-projects that require land negotiation/acquisition from customary landowners, the provisions and principles adopted in the Resettlement Framework will take precedence over the provisions of relevant laws and procedures currently in force in PNG.

## **H. Eligibility for Compensation and Rehabilitation Assistance**

271. General eligibility is defined as, “people who stand to lose land, houses, structures, trees, crops, businesses, income and other assets as a consequence of the sub-project road as of the formally recognized cut-off date i.e. September 7, 2015 will be considered as sub-project displaced persons (DPs). All DPs who settle in affected areas after this date and who cannot prove that they are displaced from the affected plots will not be eligible for compensation. Any person or group that occupies or uses land required for upgrading and rehabilitation of the road after the cut-off date will not be eligible for any compensation and/or rehabilitation assistance; they will be required to remove from the land as per the provisions of the Land Act. DOW has informed local communities regarding this cut-off date through the provincial, district and local wards and through the relevant local government agencies.

272. DPs entitled to compensation or at least rehabilitation under the sub-project are:

- i. All Owners of crops and plants;
- ii. All Owners of structures and other facilities and other objects attached to the land disregarding their land occupancy status; and
- iii. All DPs losing business, income, and salaries disregarding their land occupancy status.

## **I. Payment of Compensation**

273. The HRRIP adopts the principle that all compensation for affected assets will be paid at replacement cost based on current market prices. The office of the Valuer General will verify and approve (i) all compensation rates established through RCS and negotiation for each HRRIP sub-project, (ii) the total amount of compensation to be paid.

## **J. Coordination of Land Acquisition Activities with Civil Works**

274. All land acquisition activities will be coordinated with the civil works schedule. Civil works contractors will not be issued a notice of possession of the site until (i) compensation and relocation of DPs have been satisfactorily completed; (ii) agreed rehabilitation assistance is in place; and, (iii) the site is free of all encumbrances.

## **X. RESETTLEMENT BUDGET AND FINANCING PLAN**

### **A. Sources of Funding for Land Acquisition and Compensation**

275. All costs for the HRRIP related to land acquisition, compensation and allowances, operation and administration costs, surveys, monitoring and reporting will be financed by GoPNG using counterpart funds.

276. In the case of designated national roads as with this Nipa – Munihu sub-project, DOW will request the National Executive Council (NEC) to allocate and disburse funds for compensation and allowances related to resettlement (payment for improvements) works in this sub-project.

277. In all instances, the HRMG acting on behalf of the DOW (the EA), will monitor the process to ensure that there are minimum delays in the allocation, disbursement and payment of compensation funds.

### **B. No Costs to Acquire Additional Land to Upgrade Roads**

278. DOW has negotiated and entered into a Memorandum of Agreement (MOA) with all affected tribes and clans for the free use of the minimum additional land required to rehabilitate and upgrade the Nipa – Munihu road. The list of affected tribes and clans are contained in Table 2: Breakdown of Affected Tribes/Clans and Their Impacts. There are no direct costs to secure the use of the required lands for the sub-project. Documentation expenses for these MOAs will be taken care under administrative expenses of the sub-project.

### **C. Costs of Compensation for Assets Impacts**

#### **1. Cost of Affected Residential Houses and Trade Stores**

279. The sub-project affects 48 economic assets comprising of 27 houses and 21 trade stores. Out of this total, 28 are made of non-durable materials whilst 20 are built using permanent materials. The total area of the 48 units is 635 sq.m. The compensation rates for assets reflect the current prices of materials, labor and other costs. The total amount of compensation for the affected 48 units is Kina 167,395.00. The details are shown in the following Table 26: Costs of Different Structures.

**TABLE 26 : COSTS OF HOUSES AND TRADE STORES**

Type of Materials	Units	Area	Rate	Amount (Kina)
Non-durable Material	28	334	K138/sq.m	46,092
Durable Materials	20	301	k403/sq.m	121,303
<b>Total</b>	<b>48</b>	<b>635</b>		<b>167,395</b>

280. There are 105 affected graves, 3 permanently marked with features, 1 permanently marked and 101 unmarked graves. The adopted rates were taken from the Valuer General's rates. Permanently marked graves with features is valued at 1,300; permanently marked at 330 and unmarked grave at Kina 130 per grave. The total amount of compensation for the 105 affected graves is Kina 17,360.00.

281. The total fence line affected is 5,064 meters with the following break-down by material used in construction: 4,688 meters of plant material, 352 meters of wooden and 24 meters of stone. The details are shown in the following Table 27: Costs of Affected Graves.

**TABLE 2: COSTS OF AFFECTED FENCES**

Type of Fence	Number	Length	Rate/meter	Amount (Kina)
Plants/Shrubs	90	4,688	K2.50	11,720.00
Wooden	11	352	K6.00	2,112.00
Stone	2	24	K12.00	288.00
<b>Total</b>	<b>103</b>	<b>5,064</b>		<b>14,120.00</b>

## 2. Compensation for Community Assets

282. There are 4 community assets that will be impacted. Two are ceremonial grounds, one church and the other a basket-ball court. Agreement has been reached already with the families who own the assets to relocate structures away from the road corridor. They have also agreed to receive some in-kind assistance i.e. building material of their choice up to Kina 10,000 per unit. The grant agreed will buy them the materials as well as to pay for other costs such as labor charges. The families agreed to compile a list of such material the cost of which is included in this validated RP.

## 3. Cost of Crops and Trees

283. The total compensation for category A (edible fruits and nuts) is Kina 96,630.50. The details are shown in the following Table 28: Compensation for Category A (Edible Fruits and Nuts).

**TABLE 28 : COMPENSATION FOR CATEGORY A (EDIBLE FRUITS AND NUTS)**

Category A	Seedling	Small	Medium	Mature	Total	Amount (Kina)
Avocado	35	146	308	292	781	11,698.00
Banana	0	397	1,108	932	2,437	20,350.00
Betel Pepper vine	0	82	432	395	909	1,915.00
Bread Fruit Edible	0	14	25	75	114	1,390.00
Guava	0	30	32	62	124	964.00
Mango	0	10	69	14	93	709.00
Pandanus (Karuka)	16	487	865	1,401	2,769	57,285.60
Pandanus (Marita)	0	20	85	96	201	2,193.00

Pao	0	17	26	47	90	53.50
Sisal	0	0	0	26	26	67.60
Mon Amon	0	0	3	11	14	4.80
<b>Total</b>	<b>51</b>	<b>1,203</b>	<b>2,953</b>	<b>3,351</b>	<b>7,558</b>	<b>96,630.50</b>

284. The total compensation for category B (garden plants) is Kina 75,772.80. The details are shown in the following Table 29 : Compensation for Category B (Garden Plants).

**TABLE 29 : COMPENSATION FOR CATEGORY B (GARDEN PLANTS)**

Category B	Small	Medium	Mature	Total	Amount (Kina)
Bean	1,726	1,576	1,191	4,493	3,004.20
Black kumu	596	1,914	1,291	3,801	1,694.15
Broccoli	253	255	167	675	930.15
Cassava	237	253	353	843	1,341.50
Chinese Cabbage	126	857	293	1,276	988.35
Choko	100	200	213	513	1,317.00
Corn	836	1,688	430	2,954	1,865.20
Edible Pitpit	117	1,314	1,463	2,894	6,409.25
Local Green	13	95	137	245	3,812.70
Onion	125	118	340	583	642.15
Passion fruit	0	69	93	162	165.75
Pawpaw	8	41	12	61	96.10
Pineapple	5	38	34	77	238.05
Pumpkin	10	511	296	817	1,437.90
Round Cabbage	237	776	381	1,394	2,153.45
Sugarcane	645	732	739	2,116	16,493.50
Sweet Potato	313	1,074	1,336	2,723	20,046.30
Taro	89	434	250	773	3,140.05
Taro Kongkong	291	659	738	1,688	5,733.40
Yam	0	116	203	319	1,092.60
Salat	0	222	84	306	89.10
Aibika	118	619	618	1,355	2,488.20
Lettuce	11	0	125	136	257.15
Strawberry	0	0	15	15	19.50
Tomatoes	10	136	174	320	317.10
<b>Total</b>	<b>5,866</b>	<b>13,697</b>	<b>10,976</b>	<b>30,539</b>	<b>75,772.80</b>

285. The total compensation for category C (other economic plants) is Kina 148,646.90. The details are shown in the following Table 30: Compensation for Category C (Other Economic Plants).

**TABLE 30 : COMPENSATION FOR CATEGORY C (OTHER ECONOMIC PLANTS)**

Category C	Seedling	Small	Medium	Mature	Total	Amount (Kina)
------------	----------	-------	--------	--------	-------	---------------

Bamboo	0	65	320	237	622	10,744.50
Casuarina	325	1,257	2,119	2,559	6,260	81,439.00
Coffee	110	343	874	1,274	2,601	25,319.50
Fern	0	389	1,135	1,676	3,200	6,105.40
Laportia	0	0	20	36	56	19.40
Orchids	0	33	98	210	341	411.10
Pandanus (Non-edible)	0	26	26	8	60	583.60
Tangets	0	797	6,490	11,571	31,998	24,024.40
<b>Total</b>	<b>435</b>	<b>2,910</b>	<b>11,082</b>	<b>17,571</b>	<b>31,998</b>	<b>148,646.90</b>

286. The total compensation for forest and other large trees is Kina 61,304.00. The details are shown in the following Table 31: Compensation for Category D (Forest and other Large Trees).

Table 31 : Compensation for Category D (Forest and other Large Trees)

Trees	Small	Medium	Mature	Total	Amount (Kina)
Hard Wood	68	310	391	769	14,638.00
Gum Tree	13	46	138	197	4,270.50
Semi Hardwood	95	229	270	594	6,397.00
Lesser known Useful Species	296	597	706	1,599	10,990.00
Red Cedar	2	75	50	127	1,760.00
Oak	4	33	36	73	1,070.00
Semi Hardwood	95	49	109	253	2,462.00
Other Trees	1,575	1,562	1,790	4,927	11,387.00
Pine Tree	45	83	98	226	8,330.50
<b>Sub-Total</b>	<b>2,193</b>	<b>2,984</b>	<b>3,588</b>	<b>8,765</b>	<b>61,304.00</b>

287. In summary, there are 78,860 units of different crops and tree species in different stages of development that will be affected by the sub-project road. The total amount of compensation for the affected crops and trees is Kina 382,354.20 based on Valuer General's schedule 2013. The details are shown in Table 32 Costs of Affected Crops and Trees.

