Smallholder Agriculture Development Project (SADP)

Design of Road Maintenance Trust Fund In Papua New Guinea

Final Report

For: OPIC, Smallholder Agriculture Development Project (SADP)

October 2013

EXECUTIVE SUMMARY

1. The Oil Palm Industry in PNG and in the Project Area

The palm oil industry is important to both Papua New Guinea as a whole and to the local communities/Provinces which directly benefit from the palm oil returns. Donor agencies such as the World Bank (WB) and the Asian Development Bank (ADB) have been funding palm oil projects since the mid 1970's, as a means of reducing poverty, providing jobs, increasing wealth and improving social equality.

Between 1991 and 2000 there was a 65 percent increase in the amount of oil palm produced in PNG. By 2004, palm oil had become the largest agricultural export from PNG, surpassing the traditional export of coffee. In 2012 "palm oil and derivative" accounted for 59% of all agricultural exports value. The FOB value of exported "palm oil and derivative" in 2012 was approximately 1.2 billion Kina (approximately US$518 million).

The oil palm in PNG is cultivated by estate companies, which also own and operate the oil palm mills, and by smallholder growers who own oil palm blocks. The latter range in size from 2 hectares to 6 hectares. Their oil palm fresh fruit bunches (FFB) are sold to the mills. The smallholder average annual yield is about 15 to 20 tons per ha, which is only about half of the yield of 30 tons or more achieved by the estates. Currently, the smallholders produce about 35% of the fresh fruit bunches input to the mills.

2. This Project

There is general agreement among the millers, growers, Government and the World Bank that the most critical hindrance to improving smallholder productivity is the poor condition of the smallholder road network which connects the smallholder blocks to the mills. The need for a sustained and reliable funding source and maintenance mechanism for this road network has been apparent to all concerned parties.

The main objective of this study has been to propose a practical program for establishing effective, efficient and sustainable road maintenance in the smallholder oil palm areas of Bialla and Hoskins in West New Britain Province, and Popondetta in Oro Province, using a Road Maintenance Trust Fund arrangement. 92% of oil palm smallholders are in these three project areas.

The consultant has carried out a number of activities specified in the Terms of Reference for the study to meet this objective. The activities were described in detail in the Initial Design and Options Report of April 2013. Important activities have included determination of the condition of the roads, estimation of the funds required to bring the roads to a maintainable condition, estimation of the annual maintenance costs thereafter, consideration of who should pay the costs and methods of generating and managing the funds, including the establishment of one or more Road Maintenance Trust Funds.

Interaction with the palm oil industry stakeholders has been an important part of the project. In this respect, numerous meetings have been held with Government officials, mill management officers and especially with the smallholder growers. The findings shown in the Initial Design and Options Report were discussed in the latest round of meetings held in May 2013. The opinions of the stakeholders regarding those findings are reflected in this draft final report.

3. Smallholder Road Networks

There are approximately 2,300 km of roads servicing the smallholder oil palm industry in the three Project Areas of Hoskins, Bialla and Oro (Popondetta). Most of the smallholder roads are gravel-surfaced roads. They have been constructed over the last decades with assistance from the World Bank and the Asian Development Bank (ADB), since the initiation of the oil palm industry in PNG by the Government with assistance from the World Bank in the mid 1970's.

The smallholder roads that are used to transport the FFB from the smallholders' blocks to the mills are essential to both the smallholders and the mills. Without a properly maintainable road network the industry cannot function effectively. The condition of the roads is the main obstacle to increasing both the extent and productivity of the industry. To maintain the oil palm's current economic status it is vital that the road infrastructure serving the oil palm industry be rehabilitated where necessary, constantly maintained, and be kept in an appropriate serviceable state throughout the year, every year.

The road network has deteriorated considerably because of the lack of maintenance. This deterioration presents a threat to the profitability of the mills and the livelihoods of the smallholder farmers.

As shown in Table 1, the smallholder road network covers about 2,300 kilometers. The network consists of about 1,350 road sections with an average length of 1.7 km per section. Initially, before SADP rehabilitation work (Spot Patching and Drainage Works) in 2012/2013, about 400 km were in "poor" condition and there were 200 km of "maintenance-critical" sections. Many critical sections have since been rehabilitated under SADP.

A road condition survey is now underway in 2013 to determine the kilometers of road that have slipped below fair condition while the 200 km have been repaired. Table 1 reflects the condition survey in 2011, prior to Spot Repairs and prior to the 2012 rainy season.

The highest priorities now are the completion of the contracted spot repairs and the repair and rehabilitation of all "poor" and "maintenance critical" sections. These require immediate and urgent action to upgrade the roads to a maintainable-level condition.

