

Resettlement Plan

September 2013

PNG: Highlands Region Road Improvement Program: Project 2

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

CURRENCY EQUIVALENTS

(as of 06 September 2013)

Currency unit	–	kina (K)}
K1.00	=	\$.44
\$1.00	=	K 2.25

ABBREVIATIONS

ADB	Asian Development Bank
AP	Affected people
AH	Affected Household
BM&E	Benefit Monitoring and Evaluation
CEP	Community Engagement Program
COA	Certificate of Alienability
CRP	Community Relations Program
DLO	District Lands Officer
DLPP	Department of Lands and Physical Planning
DMS	Detailed measurement survey
DOW	Department of Works
EA	Executing Agency
GoPNG	Government of Papua New Guinea
HH	Highlands Highway
HRMG	Highlands Region Maintenance Group
HRRIP	Highlands Region Roads Improvement Investment Program
IA	Implementing Agency
IMO	Independent monitoring organization
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

NOTE

- (i) In this report, "\$" refers to US dollars.

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I. EXECUTIVE SUMMARY

1. This is the Resettlement Plan (RP) for Kotna-Lapramp (31.65) road section under the Tranche 2 (T2) of the Highlands Region Roads Improvement Investment Program (HRRIP) for Papua New Guinea (PNG) to upgrade, rehabilitate and maintain roads in the Highlands Highway (HH) network in PNG. This RP is based on the assessment of land acquisition impacts as determined through a Detailed Measurement Survey (DMS) after the detailed engineering design for the road improvements. The term "land acquisition" in the RP has been used as a process to obtain land through negotiation; an expropriation or compulsory land acquisition is not expected.

2. In accordance with the HRRIP 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 options considered to minimize resettlement effects were (a) moving the affected structures outside the construction limits, if possible, (b) shifting the road alignment to the opposite side of the affected structure, (c) narrowing of the road shoulders in front of the affected structures, and (d) adjustments on the drainage component to minimize resettlement impacts. However, there are some unavoidable land acquisition and resettlement required to undertake and complete the road project. The summary of the impacts are shown in the following Table 1: Summary of Impacts.

TABLE 1 SUMMARY OF IMPACTS

Affected Asset	Unit	Total
Land	Square meter	352, 460.25
Tree Crops	Number of trees	892
Single Plants and Trees	Number of plants and trees	1,309
Clump Plants and Trees	Number of plants and trees	2,623
Single Plants	Number of plants	1,418
Vines or Clump Plants	Number of plants	284
Mound Plants	Per mound	30
Forest Trees	Number of trees	1,337

3. The cut-off date is the date when the DMS was completed which is June 21, 2013 in this road sub-project. The DMS indicated that the project would permanently use an additional 288, 760.38sqm of land occupied by 9 tribes/clans (the remaining 63, 699.87 sqm is state land). There are no structures, fences or graves that will be affected by the project. In addition to land, only crops and trees are affected. There is a total of 7, 893 plants and trees that will be affected by the subproject. There are no APs that will suffer any business loss or need vulnerability allowance since land, crops and tree losses are on the account of the 9 tribes and clans who own these affected assets. The subproject's resettlement category is Category B because only land owned by 9 tribes/clans and few crops and trees will be affected by the subproject. In addition, the loss of land or income generating assets is below 10% (insignificant).

4. The consultation process in the project area has been undertaken by DOW and its consultants with assistance from both Provincial and District Administration offices. The APs have already been informed about their right to file complaints and/or queries on any aspects of land acquisition compensation, and resettlement. Different techniques of consultations

with stakeholders were used during the project preparation such as in-depth interviews, public meetings, focus group discussions, etc. A census and inventory of losses (DMS) and socio-economic survey were conducted to determine the extent of losses and establish the socio-economic profile of the AHs/APs. Consultations were held with the different villages and included provincial, district and local ward officials and leaders, tribal, clans and sub-clans leaders and the local communities. Consultations were carried out with special emphasis on the vulnerable groups. Public disclosure have been undertaken to disseminate the resettlement plan to APs, communities and different national and local government agencies.

5. The resettlement plan was presented to the ward councilors, tribal and clan leaders and direct stakeholders in Dei and Mul/Baiyer districts, both in WHP. They were provided copies of the MOAs for the use of customary land in exchange of public infrastructure. The project entitlements included in the MOA was explained and an open forum followed the information dissemination of project policies and entitlements. In addition, public disclosure on the resettlement plan was also conducted with provincial and district leaders who will help in the implementation of the RP.

6. 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 project's policy principles on involuntary resettlement are in line with SPS principles as follow: (1) Screen early and assess resettlement impacts; (2) Carry out consultations with APs and develop a grievance redress mechanism; (3) Improve/restore livelihoods of APs 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 APs and other vulnerable groups; (6) Develop transparent procedures for negotiations; (7) Provide assistance and compensation to non-titled APs for loss of non-land assets; (8) Prepare RPs; (9) Disclose RPs to APs and other stakeholders and document the consultation process; (10) Conceive and execute resettlement as part of the project; (11) Deliver entitlements to APs before their physical or economic displacement; and (12) Monitor and assess resettlement outcomes.

7. Based on nature of losses/impacts, entitlement for compensation has been earmarked in the entitlement matrix. The entitlements are described in the Chapter 8 on Entitlement, Assistance and Benefits and summarized in the Entitlement Matrix.

8. The DOW as the executing agency has overall responsibility to manage the planning, implementation and monitoring related to acquiring use rights for additional land to implement the project, as well as compensation for damages on project-affected land. The Highlands Region Maintenance Group (HRMG), as the Implementing Agency (IA) for HHRIP subprojects to upgrade and rehabilitate roads, has the responsibility delegated by the DOW to carry out the planning, implementation and monitoring for land activities, as required. DOW, in coordination with Provincial and District Administrations and through its project implementation unit (HRMG) will implement this RP following approval by ADB. A timeline for RP implementation and post implementation activities has been prepared in accordance with processes covered under this RP.

9. The involvement of local government units is vital in the implementation of the RP. The Provincial Land Officer (PLO) will collaborate with HRMG to plan, implement and monitor land activities for HHRIP subprojects in the province and/or delegate responsibility to the relevant District Land Officers (DLO).

10. Grievances will be addressed adequately at all stages of project development. An internal grievance mechanism will be established at the province level with the primary

objective of facilitating conflict resolution and minimize court cases. It will also provide affected people with a forum to air their objections and address their issues and concerns adequately. If the AP is still not satisfied with the ruling of DOW, the AP may take the grievance to the PNG Judicial System.

11. The resettlement cost estimate for this project includes eligible compensation and support costs for RP implementation. The EA (DOW) 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 project. The total estimated cost for resettlement for the Kotna-Lapramp is estimated to be **Kina 75,702.14**.

12. The implementation schedule for this RP has been scheduled based on the overall project implementation. All related activities related to land acquisition and resettlement are planned to ensure that compensation is paid prior to displacement and commencement of civil works. Public consultations, internal and external monitoring will be undertaken intermittently throughout the project duration.

13. 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 will prepare semi-annual safeguard monitoring reports and submit these reports to ADB in addition to regular quarterly progress reports as part of project performance monitoring. The DOW will appoint an independent monitoring expert or organization (IMO) to undertake external monitoring. The IMO will prepare bi-annual monitoring reports; and, conduct post-acquisition evaluations twelve (12) months after compensation is completed for each subproject. All IMO reports will be submitted to HRMG and ADB.

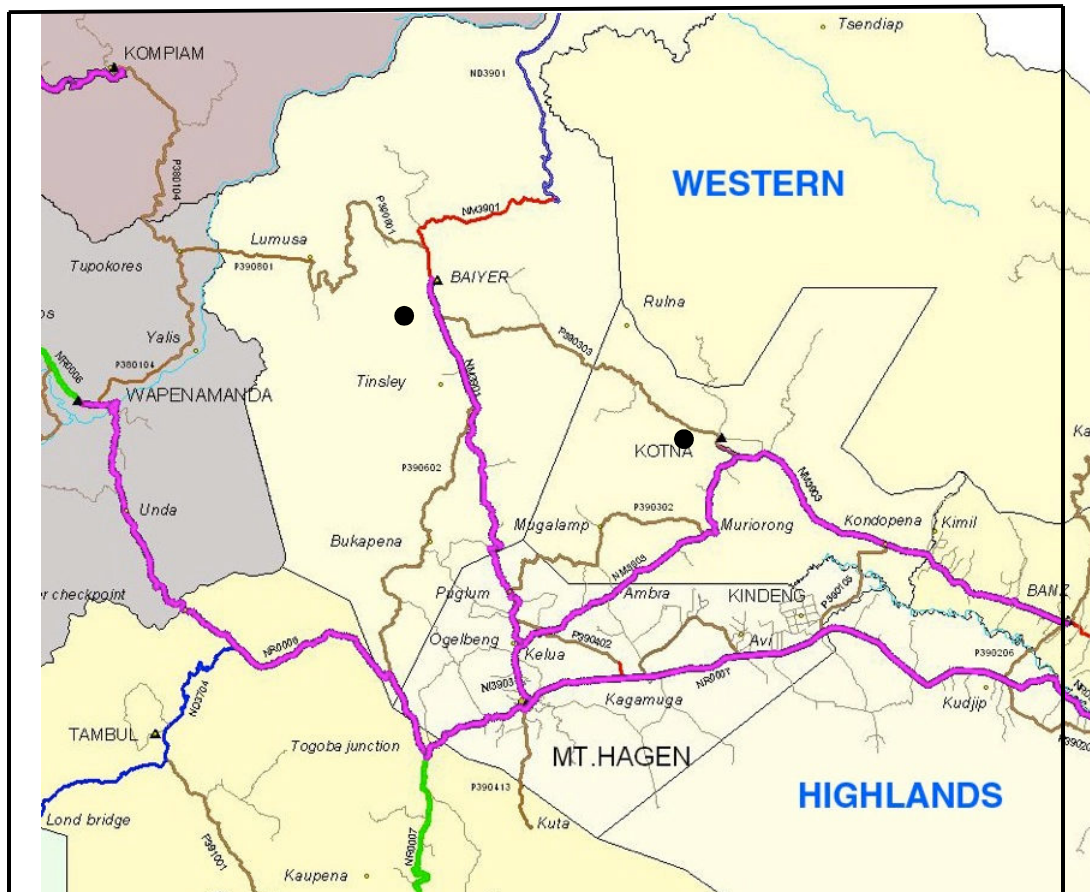
II. PROJECT DESCRIPTION

A. Project Overview

14. The Highlands Region Roads Improvement Investment Program (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).

15. The Highlands Region is a major contributor to PNG's economy through its mineral and agricultural exports. It is also home to 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 KOTNA-LAPRAMP SUB-PROJECT



Lapram at the junction with the Baiyer River Road (NM 3901), just south of Baiyer. The proposed sub-project has a length of 31.65km.

17. The first 7 km of the road passes through relatively flat/rolling terrain with pockets of settlements and some vegetable gardens. From Km 7, the terrain becomes mountainous and the route climbs to a high point at Km 12 before descending to the Baiyer River valley at Km 18. Within this mountainous section there is very little sign of development. From Km 18 to the end of the road section at Km 32 (approx) the route traverses relatively flat to rolling terrain. There are 2 large coffee plantations (Tigi – Tigi and Kuli) near the end of the road and the potential for significant agricultural development within this length of road.

18. The existing road formation in the flat to rolling sections is 5 – 7 meters wide, decreasing to 3 – 4 meters wide in the mountainous section. The surface of the road varies throughout. The first 400 meters from the Kotna junction are sealed and in reasonable condition. Thereafter, the road surface is poorly graded gravel or earth. Drainage is generally poor over the whole length of the road section. Most of the existing culverts require replacement together with the provision of additional culverts and roadside drains which will need to be lined in the mountainous section to prevent scouring from occurring.

19. The sub-project is located in the local level governments (LLGs) of Dei Rural and Kotna Rural, Dei district and Mul Rural and Baiyer Rural both in Mul/Baiyer District in WHP. Based on the 2011 population census, the subproject has a RIZ of around 147, 504 persons distributed among 33, 010 households with an average of 4.47 persons per household. The population in the RIZ is projected to grow to 229, 806 persons in 2026 and 308, 841 persons in 2036. The details are shown in the following Table 2. 2011 Population Distribution in the Road Influence Zone.

TABLE 2. 2011 POPULATION DISTRIBUTION IN THE ROAD INFLUENCE ZONE

District	LLGs	Total	Male	Female	% of Male	No. HH	HH Size
Dei	Dei Rural	39,237	20,146	19,091	51.34%	8,217	4.78
	Kotna Rural	38,843	19,885	18,958	51.19%	8,743	4.44
Mul/ Baiyer	Mul Rural	35,158	17,881	17,277	50.86%	8,208	4.28
	Baiyer Rural	34,266	17,144	17,122	50.03%	7,842	4.37
Sub-Total		147,504	75,056	72,448	50.88%	33,010	4.47

Source: Preliminary Figures, Papua New Guinea Census 2011

20. It is proposed that a 5.5 meter sealed carriageway with 0.25 meter gravel shoulders will be provided under the improvement of the Kotna – Lapram subproject. The shoulders will be sealed in areas where scouring by carriageway run-off could occur due to high gradients or high super elevation or a combination of both. The existing bridges are in reasonable condition and will be retained with rehabilitation as necessary. Additional drainage culverts will be provided and existing culverts replaced as necessary. Roadside drains will be provided to cater for surface water run-off from the carriageway and adjacent earthwork slopes and the drains will be lined where necessary to prevent scour. Road safety features will include traffic signs, pavement markings and guardrails. Some river training works will be required in the vicinity of Km 29 (state land) where the Baiyer River is eroding its bank and the existing road has already been locally realigned.