TABLE 32 : COSTS OF AFFECTED CROPS AND TREES

Tree/Plant Category	Seedling	Small	Medium	Mature	Unit	Amount (Kina)
Category A	51	1,203	2,953	3,351	7,558	96,630.50
Category B	0	5,866	13,697	10,976	30,539	75,772.80
Category C	435	2,910	11,082	17,571	31,998	148,646.90
Trees	0	2,193	2,984	3,588	8,765	61,304.00
<b>Total</b>	<b>486</b>	<b>12,172</b>	<b>30,716</b>	<b>35,486</b>	<b>78,860</b>	<b>382,354.20</b>

#### D. Costs of Income Restoration Measures

288. The loss of land will be addressed by the tribes by allocating lands in fallow to the affected households. This was confirmed by the community leaders that was also referred to by the LLG officials in their speech made at the MOA signing ceremony. The affected households will continue to be subsistence farmers, cultivating their food gardens located at different parts of their customary land. All DPs will be able to continue farming on their tribal lands.

289. However, there are some impacts on the customary landowners and other APs that are difficult to measure but nevertheless adversely affect them. As discussed earlier in this RP, the loss of agricultural land and trees is felt by many APs, the vulnerable households in particular. They suggest that new income restoration measures are implemented for the benefit of those who lost their assets, mainly land. Hence, the following income restoration measures aim to mitigate income and livelihood losses for APs. All activities will be coordinated by HRMG.

### **1. Assistance to improve agriculture**

290. As agriculture contributes heavily to the household income, the loss of agricultural land will have negative impacts on AP's livelihoods. The discussions with APs have suggested that measures such as the free issue of seeds and planting materials with appropriate technical advice is very beneficial to them. Accordingly, this RP proposes that each AP is issued with free seeds and planting material valued at Kina 50 per season for 2 years (total of Kina 100/APH). The project will arrange a service provider to assist APs to improve agriculture by providing technical advice under the guidance of the National Research Institute based in Lae. The advice will be planned to coincide with the agricultural season. The service provider will conduct training for APs on the establishment of gardens in new locations and will provide extension advice on improved crop husbandry methods, among other suggested topics by the APs.

### **2. Business development**

291. Income from small businesses is a significant contribution to the household economy. The majority of interviewed APs suggest that they are given an orientation to business development and management with subsequent assistance to initiate a business of their choice. The ANIS NGO based in Lae is a credible service provider who can assist APs with regard to business training and to start a business. The same provider is currently providing similar service in Henganofi-Nupuru sub-project which is performing satisfactorily. A block sum of Kina 50,000 is proposed in the RP to be utilized for the development of business skills among APs.

### **3. Assistance to tree planting**

292. It is estimated that the clearing of road alignment will remove about 9,000 trees from AP's land. Although the APs will receive compensation for such losses, they are concerned that lack of trees will cause other impacts on their settlements. APs and tribal leaders will be given 3,000 poly-bag saplings and incentives for tree planting on their unaffected land. The tree planting component will be undertaken by the ANIS NGO referred to above in close collaboration with the PNG Forest Authority. The tree planting component is budgeted as Kina 20,000.

293. The total income and livelihoods restoration cost is Kina 95,500 which is included in the budget of RP.

## **E. Cost of Design Measures**

294. To help communities, three typical bus bays with provisions for roadside vending will be built in strategic areas along the sub-project road. The locations are will be finalized through a meeting specially convened for this purpose.

295. The cost estimate for a typical bus bay (paved) is Kina 170 per sqm including provisions for slightly elevated stalls and Kina 200 per sqm for the waiting shed. A typical bus bay has a dimension of 50 meters X 3 meters or 150sqm. At 170 per sqm, a typical bus bay will amount to Kina 25,500 or a total amount of Kina 76,500 for the three proposed bus bays.

296. The cost estimate for a typical waiting shed with provisions for a temporary storage area is Kina 200 per sqm. The proposed floor area is around 100 sqm and at will amount to Kina 20,000 or a total amount of Kina 60,000. The total cost is Kina 136,500. The details are shown in the following Table 33 Costs of Bus Bays and Waiting Sheds.

**TABLE 33 : COSTS OF BUS BAYS AND WAITING SHEDS**

Income Restoration Measures	Unit	Rate/infrastructure	Amount (Kina)
Bus Bays	3	25,500.00	76,500.00
Waiting Sheds	3	20,000.00	60,000.00
<b>Total</b>			<b>136,500.00</b>

#### **F. Costs of Rehabilitation Assistance**

297. There are 9 large and 12 small trade stores that will be affected. The owners are entitled to a business loss compensation allowance (one-off) calculated as Kina 250 for a large and Kina 150 for a small trade store. This allowance is calculated for each day without business payable for a maximum period of 2 weeks. The total business loss allowance is Kina 56,700.

298. The 27 houses and 21 trade stores (12 small unit) are entitled for a shifting allowance calculated as Kina 100 for each house and a small trade store and Kina 150 for a large trade store. It is an one-time allowance the purpose of which is to compensate dismantling and re-fixing cost of the assets. The total amount of the shifting allowance is Kina 5,250.

299. The owners of the 48 assets will each receive a transport allowance calculated as Kina 150 for a trade store and Kina 100 for a house and small trade store. It is an one-time allowance to transport goods and salvaged building materials and/or new building materials to build their house or trade store. The total cost for this allowance is Kina 5,250.

300. The owner of every house will receive a temporary accommodation allowance of Kina 100 per day for a maximum period of 2 weeks. The 5 trade store owners whose family share part of this facility as their residence are also entitled to this allowance. It can be utilized to pay for accommodation cost either for paid accommodation or to pay when staying with their extended family or relatives. The total cost of temporary accommodation allowance is Kina 44,800.

301. The owners of the 105 affected graves will receive the cost of construction of graves in accordance with the Valuer general's table. In addition, the affected parties will be given grave relocation and reburial assistance to cover the ceremonial rites in exhumation of the grave and reburial at Kina 1,000, costs of coffin of Kina 500, transport cost of Kina 100, all amounting to Kina 1,600 per affected grave. The total amount for the grave relocation and reburial assistance

is Kina 168,000. Discussions with community leaders reveal that when a deceased person is buried at present, the cost of the ceremony is comparatively much higher than the actual cost of burial itself. A similar pattern is seen in the case of reburial. The details are shown in the following Table 34 Costs of Rehabilitation Assistance.

**TABLE 34 : COSTS OF REHABILITATION ASSISTANCE (KINA)**

Rehabilitation Assistance	No of Units	Rate	Amount (Kina)
Shifting Allowance			
a) For Houses	27	100	2,700.00
b) For Trade Stores (large)	9	150	1,350.00
c) For small Trade Store	12	100	1,200.00
Transport Allowance			
a) For House/ Small trade Store	39	100	3,900.00
b) For Large Trade Store	9	150	1,350.00
Subsistence Allowance	32	100 x 14 days	44,800.00
Business Loss Allowance			
a) Large Trade Stores	9	250 x 14 days	31,500.00
b) Small Trade Stores	12	150 x 14 days	25,200.00
Grave Relocation/Reburial Assistance	105	1,600	168,000.00
Severity Impact Allowance for Productive Assets	205	20% of Affected Crops and Trees	76,470.84
House ceremony			24,000.00
<b>Total</b>	<b>459</b>		<b>380,470.84</b>

302. The 205 APH whose crops and trees are affected by the sub-project will receive an additional amount equivalent to 20% of the value of their affected crops and trees as severity impact allowance for productive assets to ensure that affected households are not worse off than before the project. The total amount as severity impact allowance is kina 76,470.84.

303. There are 110 households split down into 37 elderly headed (65 and above); 29 women-headed; 4 physically and/or mentally incapacitated heads. In addition, there are 40 households earning a monthly income below Kina 130, the poverty threshold in PNG.

304. Each household will receive a one-time vulnerability allowance equivalent to Kina 240. Households whose monthly income falls under the poverty line will receive a vulnerable allowance of Kina 300. The 5 HHs who are experiencing 2 counts of vulnerability will be given additional allowances. The total amount for vulnerable allowances is kina 30,000.00. The details are shown in the following Table 35: Breakdown of Vulnerable Allowances.

**TABLE 35 : BREAKDOWN OF VULNERABLE ALLOWANCES**

Vulnerable Households	Number	Rate	Amount (Kina)
Elderly Headed Households	37	240.00	8,880.00
Female Headed Households	29	240.00	6,960.00
Handicapped Headed Households	4	240.00	960.00
Households below Poverty Line	40	300.00	12,000.00

Two counts of Vulnerability	5	240.00	1,200.00
<b>Total</b>	<b>115</b>		<b>30,000.00</b>

### G. Price Adjustment

**305.** The cost assessment for the RP was based on 2013 prices of the Valuer General list. Although costs included are current as determined through validation, it is a principle adopted in this RP to pay compensation based on the current market price (2016). This is estimated by adjusting the 2013 prices using an average inflation index<sup>1</sup> of 5.01 between 2013 and 2016. The total price adjustment amount is Kina 273,136.47 which will be paid to APs, subject to approval of the Valuer General. Additionally, Kina 40,000 is allocated for the relocation of church, basketball court and ceremonial grounds. The owners together with their leaders will decide on refurbishment details.

### H. The Resettlement Budget

**306.** The total cost of this resettlement plan for the Nipa - Munihu sub-project amounts to Kina 1.98 Million (Kina 1,980,481.50). This budget includes compensation for the different affected structures, crops and trees, income restoration measures, rehabilitation allowance, physical contingencies, in-kind assistance (rate adjustment) administrative expenses and cost for internal monitoring. All compensation values and other costs reported in this RP is subject to approval by the Valuer General prior to execution and should be in accordance with the ADB SPS (2009). This is a mandatory requirement for resettlement implementation. The details are shown in Table 37: Summary of Costs Estimates and RP Budget.

<sup>1</sup> Inflation Index source : <http://www.tradingeconomics.com/papua-new-guinea/inflation-cpi>

**TABLE 36 : SUMMARY OF COSTS ESTIMATES AND RP BUDGET**

<b>Resettlement Costs</b>	<b>Unit</b>	<b>Amount (Kina)</b>
Houses and Trade Stores	48	167,395.00
Graves	105 graves	17,360.00
Fences	103 fences	14,120.00
Crops and Trees	78,860 units	382,354.20
Income and Livelihoods Restoration	205 DHs	96,500.00
Design Measures to assist community	3 bus bays & 3 waiting sheds	136,500.00
Rehabilitation Allowances		
Moving (Transport) Allowance	27 houses+21 trade stores	5,250.00
Shifting Allowance	27 houses+21 trade stores	5,250.00
Subsistence Allowance	27 households+5 trade stores	44,800.00
Business Loss Allowance	21 trade stores	56,700.00
Grave Relocation & Reburial Allowance	105 households	168,000.00
House ceremony (move into new house/open trade store)	48	24,000.00
Severity Impact Allowance on Productive Assets	205 DHs	76,470.84
Vulnerability Allowances		
Multiple-counts	5 DHs	1,200.00
Elderly headed households (65 yrs & Above)	37 DHs	8,880.00
Female headed household	29 DHs	6,960.00
Physically/mentally disabled Heads	4 DHs	960.00
Households below poverty line	40 DHs	12,000.00
In-kind assistance to ceremonial grounds, church and basket-ball court	4 Units	40,000.00
<b>Rate increase for all APs (5.01% per year)*</b>		<b>273,136.47</b>
<b>Sub-Total – A</b>		<b>1,537,836.50</b>
Physical Contingency		252,940.01
Administrative Expense		189,705.01
<b>Sub-total - B</b>		<b>442,645.01</b>
<b>Grand Total (A+B)</b>		<b>1,980,481.50</b>

Source: PIU computation based on Design Consultants' estimates, adjusted with new field data collected by HRMG staff in 2016

Note: Cost of IMO is excluded as it is already funded directly as part of the project cost.