Table 1: Total Smallholder Project Roads as of 2011

	Hoskins	Bialla	Popondetta	Total
Number of Roads	720	354	278	1352
Total Distance (km)	1066	509	720	2295
Avg. length (km)	1.5	1.4	2.6	1.7
Of which:				
Good	646	268	456	1370
Fair	127	72	14	213
Poor	181	79	142	402
Maintenance-Critical sections	65	55	80	200
Other roads	46	36	27	111

It is understood that the smallholder roads were constructed by the National Government as part of the oil palm smallholder program but it has been reported that some of the roads fall under different administrative classifications, such as provincial roads and national institutional roads. Regardless of administrative classifications, these roads should all be considered to be a system (in fact three systems) of national smallholder grower roads for the purposes of the Road Maintenance Trust Funds. Administrative distinctions without functional differences should be avoided as far as possible.

4. Estimated Road Rehabilitation and Maintenance Costs

There are two elements to the road work to be carried out. One is the remaining spot patching and drainage rehabilitation work. The other is the recurrent annual road maintenance thereafter.

4.1 Remaining Spot Patching and Drainage Rehabilitation

The remaining spot patching and drainage rehabilitation work is estimated to cost about PGK 60 million. **This work is absolutely critical** to rehabilitate the network to a condition which will allow the complete network to be maintained effectively thereafter. The Smallholder Agriculture Development Project (SADP) was predicated on the substantial restoration of the road network. This was a major element of the project and was deemed critical to the implementation of subsequent affordable maintenance programs. In the opinion of the mills, OPIC management and the Consultants, the rehabilitation of the network needs to be completed before any fully sustainable road maintenance can be implemented over the entire road system.

This could be considered a one-time rehabilitation initiative of a capital nature, suitable to be funded as a separate project. An allocation from the National Development Budget or some other funding source would appear to be the most practicable approach in this case[1]. As an alternative the Government could request multilateral or bilateral donor funding but this would be a second choice considering the urgency of the project and the time required to arrange donor funding.

4.2 Annual Recurrent Road Maintenance

Adopting the Consultant's estimate for routine road maintenance and the in-house operations estimate for periodic road maintenance shown in the Initial Design and Options Report, the yearly funding requirements to maintain the three smallholder road networks after they have been substantially rehabilitated are estimated as follows:

Routine Maintenance	PGK 19.4 million
Periodic Maintenance	PGK 25.6 million
Emergency Maintenance:	PGK 5.0 million
Total Annual Maintenance Cost	**PGK 50 million**

The early rehabilitation of the network to a maintainable standard is important to the system and to the effective application of the subsequent annual maintenance.

[1] It is a strong belief of the milling companies and smallholders that funds should be recycled from the resource and extractive industries in support of the Agriculture sector. The Sovereign Wealth Fund has been cited as a possible source of funding.

5. Potential Funding Sources: Who Should Pay

At the beginning of this project the initial proposals for the funding of a smallholder network RMTF were for an arrangement whereby the Government would provide 50% of the funding, the mills 25% and the smallholders the remaining 25%. This was an essentially arbitrary allocation of the costs intended only as a starting point for discussions. This has since been discussed at length.

In the case of the government contribution, **it is customary in most countries for the government, whether national, provincial or local, to provide and maintain the road infrastructure and pay 100 percent of the costs of roads on publicly-owned lands**. In the case of the oil palm smallholder road system, the roads serve primarily the palm oil industry but they also serve other purposes, including access to educational and health facilities, police, judiciary and other government departments, banking, and transport of produce (other than oil palm) to market and store goods from the market. The major roads are important to the transport of logs, which requires relatively heavily-loaded trucks which incur significant road damage. The users of these roads, primarily the mills and smallholder growers, also pay road user taxes to the Government, including fuel taxes, vehicle import duties, registration fees and similar charges, which are normally used in part to fund road maintenance, even though the Government has provided almost no maintenance. Investment in the smallholder roads is consistent with the Government's development plans. Finally, road maintenance was a Government commitment to the LSS settlers under the master agreements that established the oil palm projects. And later the Government gave commitments regarding the VOP roads; i.e. under the Popondetta Smallholder Oil Palm Development Project. It could well be argued that Government should pay the full costs of the rehabilitation and maintenance of the roads.

The PNG palm oil industry has had some very profitable years in the past decade and the mills have committed significant resources to smallholder road maintenance and other programs to support the smallholders, even though there is no formal requirement for the mills to carry out smallholder road maintenance. Recently however, a mineral, oil, and gas boom in PNG has had a severe impact on the plantation sector. Increasing costs of production and appreciation of the Kina have been experienced together with a weaker international price relative to the high peak prices experienced from 2006-2012. The main milling company in PNG, NBPOL, has stated that they are operating very near their break-even level and that they cannot bear any more cost burdens. The smallholders have categorically stated that they cannot afford to pay any additional levies.