21. The subproject works will therefore take place within the existing road corridor and direct 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.

22. The first 25.124 km of the existing 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 project, the use of customary land required to upgrade the road have been agreed by clans and communities through memoranda of agreement (MOAs) permitting the use of customary land for public infrastructure. The last 6.53km is located on state land. 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. Avoiding and Minimizing Land Acquisition

23. 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 avoid or 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.

24. The engineering design for road upgrading and rehabilitation has been formulated to avoid or 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 use of additional land starts at the edge of the existing road (both sides) and ends at the outer limits of the construction limits. The construction limits is defined as the area from the edge of the existing road up to the edge of the construction limits that is required to rehabilitate and upgrade the Kotna-Lapramp road section.

25. The project team conducted a validation inspection to avoid or minimize the structures and other land improvement impacts in the project. Among the options of the team to avoid or minimize resettlement effects is the shifting the road alignment to the opposite side of the affected structure. Based on the application of this option, the original 5 affected structures (3 huts and 2 trade stores) were reduced to zero. The subproject will not affect any structures, grave sites or fences. Only a limited number of crops and trees will be affected by the project and these are the subject matter of the DMS.

C. Objectives of the Resettlement Plan

26. The purpose of the Resettlement Plan (RP) is to identify who will be affected by rehabilitation and upgrading of the Kotna-Lapramp road, to what degree they will be affected (i.e. what type of loss they will suffer) and how they will be compensated to ensure that they are not adversely affected by the project or left in a worse situation than in a “without project” case. In all cases, the overall aim is to at least restore, if not enhance, the livelihoods of APs. The primary objective of the RP is to provide necessary details for compensation, resettlement and rehabilitation by identifying (i) the extent of losses; (ii) the policy and framework for compensation payments and relocation; (iii) institutional framework for participation and implementation, and (iv) responsibilities for monitoring during implementation.

III. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

28. In the Kotna-Lapramp sub-project, the Lands and Survey Division (LSD) of DOW indicated that the first 25.124km of the existing road is located on customary land that has not been alienated to the State as per the Land Act. From 25.124 to the end of the project (31.65 km), the land is state owned. The classification and locations of customary and state lands were confirmed by the provincial and district personnel who were part of the survey team.

A. Methodology on the Detailed Measurement Survey

29. Based on the detailed engineering design, the detailed measurement survey (DMS) started on middle of second week of June, 2013, led by the project's local land acquisition specialist. The questionnaire used in the survey had been previously used in other ADB projects involving resettlement in PNG and in the process, was further fine tuned by its continuous use.

30. During the community public consultations conducted during the DMS, the APs were informed that the cut-off date of the project will be date when the DMS will be completed. This cut-off date was adopted to ensure minimum introduction of improvements between the date that they were informed and the date when the DMS will be completed. The DMS was completed on **June 21, 2013 and is the cut-off date** for the Kotna-Lapramp sub-project.

31. In the presentation of this report, the affected persons for the land are the tribes and clans who are the rightful owners of the affected customary lands. Any negotiation or compensation that will be due will be negotiated or compensated to the tribe. A member of each of the tribes/clans was appointed by the elders to represent their respective tribes and clans and to be listed in the DMS as the duly appointed representative and to receive compensation in behalf of the tribes and clans.

32. The subproject will not affect any houses, huts, trade stores, farm or any other structures, grave sites and/or graves or fences. Only the required additional land and a limited number of crops and trees will be affected by the project and these are the subject matter of the DMS.

33. There are no affected businesses or persons who will experience business loss. Considering that the tribes/clans collectively will suffer losses on crops and trees and not individuals and/or households, there is also no vulnerability allowances allotted because no one will suffer disproportionately than others. Asset losses will be assumed by the tribes and clans.

B. Scope of Land Acquisition

1. Land Impacts

34. There are 9 tribes and clans on both sides affected by the road project. The whole road section is on customary land except for the last 6.53 Km which is classified as state land. In the Kotna-Lapramp road section, there was no previous land survey undertaken. The determination of tribal/clan lands was made during the detailed measurement survey (DMS) and was the results of the consultations and physical identification of the individual boundaries within their territorial domains during the DMS by the members of the affected tribes and clans. The following Table 3 Summary of Wards and Tribal Boundaries shows the location of the wards and tribal boundaries along the subproject road.

TABLE 3 SUMMARY OF WARDS AND TRIBAL BOUNDARIES

Ward	From	To	Tribe/Clan
Kitip	0+000	0+400	Wali
Kotna	0+400	0+700	
Ambulga	0+700	3+400	
Kent 1	3+400	3+900	Tepoka
Kent 2	3+900	4+900	
Nunga 1	4+900	5+500	
Nunga 2	5+500	10+400	Tepoka/Kawalke
Mopi	10+400	14+200	Kawalke
Golke	14+200	16+700	Kawalke/Kombolga
Tiki 1	16+700	17+700	Kombolga
Tiki 2	16+700	17+700	Minimbe
Kinabuga 1	17+700	19+500	
Kinabuga 2	19+500	25+124	Kopi/Elgmake/ Epleike/Dekapke

35. The first 25.124 km is customary land and located in Dei district while the remaining 6.526 km is state land and located in Mul Baiyer District, both in WHP. The whole area of the existing road is 122, 329.14 sqm or an average width of 3.87 meters. The additional customary land required by the subproject is 288, 760.38 sqm while additional state land required is 63, 699.87 sqm or an aggregate total of 352, 460.25 sqm. The average width of the additional land required is 11.14 sqm. Overall, the width of the existing road and the construction limits is 15 meters. The details are shown in the following Table 4 Breakdown of Existing Road and Additional Land Required.

TABLE 4 BREAKDOWN OF EXISTING ROAD AND ADDITIONAL LAND REQUIRED

District	Classification	Length	Existing Road	Additional Land	Total
Dei	Customary	25.124	98,196.87	288,760.38	386,957.25
Mul/Baiyer	State	6.526	24,132.27	63,699.87	87,832.14
Total		31.65	122,329.14	352,460.25	474,789.39
Average Road Width			3.87	11.14	15.00

36. The divisions of the road section based on tribal ownership are not absolute and only reflect 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 land having fixed boundaries. This means that greater clarity of tenure occurs at the center of customary land, with less distinction at the boundary of land.

37. Land rights are held in common with other members of the group. The relationships between groups influence the assertion of land rights and subsequent tenure. Land tenure is not absolute but is repeatedly tested by competing groups. Disputes over land are never lost; rather the loser will regroup for a further claim.

2. Houses and other Structures

38. There are no affected structures of any type, fences or grave in the whole subproject. The road had been subject of periodic road maintenance works involving clearing and grading activities, the last time was around February 2012. Hence, residents along the road

are aware of the extent of the road limits and have adjusted the locations of their structures, including fences and graves according to the periodic clearings of the road.

3. Annual and Perennial Crops and Trees

39. The classification of plants and trees used in this section has been taken from the Valuer General's Schedule of Compensation (2008) which is hereby adopted and facilitates the valuation of the compensation in the latter portions of this report. For valuation purposes there are 3 or 4 stages of development of a plant or tree depending on the specific plant/tree classification. There are also crops that are computed by area such as sweet potato or kunai grass, an economically valuable grass.

40. The values and prices in the schedule are considered guidelines for general use as local conditions and scarcity or abundance will affect the value of a particular item. The trees and plants enumerated in the schedule are economic trees and plants that have value because the products derived from these trees and plants have household and/or commercial use and value. Plants and trees that do not comply with these criteria were not included such as flowers, ornamental plants, grass that maybe valuable only to the owning household.

41. The rates or prices in the Valuer General's Schedule of Compensation were determined in 2008 and need to be updated to reflect the current prices. A replacement cost study (RCS) covering the Highlands Region has been undertaken on behalf of DOW by a certified Independent Valuer. The RCS has determined that an increase of 3.5% per annum is applicable in adjusting the 2008 rates on prices to current rates of trees and crops. An increase of 19% has therefore been applied to the 2008 rates in the Valuer General's Schedule of Compensation for crops and trees to determine the current compensation costs.

42. Commercial Tree Crops – These are trees and plants cultivated in a specific area for the purpose of cash income. In the project area, coffee and citrus trees are the affected commercial crops by the schedule of compensation. There are 872 coffee trees (conventional) in the different stages of development that will be affected by the project and 20 citrus trees. The following Table 5 Summary of Affected Tree Crops shows the details of the affected trees.

TABLE 5 SUMMARY OF AFFECTED TREE CROPS

Tree Crops	Seedling	Small	Medium	Mature	Total
Coffee	30	238	278	326	872
Citrus Tree	0	10	5	5	20
Sub-Total	30	248	283	331	892

43. Single Plants and Trees – This is classified under Category B1 – Other Commonly Used Plants and Trees by the Valuer General's Schedule of Compensation. There are six species classified as single plants and trees affected by the project totaling 1,309 plants and trees in their different stages of development. The details are shown in the following Table 6 Summary of Affected Single Plants and Trees.

TABLE 6 SUMMARY OF AFFECTED SINGLE PLANTS AND TREES

Name of Single Plant or Tree	Seedling	Small	Medium	Mature	Total
Avocado (Butter)	0	99	25	287	411
Guava	0	15	240	171	426
Mango	16	10	13	28	67
Pandanus	30	13	9	193	245

Pao	0	0	17	0	17
Pawpaw	30	52	53	8	143
Total	76	189	357	687	1,309

44. Clump Plants and Trees – This is also classified under Category B – Other Commonly Used Plants and Trees. There five species under this category totaling 2,623 affected plants and trees in their different stages of development. The details are shown in the following Table 7 Summary of Affected Clump Plant or Tree.

TABLE 7 SUMMARY OF AFFECTED CLUMP PLANT OR TREE

Name of Plant or Tree	Small	Medium	Mature	Total
Bamboo	39	84	158	281
Banana	154	119	118	391
Edible Fern/Taki	48	80	63	191
Sugarcane	67	38	74	179
Targets	459	438	684	1581
Total Plants and Trees	767	759	1,097	2,623

45. Edible Single Plants – There are six species in this category that are affected in the project area totaling 1,418 plants. These are annual crops that bear fruit or the leaves that are harvested within a year. The details of the six species and their numbers are shown in the following Table 8 Summary of Affected Edible Single Plants.

TABLE 8 SUMMARY OF AFFECTED EDIBLE SINGLE PLANTS

Name of Plant	Small	Medium	Mature	Total
Aibika	119	74	184	377
Beans	74	52	37	163
Broccoli	0	35	0	35
Corn	90	0	170	260
Taro	283	130	144	557
Peanuts	0	26	0	26
Total Single Plants	566	317	535	1,418

46. Edible Vines and Clump Plants -- This category is a mixture of annual and perennial plants. There are four species affected by this subproject totaling 284 plants and out of this total, the most numerous is cassava. The other details are shown in the following Table 9 Summary of Affected Edible Vines and Clump Plants.

TABLE 9 SUMMARY OF AFFECTED EDIBLE VINES AND CLUMP PLANTS

Name of Vine or Clump Plant	Small	Medium	Mature	Total
Cassava	30	35	69	134
Passion Fruit	0	0	9	9
Pumpkin	28	20	18	66
Redpendenuts	18	25	32	75
Total Vines and Clump Plants	76	80	128	284

47. Mound Plants– There are only two crops included in this category; potato and sweet potato, the staple crop in the highlands and the most important crop in PNG. There are 30 affected mounds and the average mound is one square meter and this is the basis of computing compensation. The details are shown in the following Table 10 Summary of Affected Mound Plants.

TABLE 10 SUMMARY OF AFFECTED MOUND PLANTS

Mound Plants	Small (<0.75M ²)	Medium (0.75-1.50M ²)	Large (1.50M ²)	Total
English Potato	0	0	0	0
Sweet Potato	10	10	10	30
Total	10	10	10	30

48. Forest trees are categorized into four classes and two specific trees (pine and canoe trees) which are very important in PNG. The forest trees totaled 1, 337 trees with the predominant affected category classified as minor trees totaling 789 trees. The other details are shown in the following Table 11 Summary of Affected Forest Trees.

TABLE 11 SUMMARY OF AFFECTED FOREST TREES

Name of Forest Tree	Small	Medium	Mature	Total
Gum Tree	72	44	107	223
Yar Tree	165	95	58	318
Semi-Hardwood	2	2	3	7
All Other Trees	303	62	424	789
Total Forest Trees	542	203	592	1,337

4. Category of Resettlement Impacts

49. The selection criteria for subsequent subprojects for the HRRIP include provisions that the proposed work is on an existing road, does not involve major earthmoving works and avoids the displacement of residential structures or other, permanent structures. These selection criteria in effect aim to minimize the resettlement impacts for any candidate road for the HRRIP. The Kotna-Lapramp subproject is categorized as Category B for involuntary resettlement based on SPS because of the minimal number of affected owners and the insignificant impacts on land and/or productive assets.