\*This will be provided through in-kind contribution.

307. The up-dated RP cost as presented above complies with the current market prices. As such all APs will be fully and comprehensively compensated for their loss of productive assets.

## **X. INSTITUTIONAL ARRANGEMENTS**

### **A. Department of Works**

308. As Executing Agency (EA) for the HRRIP, Department of Works (DOW) has overall responsibility to manage the planning, implementation and monitoring related to acquiring use rights for additional land to implement HRRIP sub-projects, compensation for damages on project-affected assets and implementation cost (See Annex 6 Organizational Arrangements).

### **B. Highlands Road Maintenance Group**

309. The Highlands Region Maintenance Group (HRMG), as the Implementing Agency (IA) for HRRIP sub-projects to upgrade and rehabilitate roads, has the responsibility delegated by the DOW to carry out the planning, implementation and monitoring for land acquisition/resettlement activities, as required. These include but may not be limited to the following:

- I. Collaborate with and assist PLO and/or DLO to carry out their work in compliance with the HRRIP policies and ADB requirements;
- II. Provide qualified personnel to conduct and/or assist PLO and/or DLO to carry out surveys including fieldwork to support the sub-project screening and preliminary assessment of additional land requirements; and, as required, a census of displaced people, the detailed measurement survey (DMS) and socio-economic baseline survey;
- III. Collaborate with PLO and/or DLO for negotiations regarding Memoranda of Agreement (MOA) and leases for use of land;
- IV. Coordinate and carry out consultations with affected communities, including leaders, displaced people and other interested community members; and, ensure that all stakeholders are informed in a timely manner about the sub-project, its policies and procedures; ensure that all requirements are carried out concerning public disclosure of the provisions for land acquisition and compensation; and, oversee and monitor the grievance redress process;
- V. Review and endorse the draft RP as prepared by HRMG and/or its consultant prior to submitting it to DOW and, subsequently, to ADB for approval, making sure that all matters related to land acquisition/resettlement are complete and properly reported;
- VI. Monitor the process of allocation and disbursement of funds for compensation at both the national and provincial levels, and ensure that funds are available and compensation is paid in a timely manner as per the provisions of the RF;
- VII. Carry out all other activities related to internal monitoring of land acquisition activities and collaborate with and support the work of the independent monitoring organization;
- VIII. Coordinate with civil works contractors to ensure that required land is cleared in a timely manner, that unforeseen damages and losses are recorded and compensation paid and that all other steps and measures are taken to complete the civil works in an efficient manner.

### **C. Environmental and Social Safeguards Unit – DOW**

310. The Environmental and Social Safeguards Unit (ESSU) of DOW has been expanded through the provision of an International Safeguards (Social) Specialist (ISS). A senior National Social Specialist (NSS) will soon be recruited. The additional staff is needed to provide support to the HRMG in ensuring compliance with social safeguards in project implementation.

311. The ISS and other staff of ESSU are conducting training to build the capacity of HRMG staff and contractor's staff in the following areas: (i) GoPNG policies and procedures for acquisition of customary land, including MOA; (ii) ADB policies and procedures for land acquisition and compensation; (iii) applying GoPNG and ADB policies and procedures to the requirements of the HRRIP; and, (iv) other technical support related to, among others, surveys and data collection to prepare a detailed measurement survey (DMS) and Land Investigation Report (LIR), community consultations and awareness activities and the preparation of reports.

312. The training also involves staff of provincial and district offices in HRRIP sub-project areas, LLG and ward councilors and staff of any other organizations involved in land acquisition and resettlement activities. The HRRIP support will continue to include technical and financial support to strengthen the resources of DOW, HRMG and provincial and district lands offices. This support will take the form of assessment and recommendations to increase staffing, developing terms of reference for work related to land acquisition and compensation activities and providing financial support for the work related to fieldwork, for example, to carry out sub-project resettlement plans, detailed measurement surveys (DMS), Replacement Costs Survey (RCS), and/or prepare Land Investigation Reports (LIR) and RPs.

#### **D. Provincial Administrations**

313. The Provincial Land Officer (PLO) will collaborate with HRMG to plan, implement and monitor land activities for HRRIP sub-projects in the province and/or delegate responsibility to the relevant District Land Officers (DLO). The Provincial Administrator will appoint an officer as the chairperson of the GRC. The PLO responsibilities include:

- I. Conducting surveys of land required permanently or temporarily for the sub-project;
- II. Negotiating and signing a Memorandum of Agreement for permanent use of customary land with the leaders and affected landowners in communities;
- III. negotiating and signing leases for temporary use of land required for the sub-project; and,
- IV. Consulting with and advising affected communities about the HRRIP, the policies and procedures when additional land is required and the rights and responsibilities of displaced people and other stakeholders.

314. The Provincial Governor and/or Provincial Administrator (PA) in coordination with DOW are responsible to ensure that funds are allocated and disbursed to pay compensation and allowances for provincial (and/or district) roads that are included in the HRRIP.

#### **E. District and LLG Administrations**

315. The District Land Officer (DLO), as delegated by the PLO, will collaborate with HRMG to plan, implement and monitor land activities for HRRIP sub-projects in the district, including:

- I. Conducting surveys of land required permanently or temporarily for the sub-project, and preparing LIR;
- II. Negotiating and signing a Memorandum of Agreement for use of customary land with the leaders and affected landowners in communities will land is affected;
- III. negotiating and signing leases for temporary use of land required for the sub-project; and,

- IV. Consulting with and advising affected communities about the HRRIP, the policies and procedures when additional land is required and the rights and responsibilities of displaced people and other stakeholders.

316. LLG Council Presidents are effective participants in all consultations with local communities, displaced people and other stakeholders. They will be responsible for collaborating with HRMG to organize and carry out these consultations. One LLG President will serve as a member of the GRC.

## **F. Institutional Capacity for Land Acquisition Activities**

317. The National Department of Lands and Physical Planning (DLPP) and the Lands and Survey Division (LSD) situated within the DOW are well-organized to assist the EA to oversee and manage the land acquisition and compensation process; and, in particular, to support the work of the IA and others with respect to identification of land tenure, review and endorsement of procedures and plans, as well as facilitation of requests for allocation and disbursement of funds to pay compensation.

318. As the Implementing Agency (IA), the HRMG has good experience in dealing with issues related to community consultations and negotiation of Memorandum of Agreements (MOA) for additional land required to upgrade and rehabilitate national and provincial roads, as well as other aspects of compensation for lost and damaged assets as per the GoPNG procedures. Similarly, the personnel of the PLO and DLO in most jurisdictions also have experience with MOA and compensation issues.

319. The HRRIP will provide training for land acquisition activities and involuntary resettlement through the Environmental and Social Safeguards Unit for other DOW, HRMG and PLO and DLO staffs. The training program will be spearheaded by the International Safeguards Specialist supported by the National Social Specialist.

## **XI. IMPLEMENTATION SCHEDULE**

320. DOW will begin the implementation process of RP immediately after its approval by the ADB. A timeline for the implementation and post implementation of the RP implementation has been prepared in accordance with different steps covered under this RP and presented in Table 37: RP Implementation Schedule (2016/17).

**TABLE 37: RP IMPLEMENTATION SCHEDULE (2016/17)**

Main Resettlement Plan Activities	Responsibility	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Translation of RP into Pidgin	DOW/HRMG							
Distribution/Consultation of RP and information pamphlets in Pidgin	DOW/HRMG							
Submission of validated RP to ADB for approval	DOW/ PIU							
Allocation of financial resources for land acquisition	DOW/National Executive Council							
*Construction of Bus Bays and Waiting Sheds	DOW/HRMG							
Disputes/objections (complaints/grievances)	DOW/HRMG/ Court							
Confirmatory letter to ADB for completion of all payments	DOW/ADB							
Confirmation and verification of completion of deliverables by Independent Monitoring Organization	ADB							
Issuance of no-objection for commencement of civil works by ADB	DOW/ADB							
Commencement of civil works	DOW/ Contractor							
Quarterly Progress Reporting and semi-annual safeguard monitoring reports to ADB	DOW/HRMG							
Independent evaluation of RP program (After 3-months of the RP Implementation)	IMO							

\*Note: The timing of the construction of bus bays will be just after the sealing of the particular road section where these facilities will be located to ensure that these facilities will be undertaken in coordination with the whole road sub-project.

## **XII. MONITORING AND REPORTING**

321. RP activities in the Nipa – Munihu road sub-project will undergo both internal and external monitoring. Internal monitoring will be conducted by HRMG assisted by the PIU and Environmental Social Safeguards Unit (ESSU). External monitoring will be undertaken by an Independent Monitoring Organization (IMO) already recruited by DOW, and approved by ADB.

### **A. Internal Monitoring**

322. The HRMG assisted by the ESSU will monitor all activities associated with resettlement. The scope of internal monitoring includes: (i) compliance with the RP; (ii) prompt approval, allocation and disbursements of funds and payment to provide assistance, including supplemental compensation for additional and/or unforeseen losses; (iii) progress of implementation of livelihoods enhancement and income restoration measures; (iv) progress of agricultural and business development training; (v) consultations with APs and other community leaders; (vi) progress with the design of bus bays/waiting sheds, its field testing and final execution; (vii) operation of the GRM and progress of actual redressal; and (viii) AP engagement in actual construction activities, including women employment. Further information on RP monitoring including proposed indicators are presented in Annex 7.

323. During the implementation of the RP, the HRMG will submit a sub-project resettlement completion report to DOW and ADB when compensation has been paid and request approval to proceed with civil works. The IA will prepare monthly progress reports and submit these reports to DOW. These will be in addition to regular quarterly progress reports as part of project performance monitoring. The PIU will prepare semi-annual monitoring reports (SMR) for presentation to DOW and ADB for disclosure.