It could be considered appropriate for the government to pay the full costs of the road facilities on public land, as is the custom in most countries. The Government of Papua New Guinea has made a commitment to do so. However, in this case the palm oil industry (the mills and the growers) could pay part of the cost. The mills would not receive a direct financial benefit from the road improvements as the transport costs of the smallholder production are paid by the smallholder growers. However, the mills would benefit through more reliable and timely deliveries from the smallholders and from increased production. The growers themselves would benefit directly through the reduction of transport costs from and to the smallholder plots.

Under the circumstances, it would be appropriate and in fact essential for the Government to contribute most of the road maintenance costs. It is therefore proposed that the Government contribute the full cost of the one-time road rehabilitation (K 60 million) and 80 percent of the annual maintenance cost of K 50 million. The remaining 20 percent would be covered by the mills and the growers. Although a 20% commitment from the industry is still an arbitrary split it was a number that came up at many consultation meetings.

It was agreed in June 2013 by representatives of the Department of National Planning and Monitoring, the Milling Companies, Smallholders, and OPIC that an application would be made under the Public Investment Program for the funding of the road rehabilitation and the initial procurement of maintenance equipment as well as some limited maintenance to road sections that were rehabilitated under SADP. The application was submitted by OPIC on 30 June 2013 for inclusion in the 2014 GoPNG development budget.

The main conclusions of the study are summarized below. More detail is shown in the main body of this Draft Final Report, which is based primarily on the information in the previous Initial Design and Options Report and on the subsequent intensive discussions of that report.

6. Conclusions

1. The deteriorated condition of the roads presents a threat to the smallholder oil palm sector. The roads must be rehabilitated as soon as possible and maintained thereafter.

2. The one-time rehabilitation cost is estimated to be 60 million kina. The cost of maintenance following the rehabilitation is estimated at 50 million kina per year.

3. The National Government is the only reasonable possible source for the funding of the rehabilitation, either through its own resources or a loan from a multilateral or bilateral donor. This should be funded and contracted out as early as possible.

4. Three Road Maintenance Trust Funds should be established; one for each project area. It should be understood that these would not be conventional RMTFs. They would not raise funds through road user charges as is normally done with road trust funds. Various road user charges or levies for the smallholder road system are not practicable at this stage. As shown in previous versions of the Report and as summarized in Sec. 4.2 of this Report, traditional road user charges would provide relatively small revenue and would result in an unnecessarily complex and inequitable system of charges. The main purpose of the RMTFs is to encourage an assured, reliable and sustainable source of road maintenance funds and to ensure that the road maintenance resources are used effectively and in the interests of the smallholder growers. Annex 1 presents guidance notes for the drafting of a trust fund agreement. The annex is for discussion only at this time.

5. The concept of a Road Maintenance Trust Fund is strongly supported by the smallholder growers. The mills and growers strongly prefer three separate funds with separate boards and separate sets of equipment; one for each project area.

6. The National Government should pay for 80 percent of the annual maintenance cost. The palm oil industry (the mills and the smallholder growers) should pay the remaining 20 percent. The National Government of Papua New Guinea committed to providing road maintenance when the smallholder schemes were first established. One objective is to enshrine that commitment in a legal instrument.

7. In the short run the mills are the most able to carry out the maintenance. They already have road maintenance fleets and experience in maintaining oil palm roads. They carry out almost all of whatever maintenance is being done on the smallholder roads, even though they have no formal obligation to do so. The mills also have a strong incentive to maintain the roads because part of their oil palm fruit supply depends on the smallholder road system. The mills have expressed some willingness to assume this role under acceptable conditions. There is strong

opposition by the mills and the growers to the idea of government or contractors carrying out the annual maintenance, at least in the early years.

8. The mills should contribute 15 percent (about K7.5m) of the maintenance cost as a contribution in kind to the RMTF. Based on the estimates in the IDOR the annual cost of managing and operating the in house fleet including the hire of supplemental equipment but excluding equipment replacement costs is K6.8m per annum. The difference between the 15% commitment and the fleet operating costs could be made up by using Company materials and equipment for emergency repairs, something they already do without charge.

   The fleets should be supplemented with the addition of equipment at an estimated cost of about 6 million kina. This initial purchase cost and periodic replacement costs of the in-house fleet are already included in the estimated annual maintenance cost. The initial purchase of in-house fleet is estimated at K6.5m and will need to be funded.

9. The smallholder growers should contribute about 5 percent of the maintenance cost through a levy of about 3 kina per ton of fresh fruit bunches. The road improvements should reduce transportation costs by about 9 kina per ton. Some growers agree; most are opposed to any additional levy; some are not sure. Most growers would sacrifice OPIC and other levies in favour of the RMTF levy. A contribution from the growers would help to assure strong grower representation on the Boards of Directors of the trust funds.