50. In terms of impacts on land, a total of 28.8 hectares of customary land will be affected with an average width of around 5.5 meters in the left and the right sides of the existing road bench. An additional 6.3 hectares classified as state land will also be affected in the last 6 km of the subproject. The affected customary land has very few crops and trees as determined in the DMS and these affected assets are definitely below the 10% of the productive assets of the affected tribes and clans. In addition, there are no affected structures, fences or graves sites.

IV. SOCIO-ECONOMIC INFORMATION AND PROFILE

A. Background Information

5. Socio-Economic Information

52. The conduct of the DMS is based on land ownership of tribes and clans based on their explicit instructions after they realized that their intentions to waive compensation payments for affected assets would entail additional documentations and requirements based on the SPS and may delay the subproject. The affected assets especially the crops and trees would be in the name of the tribes and clans who owned the land and not on the individuals who cultivated these crops and trees. Internally, the tribes and clans would address any claims that members would raise based on their prevailing customs and traditions.

53. A question arose on what would be the basis of the sample size of the socio economic survey considering that the basis of the sample size is the number of APs. Key informants stated that on an average, length of the land occupation on the sub-project is around 100 meters. Hence, for every kilometer of road there is an average of 10 land occupants on one side or 20 land occupants per kilometer. The length of customary land is around 25 km around 500 land occupants for the whole customary land in Kotna-Lapramp subproject. This assumption is the basis of the sample size of 61 household respondents or roughly 12.2%.

54. A socio-economic survey was conducted from the middle of June to June 21, 2013. The DMS covered 9 tribes/clans who are directly affected by the subproject and the sample size of the socio-economic survey is 61 respondents or roughly seven respondents per affected tribe/clan. The respondents include the duly authorized members of the tribe/clan to represent them in the DMS and to receive payments for compensation.

55. The enumerators or interviewers were provided a short summary on ADB Safeguard Policy Statement to provide background information on the conduct of the socio-economic survey. A briefing on the contents of the survey instrument and how interviews should be conducted were also shared with the enumerators. To provide randomness in getting the sample size, the enumerators were instructed to conduct the interviews randomly along the whole road section. If the targeted respondent of the census survey is unwilling to undergo further interview, the enumerators were instructed to interview the next respondent in the census survey.

56. This section contains the results of the socio-economic survey conducted specifically for the project and secondary information gathered from the previous studies for this road section. These are all presented to provide a holistic view of the socio-economic conditions in the Kotna-Lapramp subproject.

2 Housing Information

57. There are 61 households interviewed in the socio-economic survey (Kotna-Lapramp subproject). The total population is 244 persons or an average household size of 4.00 persons. There are 113 males against 131 females or a gender ratio of 116 females for every 100 males. There are 151 persons in the economically productive age (15 – 65 yrs old) while there are 93 persons in the dependent ages (under 15 yrs and above 65 yrs old). There are 62 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.) The details are shown in the following Table 12 Age and Gender Distribution.

TABLE 12 AGE AND GENDER DISTRIBUTION

Gender	<15yrs	15-65	>65 yrs	Total
Male	42	64	7	113
Female	39	87	5	131
Total	81	151	12	244

58. Out of the total of 61 households, 57 households are nuclear families; two are joint families while another 2 are polygamous families. The term nuclear family is used to distinguish a family group consisting of most commonly, a father and mother and their children, from what is known as an extended family. Nuclear families can be any size, as long as the family can support itself and there are only children and two parents, nuclear families meet its individual members' basic needs since available resources are only divided among few individuals or the family would be known as an extended family.

59. Out of 61 households, 27 households are affiliated with Lutheran, the largest religious denomination in the sub-project. This is followed by Seventh Day Adventists with 15 members and Roman Catholic with 7 members. The remaining 11 respondents are affiliated with other mainline Protestant groups.

60. In terms of highest educational attainment of sampled households, almost one half (49.15%) is in the primary level with the remaining 22.88% in the elementary level. There are only 4 persons in the college level. The breakdown of their highest educational attainment based on gender is shown in the following Table 13 Highest Educational Attainment.

TABLE 13 HIGHEST EDUCATIONAL ATTAINMENT

Educational Level	Male	Female	Total	Percentage
No Schooling	4	10	14	11.86%
Elementary	21	6	27	22.88%
Primary	35	23	58	49.15%
Secondary	6	7	13	11.02%
High School	1	1	2	1.69%
Associate	0	0	0	0.00%
College	3	1	4	3.39%
Total	70	48	118	100.00%

61. The major source of domestic water is from nearby streams accounting for 41 households. This is followed by spring, a source of water for 12 households. Other sources accounted for 8 respondents. The major toilet type used by households is the latrine accounting for almost all (60) of respondent households. One respondent has a flush type toilet. All households use wood as fuel for cooking.

62. In the RIZ, over 97% of households own their houses; nearly all structures are constructed of semi-permanent traditional materials, i.e., wood frames with woven bamboo walls and thatch roofs. Some people "modernize" their traditional houses with windows and front porches; better-off households construct houses that combine traditional and purchased materials.

3. Economic Activities

63. Respondents in the Kotna-Lapramp road section were asked about their main economic activities. Surprisingly, government employment is the number one economic activity practiced by 49 households (80.3%). Forty eight households (78.68%) are engaged

in agriculture as their main economic activity. It is noticeable that in this subproject, there is lesser dependency on agriculture in favor of government employment and small businesses such as small enterprises, vending and sales of food.

4. Cropping Patterns

64. 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.

65. In this subproject, there is a significant cultivation of coffee. Many residents are involved in activities related to coffee. There are two coffee plantations along the existing road and factories in the districts of Dei and Mul Baiyer. It is expected that the upgrading and rehabilitation of the subproject road will further boost and encourage small farm holders to produce more coffee by rehabilitating former coffee plantations or areas and/or developing new coffee areas.

66. It was also noticeable that the farm produce from this subproject are of higher value compared to the other sub-projects under the HRRIP. There are an abundance of fruits such as avocado, guava, pandanus, papaya and bananas which would indicate a marketing bias towards the preferences of urban centers such as Mt. Hagen.

67. Most households continue to raise small livestock such as pigs, goats, sheep 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.

6. Marketing

68. There are three types of selling that evolved in the Highlands Region; (a) formal market where producers sell to wholesalers who in turn supply retail establishments, (b) informal market, these are open markets throughout the highlands, (c) direct bulk buyers – retailers, restaurateurs and institutions etc, buy from producers at the door. Retailers sell fresh vegetables but often have trouble sourcing local produce due to high transport costs. Kai bars use assorted vegetables on their menus. The institutions (hospitals, technical colleges, prison, armed forces) are a large market.

69. The marketing of cash crops relies on sales to buyers, particularly for households growing coffee and raising pigs. Nearly 90% of coffee growers sell to buyers, while only 40% make direct sales at local and/or regional markets.

70. Market sellers of fresh produce generally walk to local markets; however, in this particular subproject, PMV and private vehicles are being used to facilitate the transport of farm goods to Mt. Hagen. The frequent use of PMVs is reflected in the annual household expenses of surveyed households and can be confirmed in the arrival of PMVs in the main market of Mt. Hagen.

7. Household Income and Expenditure

71. Agriculture remains the foundation of the economic activities in the subproject. However, there is a noticeable diversification in the sources of household income, diminishing their dependence on agriculture. Incomes from transport business/activity and government employment have edged out agriculture as the primary source of household income in the subproject.

72. There is a noticeable increase of income coming from remittances from relatives compared to four other subprojects in the HRRIP. This trend would indicate increasing number households who have relatives working elsewhere and who are remitting money to these households. In addition, 8.86% of household income came from vending, a female dominated income generating activity. The details are shown in Table 14 Source of Annual Household Income .

TABLE 14 SOURCE OF ANNUAL HOUSEHOLD INCOME (KINA)

Income Source	Amount	Percentage	# of HH	Ave. Annual Income	Ave. Monthly Income
Agriculture	32,524.00	12.91%	48	677.58	56.47
Paid labor	26,956.00	10.70%	47	573.53	47.79
Small Enterprise	29,372.00	11.66%	48	611.92	50.99
Gov't Employment	33,502.00	13.30%	49	683.71	56.98
Transport	34,154.00	13.55%	48	711.54	59.30
Sale of Food	6,864.00	2.72%	17	403.76	33.65
Vending	16,602.00	6.59%	50	332.04	27.67
Hunting	11,462.00	4.55%	47	243.87	20.32
Remittance	20,661.00	8.20%	49	421.65	35.14
Royalties	7,970.00	3.16%	47	169.57	14.13
Gold Mining	7,695.00	3.05%	47	163.72	13.64
Others	24,205.00	9.61%	54	448.24	37.35
Total	251,967.00	100.00%		4,130.61	344.22

73. Overall, the annual income of surveyed households is 4, 130.61 per household and this translates into a monthly income of around 344.22 Kina or a per capita of around 2.86 kina per person per day at an average size of 4 persons per household.

74. Household Expenditure – The survey showed that food is the largest household expenditure accounting for 37,010 kina (23.52%) of total household expenses. Transport came second with 28, 781 kina (28.29%) of total household expenses. Third is education with 21, 211 kina (13.48%). This showed under-reporting of food expense as only around 24% of total annual household expense because of the availability of food gardens of the respondents and their tendency to report food expense as out of pocket cash spent on food.

75. Transport business/activity is the primary source of household income in the surveyed households. It is also the second largest household expenses. This indicate that a significant number of residents are on the road, traveling to and from Mt. Hagen, around an hour traveling time from the start of the subproject road in Kitip Junction. This also indicates the importance of the existing road in the sub-project in the lives of the residents along the subproject. This may also indicate that certain activities in Mt. Hagen such as education and trading are being availed of by the residents of this subproject road. The other details are shown in Table 15 Annual Household Expenditure .

TABLE 15 ANNUAL HOUSEHOLD EXPENDITURE

Household Expense	Amount	Percentage	# of HH	Annual Expense	Monthly Expense
Food	37,010	23.52%	60	616.83	51.40
Transport	28,781	18.29%	57	504.93	42.08
Clothing	13,989	8.89%	49	285.49	23.79
Health	7,428	4.72%	52	142.85	11.90
Education	21,211	13.48%	56	378.77	31.56

Communication	9,725	6.18%	56	173.66	14.47
Social Functions	12,924	8.21%	52	248.54	20.71
Agri Inputs	10,189	6.47%	47	216.79	18.07
Fuel	6,339	4.03%	47	134.87	11.24
Electricity	5,586	3.55%	48	116.38	9.70
Others	4,188	2.66%	47	89.11	7.43
Total	157,370.00	100.00%	61	2,579.84	214.99

76. The average annual expense of the surveyed households totaled 2579.84 kina or a monthly expenditure of 214.99 kina a month. Comparing this figure with the average annual income of 4, 130. 61 kina, there is a net savings of around 1, 550 kina per year.

8. Migration

77. 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.

78. The respondents were asked if they or any member of the family migrate for work outside of their district. Out of the total respondents, only 5 households have some members of their families migrating to work outside of their provinces and these relatives stayed outside of their province (WHP) for almost all of the year.

79. Four out of the five migrant workers are professionals while the fifth migrant is a non-agricultural laborer. The majority of migrant workers are professionals. They remit an average of around 375 kina per month.

9. Status of Women

80. The respondents were asked what kind of activities the female members of their families are engaged in. The question can accommodate multiple answers. The female members of the families are usually responsible for the cultivation of their food gardens (83.61%). This is a very important source of food in their families and women are responsible for their continuous production. If the women are finished tending their gardens and just waiting for the vegetables and other crops to mature, the women work for other food gardens and nearby coffee plantations to augment their income. The household works, which is a traditional domain of women, are being done by women in 50 households (81.97%). This is augmented by services, offering household services to other households being practiced by 42 households (68.85%). Other activities are shown in Table 16 Women's Participation in Economic Activities.

TABLE 16 WOMEN'S PARTICIPATION IN ECONOMIC ACTIVITIES

Women's Participation in Economic Activities	Frequency	Percentage
Agricultural Cultivation	51	83.61%
Allied Activities	21	34.43%
Collection/Sale of forest products	25	40.98%
Trade/business	17	27.87%
Agricultural Labor	28	45.90%
Non-Agricultural Labor	0	0.00%

Household Industries	42	68.85%
Services	42	68.85%
Household work	50	81.97%
Others	18	29.51%

81. It is apparent that far from being marginalized, the women in the study area are very active in their pursuit and contribution to the income of the families. Twenty seven households reported an aggregate amount of 8, 190 kina or an average of around 303 kina annually. This average amount is understated because of the local practice of not considering food consumption raised in the food garden as part of the income earned by a family.