### **B. External Monitoring**

324. The DOW has already recruited an independent monitoring organization (IMO) to conduct external monitoring for HRRIP subprojects that require resettlement. The purpose of external monitoring is to conduct an independent validation of all resettlement and livelihoods restoration activities. It will also focus on the social impacts of the subprojects and whether DPs are able to restore, and preferably improve, their pre-project living standards, incomes, and productive capacity. The TOR for IMO is presented in Annex 8.

325. The IMO will prepare bi-annual monitoring reports; and, conduct post-acquisition evaluations twelve (12) months after compensation is completed for each sub-project. All IMO reports will be submitted to HRMG, DOW and ADB.

## **Annex 1: Issues on Acquiring Customary Land**

In the Highlands region, the social structure of tribal groups is patriarchal and clans include people who can share a common ancestry through their father's lineage. Each clan has a specific territory; sub-clans or extended family groups are granted rights to use some of the clan territory to meet their basic needs for housing and gardens. Primary rights are reserved for people who are recognized as members of a clan (or its sub-clans); other people may earn secondary rights to a clan's territory through marriage. In all cases, clan territory cannot be alienated.

Access to land is a fundamental and defining asset in the livelihood and cultural traditions of the Highlands people. Land is, first and foremost, the basis of subsistence agriculture that provides for the needs of rural households. It is common practice to produce small surpluses that are distributed in kind or in cash (after sale of crops at local markets) to members of the house line or sub-clan; this represents repayment into the social capital of the group (Rivers, 2004). The land is where sacred sites are located; and, where people bury their dead, often at visible locations in order to venerate a community leader who has passed away. Allegiance to one's clan territory remains strong among people who migrate from their communities for short or longer periods. Land is what a family transfers to its next generation as the basis for the continuing cycle of social reproduction.

As PNG develops, the difficulties inherent in how to mobilize customary land for new economic and physical development become more and more apparent. With respect to works to upgrade road networks, several approaches have been employed. These are identified here as background to the proposed HRRIP approach that is discussed in the next section.

- The implementation of the ADB Loan 1709-PNG DOW negotiated a Memorandum of Agreement (MOA) with affected communities and landowners to acquire the use of customary land without payment of compensation for the upgrading of national and provincial roads.
- In consultations during the preparation of the HRRIP, people and communities in the Highlands region strongly supported proposals to upgrade and rehabilitate roads, recognizing that this is a necessary condition to improve accessibility and living conditions.
- Most people in the region consider that existing roads are located on State land, whether or not there has been a formal process to alienate customary land. However, there were some stakeholders who insisted that these roads are located in customary land and are still unpaid when these lands were first used as roads. The intensity of this view of unpaid land varies between provinces in the Highlands Region and is less noticeable in provinces (Morabe and Madang) near the coastal areas.
- Moreover, in consultations during preparation of T1 and T2 roads for the HRRIP, provincial and district authorities as well as communities along the roads repeatedly indicated their willingness to contribute additional land without any financial considerations to enable roads to be upgraded.
- However, there have been some complaints about the past road upgrading and rehabilitation activities regarding outstanding issues on affected improvements which may influence the acceptability of projects and/or impede the rehabilitation of roads in the HRRIP. These should be reviewed very carefully because the demand for unfounded or obsessive compensation has become an emerging cottage industry and has unnecessarily delayed infrastructure projects in the Highlands Region.

## **Annex 2: HRRIP Approach in Obtaining MOA**

HRMG with assistance from the Provincial Administrators and District Administrators, Provincial Works Managers will organize a series of community consultation with local officials (LLG Council Presidents and Ward Councilors), community leaders, displaced people (DPs), other community members and other stakeholders; DPs include all individuals and families that have rights to use land and/or own crops and structures affected by additional land requirements to upgrade or rehabilitate the road.

The purpose of the consultation is that all DPs and other stakeholders are fully informed about the HRRIP sub-project, the scope of road improvements, the benefits that this will bring to individuals and the community and the strategies to acquire use of land to permit road rehabilitation to proceed, including the use of the MOA; and, the policies and procedures that will apply to the establishment of a public road reserve.

During consultations, the community leaders and affected landowners will be asked whether they agree that the use of this land for road improvements (a) is directly linked to benefits they and their community will receive and (b) does not severely affect their living conditions, livelihoods and incomes; and, they are satisfied that (c) community sanctioned measures are in place to replace any land losses such as (1) release of customary land in fallow, idle or reserved in favor of DPs living along the road corridor, (2) adjustments of sub-clan boundaries to mitigate the road impacts, other similar communal mitigating measures.

The agreement will be confirmed by a Memorandum of Agreement (MOA) that waives the customary interest in the land (right to exclusive use of the land or permission to use customary land as a public road) in lieu of the public infrastructure. The MOA enumerates the duties and responsibilities of both the government and the customary land owners including the compensation principles for affected assets of displaced persons. An example of an MOA is included in Annex 5.

The MOA will be entered into by the Department of Works as the authorize representative of the Independent State of Papua New Guinea and the customary land owners. The customary land owners will be represented by the local level government (LLG) council president, and all of the ward councillors as duly representatives of the affected tribes, clans and sub—clans. The MOA will be verified by an independent third party such as a designated non-government organization or legal authority. The signed MOA will be submitted to the pertinent government agencies for proper disposition.

The HRMG through its community relation officers (CROs) and the Provincial Works Managers will reiterate and explain fully the HRRIP grievance redress mechanisms which were previously mentioned in the MOA. Displaced persons or persons with an interest in the sub-project will be advised to clarify or file their complaints and/or grievances related to the MOA or other aspects of the HRRIP (see section regarding grievance redress mechanisms) for mediation and arbitration processes as provided in the mechanisms and avoid prohibited activities enumerated in the Protection of Transport Infrastructure Act of 2010.

### **Annex 3: Salient Provisions of the 1996 Land Act**

The Minister may acquire land through a) agreement or b) compulsory purchase, including acquisition of developments to or improvements on the land (Art. 7 and 8). Improvements on land include, among others, buildings, fences, wells, reservoirs, gardens, plantations or fixtures constructed to manage or use land and/or to raise livestock.

Acquisition of customary land by agreement shall be on the terms and conditions agreed between the Minister and the customary landowners. However, the Minister may not acquire land that is required or likely to be required by the customary landowners. Further, if the land is likely to be required in the future by customary landowners, the Minister may lease the land (Art.10).

In the case of compulsory purchase, the date of acquisition is the expiration of a two month period following the publication of a notice to treat in the National Gazette (Art. 12). The notice to treat must also be served to all landowners or such of them as can, after diligent inquiry, be ascertained; prior to the end of this period, landowners are required to provide particulars regarding their interest in the land, as well as the amount requested to sell their interests to the State (Art. 13). The National Land Commission (NLC) shall hear landowners and shall determine and recommend to the Minister the amounts to be paid.

The value of compensation for land acquired under compulsory purchase shall take into consideration a) the value of the land at the date of acquisition, b) the damage (if any) caused by the severance of the land from other land in which the claimant has an interest and c) the enhancement or depreciation in value of the claimant's interest in other land adjoining or severed from the acquired land by virtue of the purpose for which the land is acquired. This enhancement or depreciation in value shall be deducted from or added to, as the case requires, to the amount of compensation otherwise payable (Art. 23).

The value of compensation to be paid shall be determined a) by agreement between the Minister and the claimant prior to or after the acquisition (Art. 25 and 26) or b) by arbitration as per the procedures of the Arbitration Act, as agreed by the Minister and the claimant (Art. 27).

It is an offence punishable by fines and/or imprisonment of persons who trespass on or unlawfully enter, occupy or use State or customary land, or who refuse to leave that land within 14 days of being notified to do so (Art. 144-146).

The procedures for compulsory acquisition of land for major highways (e.g. Highlands Highway) as implemented by the Department of Works (DOW) include:

When the road design is complete, the Lands and Survey Division (LSD) of DOW commissions a private surveyor to determine the boundaries of the land to be acquired as well as the location, sizes and areas of affected customary land. The completed surveys are submitted to the Surveyor General for registration.

Upon receipt of the registered survey plans, the DOW requests the Department of Land and Physical Planning (DLPP) to issue an instruction to the relevant Provincial Administration (PA) to carry out a land investigation for the proposed acquisition.

The relevant Provincial Land Officer (PLO) (and/or District Land Officer (DLO)) conducts the land investigation and prepares a Land Investigation Report (LIR) including ownership genealogy, rights and interests held in the land; and, an assessment of the value of improvements to land prepared in accordance with the Economic Trees and Plant Price Schedule.

The LIR is submitted to the PA for his/her recommendation for alienation of the land. A copy of the LIR is sent to the Office of the Valuer General to conduct a valuation of the land and improvements.

A copy of the LIR is also sent to the Department of Provincial Affairs that prepares Certificates of Alienability (COA). The COA certifies that there is no impediment to the acquisition of the customary land; it is signed by the Secretary for Provincial Affairs, as well as representatives of affected Local-Level Governments (LLGs).

DOW receives the valuation report and COAs, raises cheques based on the valuation amounts and prepares purchase documents that are forwarded to the Secretary of DLPP for his/her signature. The signed documents and cheques are sent to the PA for execution and payment to landowners.

The DLO, with all relevant forms, makes the offer to the landowners. If accepted, the forms are executed and the money is handed over in accordance with the requirements of the landowners. If rejected, it then goes to the Minister of Lands for a negotiated settlement.

## **Annex 4: Compensation in Papua New Guinea**

Papua New Guinea, as a developing nation, is adjusting itself to the dual system of laws; the formal (government laws) and the informal (traditional or customary laws), which are practiced in Papua New Guinea. The formal laws are superior to the customary laws, however the constitution and the numerous legislation, which are currently in force do not state as to what extent. There is no clear demarcation between the government's legislation and the customary laws.

The informal law is an unwritten law governed by the principles of traditional norms and values where each ethnic group in Papua New Guinea exercises, to address problems (land disputes, marital issues, children fighting, rape cases, stealing of crops, domesticated animals, cutting of timbers on someone's land, killing of a person during disputes, murder etc.) at the village (hamlets) level. The traditional-customary laws are only exercised by people with the same traditional norms and values and who have the same local language and customs, and practice by other people (through marriage, or adoption) who understand the traditional norms and values of a particular ethnic group, and recognize and accept them as laws. Customary laws have been in existence and practiced by the common group of people for thousands of years.

The application of customary law is problematic if people of different ethnic groups living in the same location (settlements) are involved such as Port Moresby, Lae and Madang. It is very difficult to apply customary/traditional laws to sort out problems amongst these multiple groups of people.

Payment of compensation is part of customary law especially in the Highlands region. Amongst the various societies in Papua New Guinea, compensation takes many forms, including: cash; pigs; traditional shell money; glass beads and rings (in Vanimo, West Sepik Province); gifts of food; eating together at feasts (small or large) held for the occasion; and handshakes.