10. Many routine maintenance tasks are labour intensive, low skill and require minimal equipment. Under SADP, community participation contracts have been let with community, social, and sporting groups. Generally these contracts are not tendered but are assigned after consultation with the communities on the roads. The program is extremely popular and so far very successful. The people take great pride in maintaining their own roads when they are paid for it. Going forward this concept must be carried on and incorporated in any RMTF arrangements.

11. The means of funding of the Government contribution would be at the discretion of the Government. The Government contribution should be automatic and committed. It should not depend on discretionary budget allocations in each year. The best solution may be a mechanism whereby revenue generated by mineral and other resource development is committed to an RMTF. Funding from the Sovereign Wealth Fund (SWF) or similar would be an example.

12. The Tax Credit Scheme would be a less satisfactory source of funding of the RMTFs, even if the eligible funding were to be increased from 1.5 percent of assessable income to 5 or 6 percent. The amounts generated would still be small compared to the needs, the revenue in any given year would be uncertain and the revenue, based on the profitability of the mills, would not necessarily reflect the maintenance needs. Experience to date suggests that reimbursement under the scheme is slow and cumbersome. In any case, there is some consensus that most of the tax credit revenue would be better suited for use in social projects such as health and education. This was the opinion stated by Hargy Oil Palm and by the Governor of West New Britain

13. It would be beneficial to set up rolling fund for the RMTFs with an initial Government contribution equal to the estimated annual maintenance cost in each project area. There would be subsequent automatic Government contributions in each year to replenish the funds in the amount of the previous year's actual

maintenance cost. Seed funding for the RMTF was committed by PNG Sustainable Development Program in the amount of USD1.1m. However, the milling companies have refused to enter into any RMTF agreement until the planned road rehabilitation is substantially completed. This will take more than one year, probably two. It therefore seems unlikely that the seed money will be available from PNGSDP.

14. The continuation of OPIC, to help oversee the formation of the RMTFs and the road maintenance among other duties, is supported by many of the growers' groups, although there is some resistance to the payment of the associated levies.

7. Recommendation

The key to the rehabilitation and maintenance of the oil palm smallholder road system is the agreement of the Government to provide the funding as proposed in this report or alternatively as might be proposed by the Government itself. With this agreement the necessary steps to work out the details and implement the rehabilitation and maintenance program should follow without significant obstacles, leading to the resurgence of the industry. Failing agreement, the condition of the roads will be an impediment to further investment in the industry. The roads will continue to deteriorate and the smallholder oil palm program will experience continued and increasing difficulty, to the detriment of all of the stakeholders, including the palm oil industry and the Government, the national economy and the society of Papua New Guinea. It is strongly recommended that the representatives of the Government, the palm oil industry (mills and smallholder growers) and other major stakeholders come to agreement on suitable arrangements as soon as possible.