82. The respondents were asked about the female participation in decision making in the family. All households reported that female participation is very much present in the surveyed households. Decision making regarding financial matters, education and health care of the child had 60 female members (98.36%) participating. This topic is associated with the purchase of assets for the family which has 55 females (90.16%) participating.

83. Based on the results of the socio-economic survey, the women in the study area have mainstreamed in generating income to augment family income. In addition, the female participation in decision making process regarding various family aspects is very apparent and observable. It is very noticeable that women from this subproject have very high participation rate compared to the other 2 subprojects in T2.

84. Table 17 Summary of Female Participation in Decision Making presents the summary of the female participation in decision making in the study area.

TABLE 17 SUMMARY OF FEMALE PARTICIPATION IN DECISION MAKING

Women's Participation in HH Decision Making	Frequency	Percentage
Females in Decision Making	61	100.00%
Financial Matters	60	98.36%
Education of Child	60	98.36%
Health Care of Child	60	98.36%
Purchase of Assets	55	90.16%
Day to Day Activities	59	96.72%
Social Function/Marriage	57	93.44%
Others	59	96.72%

B. Project Potential Socio-Economic Impacts

85. Positive and adverse impacts may occur simultaneously in a given project. In the Kotna-Lapramp road, the positive impacts outweigh the adverse impacts because of the nature of the project to provide accessibility to the inhabitants of the RIZ. The following paragraphs discuss the positive as well as the negative socio-economic impacts of the Kotna-Lapramp road section.

10. Positive Impacts

86. *Generation of Employment Opportunities* -- During construction, the project will generate employment opportunities to the affected tribes and clans. The social condition in PNG is unique in the sense that there is a very strong personal identification with the tribe and clan. The social conditions in the project site would make it very difficult for the contractor to ignore the affected persons who would be desirous to work in the project. It

would be doubly difficult if the winning contractor would hire foreigners or residents of other areas whose skills are locally available. This would create a serious social backlash against the contractor and would sour any potential cooperative relationship between the direct stakeholders and the contractor.

87. DOW shall ensure that the winning contractor shall hire local laborers based on the distribution of the tribes and clans along the road section to minimize any social conflicts. The affected tribes and clans have permitted the use of their customary land without any compensation and it would be appropriate that their members of the affected tribes and clans are hired in their sections of the road project.

88. During the maintenance period (5 years), the road contractor will also be responsible for the maintenance for the whole 31.65 km road section. This will require some maintenance teams that will be distributed along this road section and these teams will be composed of members who live along the road section to facilitate the performance of their maintenance works.

89. *Generation of Business and Livelihood Opportunities* -- This project will generate business and livelihood opportunities in the RIZ especially to the direct stakeholders. The contractor will establish construction camps, quarry sites, motor pools, living quarters and other construction related facilities. Necessarily, these will be manned by personnel and workers of the contractor who will all require food, shelter, clothing and personal services. Farmers would have a ready market for their agricultural products because of their proximity to the buyers. Tribes and clans owning tree species for timber would have a ready market because the facilities and the actual construction would require a considerable volume of timber. Tribes whose customary lands have been previously identified as potential sources of aggregates will receive compensation from the contractor in exchange for extracting quarry materials from their lands.

90. *Transfer of Residences Along the Road* -- Households of the same tribe living far from the road project will be encouraged to migrate to areas within the same tribal land along the newly constructed road because of the benefits that they would derive from the project. It would not be remote if some of the tribal leaders and elders would allocate and declare some portions of their customary lands along the Kotna-Lapramp road as residential areas to accommodate households desirous of relocating from the unaffected but remote portions of their customary lands and participate in the benefits of the project.

91. *Increase in Commercial Activities* -- The road project will increase commercial activities along the road section because of the expected increase of travelers and transport operators who would be using the road because of better driving conditions. Necessarily, businesses connected with the transport sector will be established to exploit the new business opportunities along the road section such as gasoline stations, road side vending, eateries and refreshment parlors, repair and vulcanizing shops.

92. *Improvement in Lifestyle and Culture* -- The upgrading and rehabilitation of the Kotna-Lapramp road will hasten the change in the lifestyle and culture of the members of the different tribes and clans living along this road section. The frequency of exposure and interaction of members of a tribe with different tribes is expected to increase because of better road conditions. Frequency of exposure to different cultures usually fosters tolerance if not understanding and this will assist in the process of assimilation and integration wherein inhabitants of PNG will see themselves as members of a nation and not just members of a tribe or clan.

93. *Improve Access to Power and Water* -- It is expected that the upgrading and rehabilitation of the Kotna-Lapramp road section will encourage the utility companies

supplying electricity and water to provide these facilities to households living along the road section. It must be pointed out that a primary requirement for these utility companies is accessibility to their franchise areas. It would be next to impossible to provide electricity or water to areas where their trucks and service vehicles cannot go. This project will provide the technical platform to seriously consider the provision of these services. It is up to these companies to also consider other factors such as population density, business and commercial activities, income level, etc in their decision provide such services.

94. *Better Access to Markets* -- The project will create better access to town centers especially on the middle section of the road where access is problematic. An all- weather road would mean better continuous access during rainy season and would improve household income (Manus 2009) because households are able to transport their agricultural produce easier and faster to the markets because of improve road conditions. The residents of the RIZ of the Kotna-Lapramp road would have better opportunities to find wage employment in the urban center of Mt. Hagen because of easier and faster travel time. In many of the road improvement projects, the fares did not reduce but the benefits derived were the time saved during each trip.

95. *Improvement in Health Services* -- It is expected that the Kotna-Lapramp road project will improve the health services in the RIZ. The association between better health and roads is based on the quality of the linkage between the village and the place where health services, both treatment and prevention, is being offered. The better the quality of the road and the more cash the smallholder has to spend, the more likely health care will be sought and received for themselves and their children. Some health services are itinerant, MCH clinics being one example. The better the quality of the road, the more likely the service will be offered regularly at the village level. Finally, many health services depend upon the regular and timely delivery of medicines, bandages and vaccinations to the aid post or health centre, and on the effective supervision and administration of health service staff.

96. *Better Educational Services* -- The Kotna-Lapramp road project will improve the quality of education available in the road section. Education services are less dependent on the regular delivery of supplies but do depend on effective supervision of teachers, the delivery teaching materials and the teachers' access to urban services. Teachers in isolated areas can spend many days every month traveling between their school and an administrative centre, days that they are absent from the classroom.

97. *Assist in Poverty Alleviation* -- The project will assist in poverty alleviation in the Western Highlands Province. An assessment of the general importance of roads in PNG is contained in the World Bank's study of poverty (Huppi and Gibson 1999). This report argues, "Access to transport infrastructure is an important determinant of economic welfare in PNG". It bases this statement on an expenditure and consumption survey that found that the "poor" travel three times longer than the "non-poor" to reach the closest road. It concluded that "one hour decrease in traveling time to the nearest transport facility reduces real consumption by 10 percent. This suggests that measures which improve rural communities' access to transport infrastructure will be an important aspect of poverty alleviation in PNG' (Huppi and Gibson 1999, 38)."

98. *Improve Household Income* -- The relationship between poverty and markets exists because smallholder incomes depend almost entirely on the sale of export crops and fresh foods. In this particular subproject, there are many smallholders that are raising coffee as their main agricultural product. To sell these commodities, smallholders must be able to transport them to a point of sale relatively cheaply and efficiently. In the case of some export crops, the point of sale is the 'farm gate' (the village). The mobile buyer travels to the village in a vehicle and carries the commodity back to an urban place of processing or aggregation and eventual export. In the case of the sale of fresh foods in urban markets, it is the

smallholder who travels with the commodity. Either way, the condition of the road connection between the village and the point of sale is critically important.

11. Negative Impacts

99. *Loss of Land* -- The project will require an additional 28.8 hectares of customary land on both sides of the existing road to rehabilitate and upgrade the Kotna-Lapramp road. 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 these affected lands.

100. The project will also affect some crops and trees of affected tribes/clans. These impacts have been addressed in this RP. The affected customary lands have been permitted to be used for the road widening by the tribes and clans who owned the customary lands in exchange for public infrastructure while the affected crops and trees will be compensated at full replacement cost.

101. *Loss of Perennial Trees and Plants*—The affected trees can be subdivided into fruit trees and timber species. The compensation for the loss of trees (depending on the specie, age and/or diameter) is governed by the Valuer's General Schedule of Compensation (2008). The rates are being updated by a replacement cost survey to comply or approximate the current prices.

102. The effects on the loss of fruit trees to the APs are immediate because the fruits are either sources of food or sources of income for the current harvest year. Hence the loss of the fruit trees has an immediate reducing effect on household income. Compensation in this instance is to compensate for the lost income that will be derived from these fruit trees.

103. *Loss of Annual Crops* – Annual Crops are defined as plants and shrubs whose economic products can be harvested within a year. These include almost all of the crops that are cultivated in the traditional food gardens of the affected areas. It is a policy of the project to permit as possible the harvesting of the products before possession for the construction project is taken over by the contractor. In this instance, there will be no compensation because there was no loss, the agricultural products having been harvested and made use of the owner before possession of the contractor.

104. It is a traditional practice for households to have multiple food gardens following their agricultural concept of resting the land to recover the fertility of the soil. It is also a survival strategy to have a continuous supply of food in the event that there is crop failure in one food garden. Hence, in the event that the road project will affect their food gardens, the affected households still have other food sources.

105. Sufficient to say, the compensation for lost assets are fully adequate because the rates are now based on the present market value. Hence, at this juncture, the conditions of the affected households have been fully restored.

V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. Consultations during Project Preparation

106. 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 Kotna-Lapramp road project to ensure that affected people (APs) and other stakeholders have timely information about land negotiation and compensation. The DOW through its consultants working in collaboration with Provincial Administrations (PA) and local authorities has organized consultation activities to disseminate project information and elicit their issues and concerns as well as their opinions regarding the project.

107. The project team composed of DOW consultants and staff held consultations in WHP with provincial and district authorities, as well as representatives of Provincial AIDS Councils, 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 T2 roads including the Kotna-Lapramp road section.

B. Consultations during RP Preparation

108. Based on the assessment of the project, the key provincial stakeholders identified for Kotna-Lapramp road project include the Provincial Governor, Provincial Administrator and or Deputy, Provincial Community Development Officers, Provincial Lands Officer, Provincial Women Representatives, Department of Works Manager, Department of Works Principal Advisor for Technical Division, Engineers Representative, Department of Primary Industry and Provincial Value Officer.

109. In the district and LLG levels, the key people identified include the Local Level Government (LLG) Ward Counselors, Village Court Officials, Women and Youth Leader Representatives, Church Groups, Affected People Leaders, Civic and NGO organization groups.

110. The primary stakeholders are the directly affected households whose lands and assets will be affected by the project. The roadside communities and villages located along the Kotna-Lapramp road section are also classified as primary stakeholders and their active participation and support are crucial for the success of the project. Secondary stakeholders are residents of villages and communities that are located in the interior areas of the road alignment within the RIZ.

111. The public consultations for the subproject were held on 06 September 2011 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 the Highlands Region Road Improvement Investment Program (HRRIP) and the Kotna-Lapramp Road in their area is a candidate road of the project and (ii) get the opinions, concerns and issues of the stakeholders for consideration in the design of subproject.

112. The Project Team met the stakeholders, village elders/leaders Local Government Officials and other concerned parties at Ambuga Primary School, Tiki Village and Tiki Catholic School and disclosed to them the inclusion of the Kotna to Lapramp Road in the Highlands Region Road Improvement Investment Program (HRRIP) as one of the candidate roads. The Project Team presented and defined to them the scope as well as explained the need for the rehabilitation of the said road. The participants were informed of the scope of the Program and the particular sub-project. Issues and concerns were also elicited from the participants and perceptions were properly noted by the Project Team.

113. The Project Team also discussed with the participants of the public consultations the likely social impacts that will accrue from the implementation of the subproject. On 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.

114. The Project Team clarified with the participants of the various public consultations that minimum additional land will be required for the sub-project despite the rehabilitation works will be undertaken within the existing footprint and right-of-way (ROW) of the current roadway. The Project assured the affected persons (APs), based on the relevant surveys that will be undertaken, will be provided assistance. Such types of assistance will be extended only to eligible APs who are documented during the cut-off date of the joint detailed measurement survey and socioeconomic survey in the subproject sites.

115. The primary stakeholders, especially the people that will be affected by the development works and the beneficiaries, have confirmed the need for the rehabilitation of the Kotna to Lapramp Road during the several public consultations/meetings conducted by the Project Team. The concerned Local Level Government units (LLGs) and wards also concurred with the proposed development. The local leaders had advocated for the waiver of payment of compensation for affected assets just to fast track the project. These positive responses from the stakeholders, beneficiaries and the concerned LGUs sealed the official acceptance of the subproject in their respective location.

116. The Public Consultations (PC's) and Project disclosures in each subproject location were held in accordance with ADB's Public Communication Policy (2011) where the active participations of the stakeholders were sought. The stakeholders were largely composed the concerned affected people, Local Government Officials, Village Leaders, Youth and Women Disclosure of the scope of the sub-project was undertaken by the Project Team. Social impacts and the requisite mitigating measures that will be established during the implementation of the sub-project were also presented by the Project Team. After the presentation of the Project Team, issues and concerns of the stakeholders and participants were elicited and duly discussed and noted appropriately for further inclusion in the design of the sub-project. All in all, around 178 stakeholders participated in 3 village consultations and unanimously endorsed the road project.