### **Customary Practices Regarding Compensation**

Customary compensation payment as a means of settling disputes stems from the traditional form of retribution of restoring sociological- equilibrium in societies by the principle of a life for a life. The practice of compensation occurs at a level of cultural development of a people when mutual and peaceful co-existence has been recognized. It replaces the primitive form of retribution by a life for a life.

Compensation is involved with the exchange of material wealth, goods or even with people. When a person is said to be responsible for an act, wrongful or otherwise, to another person and he is required to pay over a certain amount to the person aggrieved, the settlement is said to be made by compensation. The institution is a cultural expression of maintaining, adjusting, restoring, redefining, or creating the numerous relationships that hold society together. Relationships are marked by the payments, or are at least the indispensable medium in terms of which relationships are based.

Compensation of injuries or for the damage or loss of properties is a form of restitution. But together with restitution, compensation also expresses more important values. It mends, restores and strengthens relationships so that society is back in order. Further, compensation also provides an element of retributive sanction for breaches of norms. It is a very powerful

institution of social control and there would be no equivalent traditional institution to replace it that would perform the same functions of knitting society together.

The people's sense of justice is in fact conceptually based on group responsibility which is a fact of life in PNG society at this stage of cultural evolution. When an offence is committed it is a wrong against the group or community to which the victim belongs. Likewise responsibility for the wrong done is not only imputed to the individual offender himself but simultaneously to the clan or group from which he comes. This is how traditional order has been effectively maintained in an individual if is reluctant and constrained to commit an offence that he knows full well would place his group in jeopardy. Not only that but that he knows he would have to meet double penalties both from the aggrieved party and also from his own group.

Compensation includes the giving of what are sometimes referred to as 'gifts'. Giving compensation reflects the principle of reciprocity which places emphasis 'on the relationships of the parties. Compensation for a death caused by warfare is wealth which directly replaces the lost man and which can be used to obtain a new group member, for example, by payments for a new bride who will bear children for the kin group which has received the compensation. Reciprocity between people is thus expressed by wealth goods which 'represent' people,

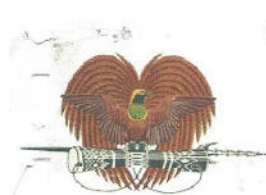
Custom Law: (Restorative Justice) is the process, which concentrates on mending the broken relationship that brought about the crime and brings a peaceful solution of healing back to the village. This is done when the offender is confronted with his action, which has brought harm to others. The confrontation brings shame to the offender and so that questions can be asked for forgiveness and agreement to restitution. The offender can now be reunited with the victim and the community through a ceremony of forgiveness.

Custom law is used when one person commits an offence against another. Many traditional methods are very good, (a meal for reconciliation) checkpoints are also used as preventative measures this is done through extended families. Hence if there were a conflict in the family, a relative would pay visits to check there is normalcy.

Restorative justice in a Melanesian way uses three processes by their dealings with one another. Consensus is the need to talk about the matter, provide all stakeholders with a chance to express their views and come to a decision which provides some benefits for all.

Win –Win Mediation is the concept used when two parties are in conflict over a matter such as a difference of opinion over land, property, children, or family differences between churches, these are best settled by win-win mediation. Mediation must avoid shame otherwise to save face in the sight of the community the losing party will be generally obliged to find some way of payback. To Melanesians a win-lose decision is abhorrent.

The third process is appeal wherein one or both parties are not amendable to the results of mediation and would seek redress from a higher authority.

**Annex 5: Memorandum of Agreement****DEPARTMENT OF WORKS**

P O Box 1108  
BOROKO, NCD  
Papua New Guinea

Tel: (675) 324 1114  
Fax: (675) 324 1102

**MEMORANDUM OF AGREEMENT**

This **Memorandum of Agreement** entered into by and between;

The Independent State of Papua New Guinea as represented by the Department of Works;

---AND---

The council wards of Maip1, Maip2, and Nera, District of Mendi, Province of Southern Highlands represented by its wards leaders, district leaders, leaders of clans and sub-clans, the names of which are enumerated at the end of this document;

---WITNESSETH---

**Whereas**, the State through the Department of Works is formulating, administering and implementing the Highlands Region Roads Improvement Investment Program (HRRIP), an ADB funded program for the upgrading, rehabilitation and maintenance of selected roads in the Highlands Region Road Network;

**Whereas**, one of the qualification of a road for the HRRIP is that it is an existing or former road, that is, the road bench exists and restitution of a trafficable road does not require major earthworks or construction of structures and the local population as well as district and provincial administrators have clearly stated their support for upgrading and rehabilitation of the pre-selected road;

**Whereas**, the Nipa – Munihu road section has been pre-selected by the State through the Department of Works (DOW) and approved by the Asian Development Bank (ADB) based on certain assumptions including two conditions namely that the right to use (a) existing road carriage has been negotiated in the past when such road was constructed, and (b) additional land to be required for the HRRIP project has been negotiated with the customary owners;

**Whereas**, after diligent searches and inquiries from the relevant government agencies, the existence of a writing document on the agreement for the use of customary land in the past cannot be ascertained and that the agreement may not have been put into writing;

**Whereas**, the absence of any proof of the existence of previous agreements for the use of the existing road carriage and the use of additional road width for the HRRIP project by the government require a written agreement for the continued inclusion of the selected road to the HRRIP because the previous assumptions of the existence of these documents for the use of existing road and additional land may not be defensible;

**Whereas**, there is an urgent need to have a written agreement on land use for the eligibility of the selected Nipa – Munihu road section with the HRRIP and avoid any future conditions that would give rise to misunderstandings, resentments and possible conflicts on the right to use the customary lands;

**Whereas**, the clans and communities who jointly own the customary land are fully aware of the benefits of an ungraded and rehabilitated road for their communities such as faster travelling time and cheaper

- transport costs, better access to health and educational facilities, increase economic activities, better access of farm products to markets among others;

- **Whereas**, the clans and communities, who jointly own the affected customary land that will be needed by the government for road improvements, are fully supportive of the proposed project to improve the existing road section passing through their communities, wards and districts;

- **Whereas**, the clans and communities, who jointly own the affected customary land are desirous for the road section which is located in their customary land, to retain its status as a pre-selected road of HRRIP subject to a feasibility study including qualifications of the project's eligibility criteria and detailed engineering design;

- **Whereas**, there is an urgent need for a close public – tribal partnership between the Independent State of Papua New Guinea as represented by the Department of Works who has the legal mandate to undertake infrastructure development in the country and the clans and communities who jointly own the customary land where the proposed road development will be constructed;

- **NOW, THEREFORE**, for and in consideration of the foregoing premises and covenants hereinafter stipulated, the Independent State of Papua New Guinea, represented in this Memorandum of Agreement by the Department of Works (DOW) and the clans and communities who jointly own the customary land where the existing road carriage is located and the additional land that will be required to improve the existing road have entered into this agreement as follows:

#### 1.0 Identification and Location of Road Section

- 1.1 DOW has considered the road section from Nipa to Munihu as a pre-selected road for the HRRIP. This road section has a length of around 27.72Km and will start at chainage 0+000 located at Nipa and will end at chainage 27+717 at Munihu.

- 1.2 We certify that we, as individuals and representatives of our communities and clans, are the exclusive customary owners of the road section that is a pre-selected road for the HRRIP. The particulars of our customary land are described below;

- Road section: Nipa - Munihu
- Chainage: From 21+545 to 27+717
- Wards: Maip1, Maip2 and Nera
- District/Province: Mendi, Southern Highlands

#### 2.0 Additional Land Requirements

- The upgrading and rehabilitation of this pre-selected road will require additional customary land and that based on the existing road and the proposed road, both described below, the preliminary estimate of the DOW for the additional land requirement is 5.54 hectares,

Existing Road	Proposed Road
Carriageway 3.00 meters Formation width 3.20 meters Total width 3.57 meters, to outside of drainage structures Total area 2.20 hectares of existing road within the customary land.	Carriageway 6.00 meters Formation width 6.50 meters Total width 12.54 meters of construction limits Total area 7.74 hectares of proposed road
<b>Difference of area between existing road and proposed road: 5.54 hectares</b> (additional land required)	

### 3.0 Agreement

#### 3.1 Responsibilities and Commitments of Clans and Communities

1. We, members and representatives of the clans and communities who jointly own the customary lands on the above mentioned road section agree to permit the Independent State of Papua New Guinea (State), as represented by DOW, to use our additional customary land for the upgrading, rehabilitating and maintaining the road section described above exclusively under the HRRIP and guarantee the unimpeded use of the road by the public;
2. That in recognition of the fact that the road project which will provide development and livelihood opportunities for our communities, we voluntarily waive our rights to compensation for the following two types of trees/crops listed in the 2013 Valuer General's Compensation Schedule, whose economic value is not significant: timber trees identified under Category D and crops measured based on area.<sup>1</sup>We will harvest our affected trees/crops before the road construction and will use the produce for household needs or sell it and retain the sale proceeds with ourselves.
3. Except for the minor trees/crops mentioned above, the government will provide compensation for other major crops/trees as well affected structures and assets (see section 3.2 below).
4. That we enter into this agreement on the basis of our free and prior informed choice and consent, having been provided with full information by the State through the DOW and DLPP about the HRRIP project and are fully aware of the consequences for our tribes, clans/sub-clans and communities and waive any and all customary interests over the additional lands in lieu of public infrastructure;
5. That we are aware that the State will be using public funds for the improvement of roads situated in customary lands and if the issue of land use is not properly addressed now, future generations of customary owners may restrict and limit public and private vehicles from using the improved road that may cause conflict and unrest in our communities and villages;
6. That our full permission for the State to use the additional land is premised on the existence of the said road and in the event that the use of our customary land as a road is discontinued for any cause, our permission will also cease and the use of the land will revert to the former owners and users of the land at the time of taking;
7. That we are validating and reiterating the permission given by our ascendants to permit the State through the DOW, to use our customary lands where the existing road carriage is located and in the event that the use of our customary land as a road is discontinued for any cause, our permission will also cease and the use of the land will revert to the former users of the land at the time of taking;
8. In the event that the State will seek to use or establish a public road reserve beyond the actual construction limits of the proposed road under the HRRIP, the required additional lands is not included in the subject matter of this MOA and will require a separate agreement with the customary land owners;
9. That if there are any dislocations on land use that will be caused to any member of our clans and community because of the additional land requirement of the road, in considerations for the positive effects of the project, our clans and communities involved will address this issue based on our customs and traditions and provide for adequate land replacement;
10. That we are representing all the clans and communities that jointly owned the land as described in Section 2 of this agreement and that we will all be jointly responsible to control and supervise our ranks in complying with the terms and conditions of this agreement.