TABLE OF CONTENTS

List of Tables

List of Figures

List of Appendices

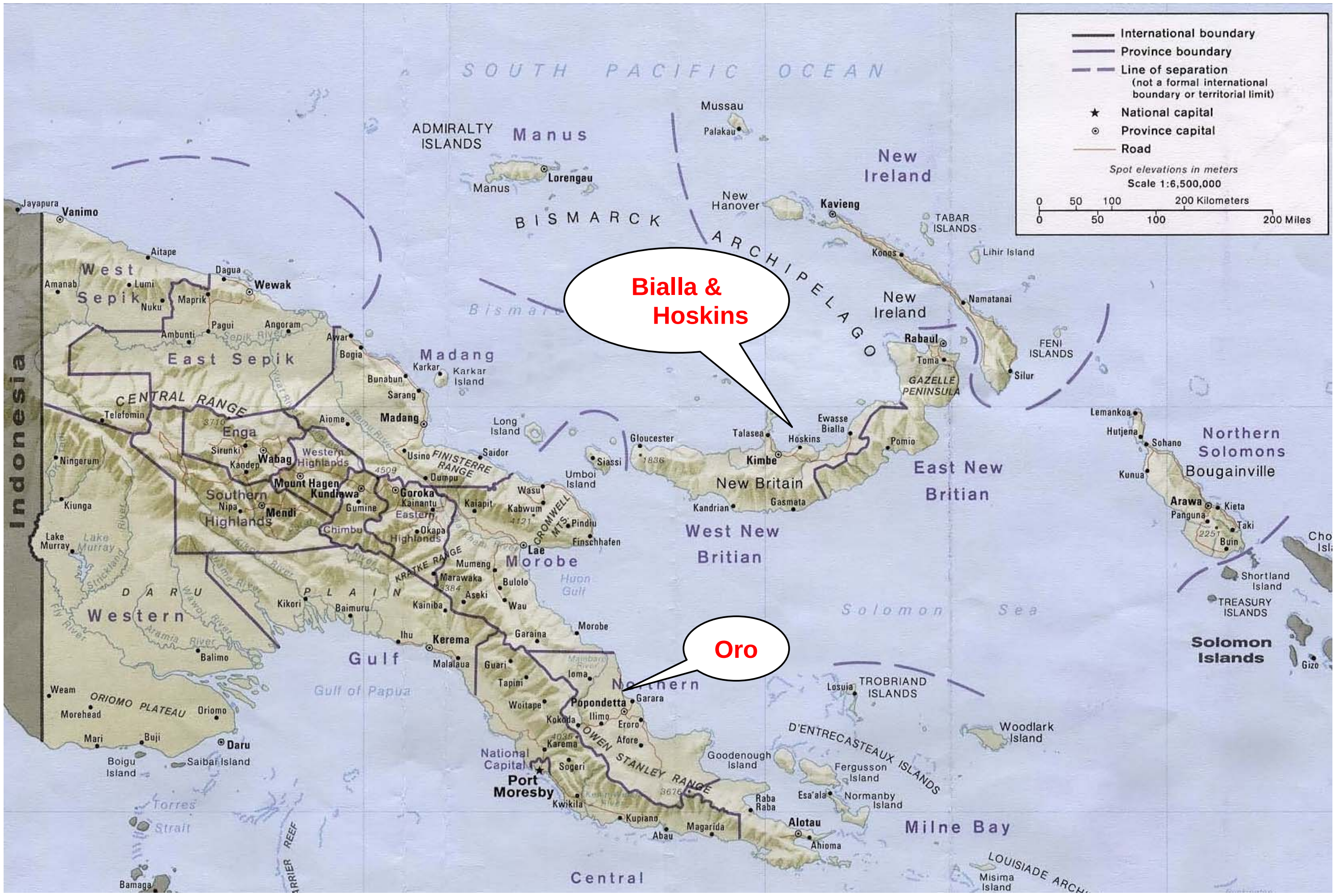
1 INTRODUCTION

This Draft Final Report is intended to assist in the establishment of one or more Road Maintenance Trust Funds (RMTF) for maintaining the Oil Palm Smallholder Road Networks in Oro and West New Britain Provinces of Papua New Guinea. The Report is built upon knowledge gained during the inception and analytical phases of the project and the preparation of the Inception Report of June 2012 and the Initial Design and Options Report of April 2013. The latter report presented a number of alternatives and some preliminary conclusions regarding the rehabilitation and maintenance of the smallholder roads. These findings and conclusions were discussed in stakeholder meetings conducted primarily in May of 2013. The main participants of the consultations were smallholder groups and representatives, palm oil mill management personnel and Government officials. Summaries of the smallholder and mill meetings are shown in Annexes 1 and 2 of this report.

This Draft Final Report summarizes the alternatives and conclusions presented in the previous reports and the reactions of the stakeholders to the conclusions. It then presents a series of final conclusions and recommendations for the rehabilitation and maintenance of the smallholder road system. An attempt has been made to avoid repetition of the material contained in the Initial Design and Options Report by making appropriate references to that report.

The locations of the project areas in Oro and West New Britain Provinces are shown in Figure 1.

Figure 1: Project Location Map



2 PROJECT BACKGROUND, OBJECTIVES AND ACTIVITIES

2.1 Oil Palm Industry in PNG

The palm oil industry is important to both Papua New Guinea as a whole and to the local communities/Provinces which directly benefit from the palm oil returns. Donor agencies such as the World Bank (WB) and the Asian Development Bank (ADB) have been funding palm oil projects since the mid 1970's as a means of reducing poverty, providing jobs, increasing wealth and improving social equality.

From 1991 to 2000 there was a 65 percent increase in the amount of oil palm produced in PNG. By 2004, palm oil had become the largest source of agricultural exports from PNG, surpassing the traditional export of coffee. In 2010 palm oil and derivatives accounted for 65% of all agricultural exports value. The value of exported palm oil and derivative in 2011 was approximately 1.7 billion Kina but fell to about 1.2 billion in 2012, primarily because of world price changes.

2.2 Oil Palm Industry in the Project Area

2.2.1 General

The oil palm in PNG is cultivated by estate companies which also own and operate the oil palm mills and by smallholder growers. The growers own oil palm blocks ranging in size from 2 hectares to 8 hectares and sell their fresh fruit bunches (FFB) to the mills. The smallholder average annual yield is about 15-20 tons per hectare. This is about half of the yield of 30 tons or more achieved by the estates.

The smallholders produced about 35 percent of the fresh fruit bunch input to the mills in 2012. However, there is strong potential for growth in smallholder production if productivity and yields can be raised. A major impediment to increased productivity is the deteriorated condition of the smallholder roads.