117. Unanimous support was expressed by the participants for the upgrading, rehabilitating and maintaining roads in the Kotna-Lapramp due to a wide range of economic and social benefits (e.g., rehabilitation of coffee gardens, diversification of coffee factories, expansion of cash cropping for wider markets because of improved accessibility, reduced cost for transport of goods, and better access to health care, education and other services, improved family ties and social network, among others) identified by the participants. Women understand that road improvements offer them particular benefits related to their

responsibilities to grow food, opportunity to engage in businesses, and better care for the health and education of their children.

118. The second scheduled community consultations have been undertaken while the actual detailed measurement survey (DMS) was being undertaken. It was announced that the cut-off date is the date where the DMS survey for the whole road section was completed (June 21, 2013). Assets introduced after the cut-off date are not eligible to be compensated.

119. Previous to the conduct of the DMS, the community leaders unanimously decided that there was no need for a detailed measurement survey for their affected assets because they were willing to waiving payment of compensation for the asset losses. This was their way of showing support for the project and fast tracking the project so that they may have a paved road as soon as possible. It was explained that there are certain requirements to be complied with for a waiver of payment for compensation and these may take more time than conducting the usual DMS.

120. The resettlement team persuaded the community leaders to just let the DMS to be undertaken and comply with ADB's SPS. It was explained that the waiver of payment for compensation will have little effect on speeding up the process to implement the sub-project. The leaders explained that their road has been periodically maintained and there are no affected structures and very minimal crops and trees. Hence, it would not be a burden for the communities to waive the payment of compensation. Finally, they agreed that the inventory of losses be undertaken on a tribe/clan basis so that the DMS can be expeditiously undertaken. The tribes/clans will decide on the compensation distribution among affected clan members considering that the crops and trees are within their customary land.

C. Public Disclosure of RP for Sub-Project

121. This RP has been properly endorsed and disclosed by DOW to concerned national and local government agencies, communities and to directly affected persons before DOW's submission to ADB. A summary of RP will be translated into Pidgin, one of the official languages of PNG and the full RP posted in both ADB and DOW websites prior to the project appraisal.

122. The HRMG staff and local resettlement specialists have conducted meetings with the APs, tribal leaders, provincial, district and ward officials as well as the relevant government agencies as part of the disclosure process to acquaint them of the substance and mechanics of the RP. These HRMG staff and local consultants will assist in the actual implementation of the resettlement plan.

VI. GRIEVANCE REDRESS MECHANISM

A. Traditional Grievance Redress Mechanism in PNG

123. PNG is the most culturally diverse country in the world, having more than 800 languages and cultures. PNG has three levels of government. These are national, provincial and local levels. Although the government structure is patterned after the Western political system, PNG still upholds its traditional modes of communication and grievance redress through these three recognized structures. The national, provincial and local levels of government have their own elected leaders both men and women who have the responsibility of representing their communities. These people are recognized and respected leaders who carry out allocated functions. Within these levels there are other recognized people such as the community church pastor, community law person, civic organization, women leaders, or recognized NGO worker. These people are selected to help resolve complaints and grievances.

B. Grievance Redress Mechanism for HRRIP

124. A grievance redress process will be established to ensure that all AP grievances on any aspect of the rights to use additional land and/or compensation for affected assets are resolved in a timely and satisfactory manner. The grievance redress mechanism will apply equally to the negotiation of the MOA. APs will be made fully aware of their rights (both verbally and in writing) and informed how they can access to the grievance redress mechanism.

125. APs can initiate a project related complaint by filing a written or oral complaint addressed to HRMG as the implementing agency. Within 5 days upon receipt of complaint, the HRMG will furnish a written summary of the complaint to the AP, provincial land officer and/or district land officer and the tribe/clan where the AP belongs with a notice of a conciliation meeting not later than 10 days from the receipt of the complaint of the AP.

126. During the meeting, HRMG will receive, clarify and simplify the issues involved and would try its best efforts to resolve the issues involved which would be acceptable to the AP and DOW. If there is no agreement reached, HRMG may schedule a final conciliation meeting to provide both parties the final opportunity to re-think and consolidate their positions.

127. The schedule of the final hearing should be not more than 10 days after the first hearing. 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 HRMG shall decide the issues involved based on the policies governing HRRIP, prevailing laws of PNG and customary laws of the place where the dispute arose.

128. If the AP is not satisfied with the HRMG's decision, the AP may then take the grievance to the PNG judicial system. In this case, HRMG and DLO 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 as decided by the court of competent jurisdiction.

129. The Land Disputes Settlement Act establishes judicial procedures for resolution of landownership disputes on customary land. It has a mediation process whereby a designated mediator meets with the disputing parties to resolve grievances. This process is

closely allied with the village court system and traditional mediation procedures that draw on the skills of recognized local leaders and elders.

VII. LEGAL FRAMEWORK

130. 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).

131. While T1 was prepared under the ADB Policy on Involuntary Resettlement (1995), T2 including this sub-project and subsequent tranches will follow ADB's Safeguard Policy Statement 2009 (SPS).

A. PNG Legal Framework

132. 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 or negotiate with customary landowners on land use.

133. 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

134. 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.

135. 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

136. 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.

3. Land Dispute Settlement Act

137. 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) appeal to the designated courts. The mediation process is based on the principles of traditional dispute settlement in PNG.

4. Fairness of Transaction Act of 1993

138. 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. Land Group Incorporation (Amendment) Act and Voluntary Customary Land Registration Act

139. These Acts were brought into effect in 2011, following recommendations from the National Land Development Taskforce. 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)

140. 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 its experience with its old safeguard policies, and adapt to its 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 policy on involuntary resettlement for tranche 2 (T2) and subsequent tranches will be the SPS.

141. 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 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 project alternatives and alternative project designs. (ii) enhance or at least restore the livelihoods of all affected people (APs) in real terms relative to pre-project levels and improve the standards of living of the affected poor and other vulnerable groups.

142. The SPS's policy principles on involuntary resettlement are as follow: (1) Screen early and assess resettlement impacts; (2) Carry out consultations with APs and develop a grievance redress mechanism; (3) Improve/restore livelihoods of APs 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 APs and other vulnerable groups; (6) develop transparent procedures for negotiations; (7) provide assistance and compensation to non-titled APs for loss of non-land assets; (8) Prepare RPs; (9) disclose RPs to APs and other stakeholders and document the consultation process; (10) conceive and execute resettlement as part of the project; (11) deliver entitlements to APs before their physical or economic displacement; and (12) monitor and assess resettlement outcomes.

143. The ADB Accountability Mechanism Policy (2012) provides an independent and effective forum for people adversely affected by ADB-assisted projects to voice their concerns and seek solutions to their problems, and to request compliance review of the alleged non-compliance by ADB with its operational policies and procedures that may have caused or is likely to cause, them direct and material harm. It consists of two separate but complementary functions: (i) the problem solving function led by the Special Project Facilitator who will respond to problems of local people affected by ADB-assisted projects through a range of informal and flexible methods; and, (ii) the compliance review function led by the Compliance Review Panel to investigate alleged non-compliance by ADB with its operational policies and procedures that has caused or are likely to cause, direct and material harm to project-affected people. The relevant ADB operations department has the initial responsibility to respond to the concerns of affected people in coordination with project executing agencies.

C. Gaps between PNG Laws and ADB's SPS and Gap-filling Measures

144. The following Table 18 Gap and Gap Filling Measures provides the comparison of PNG laws and ADB SPS requirements on land acquisition and resettlement, the assessment of equivalence or gaps between ADB SPS and PNG laws, and gap-filling measures for HRRIP.

TABLE 18 GAP AND GAP FILLING MEASURES

ADB SPS Requirements on Involuntary Resettlement	PNG Laws on Land Acquisition/Resettlement	Equivalence or Gaps between ADB SPS and PNG Laws	Gap-filling Measures
Avoid involuntary resettlement wherever possible. Minimize involuntary resettlement by exploring project and design alternatives.	The National Constitution (NC) National Goal 5(4) calls for 'traditional villages and communities to remain as viable units of Papua New Guinean society'. Section 53 protects citizens from 'unjust deprivation of property' by limiting the justification for compulsory acquisition by the State.	No explicit reference to the need for avoidance or minimizing resettlement impacts.	The RP has adopted measures to avoiding/minimizing land acquisition.
Enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels. Improve the standards of living of the displaced poor and other vulnerable groups.	General principles of compensation for damage or destruction of physical and economic assets are set out in NC s.53, Land Act (LA) s.23.	PNG Laws do not prescribe measures of replacement cost or restore/improve standard of living.	The RP includes measures on compensation at replacement cost for affected assets to restore/improve living standard of APs.
Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.	LA sets out the process for Land Investigation Report which includes identification of affected clans/tribes and their assets.	No specific requirements for census, cut-off date, impact assessment and resettlement planning.	The RP is based on survey/census, defined cut-off-date, and assessment of impacts.
Carry out meaningful consultations with APs, host communities, and concerned NGOs. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programmes. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations.	NC National Goal 2(9) calls for every citizen to be able to participate, either directly or through a representative, in the consideration of any matter affecting his interests or the interests of his community.	No specific provisions for preparing and implementing RP based on meaningful consultations with APs, including the poor, the landless, elderly, women, and other vulnerable groups	The RP is based on and describes measures on consultations with APs, including vulnerable groups, during preparation and implementation of the RP.
Establish a grievance redress mechanism to receive and facilitate resolution of the affected	Land Disputes Settlement Act provides for measures on resolution of disputes and	No requirements for a project-specific grievance	The RP includes measures on project-specific grievance redress mechanism.

ADB SPS Requirements on Involuntary Resettlement	PNG Laws on Land Acquisition/Resettlement	Equivalence or Gaps between ADB SPS and PNG Laws	Gap-filling Measures
persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.	grievances through both local mediation as well as court process.	redress mechanism. No specific requirement for a social preparation phase for highly complex and sensitive projects.	The project is not expected to involve highly complex and sensitive projects, so it is not needed to have a separate phase.
Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.	Principles of compensation set out in NC s.53, LA s.23.	No specific requirement for land-based resettlement, replacement of assets, compensation at replacement cost, and benefit sharing.	The RP includes measures on compensation at replacement cost for affected assets on additional land and priority of project employment to APs.
Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.	PNG allow people eligible for compensation to receive their entitlements in cash.	PNG laws have no specific provisions on relocation, transitional support and civil infrastructure and services.	The RP includes measures to avoid/minimize physical displacement. .
Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural	NC and LA include general principles of compensation for damages or losses.	PNG Laws do not prescribe measures on improvement of living standard and	The RP includes measures on restoration/improvement of livelihoods of APs.

ADB SPS Requirements on Involuntary Resettlement	PNG Laws on Land Acquisition/Resettlement	Equivalence or Gaps between ADB SPS and PNG Laws	Gap-filling Measures
areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.		restoration of livelihoods.	
Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.	<p>NC National Goal 2(9) calls for 'every citizen to be able to participate, either directly or through a representative, in the consideration of any matter affecting his interests or the interests of his community'.</p> <p>LA sets out procedures for outright purchase or lease.</p> <p>The Land Group Incorporation Act and Voluntary Customary Land Registration Act enable incorporation of land groups and to register titles to customary land. These laws allow negotiated lease or transfer of such land.</p> <p>The Fairness of Transaction Act sets out rules on fairness of transactions.</p>	PNG Laws do not specifically require third-party verification of negotiated agreement.	The RP describes procedures of the negotiation on use of additional land with landowner groups resulting in memoranda of agreement (MOA) to be verified by a third-party. The RP includes MOAs signed with respective landowner groups.
Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of nonland assets	LA s.13-15 provides some entitlement to compensation to any people with 'an interest' in land over which the State exercises its power of compulsory acquisition.	PNG Laws do not provide entitlement to non-titleholders who do not have legal interest on land.	The entitlement matrix for the project provides for resettlement assistance and compensation for non-land assets to non-titled APs without legal interest.
Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.	NC National Goal 2(3) calls for 'every effort to be made to achieve an equitable distribution of incomes and other benefits of development among individuals and throughout the various parts of the country'.	PNG Laws have no provision of preparing RP.	The RP has been prepared describing APs entitlements and other relevant measures.
Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.	NC National Goal 2(9) calls for 'every citizen to be able to participate, either directly or through a representative, in the consideration of any matter affecting his interests or the interests of his community'.	No specific requirements on disclosures.	The RP includes disclosure measures, including posting of RP and RPs on ADB website, providing clan leaders/APs with a summary RP or information brochure in a local language.
Conceive and execute involuntary	No equivalent provision	Gap.	Land acquisition/resettlement costs

ADB SPS Requirements on Involuntary Resettlement	PNG Laws on Land Acquisition/Resettlement	Equivalence or Gaps between ADB SPS and PNG Laws	Gap-filling Measures
resettlement as part of a development project or programme. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.			have been included in the RP and will be financed out of the project cost.
Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.	No equivalent provision	Gap.	The RP includes measures on payment of compensation for affected assets before start of civil works on affected land. The RP includes implementation schedule accordingly.
Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.	No equivalent provision	Gap.	The RP includes monitoring measures, including requirements of semi-annual safeguard monitoring report by EA and third party monitoring.