<sup>1</sup>Crops identified by area in the 2013 Valuer General Compensation Schedule are the following: Green vegetable (mixed), Oenanthe, rice, sorghum, watercress, wheat, wild scrambling bamboo, kunai grass, mat weaving plant, sago (wild) and other similar crops.

11. That we are guaranteeing the State on behalf of all members of this community and its clans that there will be no land claims or grievances on the existing road as well as on the additional land required and that there will be no disruption and/or disturbance of the civil works to upgrade and rehabilitate the road;

12. That in the event that there is disruption and/or disturbance of data gathering for planning, surveys and during the implementation of civil works of the above road section, the clan and/or community involved will be jointly liable for the appropriate remedies and the erring person who may be criminally liable, be surrendered to the proper authorities for the appropriate legal measures.

### 3.2 Responsibilities and Commitments of the State through the Department of Works

1. The DOW has minimized as far as possible additional land requirements for the improvement of the existing road based on existing road standards to ensure the safety of passengers and vehicles using the improved road. However, there are instances that improvements in the hairpin curves sections, relocation of some bridges and improvement in the drainage system will result in using more lands than expected which are unavoidable but necessary to improve the safety of the existing road carriage.

2. DOW has conducted a detailed measurement survey to determine the additional land required to upgrade, rehabilitate and maintain the above mentioned road section based on the detailed engineering design and has a list of all the affected persons (APs) and their affected assets such as annual crops, perennial plants and trees, fences, structures, and graves and these will all be compensated based on the 2013 Valuer General's Compensation Schedule (hereinafter referred to as the Schedule);

3. The clans and communities will ensure that after the detailed measurement survey, there will be no new structures built or crops, plants, trees planted within the construction limits. Structures built and improvements planted or made after the detailed measurement survey (cut-off date) will not be compensated.

4. *Temporary Use of Land* – The road contractor will negotiate with customary land owners for the temporary use of customary land for the construction camps, motor pools, stockpile areas for aggregates, etc. The road contractors will be responsible for the restoration of the area after the completion of the road as part of their contract.

5. *Compensation for Loss of Annual Crops* -- APs will be encouraged to harvest their annual crops specified under Category B of the Valuer General's Compensation Schedule; in this case, no compensation will be paid. However, if the annual crops under Category B are not yet harvestable by the time of land taking within 6 months period from the DMS, compensation will be based on the Valuer General's 2013 Compensation Schedule. In all cases, if the land taking is more than 6 months from the detailed measurement survey (DMS) that has been notified to APs as a cut-off-date, standing annual crops under category B are presumed to have been planted after the DMS (cut-off date) and shall not be compensable.

6. *Compensation for Loss of Perennial Plants and Trees* – Compensation for lost plants and/or trees will be paid based on the Valuer General's 2013 Compensation Schedule except otherwise provided for in the Schedule.<sup>2</sup>

7. *Compensation For Loss of Timber Trees* -- For timber trees identified under Category D (forest trees) of the 2013 Schedule, APs have agreed to cut their affected forest trees, use the produce for household needs or sell them and keep the proceeds of the sale.

8. *Compensation For Loss of Fences* -- Fences constructed of wood or metal will have a compensation rate equal to the current market price (per meter) for similar fencing materials, as determined in the subproject area. For vegetation fences, the compensation will be based on the Schedule for the type of plant material used.

<sup>2</sup>All natural occurring trees with a diameter of less than 6 centimeters at a height of 2.00 meters or natural occurring trees less than 2 meters in height shall not be subject of compensation claims as provided by the 2013 Compensation Schedule.

9. *Compensation for Loss of Semi-Permanent or Temporary Structures* -- Semi-permanent or temporary structures may be located close to the road and it may be necessary to shift these buildings back in order to upgrade the road. In this instance, APs will be provided with a shifting allowance to cover the costs of this activity. If such structures cannot be moved, APs are entitled to compensation at replacement cost for the materials and labor to repair or reconstruct a similar structure.
10. *Compensation for Loss of Graves* -- Compensation will be paid for the affected graves based on the Schedule. In addition, HRRIP will pay an additional grant to ensure that compensation received is equal to the costs for reburial and construction of new grave.
11. *Construction Employment* -- People affected by permanent or temporary loss of land or by damage or loss of crops, trees or structures will be given priority for employment by contractors for civil works and/or maintenance works on the road, preferably on road sections where they own the customary land, provided that these applicants are qualified to perform the work required.
12. *Shifting Allowance* --The value of the shifting allowance will be calculated based on the provincial minimum wage as established by the Minimum Wage Board for a maximum period of two months. At the time that the shifting allowance is paid, the landowner will sign an agreement with DOW and/or DLO regarding the date by which the structure will be removed from the land required to upgrade/rehabilitate the road.
13. *Business Disruption Allowance* -- APs that own a temporary or semi-permanent structure that is used as a trade store or for other business purposes that must be shifted a short distance to a location outside the area designated for the road are entitled to an allowance to cover the loss of business income while the structure is being shifted calculated based on the provincial minimum wage as established by the Minimum Wage Board for a period equal to number of days of disrupted business.
14. *Time for Valuation of Assets* -- The valuation of assets will be made at the time of the detailed measurement survey (DMS) conducted following completion of detailed engineering design calculated based on the Valuer General's Compensation Schedule and assessing the requirement for additional grants and the grant amount based on existing conditions in the subproject area.
15. *Delayed Payment* -- If payment of compensation is delayed, compensation rates will be updated regularly based on inflation rates to ensure that APs receive compensation at replacement cost at the time of compensation payment.
16. *Full Payment of Compensation* -- APs are entitled to payment of all compensation based on the DMS prior to clearance of land and start of civil works. DOW will ensure that all procedures are followed to facilitate payment of APs prior to the start of civil works. In the case of affected crops, trees and structures, the compensation owed will be paid directly to the person who owns these assets.
17. All land acquisition activities will be coordinated with the civil works schedule. Civil works contractors will not be issued a notice of possession of the site until (i) compensation and relocation of APs have been satisfactorily completed; (ii) agreed rehabilitation assistance is in place; and, (iii) the site is free of all encumbrances.


#### **4.0 General Conditions**

1. If the negotiated agreement for the use of the customary land as roads, both for the existing road and for the whole road section as described earlier have not been attained for any cause, both parties agree that this memorandum of agreement will become null and void and unenforceable to any or both parties; In this case, the State through the DOW will inform in writing the clans and communities through their leaders and representatives about this development and this is sufficient notice for the State to invoke the unenforceability of the MOA;

2. The State through the DOW and its consultant together with the provincial, district and ward administrations will conduct periodic consultations and encourage active participation of affected clans and communities covered by this road section to inform and update all stakeholders of the development of the project;
3. The State through the DOW in collaboration with the provincial and/or district land officer will institute a grievance process based on the accepted practices of mediation to address any complaint or issue regarding the valuation of asset or any resettlement related matter. If the complaint or issue is not resolved in this level, the HRRIP will adopt procedures to refer matters to the system of land courts as set out in the Land Disputes Settlement Act;
4. In the event of grievances that cannot be resolved through mediation at the local level, the State through the relevant authorities will hold the compensation amounts in escrow. Compensation will be paid in full upon final resolution of the case in the courts or other forum, in accordance with the entitlements of the affected person;
5. This MOA repeals and/or supersedes any written or verbal agreement for the use of customary land on the existing road carriage and the proposed road referred to in Section 2 of this MOA issued previously by either the DLPP, DOW and the customary land owners;
6. No amendment or additional terms and conditions to this MOA shall be deemed binding between the parties unless mutually agreed upon by them in writing.

IN WITNESS WHEREOF, we have hereunto affixed our signatures this 14 day of 09 2015.