2.2.2 Symbiotic Relations and the Price Formula

The relations between the smallholders and the mills are symbiotic. The smallholders need the mills to buy and process their fruit and the mills need the smallholder fruit as input to their mills. The price paid to smallholders for their FFB is determined by the "Price Formula". The price formula was originally created by agreement between the World Bank, the Independent State of PNG, and New Britain Palm Oil Ltd. to determine the FFB price for the first nucleus estate scheme in PNG at Hoskins. It was also enshrined in statute. The price formula has continued in use by agreement and under the auspices of the Commodity Working Group of the Department of Agriculture and Livestock for all of the nucleus estate schemes in PNG. The basis of the formula is that the cost of bringing the finished product to market will be recovered by the milling company; the cost of producing the finished product will be recovered by each party, the company and the smallholder, and the residual profit will be split between the parties. The smallholders also pay for transporting their FFB to the mills. The transport is supposed to be done by the milling companies on a cost recovery basis. There are also various levies (collected through the mills): the OPIC and the Oil Palm Research Association (OPRA) levy on a per ton FFB basis; a per ton levy that is held in trust for pest control and replanting, and Growers' Association levies, generally on a fortnightly or per harvest basis.

2.2.3 Monopolistic and Monopsonistic Position of the Mills

From an economic viewpoint, the mills exhibit both monopolistic (single seller) and monopsonistic (single buyer) positions within their geographical areas. Because of the high volume of the raw produce generated, and the necessity of delivering the fruit soon after harvest, the nearest mill is always the most economic option, and that mill will be the sole buyer (monopsonist) of the smallholders' FFB. The mills are for the most part also the sole sellers (monopolist) of transport hauling to the smallholders. The mills contend that this transport arrangement is necessary to insure constant planned and scheduled FFB input into the mills. An alternative, competitive transport by independent haulers, hired by the smallholder, would disrupt such flow.

It is argued that given the conditions of the smallholder industry in PNG, the existing symbiotic arrangement is a natural situation. The large investment needed to establish a mill in a relatively isolated area of PNG cannot justify constructing more than one mill per area, and the industry cannot support competitive milling (as is the case in the mature oil palm industry of Malaysia). The mills also provide other services to the smallholders including supply of quality seedlings, fertiliser and tools all at cost. The mills warehouse the agricultural inputs and provide them on interest-free credit to the growers. The mills are also currently assisting with the smallholder road maintenance, either through the tax credit scheme, on a cost recovery basis through the transport charge, or for no charge. To support services to the smallholders, each mill maintains a dedicated "smallholder department". All in all, it seems that these patterns of symbiotic relationships will continue into the foreseeable future.

2.3 The Roads

2.3.1 Introduction

All of the stakeholders - the millers, growers, Government and the World Bank - have agreed that the most critical hindrance to improving smallholder productivity is the poor condition of the smallholder road network which connects the smallholder farms to the mills. The need for an ongoing revenue source and maintenance mechanism for this road network has become apparent to all concerned parties. This study addresses the issue of how to establish and operate a Road Maintenance Trust Fund (RMTF) for the oil palm smallholder road network.

2.3.2 The Smallholder Road Network

According to the Smallholder Agriculture Development Project (SADP) Road Asset Database, there are approximately 2,300 kilometers of gravel roads serving the smallholder oil palm industry in the three Project Areas of Hoskins, Bialla and Oro. Most of the smallholder roads are gravel-surfaced roads. They have been constructed over the last decades with assistance from the World Bank and the Asian Development Bank (ADB), since the initiation of the oil palm industry in PNG by the Government with assistance from the World Bank in the mid 1970's.

It is understood that the smallholder roads were the child of the National Government as part of the oil palm smallholder program but it has been reported that some of the roads fall under different administrative classifications, such as provincial roads and institutional roads. Regardless of administrative classifications, these roads should all be considered to be a system (in fact three systems) of national smallholder grower roads for the purposes of the Road Maintenance Trust Funds. Administrative distinctions without functional differences should be avoided as far as possible.

In addition to the smallholder roads, the private oil palm estates construct and maintain their own private road networks, which are not part of the smallholder road networks. The estates' roads (also gravel roads) are defined by the Government as private roads. The milling companies' trucks operate on both road systems to collect fresh fruit bunches and deliver them to the mills.

OPIC in-house engineers have classified the smallholder roads into two groups according to their usage and importance. They are classified as major and minor roads with each type accounting for about half of the total. In general, the major roads are nominally 6 meter wide arterial roads connecting the oil palm block roads to the mills as well as to the Provincial and National main roads. The minor roads are nominally 4 meters wide and function as FFB collection and feeder roads between the smallholder blocks and the major roads. The mills' trucks with on-board lifting mechanisms travel on both the major and minor roads, hauling the FFB to the mills. The fruit load per truck is around 10 tonnes. The total weight of a fully laden truck is around 24 to 25 tonnes carried on 3 and occasionally 4 axles.