D. Resettlement Principles for the Project

145. 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 SPS's policy principles on involuntary resettlement are as follow:

- Land acquisition and resettlement will be avoided or minimized through careful engineering design.
- APs will be consulted meaningfully and effective mechanisms will be established for hearing and resolving grievances.
- Social assessment will be undertaken and RPs will be prepared for roads involving land acquisition/resettlement.
- APs will receive compensation at replacement cost for their loss of assets and necessary assistance to ensure that they will be as well off as without the project.
- Such compensation will be paid to APs prior to commencement of civil works.
- 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.
- Land acquisition and resettlement will be conceived of as part of the project and related costs will be included in and financed out of the project cost.
- 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

146. Usually, the unit of loss determines the unit of entitlement. In PNG, 97% is customary land owned by the tribes and clans. For lands and other communal properties required to implement this project, the units of entitlement are the tribes and clans who own the affected lands needed by the project. For individually owned properties such as structures and other land improvements, the units of entitlement are the owners of these individual affected properties.

A. Compensation Entitlements

147. In the Kotna-Lapramp 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; (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. Each of these situations is discussed in this section in terms of the entitlements of landowners and/or users to compensation for losses. Table 19 in this sub-section summarizes the compensation entitlements in an Entitlement Matrix.

1. Negotiation for Use Rights of Customary Lands

148. 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 project will continue this tradition of negotiation. When an HRRIP subproject involves a road that is located on customary land, the HRMG will collaborate with the Provincial Land Officer (PLO) and/or the District Land Officer (DLO) 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.

149. 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 Appendix 4: Memorandum of Agreement. The subject matter of the MOA is the land between the edge of the existing road and the construction limits. This is the minimum additional land required to upgrade and rehabilitate the Kotna-Lapramp road section. Private affected lands, if any, will be compensated based on the prevailing market rates of land in the area (no such land affected so far).

150. Negotiations were conducted with the tribe and clan land owners who are the rightful owners of the affected lands. The DMS conducted for this RP includes names of members of the affected tribes and clans as requested by the affected communities. However, these are not the individual owners but communal owners of customary land. Consent for the use of customary land came from the affected tribes and clans in conformity with the customs and traditions. Compensation for affected assets other than land will be paid to the owners of the affected assets.

2. Compensation for Damages to Crops and Trees

151. Crops and trees will be damaged or lost due to the civil works, as a result of earthworks, upgrading drainage structures and other works.

152. APs who own crops, trees and/or structures that are damaged or lost are entitled to compensation to replace these assets. The compensation rates and amounts shall be determined in the following manner:

a. Annual Crops

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

154. If APs are unable to harvest prior to clearance of the land, compensation will be paid at replacement cost based on current market prices in the subproject areas.

b. Perennial Crops and Trees

155. For perennial crops and fruit trees, APs 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 APs to harvest. In this case, no compensation will be paid for the current crop because APs will be able to use the crops to meet household consumption needs and/or to generate cash income.

156. Compensation for lost plants and/or trees will be paid at replacement cost based on current market prices. The HRRIP will also pay an additional grant equal to the lost income for the period of time until new perennial plants or fruit trees produce a yield similar to the lost plants and trees. For example, in the case of mature coffee trees, the lost income would be incurred over a 3- or 4-year period. If APs have not been able to harvest the current year's crop, the grant for lost income will take this into consideration.

157. For timber trees, APs will be required to cut the trees prior to clearance of the additional land; they will be permitted to harvest the trees and sell the timber.

3. Calculation and Payment of Compensation

158. The initial assessment of affected assets was made at the time of feasibility study, followed by the detailed measurement survey (DMS) and valuation/replacement cost survey (RCS) after completion of the detailed engineering design. For this purpose, DOW engaged a valuer/appraiser to review the applicability of available rates, undertake survey of current market prices and recommend compensation rates at replacement costs for subprojects. The independent valuer has recommended through a RCS an increase of 3.5% per year from 2008 rates for crops and trees. Compensation rates have been negotiated with APs based on RCS/valuation and has been adapted as the rates for the valuation of affected crops and trees.

159. All compensation rates and the amount of the compensation for damaged crops and trees will be verified and approved by the office of the Valuer General.

160. APs are entitled to payment of all compensation prior to clearance of land and start of civil works. HRMG will ensure that all procedures are followed to facilitate payment of APs prior to the start of civil works.

161. In the case of affected crops and trees, the compensation owed will be paid directly to the person who owns these assets. For example, if women cultivate affected gardens, the compensation will be paid to the affected women.

162. In the event that the losses or damages incurred during civil works are different from those assessed during the DMS and RCS, HRMG will make appropriate adjustments in the compensation amounts, seek verification and approval from the Valuer General and ensure that APs are paid promptly.

B. Entitlements to Rehabilitation Assistance

163. In general, the HRRIP will support APs to restore their living conditions and standards. While no APs will be relocated and no loss of livelihood is expected, the projects will provide priority employment in addition to direct compensation for affected assets.

4. Project Employment

164. People affected by permanent or temporary loss of land or by damage or loss of crops, trees will be given priority for employment by contractors for civil works and/or maintenance works on the road, in accordance with their qualifications to do the work

C. Income Restoration Measures

165. The loss of the land will be addressed by the tribes by allocating lands in fallow to the affected households if the land losses are significant to the APs. The affected households will continue to subsistence farmers, cultivating their several food gardens located at different parts of their customary land. All APs will be able to continue to be farmers because tribal lands are available when needed.

166. It is anticipated that the upgrading and rehabilitation of the road will create opportunities for livelihood and business. Some APs have signified their intentions to transfer their houses from in the interior to the adjacent areas of the road because they would embark on the transportation business. It is also expected that there would be a significant increase of the volume of traffic and many would be encouraged to engage into roadside vending.

167. Bus bays would be constructed in strategic places along the road that may also serve as roadside vending areas to provide livelihood opportunities for roadside vendors. Safety provisions will be incorporated in the design to ensure that these roadside vendors have adequate protection from wayward vehicles.

168. People affected by permanent or temporary loss of land or by damage or loss of crops, trees 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.

169. DOW through the contractor will establish an apprenticeship program for APs who may not possess the necessary skills but are desirous to work in the project. They will be trained based on the labor requirements in the construction phase through on the job trainings. Tribes would be encouraged to provide the candidates so that they can also participate in the maintenance phase of the project. This aspect will be included as one of the parameters of external monitoring.

170. DOW will encourage women to form associations or use existing ones so that they can tap the opportunities in the construction camps of the contractor. 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 project's income restoration measures.

171. Arrangement would be made between DOW through the contractor to source out food that will be used in the kitchens from the nearby food gardens of the APs. This arrangement will be mutually beneficial because farmers would avoid the transportation

costs in transporting their products and save time while the contractor will receive fresh produce at more reasonable prices.

172. There will be use of land during construction and/or maintenance periods, e.g., construction camps and temporary storage for materials and equipment, and as a result will disrupt business activities on land near the road. However, use of land will be temporary in nature and incomes from businesses will be restored once construction and maintenance activities cease. Disruption allowance will be provided to people whose businesses will be temporarily affected due to construction and maintenance work.

D. Indigenous People

173. 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 project will not need an Indigenous People Plan because while AP’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.

174. Inspection of the project areas and interaction with the people in the proposed 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.

175. The recent PNG census figures show that the population is around seven 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.

E. Entitlement Matrix

176. The following Table 19 HRRIP Entitlement Matrix summarizes the entitlements to compensation and rehabilitation assistance for the Kotna-Lapramp road section under the HRRIP.

TABLE 19 HRRIP ENTITLEMENT MATRIX

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
Affected Land				
Temporary use of land	Customary land: Land users as recognized by clan leaders	Use of the land will be acquired through negotiated lease with landowners. Rent as negotiated under the lease. 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.	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 and support the upgrading and rehabilitation of the road; b) landowners are consulted and make
	State-owned land:	No compensation will be paid for use of the land.		

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
	Users or occupants	Cash compensation at replacement cost will be paid for any damaged crops and trees		informed decisions regarding agreements to use land; and c) they guarantee on behalf of all clan members that they will not disrupt the project in other ways. 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.
Permanent use of land	Customary land: Land users as recognized by clan leaders	Use of the land will be acquired through a negotiated Memorandum of Agreement with landowners.	Agreements on use of customary land.	
	State-owned land: Users or occupants	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 project-affected land (see below).		
Other Affected Assets				
Annual crops	Owners of the crops	Compensation for loss of or damage to annual crops on project-affected land as follows: a) APs given notice to harvest crops before clearance or removal from required land; OR, if APs are not able to harvest b) cash compensation calculated at replacement cost based on local market prices.	Compensation for damage to or loss of standing crops to ensure income restoration	DOW will engage a valuer/appraiser to determine compensation rates at replacement cost based on market prices. All compensation rates and amounts will be verified and approved by the office of the Valuer General.
Perennial crops and trees, including timber trees	Owners of crops and trees	Compensation for losses or damages as follows: a) APs given notice to harvest crops before clearance or removal from 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, APs will be permitted to harvest trees and sell the timber.	Compensation for damage to or loss of perennial crops and trees to ensure income restoration.	All compensation assessed according to the DMS and RCS 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 take steps to get approvals for and payment of additional compensation to which APs are entitled as rapidly as possible. All compensation shall be paid to the owners of the affected assets. If, for example, women's gardens are

Type of Impact	Entitled Person	Entitlement	Expected Results	Implementation
				affected, the compensation will be paid to the affected women.
Subproject affected people	Members of affected tribes and clans.	Priority for paid work for civil works and/or ongoing maintenance for subproject road, assuming qualifications to do the work. Contractor specifications for provision of HIV/AIDS awareness and prevention programs in construction camps and surrounding communities Extensive community relations and participation program involving women linked to different aspects of subproject preparation and implementation Long-term participatory social monitoring study to track benefits among different road user groups	Poverty reduction measure and social development	
Unforeseen Impacts	Unforeseen impacts will be documented and mitigated based on the principles agreed in this RP and ADB SPS.			

F. Eligibility for Compensation and Rehabilitation Assistance

177. 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 project road as of the formally recognized cut-off date i.e. **June 21, 2013** will be considered as project affected persons (APs)”. APs entitled to compensation or at least rehabilitation under the project are;

- (i) All APs losing land with title, official/customary deeds or traditional land use rights;
- (ii) All Owners of crops and plants,

178. Compensation eligibility will be limited by a cut-off date set for this project as of June 21, 2013 wherein the impacts assessment and AP census were carried out and completed. All APs who settle in affected areas after this date and who cannot prove that they are displaced users of affected plots will not be eligible for compensation. DOW has informed local communities regarding this cut-off date through the provincial, district and local wards and through the relevant local government agencies.

179. 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.

G. Payment of Compensation

180. 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 subproject, (ii) the total amount of compensation to be paid.

181. 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. Changes to compensation amounts will be verified and approved by the office of the Valuer General.

H. Coordination of Land Acquisition Activities with Civil Works

182. 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 of APs have been satisfactorily completed; (ii) agreed rehabilitation assistance is in place; and, (iii) the site is free of all encumbrances.

IX. RESETTLEMENT BUDGET AND FINANCING PLAN

A. Sources of Funding for Land Acquisition and Compensation

183. 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.

184. In the case of designated national roads as with this Kotna-Lapramp subproject, DOW will request the National Economic Council (NEC) to allocate and disburse funds for compensation and allowances related to additional land required to upgrade and rehabilitate this subproject.

185. In all instances, the HRMG acting on behalf of the DOW, the HRRIP 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

186. There have been negotiations with all affected tribes and clans for the use of the minimum additional land required to rehabilitate and upgrade the Kotna-Lapramp road. The list of affected tribes and clans are contained in Table 3. The customary lands required by the project have been gifted to DOW in consideration of public infrastructure. There will be no direct costs to secure the use of the required lands for the project. Documentation expenses for these MOAs will be taken care under administrative expenses of the project.

C. Costs of Compensation for Damages to Crops and Trees

187. The resettlement framework provides that the valuation of crops and trees will be based on the replacement cost. Valuers' General Schedule of Compensation rates are from 2008 year. Some of the rates in the 2008 schedule of compensation do not fully reflect the full replacement costs. Coordination with the Valuer General Office revealed that they are in the process of updating the rates of compensation for crops and trees but the final rates would not be available in the immediate future.

188. DOW engaged a valuer/appraiser to undertake a replacement cost survey (RCS) and the valuer/appraiser has submitted its evaluation in July 8, 2013. The RCS recommended an increase of 3.5% per year from 2008 for the rates of crops and trees of 2008. This RP

adopts in full, the recommendations of the RCS and has adjusted all the Valuer General compensation rates for crops and trees by 19% in the computation of the resettlement budget.