By and on behalf of the Independent State of Papua New Guinea



**David Wereh**  
Secretary, Department of Works

















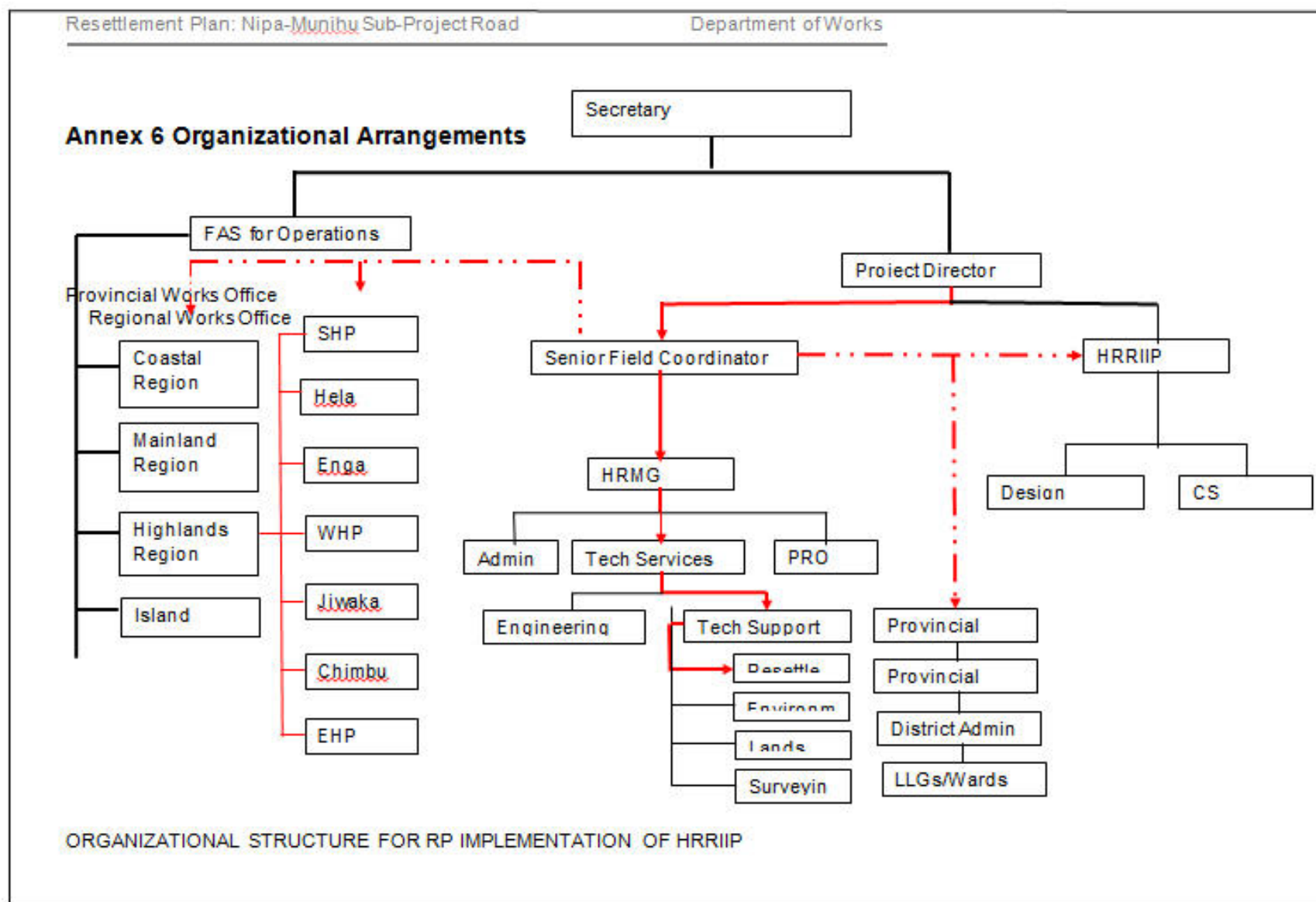












\* Revised on 21 Oct 2015

**Annex 7 : Indicators and Responsibility for RP Monitoring**

RP Parameter	Indicator	Responsibility	Remarks
1.Funding for RP (allocation & disbursement)	<ul style="list-style-type: none"> <li>Amount (in Kina) transferred to project by date</li> <li>Amount spent by activity and date</li> </ul>	HRMG safeguards coordinator in consultation with project accountant	
2.In-kind assistance	<ul style="list-style-type: none"> <li>Units of seeds &amp; planting material distributed</li> <li>Number of APs and non-APs benefitted</li> <li>Number of APs (by gender) assisted with extension, micro credit, business training and animal husbandry</li> </ul>	HRMG and service provider	Monthly reports are required. Details to be reported in SMR
3.AP Livelihoods	<ul style="list-style-type: none"> <li>Housing, water supply, sanitation and electric power available and unavailable for APs</li> <li>Poverty level as perceived by APs</li> <li>Units of household items possessed by APs</li> <li>Number of garden plots</li> <li>Livestock units by type</li> </ul>	Baseline data from socio-economic study Mid-term and final impact data from the same study. IMO reports	Baseline study is completed IMO study is in-progress
4.AP's income	<ul style="list-style-type: none"> <li>Household income of APs by vulnerability</li> <li>HH expenses</li> <li>Number employed</li> <li>Number in project employment</li> </ul>	Items 1 to 3 from SIS study data Last item from contractor	First three items from baseline, mid-term and final impact study whilst last item from monthly reports and HRMG monitoring
5.Consultation	<ul style="list-style-type: none"> <li>Number of APs and community members attended by gender</li> <li>Date of meeting</li> </ul>	HRMG field staff	On a monthly basis
6.Grievances	<ul style="list-style-type: none"> <li>Number of grievances received by date</li> <li>Grievances reviewed by GRC by date</li> <li>Grievances approved by GRC</li> <li>Grievances fully resolved</li> <li>APs resorted to legal action (number)</li> </ul>	HRMG/GRC	Data to be collected by HRMG staff and reported in their monthly reports
7.AP satisfaction	<ul style="list-style-type: none"> <li>% APs satisfied with resettlement by gender</li> <li>% APs who have restored their livelihoods</li> </ul>	SIS study and IMO	Baseline data available now. IMO data from the report in 2017

**Annex 8: Terms of Reference**  
**Independent Monitoring Organization**  
**For the Highland Region Road Improvement Investment Program**

**A. External Monitoring Objectives**

1. The objectives for external monitoring are to provide an independent review and assessment of (i) the achievement of Highland Region Road Improvement Investment Program (HRRIP) resettlement objectives and principles, (ii) the effectiveness, impact and sustainability of the resettlement process including all types of assistance, (iii) propose a corrective action plan if required, to address significant remaining resettlement issues and (iv) to identify strategic lessons for future policy formulation and planning.
2. The assessment should be undertaken objectively and independently in close consultation with the Department of Works (DOW) as the execution agency (EA) and Highlands Region Maintenance Group (HRMG) as implementation agency (IA). The principles that govern the basis for independent monitoring are contained in Asian Development Bank's (ADB) Safeguards Policy statement (SPS) of 2009.

**B. Team Composition and Timeline**

3. The Independent Monitoring Organization (IMO) will be a two-member team, one specialized in socio-economics and evaluation whilst the other in social anthropology. The socio-economist will be the team leader. Both should have adequate experience in resettlement monitoring for international agencies.
4. The task of IMO is to conduct independent monitoring of resettlement activities in respect of completed and on-going subprojects covering Tranche 1 through to Tranche 3 under HRRIP. The resettlement activities for Tranche 1 subprojects have already been completed whilst the same activities in other 3 subprojects (Tranche 2) are in the process of being approved or just about to be implemented. The actual number of subprojects to be monitored by the IMO depend on how many subprojects are completed by the mid-year 2018. Accordingly, the scope of work for IMO will commence by January 2016 and will be completed by June 2018.

**C. Monitoring and Evaluation Parameters**

5. Among the parameters that will be monitored and evaluated by the IMO are:
  - (i) Public consultation and disclosure. This activity has been completed for all subprojects in Tranche 1. Consultations in the process of preparation of RP have also been completed for all subprojects in Tranche 2 and 3. However, such consultations in Tranche 2 and 3 are yet to be organized in respect of up-dating RP and grievance redress. IMO is expected to conduct a desk review in respect of already completed activities whilst it will conduct observations on at least 2 such activities for each subproject in Tranche 2 and 3.

- (ii) Identification of APs, their entitlements, assessment and valuation of assets. These activities have been completed for all 13 subprojects in Tranche 1 to 3. The project team will validate APs, their entitlements and the valuation process just prior to mobilization of contractors in respect of subprojects in Tranche 3. The IMO is expected to conduct a desk review in respect of all subprojects in Tranche 1 and 2 whereas it will make observations on the validation process to be implemented by project staff for subprojects in Tranche 3. For observations, one such meeting per subproject at the minimum will be selected by the IMO.
- (iii) Payment of compensation. This activity has been partially completed in all Tranche 1 subprojects whilst it is in progress for all other subprojects. The IMO will verify the process and the degree of completion for all subprojects, using available records cross-checked through a sample of AP interviews.
- (iv) Co-ordination of resettlement activities with construction schedule. The IMO will verify the level of coordination achieved between resettlement with construction schedule for Tranche 1 subprojects. This will be conducted through a desk review combined with interview of selected stakeholders. For all other subprojects, the IMO will conduct field verification of this activity whenever it is implemented. It is expected that each subproject in Tranche 2 and 3 is visited to conduct this verification.
- (v) Income restoration and livelihood activities. The IMO will verify the extent to which APs have restored their income levels and livelihood activities after resettlement. It is believed that APs have restored their income and livelihoods to pre-settlement stage in the case of completed subprojects. For other subprojects, this will happen sometime in the future, after completion of resettlement activities. Apart from discussions with different stakeholders, it is expected that IMO visit each subproject in Tranche 2 and 3 to verify this activity. The manner of accomplishment including details of methodology are to be provided in the inception report.
- (vi) The level of satisfaction of APs on various aspects of the resettlement process will be assessed for Tranche 1 subprojects. The IMO will coordinate with the client to determine when this could be assessed in respect of other subprojects in Tranche 2 and 3. The IMO in consultation with DOW will determine and propose in their proposal the best approach (includes sampling details) to verify AP's satisfaction .
- (vii) The grievance redress mechanism (GRM) has been established and is well under execution for Tranche 1 subprojects. It is yet to commence in respect of all other subprojects. The IMO whilst reviewing the GRM process for completed subprojects will coordinate with the client to determine when this could be assessed in respect of subprojects in Tranche 2 and 3. The timeline and methodology for such assessment will be proposed by the IMO.

(viii) Monitoring of RP is nearing completion in respect of Tranche 1 subprojects. It is yet to commence for all other subprojects. It is expected that IMO propose the method and other details to explain how they propose to undertake this activity.<sup>6</sup> It is required that IMO review each RP to identify all monitoring parameters that have been proposed. It is necessary to develop indicators and methods as appropriate in order to ensure the task of independent monitoring is comprehensive and thorough. These matters will be reported in their proposal and further elaborated in the inception report.

#### **D. Methodology**

7. The general methodology for undertaking the independent review is briefly presented below. The IMO is expected to provide a detailed methodology in their inception report for review and approval by DOW.

##### **i. Desk Review**

8. The resettlement activities in respect of all completed subprojects will be assessed through a desk review. The IMO is required to consult project staff in order to identify all documents and data files to conduct this review. All data sources and documents reviewed will be listed in their reports.

##### **ii. Interviews**

9. The IMO will conduct interviews with all stakeholders including the APs to conduct relevant assessments and validations. In doing so, the process, instruments utilized and capturing a representative sample of the affected population will be explained in the inception report. Special attention should be paid so that women, elderly persons and other vulnerable target groups are not overlooked from interviews.

##### **iii. Participatory Techniques**

10. The independent monitoring organisation will conduct participatory rapid appraisals (PRA) to consult various stakeholders (local government, implementing agencies, social organizations, community leaders and APs). Among the specific techniques to be employed are:

- (i) Key informant interviews with selected local leaders at village, LLG and district levels;
- (ii) Informal discussions with APs, vulnerable groups, women and other stakeholders;
- (iii) Focus Group Discussions (FGDs) with the affected population including vulnerable APs;
- (iv) Structured direct field observations;
- (v) Case studies; and
- (vi) Attend public consultations to assess the process, participant invitation, views of participants, feedback by project staff, etc.

**E. Staffing**

11. The input schedule by the two-member team is as follows:Position	Field (months)	Home-office (months)	Total (person months)
Socio-economist	9 (3 months each in 2016, 2017 and 2018)	0.50 (1-2 weeks after each field visit)	9.50
Social Anthropologist	4 (1 month in 2016, 2 months in 2017 and 1 month in 2018)	0.50 (1 week after field travel in 2016 and 2017)	4.50
Total	13	1.00	14.00

12. The two specialists will provide their inputs on an intermittent basis between 2016 and 2018 June. It is required that the two specialists organize their mobilization with a good overlap so that the monitoring and reviews are conducted as a team.

**F. Reports**

13. The IMO is required to produce reports as listed below:

Deliverable	Description	Timeline	Remarks
Inception report	Contains proposed methodology, work plan, personal schedule including resources required and time plan	To be provided within one month of commencement of work	One report for each Tranche. Inception reports for subprojects in T 2 and T 3 to show lessons learnt from previous Tranches and incorporate such lessons into current work
Progress reports	<p>Issues to address include, but not limited to:</p> <ul style="list-style-type: none"> <li>• Progress of work undertaken</li> <li>• Proposed work including recommendations for the attention of the client</li> <li>• Deviations, if any, from the provisions in RP and an explanation thereof</li> <li>• Identification of problem issues and recommended solutions so that implementing agencies are informed about the ongoing situation and can resolve problems in a timely manner</li> <li>• Progress of the follow-up of problems and issues identified in the previous report</li> </ul>	Twice a year	Not necessarily based on each subproject. IMO is expected to propose the best approach
Final report	Three final reports, one for each Tranche. Each report contain methodology, outcome of monitoring, evaluation of process and outcomes 6-12 months after completion of all resettlement and compensation activities for each subproject, lessons learnt, findings, conclusions and recommendations for subprojects under the relevant Tranche.	Report to cover subprojects that are in various stages of construction	3 individual reports

## G. Presentations

14. The IMO will conduct a seminar to highlight work undertaken, main findings, recommendations and lessons learnt. The presentation may follow the submission of bi-annual monitoring reports to discuss and resolve issues that are not conducted satisfactorily. The suggested participants for this event are HRMG, contractor, DOW and ADB.