It should be noted, however, that there is a tendency for fruit trucks to be overloaded. In fact examination of a random weighbridge summary sheet indicated that up to 90% of deliveries were overweight. Overweight vehicles cause disproportionate damage to roads. If the Government and the Smallholders agree to invest material amounts of money in the road network then the companies will need to implement procedures to eliminate over-loading. Suitable bin covers would limit the load and contribute to improved safety by preventing fruit spillage on the roads.

The weight of the trucks, even when normally loaded, requires that the road foundations and gravel thickness be similar on both classes of roads, to accommodate these trucks. In reality, the major roads require stronger construction standards as they also carry non-oil palm vehicles. Some of these vehicles, such as logging trucks, carry much heavier loads which inflict more damage on the roads. It has also been observed that Public Motor Vehicles, which use single-axle trucks with narrow tires, might also inflict substantial damage on the smallholder roads through their use of the network.

Observation indicates that vehicular traffic on the smallholder roads, in particular the minor roads, is very light. FFB are collected every two weeks but the major roads also serve other trip purposes such as the Public Motor Vehicles, which provide public personal transport for the rural communities, although this type of traffic is very limited.

2.3.3 Smallholder Road Conditions

The smallholder roads enable haulage of the FFB from the smallholders' blocks to the mills and are essential to the oil palm industry, both to the smallholders and to the mills. Without a properly maintainable road network the industry cannot function, nor can it reach its potential for growth. To maintain the oil palm's current economic status, it is vital that the road infrastructure serving the oil palm industry be upgraded, constantly maintained, and be kept in a serviceable state throughout the year, every year.

The smallholder road network has been deteriorating considerably owing to lack of dedicated resources for maintaining the roads over many years. This deterioration presents a serious threat to the livelihood of the smallholder farmers. In contrast, the Consultants observed that the private estates' roads, located in the same general areas and exposed to similar climatic conditions and traffic volumes, are better maintained by the mills and are in more reasonable condition. This seems to imply that the deterioration of the smallholder roads is due mainly to the lack of consistent periodic and routine maintenance. A unique aspect of oil palm trees is that they are able to produce fruits throughout the year. The practice is to collect the fresh fruit bunches and deliver them to the mills every two weeks. This implies that the smallholder roads have to be serviceable year-round. Furthermore, it imposes additional challenges during wet periods. The average rainfall in the OPIC project areas is approximately 2.5 to 3 meters per year and much of the rainfall during the rainy season occurs in heavy storms. These can inflict substantial damage to the roads and bridges, beyond the normal wear and tear. Such damages require emergency treatment in addition to the regular routine and periodic maintenance. A review of the condition of the smallholder roads' is provided in Chapter 3, Table 3.1 of this Report.

2.3.4 Fresh Fruit Bunch Hauling

According to the mill managers, a constant predictable flow of fresh fruit bunches (FFB) to the mills is essential for the efficient production of palm oil. Typical smallholder growers harvest their crops for one to three days every two weeks and take them to the roadside where they are packed in nets, weighed and collected by the trucks for delivery to the processing plants. Collection is scheduled in two-week intervals to coincide with harvesting as the fruit needs to be sterilized within 24 hours of harvest to produce the best quality oil.

The managers of the mills indicated that the need for a constant, predictable and on-time flow of FFB from the smallholders to the mills dictates that the method of transporting FFB is solely by the trucks operated by the mills. An alternative provision of transport by many independent haulers, contracted by the smallholder and arriving at random at the mills, would undermine the refining operation. Thus, the mills almost exclusively provide the transport of FFB from the smallholders to the mills. As indicated above, the mills are generally the only providers of transport for the smallholders' FFB to the mills, and exhibit a monopolistic position. There are small exceptions but these are relatively insignificant. Regarding transport charges, the mills reported that they charge the smallholder only the total input costs of the trucking of their fruits, without making any profit on the transport operation. The transport charges are per ton of FFB regardless of distance. They are about PGK 55/ton in Popondetta, PGK 44/ton in Hoskins and PGK 35/ton in Bialla

2.3.5 Impact of Poor Road Conditions

Roads in poor condition result in fruit going to waste when collections are not carried out on schedule, and in poor quality fruit when it is delivered late or damaged in transit. Lower collections mean less income to the grower. As the smallholder fruit is mixed with the estate fruit during processing, poor fruit quality and lower sales prices accrue to both the milling company and the smallholders. Poor roads result in an inconsistent flow of FFB, leading to less efficient milling. Moreover, poor roads result in higher transport costs. Studies by the World Bank among others, including the HDM series of programs which relate road conditions to vehicle operating costs, based on international data, indicate that transport costs on gravel roads can be reduced substantially when the roads are upgraded from "very poor" and "poor" to "fair" and "good" conditions. The HDM model indicates that rehabilitation and proper maintenance of these roads could result in vehicle operating cost savings of about 20 percent. Finally, the condition of the roads is a deterrent to investment in the industry.