189. The costs of compensation related to damages to crops and trees totaled K36, 248.00. Adding the 19% adjustment for increases in the rates as determined by the replacement costs, the grand total for damages to crops and trees amounted to K43, 135.12. A summary of the different classifications of plants and trees based on the Valuer General Schedule of Compensation (2008) and their corresponding amounts are shown in the following Table 20 Summary of Costs For Damages to Crops and Trees.

TABLE 20 SUMMARY OF COSTS FOR DAMAGES TO CROPS AND TREES

Code	Tree / Plants Category	Unit	Amount
A1	Tree Crops	892	8,597.00
B1	Single Plants and Trees	1,309	5,271.60
B2	Clump Plants and Trees	2,623	11,063.80
C1	Single Plants	1,418	2053.8
C2	Vines or Clump Plants	284	442.3
C3	Mound Plants	30	130.00
D	Forest Trees	1,337	8,689.50
	Total	7,893	36,248.00
	19% Adjustment		6,887.12
	Grand Total		43,135.12

D. Total Costs of Affected Assets and RP Budget

190. The total cost of this resettlement action plan for the Kotna-Lapramp road project amounted to K75, 702.14. This budget includes costs of compensation for all affected assets at replacement costs, physical and price contingencies, administrative expenses and cost for external monitoring. The details are shown in the following Table 21 Summary of Cost Estimates of Affected Assets and RP Budget.

TABLE 21 SUMMARY OF COST ESTIMATES OF AFFECTED ASSETS AND RP BUDGET

Crops and Trees			
Plant and Tree	# of Plants/Trees	Rate	Sub-Total
Tree Crops	892	Rates for the various plants and trees are based on Valuer General Rates + adjustment recommended by valuation study	8,597.00
Single Plants and Trees	1,309		5,271.60
Clump Plants and Trees	2,623		11,063.80
Single Plants	1,418		2053.8
Vines or Clump Plants	284		442.3
Mound Plants (by area)	30		130.00
Forest Trees	1,337		8,689.50
Sub-Total (B)	7,893		36,248.00
19% Adjustment			6,887.12
Grand Total			43,135.12
Physical Contingency (20%)			8,627.02
Price Contingency (10%)			4,313.51
Total			56,075.66
Administrative Expenses (15%)			8,411.35

Independent Monitoring (20%)			11,215.13
Grand Total			75,702.14

X. INSTITUTIONAL ARRANGEMENTS

A. Department of Works (DOW)

191. 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 subprojects, as well as compensation for damages on project-affected land.

B. Highlands Region Maintenance Group

192. The Highlands Region Maintenance Group (HRMG), as the DOW's Project Implementation Agency (IA) for HRRIP subprojects to upgrade and rehabilitate roads, has the responsibility delegated by the DOW to carry out the planning, implementation and monitoring for land activities, as required. These include but may not be limited to the following:

- Collaborate with and assist PLO and/or DLO to carry out their work in compliance with the HRRIP policies and ADB requirements;
- Provide qualified personnel to conduct and/or assist PLO and/or DLO to carry out surveys including fieldwork to support the subproject screening and preliminary assessment of additional land requirements; and, as required, a census of affected people, the detailed measurement survey (DMS), RCS and socio-economic baseline survey;
- Collaborate with PLO and/or DLO for negotiations regarding Memoranda of Agreement (MOA) and leases for temporary use of land;
- Coordinate and carry out consultations with affected communities, including leaders, affected people and other interested community members; and, ensure that all stakeholders are informed in a timely manner about the 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;
- Review and endorse the draft RP as prepared by the Consultants prior to submitting it to DOW and, subsequently, to ADB for approval, making sure that all matters related to land acquisition are complete and properly reported;
- 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 RP;
- 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;
- 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. Provincial Administrations

193. The Provincial Land Officer (PLO) will collaborate with the HRMG to plan, implement and monitor land activities for HRRIP subprojects in the province and/or delegate responsibility to the relevant District Land Officers (DLO). The PLO responsibilities include:

- Conducting surveys of land required permanently or temporarily for the subproject;

- Negotiating and signing a Memorandum of Agreement for permanent use of customary land with the leaders and affected landowners in communities will land is affected;
- Negotiating and signing leases for temporary use of land required for the subproject; and,
- Consulting with and advising affected communities about the HRRIP, the policies and procedures when additional land is required and the rights and responsibilities of affected people and other stakeholders.

194. 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.

D. District and LLG Administrations

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

- Conducting surveys of land required permanently or temporarily for the subproject, and preparing LIR;
- Negotiating and signing a Memorandum of Agreement for permanent use of customary land with the leaders and affected landowners in communities will land is affected;
- Negotiating and signing leases for temporary use of land required for the subproject; and,
- Consulting with and advising affected communities about the HRRIP, the policies and procedures when additional land is required and the rights and responsibilities of affected people and other stakeholders.

196. LLG Ward Councilors will be effective participants in all consultations with local communities, affected people and other stakeholders. They will be responsible for collaborating with HRMG to organize and carry out these consultations.

E. Institutional Capacity for Land Acquisition Activities

197. 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 Executing Agency (EA) to (i) 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.

198. The Implementing Agency (IA), the HRMG has 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.

199. The HRRIP will train staff of DOW/HRMG, DLPP and other relevant agencies and provide necessary support to carry out the work on land acquisition and resettlement. The scope and detailed TOR of capacity building support including inputs of social safeguard specialists for overall HRRIP are provided in the resettlement framework (see the RF Section VIII and Appendix 5).

XI. IMPLEMENTATION SCHEDULE

200. 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 22 RP Implementation Schedule.

TABLE 22 RP IMPLEMENTATION SCHEDULE (2013)

Main Resettlement Plan Activities	Responsibility	July	Aug	Sept	Oct	Nov	Dec
Translation of summary RP into Pidgin	DOW/HRMG						
RP disclosure: Distribution of RP and information pamphlets in Pidgin in the affected communities	DOW/HRMG/ Consultant						
Distribute Public Information Booklet to APs and Consultation with APs	DOW/HRMG/ Consultant						
Submission of RP to ADB for approval	DOW/ Consultants						
Allocation of financial resources for land acquisition	DOW/National Economic Council						
Award of compensation cheques to APs	DOW/HRMG						
Disputes/ objections (complaints & grievances)	DOW/HRMG/ Court						
Shifting of APs/ Demolishing/ relocation of affected structures/assets	DOW/HRMG/ AHs						
Confirmatory letter to ADB for completion of all payments	DOW						
Confirmation and verification of completion of payments by Independent Monitoring Organization	DOW						
Issuance of no-objection for commencement of civil works by ADB	ADB						
Commencement of civil works	DOW/ Contractor						
Internal monitoring. Quarterly Progress Reporting and semi-annual safeguard	DOW/HRMG Consultant						

monitoring reports to ADB							
Independent evaluation of RP program (After 3-months of the RP Implementation)	IMO						

XII. MONITORING AND REPORTING

201. RP activities in the Kotna-Lapramp road project will undergo both internal and external monitoring. Internal monitoring will be conducted by DOW through HRMG, assisted by the Supervision Consultant. External monitoring will be assigned to an independent Monitoring Organization (IMO) to be hired by DOW, and approved by ADB.

A. Internal Monitoring

202. The HRMG will monitor all activities associated with land acquisition and payment of compensation to APs. The scope of internal monitoring includes: (i) compliance with the agreed policies and procedures for land acquisition; (ii) prompt approval, allocation and disbursements of funds and payment of compensation to APs, including supplemental compensation for additional and/or unforeseen losses; (iii) the availability of other resources and efficient, effective use of these resources; and, (iv) requirements for remedial actions.

203. During the implementation of the RP, the HRMG will prepare semi-annual safeguard monitoring reports and submit these reports to ADB in addition to regular quarterly progress reports as part of project performance monitoring. HRMG will also submit a subproject land acquisition completion report to ADB when compensation has been paid and request approval to proceed with civil works.

B. External Monitoring

204. The HRMG will recruit an independent monitoring organization (IMO) to conduct external monitoring for HRRIP subprojects that require land acquisition. The external monitoring will focus on the social impacts of the subprojects and whether APs are able to restore, and preferably improve, their pre-project living standards, incomes, and productive capacity.

205. The IMO will be specialized in social sciences and experienced in resettlement monitoring. It will be recruited and mobilized from the first tranche of the HHRIP; and, will monitor all activities related to land acquisition, community consultations, preparation of RPs and payment of compensation. Proposed terms of reference for the IMO are found in Appendix 8

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

ANNEXES

ANNEX 1 –MEMORANDUM OF AGREEMENT

Witness:

I, MARIA MAMIL PA, a Provincial Lands Officer of W.H. Province, a public servant of Papua New Guinea, do hereby certify that the contents of this Agreement were read over by WILSON KAMALI in the ENGLISH language that is understood by the signatories to this Agreement and I further certify that to the best of my knowledge and belief the contents of this Agreement are understood by the signatories hereto.

Dated at (02/08/13) this 2nd day of AUGUST.

Signature:

Designation:

PRINCIPAL LMO



P O Box 1108
BOROKO, NCD
Papua New Guinea

DEPARTMENT OF WORKS



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 Baiyer 1 and Baiyer 2, District of Baiyer Mul, Province of Western 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), with loan assistance from the ADB 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 Kotna – Lampramp 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 for the HRRIP project by the government might jeopardize the continued inclusion of the pre-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 cure any deficiencies that may affect the eligibility of the pre-selected Kotna – Lampramp road section with the HRRIP and may create or foster 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 – private 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:

1.0 Identification and Location of Road Section

1.1 DOW has considered the road section from Kotna - Lampramp as a pre-selected road for the HRRIP. This road section has a length of around 31.8 Km and will start at chainage 0+000 located at Kotna and will end at chainage 31.8km at Lampramp.

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 :Kotna - Lampramp
Km to km (chainage): From 25+000 to 31+800
Wards:Baiyer 1 and Baiyer 2
District:Baiyer Mul Province: Western 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 3.96 hectares,

Existing Road	Proposed Road
Carriageway 3.70 meters Formation width 4.20 meters Total width 4.50 meters, to outside of drainage structures Total area 2.41 hectares of existing road within the customary land.	Carriageway 6.00 meters Formation width 6.50 meters Total width 9.76 meters of construction limits Total area 6.37 hectares of proposed road
Difference of area between existing road and proposed road: 3.96 hectares (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 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;
3. 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;
4. 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;
5. 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;
6. 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;
7. 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;
8. 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 police our ranks in complying with the terms and conditions of this agreement.
9. 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;
10. 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 compensation 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 most recent 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, in this case, no compensation will be paid; however, If the annual crop is not yet harvestable upon land taking, compensation will be based on latest Schedule;
 6. *Compensation for Loss of Perennial Plants and Trees* – Compensation for lost plants and/or trees will be paid based on the Schedule. An additional grant equal to the lost income for the period of time until new perennial plants or fruit trees produce a yield similar to the lost plants and trees. For timber trees, APs will be required to cut the trees prior to clearance of the additional land; in lieu of compensation, they will be permitted to harvest the trees and sell the timber.
 7. *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 Schedule for the type of plant material used.
 8. *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.
 9. *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.
 10. *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.
 11. *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 weeks. 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.
 12. *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.
 13. *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.
 14. *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. Changes to compensation amounts will be verified and approved by the office of the Valuer General.
 15. *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.

16. 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, 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.

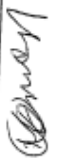



IN WITNESS WHEREOF, we have hereunto affixed our signatures this ____ day of _____, 2013.

By and on behalf of the Independent State
of Papua New Guinea Minister for Works

DAVID WEREH
(Name and Signature)

AS SECRETARY
(Designation)

KOTNA TO LAPRAMP ROAD PROJECT 2013

No.	Name of Leader & Status	Council Ward	Village	Clan & Sub-Clan	Signature	Date
39	PEPA KANDAS	LAPRAMP (1)	BMYER	LAPRAMP (1)		05-07-2013
40	KIOKA ROLGA	LAPRAMP (2)	BMYER	LAPRAMP (2)		05-07-2013
41	KOROWA UINI PORA	LAPRAMP (1)	BMYER	LAPRAMP (1)		05-07-2013
42	TULEKINA STEVEN	LAPRAMP (2)	BMYER	LAPRAMP (2)		05-07-2013
43						
44						
45						
46						

Witness:

I, Moses Mamil Fa a Provincial Lands Officer of W.H. Province, a public servant of Papua New Guinea, do hereby certify that the contents of this Agreement were read over by WARD LEADERS in the ENGLISH language that is understood by the signatories to this Agreement and I further certify that to the best of my knowledge and belief the contents of this Agreement are understood by the signatories hereto.

Dated at BNH this 2nd day of AUGUST, 2013

Signature:

Designation:

PRINCIPAL - LMO



P O Box 1108
BOROKO, NCD
Papua New Guinea

DEPARTMENT OF WORKS



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 Kotna, Ambugla, Kent 1, Enn, Kent 2, Nunga 1, Nunga 2, Mopi, Golke, Tiki 1, Tiki 2, Kanapila 1 and Kanapila 2 District of Dei, Province of Western 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), with loan assistance from the ADB, 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 Kotna - Lampramp 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 for the HRRIP project by the government might jeopardize the continued inclusion of the pre-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 cure any deficiencies that may affect the eligibility of the pre-selected Kotna - Lampramp road section with the HRRIP and may create or foster 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 – private 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:

1.0 Identification and Location of Road Section

1.1 DOW has considered the road section from Kotna - Lampramp as a pre-selected road for the HRRIP. This road section has a length of around 31.8 Km and will start at chainage 0+000 located at Kotna and will end at chainage 31.8km at Lampramp.