**Annex 9 List of Participants in Consultations and Photographs****21<sup>ST</sup> MAY 2016**

SERIAL	NAME	GENDER	POSITION
1	DAVID PAL KELAP	M	AP/COMMUNITY LEADER
2	THOMAS	M	AP
3	GIBSON HAPON	M	AP
4	SEMIS SOROWE	F	AP
5	KUWIM KUMIS	M	AP
6	PASTOR MICHAEL	M	PASTOR
7	MOSES PORE	M	AP
8	PETER KOLOM	M	AP
9	BILLY WINCENT	M	AP
10	ESTER LAROLD	F	COMMUNITY MEMBER
11	LEMAK EPEIO	M	AP
12	DANIEL PIND	M	AP
13	LISA NIP	F	AP
14	SIMON KUMIS	M	AP
15	JOHN KURI	M	AP
16	BRUCE SODNOMY	M	LEADER
17	EMMANUEL PENE	M	LEADER
18	ROBERT SAKO	M	LEADER

**10<sup>TH</sup> TO 15<sup>TH</sup> JULY 2016**

SERIAL	NAME	GENDER	POSITION
1	ISAAC MONG KURIL	M	AP
2	ALBERT SOAP	M	AP/ PASTOR
3	SAMSON PIS	M	AP
4	NEBOL AWE	M	AP
5	KENETH LIVA	M	AP
6	JACKY AISOP	M	AP/ PASTOR
7	DICK LEVAI	M	AP
8	PAKA WAPNAIS	M	AP
9	WID SEVIS	M	AP
10	NISO SEVIS	F	AP
11	JUD JACOB	F	AP
12	BETY KEPSI	F	AP
13	GRACE DAVID	F	AP
14	PAUL PUL	M	AP
15	ANNA SEK	F	AP
16	JACK TILO	M	AP/ PASTOR
17	HELEN NAE	F	AP
18	JACKIE OLMA	M	AP/PASTOR
19	OLI YAP	M	AP
20	JOE MARIE	M	AP
21	MOSES KERO	M	AP/PASTOR



**PHOTO 1 COMMUNITY CONSULTATION ON 11<sup>TH</sup> JULY**



**PHOTO 2 COMMUNITY CONSULTATION ON MAY 21ST**

**PHOTO 3 COMMUNITY CONSULTATION ON 14TH JULY****05 JANUARY 2012****NIPA DISTRICT HEADQUARTERS**

	<b>NAME</b>	<b>GENDER</b>	<b>OCCUPATION/DESIGNATION</b>
1	Peter Hurum	M	LLG councilor
2	Pip Sanguro	M	LLG councilor
3	Yalol Kopol	M	LLG councilor
4	Andrew Kusal	M	Village court magistrate
5	Ebokone Parep	M	Village court magistrate
6	Iswe Melam	M	Village leader
7	Walin Kont	M	Village leader
8	Malo Solo	M	Village leader
9	Ebi Lep	M	Village leader
10	Huku Haben	M	Village leader
11	Heyo Kep	M	Village leader
12	Emmanuel Pane	M	Village leader
13	Kom Dopol	M	Village leader
14	Mesai Somolo	M	Village leader
15	Eki Pesep	M	Village leader
16	Vincent Hatou	M	Village leader
17	Philip Pal	M	Village leader
18	Margaret Tono	F	Women leader
19	Yopi Tilo	M	Subsistence farmer
20	Willy Huk	M	Subsistence farmer
21	Peter Huk	M	Subsistence farmer
22	Tomoyap Wapu	M	Subsistence farmer
23	Ronny Ipis	M	Subsistence farmer
24	Alex Sap	M	Subsistence farmer
25	Daniel Pip	M	Subsistence farmer
26	Jacob Peter	M	Subsistence farmer
27	Sorowe Pip	M	Subsistence farmer

28	Jenny Andrew	F	Women leader
29	Pengial Sonpip	M	Subsistence farmer
30	Mondowa Wand	M	Subsistence farmer
31	Hul Pep	M	Subsistence farmer
32	Dul Heben	M	Subsistence farmer
33	Meniku Lep	M	Law & Order committee Coordinator
34	Stanly Galop	M	Subsistence farmer
35	Simon Iswe	M	Subsistence farmer
36	Tirwal Isem	M	Subsistence farmer
37	Mogen Sowi	M	Village court magistrate
38	Kewa Kopeap	M	Subsistence farmer
39	Otma Yakiol	M	Subsistence farmer
40	Pale Sanguro	M	Subsistence farmer
41	Sopaik Hont	M	Subsistence farmer
42	Robin Pip	M	District Administrator
43	Fred Thomas	M	Attorney General (retired)
44	Joseph	M	Assistant Dist. Administrator

**06 JANUARY 2012****EGENDA 3 COUNCIL WARD**

	<b>N</b>	<b>GENDER</b>	<b>OCCUPATION/DESIGNATION</b>
1	Pr. Mathew Panu	M	Local Church Pastor
2	Robert Sakor	M	Community Leader
3	Jennet Agon	F	Housewife
4	Jennifer Pules	F	Housewife
5	Ester Larold	F	Subsistence farmer
6	Melendi Panu	F	Student
7	Freddy Senis	M	Subsistence farmer
8	Billton Sodnomi	M	Subsistence farmer
9	Rutha Panu	F	Subsistence farmer
10	Sarah Panu	F	Housewife
11	Mal Hep	M	Subsistence farmer
12	Linbin Kepsi	F	Student
13	Moses Pore	M	Leader
14	James Tro	M	Community leader
15	Billy Sodnomi	M	Student
16	Bruce Sodnomi	M	Community Leader
17	Tibe Egeldo	M	Subsistence farmer
18	Inock Pesop	M	Subsistence farmer
19	Mathew Pules	M	Subsistence farmer
20	Benny Sindowe	M	Subsistence farmer
21	Jeffry Sondowe	M	Subsistence farmer
22	George Alu	M	Subsistence farmer
23	Anela Kuskus	F	Youth
24	Babra Pore	F	Youth
25	Rosa Beny	F	Housewife
26	Catharine Sondowe	F	Student
27	Lucy Jack	F	Student
28	Bonex Bruce	M	Subsistence farmer
29	Towi Larol	F	Subsistence farmer
30	Kepsi Munol	M	Subsistence farmer
31	Joseph Wapu	M	Subsistence farmer
32	Bruce Hepi	M	Community Clerk (KIAP)
33	Selais Hep	M	Subsistence farmer
34	Jesica Bruce	F	Women's leader
35	Paul Waka	M	Subsistence farmer
36	Wari Sap	M	Subsistence farmer
37	Sodme Klom	M	Former Councilor

**07 AUGUST 2014****NERA COUNCIL WARD**

	<b>Name</b>	<b>Gender</b>	<b>Occupation/Designation</b>
1	Nagapu Puluma	M	Sub-Farmer
2	Kita Busu	M	Sub-Farmer
3	Aglus Mana	M	Sub-Farmer
4	Amon Waria	M	Sub-Farmer
5	Max Yama	M	Sub-Farmer
6	Rose Anton	M	Teacher
7	Erimanda Kurupu	F	Housewife
8	Benjamin Yarepeya	M	Student
9	Stephen Rambuli	M	Student
10	Koni Molo	M	Youth leader
11	Mark Busu	M	Church leader
12	Patama Mark	M	Housewife
13	Luk Rambuai	M	Student
14	Mankel Isopu	M	Student

**17 APRIL 2015****SHUMBI 1 COUNCIL WARD**

	<b>NAME</b>	<b>GENDER</b>	<b>OCCUPATION/DESIGNATION</b>
1	Mosumbia Kindup	M	Community elder
2	Nalomem Peter	M	Ex-LLG councilor
3	Koropol Em	M	Subsistence farmer
4	Makon	M	Subsistence farmer
5	Warop	M	Youth
6	Homolpi	M	Subsistence farmer
7	Mathew Tongla	M	Community leader
8	John	M	Youth
9	Peter	M	Youth
10	Thomas	M	Youth
11	Jut	M	Youth
12	Mannuel	M	Youth
13	Su	M	Youth
14	Petrus	M	Youth
15	Haret	M	Subsistence farmer
16	Noraris	M	Subsistence farmer
17	Helen	F	Subsistence farmer
18	Kang	M	Subsistence farmer
19	Sepngong	M	Subsistence farmer
20	Lowi Sowi	M	Subsistence farmer
21	Semin	M	Youth
22	Geli	M	Youth
23	Sen	M	Youth
24	Ban	M	Youth
25	Kope	M	Youth
26	Noah	M	Subsistence farmer
27	Henry Yacob	M	Young community leader
28	Mosen	M	Subsistence farmer
29	Topei	M	Youth
30	Robert	M	Youth
33	Grace	F	Subsistence farmer
34	Misheal	M	Subsistence farmer
35	Malcolm	M	Subsistence farmer
36	Wit	M	Subsistence farmer
37	Joseph	M	Subsistence farmer
38	Luke	M	Youth
39	Mathias	M	Village elder
40	Tomo	M	Villager elder
41	Cathy Sowi	F	Housewife
42	Oliap Konpes	M	Subsistence farmer
43	Eli Yacob	F	Mothers representative

Public consultation in Nipa District office where the project description and policies of HRRIP were presented to the participants.

Public consultation conducted in Egenda 2, Nipa Rural LLG. The participants were very happy upon learning of the upgrading and rehabilitation of their road.

Group photo of some of the participants of a concluded public consultation in Shumbi 1 council ward, Nipa Rural LLG. Notice the children (left) with their older siblings and mothers attending this gathering.

Public Consultation along the road in Maip 2, Lai Valley LLG. Participants listened intently to a member of the team who was explaining the project coverage and compensation policies.



Tribe and clan members of Nipa Rural LLG witnessing their leaders and elders signing the Memorandum of Agreement permitting DOW the use of their customary land.



Tribe and clan members of affected wards in Lai Valley Rural in Mendi/Munihu District witnessing the signing of their MOA permitting DOW to use the customary land.