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 :Kotna - Lampramp
Km to km (chainage): From 0+000 to 25+124
Wards: Kotna, Ambugla, Kent 1, Enn, Kent 2, Nunga 1, Nunga 2, Mopi, Golke, Tiki 1, Tiki 2, Kanapila 1 and Kanapila 2
District:Dei Province: Western 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 18.98 hectares,

Existing Road	Proposed Road
Carriageway 3.5 meters Formation width 4.0 meters Total width 4.50 meters, to outside of drainage structures Total area 9.90 hectares of existing road within the customary land.	Carriageway 6.00 meters Formation width 6.50 meters Total width 11.50 meters of construction limits Total area 28.88 hectares of proposed road
Difference of area between existing road and proposed road: 18.98 hectares (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 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;
3. 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;
4. 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;
5. 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;
6. 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;
7. 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;
8. 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 police our ranks in complying with the terms and conditions of this agreement.
9. 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;
10. 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 compensation 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 most recent 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.
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 12. *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.
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 15. *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.

16. 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, 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 ____ day of _____ 2013.

By and on behalf of the Independent State
of Papua New Guinea Minister for Works









DAVID WEREH

(Name and Signature)









AP SECRETARY

(Designation)









KOTNA TO LAPRAMP ROAD PROJECT 2013

No.	Name of Leader & Status	Council Ward	Village	Clan & Sub-Clan	Signature	Date
1	PHILIP PERIAA	MOPi	MOPi	KANWELKA		05-07-2013
2	MONG KEI	MOPi	MOPi	KANWELKE		05-07-2013
3	KANORUI MONI	MOPi	MOPi	KANWELKE		05-07-2013
4	PURUOKA KUMU	GOLKE	GOLKE	KANWELKA		05-07-2013
5	KIOMBE DOA	GOLKE	GOLKE	KANWELKE		05-07-2013
6	PERA RUMBE	GOLKE	GOLKE	KANWELKE		05-07-2013
7	MARACUS PERGA	TIKI (I)	TIKI	MINIMBI		05-07-2013
8	RUMBE RUMBE	TIKI (II)	TIKI	MINIMBI		05-07-2013

KOTNA TO LAPRAM ROAD PROJECT 2013

No.	Name of Leader & Status	Council Ward	Village	Clan & Sub-Clan	Signature	Date
17	Issac Ropi	Tiki (1)	Tiki	Mulimay		05-07-2013
18	Thomas Pulus	Tiki (2)	Tiki	Kimb		05-07-2013
19	Leu Rombuc (F)	Tiki (2)	Tiki	Kimb		05-07-2013
20	Christina Nent (F)	Tiki (2)	Tiki	Kimb		05-07-2013
21	Thomas Poraka	Kimbusa (1)	Kimbusa	Kopi		15-07-2013
22	Pim Neli	Kimbusa (1)	Kimbusa	Kopi		05-07-2013
23	Juci Kimp (F)	Kimbusa (1)	Kimbusa	Kopi		05-07-2013
24	Lis Nulis	Kimbusa (2)	Kimbusa	Kopi		15-07-2013

KOTNA TO LAPRAMP ROAD PROJECT 2013

No.	Name of Leader & Status	Council Ward	Village	Clan & Sub-Clan	Signature	Date
17	Phwa Junin	KINKEBUSA (2)	KINKEBUSA	Kopa		05-07-2013
18	Kilumu Rombel	KINKEBUSA (2)	KINKEBUSA	Kopa		05-07-2013
19	Jurken Tikik (H)	TIKI (1)	TIKI	KIMBOO		05-07-2013
20	Tinas Bonnik (H)	TIKI (1)	TIKI	KIMBOO		05-07-2013
21	Pepe Anis (F)	TIKI (2)	TIKI	KIMBOO		05-07-2013
22	Moti Kamb	TIKI (2)	TIKI	KIMBOO		05-07-2013
23	Anis Ruwis	TIKI (2)	TIKI	KIMBOO		05-07-2013
24	Ko Kewa (F)	TIKI (2)	TIKI	KIMBOO		05-07-2013

Witness:

I, MORZA MORMIL F. a Provincial Lands Officer of W.H. Province, a public servant of Papua New Guinea, do hereby certify that the contents of this Agreement were read over by WARD LEADERS in the ENGLISH language that is understood by the signatories to this Agreement and I further certify that to the best of my knowledge and belief the contents of this Agreement are understood by the signatories hereto.

Dated at DOU H/O this 2nd day of AUGUST 2013.

Signature:



Designation:

PRINCIPAL LAND


ANNEX 2

TOR FOR INDEPENDENT MONITORING ORGANIZATION

A. External Monitoring Objectives

1. The objectives for external monitoring are to provide an independent review and assessment of (i) the achievement of HRRIP resettlement objectives and principles, (ii) the effectiveness, impact and sustainability of entitlements, (iii) the need for further mitigation measures if any, and (iv) to identify strategic lessons for future policy formulation and planning.

B. Hiring, Qualifications and Timing

2. In accordance with ADB requirements for consultant procurement, HRMG will engage an individual or organization for the independent monitoring and evaluation of RP implementation. The individual or organization, to be called the Independent Monitoring Organization (IMO), will be a) a specialist and/or specialized in social sciences and b) experienced in resettlement monitoring for international agencies. All candidates will be academically trained as social anthropologists and/or sociologists.

C. Monitoring and Evaluation Indicators

3. The following indicators will be monitored and evaluated by the IMO:

- (i) Public consultation and disclosure: a) APs and other stakeholders should be fully informed and consulted about land acquisition activities; b) the monitoring team should attend public consultation meetings to monitor procedures, problems and issues that arise during the meetings and solutions that are proposed; c) public awareness of the compensation policy and entitlements will be assessed among APs.
- (ii) Identification of APs and their entitlements: a) all APs identified and informed of their rights and entitlements; b) participatory process to collect data on affected assets; c) calculation of compensation and allowances according to HRRIP policies.
- (iii) Payment of compensation: a) full payment to be made to all APs sufficiently before land acquisition; adequacy of payment to replace affected assets; b) prompt attention to unforeseen damages or losses, to ensure APs are fully compensated for losses.
- (iv) Co-ordination of resettlement activities with construction schedule: The completion of land acquisition and resettlement activities for any sub-project to be completed prior to the approval to award of the civil works contract for that sub-project.
- (v) Restoration of productive activities: Affected persons should be monitored regarding restoration of productive activities so as to ensure the process is satisfactory for the APs.
- (vi) The level of satisfaction of APs with various aspects of the RP: This will be assessed, reviewed and recorded, and the operation of the mechanisms for grievance redress and the speed of grievance redress will be monitored.

D. Methodology

4. The methodology for monitoring and evaluation of the preparation and implementation of land acquisition activities associated with HRRIP tranches will include the following activities:

1. Detailed Measurement Survey

5. The detailed measurement survey (DMS) is to provide data on 100% of APs. The DMS will establish a database for each AP in terms of his/her social-economic status, the nature and extent of losses suffered, compensation and entitlements etc. Data will be disaggregated according to LLG and district. This database will become the basis for compensation and for monitoring the benefits as well as entitlements the AP receives during the process of implementation.

6. As soon as the detailed engineering design is finalized and marked on the ground, the HRMG, PLO/DLO and LLG officials for each road section will carry out the DMS with the full participation of all APs. The IMO will monitor the DMS process. The resulting data will be made available to the IMO to enable them to create their initial database.

2. Socio-Economic Survey

7. In conjunction with the preparation of detailed engineering design, HRMG will conduct a baseline social survey in communities along the subproject road. The IMO will collaborate with the HRMG to ensure that data are collected to provide a baseline for external monitoring, including:

- (i) Inclusion of 20% of APs in the samples of households and business owners that are surveyed.
- (ii) Baseline data to document the characteristics of AP households including demographic, education, income and occupational profiles; livelihood and production systems, economic activities, income sources and poverty levels; access to and use of land and natural resources, tenure security and common property resources; and, social and cultural systems and networks. All data must be disaggregated, as relevant, by gender, tribal group and income group.

8. Special attention should be paid so that women, elderly persons and other vulnerable target groups are not omitted and/or overlooked. The sample should have, as far as possible, equal representation of male and female respondents. Certain set questions in the interview should be specifically marked and answered only by female members of the household and/or those who are vulnerable (such as the lonely elderly, people with disabilities etc). Data should be disaggregated according to gender, age, ethnicity and socio-economic status where appropriate.

3. Participatory Rapid Appraisals

9. The IMO will conduct periodic participatory rapid appraisals (PRA) to consult with the various stakeholders (local government, implementing agencies, social organizations, community leaders and APs). PRA will involve obtaining information, identifying problems and finding solutions through participatory means, which will include the following:

- (i) Key informant interviews with selected local leaders at village, LLG and district levels; and, informal surveys and interviews with APs, vulnerable groups and other stakeholders.
- (ii) Community public meetings to discuss community losses and impacts and construction work employment; as required, separate meetings will be organized with women or other groups who because of cultural constraints are less likely to contribute in general community meetings'
- (iii) Structured direct field observations on the status of land acquisition activities in addition to individual and groups interview for cross-checking purposes.

E. Database Management and Storage

10. The IMO will collaborate with HRMG to establish and maintain a database of resettlement monitoring information. It will contain certain files on each affected household and, as required, will be updated based on information to reflect changes in socio-economic conditions. All databases compiled will be fully accessible by all implementing agencies and those involved in the management of land acquisition activities.

F. Reporting

11. The IMO is required to file monitoring reports at intervals to be agreed (generally, once or twice per year). These monitoring reports shall be directly submitted to HRMG and the ADB. The report should contain the following topics:

- (i) Progress of land acquisition and compensation activities;
- (ii) Deviations, if any, from the provisions and principles of the RP and an explanation thereof;
- (iii) 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; and
- (iv) Progress of the follow-up of problems and issues identified in the previous report.

G. Monitoring Report Follow-up

12. The monitoring reports will be discussed in a meeting between the IMO, HRMG and the other implementing agencies (e.g., PLO/DLO) held immediately after submission of the report. Necessary follow-up action will be taken based on the problems and issues identified in the reports and follow-up discussions.

H. Evaluation

13. For each HRRIP subproject, the IMO will conduct an evaluation of the resettlement process and outcomes 6-12 months after completion of all land acquisition and compensation activities, using the same survey questionnaire and sample as used during the monitoring activities.

List of Compensation for Crops and Trees

Control #	Household Head	Chainage		Side	Amount
1	Kitip Secondary School	0+000	0+400	Left	104.60
2	Fox Tepoka (Kotna)	0+400	0+700	Left	293.10
3	Ambulga (Vacant)	0+700	3+400	Left	2,677.80
4	Thomas Moka (Kent 1)	3+400	3+900	Left	693.60
5	Jerry Anis (Kent 2)	3+900	4+900	Left	841.20
6	EkiParuna (Nunga 1)	4+900	5+500	Left	2,367.00
7	MerowaDoa (Nunga 2)	5+500	10+400	Left	3,263.00
8	Philip Pelipa (Mopi)	10+400	14+200	Left	839.40
9	PoraMinimbi (Golke)	14+200	16+700	Left	1,977.00
10	ParakaRaima (Tiki 1)	16+700	17+700	Left	2,852.50
11	Peter Tara(Tiki 2)	16+700	17+700	Left	1,260.80
12	Nama Pena (Kinabuga)	17+700	19+500	Left	1,118.20
13	William Noki (Kinabuga 2)	19+500	25+500	Left	2,222.80
14	Kitip Secondary School	0+000	0+400	Right	546.80
15	Fox Tepoka	0+400	0+700	Right	325.00
16	Ambulga (Vacant)	0+700	3+400	Right	1,710.00
17	Thomas Moka (Kent 1)	3+400	3+900	Right	300.50
18	Jerry Anis (Kent 2)	3+900	4+900	Right	217.50
19	EnnWampPank	3+900	4+900	Right	193.50
20	EkiParua (Nunga 1)	4+900	5+500	Right	617.50
21	MerowaDoa (Nunga 2)	5+500	10+400	Right	4,002.00
22	Philip Pelipa (Mopi)	10+400	14+200	Right	1,023.70
23	PoraMinimbi (Golke)	14+200	16+700	Right	946.40
24	ParakaRaima (Tiki 1)	16+700	17+700	Right	1,892.90
25	Peter Tara(Tiki 2)	16+700	17+700	Right	2,140.60
26	Nama Pena (Kinabuga)	17+700	19+500	Right	805.90
27	William Noki (Kinabuga 2)	19+500	25+500	Right	1,014.70
	Total				36,248.00

The individual amounts should be adjusted by 19% to cover the increase of prices for crops and trees as per replacement cost survey (RCS).