The high transport costs are passed to the smallholders, as the mills charge the smallholder a transport fee per ton of FFB based on the full transport costs incurred by the mills. The higher the transport costs due to poor road conditions, the higher are the hauling charges borne by the smallholder. In addition, when the roads are in poor condition, it is not only the smallholders who lose but also the local rural communities which use the smallholder roads for other trip purposes (PMVs, travel to markets, schools, clinics, etc.), the oil palm milling companies. Thus, the smallholder road network servicing the oil palm industry, including smallholders, estates and mills, are vital to not only the oil palm industry but also to the economic wellbeing of PNG as a whole.

The lack of funding available for road maintenance has meant that the road network has been in a continuing state of decline. Site inspections have shown that the poor condition of the roads and bridges is generally due to wash-outs, blockages, inadequate drainage, poor-quality construction materials, and in particular the lack of systematic routine and periodic maintenance.

2.4 Project Scope

2.4.1 Concept

A reliable and well-maintained smallholder road network cannot be achieved without consistent funding in every year. A guaranteed funding instrument is needed to ensure that regular maintenance is carried out as required. This will ensure that the roads are kept open and in good condition and that vehicle operating costs are kept to a minimum.

The proposed instrument is a Road Maintenance Trust Fund (RMTF) for the smallholder road network in each of the project areas, which is supported continuously, year after year, by the government, the mills, the smallholders and possibly other users. The RMTF is dedicated to maintaining the smallholder road network and includes, in addition to permanent sources of revenue, mechanisms and guidelines for efficient and equitable distribution of the funds among the different smallholder roads in each area.

The initial proposals were for an arrangement whereby the government would provide 50 percent of the RMTF revenues, the mills 25 percent and the smallholder growers the remaining 25 percent. This was an arbitrary starting point, with the cost-sharing arrangements to be further studied and finalized during the implementation of SADP Study. The currently-proposed cost sharing arrangement is Government 80 percent and the industry (mills and smallholder growers) 20 percent. The details are shown in Chapter 5 of this report.

2.4.2 Objectives

The objectives of the consultancy are two-fold:

(1) To recommend a practical program for establishing effective, efficient and sustainable road maintenance in the smallholder oil palm scheme areas of Bialla, Hoskins, and Popondetta, using a Road Maintenance Trust Fund arrangement.

(2) To draft a Road Maintenance Trust Fund instrument that meets the operational objectives of the fund and complies with the PNG Public Finances Management Act.

2.4.3 Activities

To assess and develop the RMTF particulars for the smallholder roads, the Consultant has conducted a number of activities. These are shown in detail in the Initial Design and Options Report of April 2013. The main activities included a review of the oil palm industry in Papua New Guinea, inspection of the smallholder road systems in the three project areas, estimation of the costs of the rehabilitation and maintenance of the roads, review of road maintenance trust fund possibilities, discussions with the principal stakeholders, including their willingness and ability to pay into the funds, review of the possible sources of funds and arriving at a set of conclusions and recommendations.

The establishment of an RMTF is seen as an effective way of supporting the oil palm sector as a whole and bringing much-needed improvement to the quality of the roads within the project areas. Any improvement in the quality of roads will reduce the vehicle operating costs, improve the quality of the produce delivered to the processing mills, raise incomes and improve the quality of life of the smallholders and the community.

2.4.4 Consultation Mechanism

In the study and assessment of establishing one or more RMTFs for smallholder roads, there has been particular attention to in-depth consultation with all stakeholders and in particular the smallholders.

- **First Round:** during the initial working phase (May 2012), the Team conducted consultations with the milling companies, government agencies in Port Moresby and in the relevant provinces, but above all, it conducted over 20 consultation meetings with growers. In this first phase the consultations focused on listening to the growers' ideas concerning road conditions, maintenance and the proposed trust fund.

- **Second Round:** after completion of the Initial Design and Options Report of April 2013 the Team repeated the round of consultations conducted during Phase 1, but now presenting the results and recommendations of the study to date as shown in the Initial Design and Options Report. The Team again conducted three weeks of consultations, focusing on the milling companies and especially the smallholders.

- **Incorporation of Comments:** following the second round of consultation meetings, the Team prepared this Draft Final Report, incorporating the main stakeholders' comments. Any additional comments by OPIC, the World Bank and various PNG governmental ministries and agencies will be incorporated into the Final Report. Summaries of the meetings are shown in Annexes 1 and 2.

3 SMALLHOLDER ROAD NETWORK REHABILITATION AND MAINTENANCE

3.1 Introduction

Alternative methods of smallholder road rehabilitation and maintenance, and the estimated costs, are shown in detail in Chapter 4 of the Initial Design and Options Report of April 2013. The results are summarized in this chapter.

3.2 Road conditions

The road lengths and condition are shown in Table 3.1.

Table 3.1: Total Smallholder Project Roads as of 2011

	Hoskins	Bialla	Oro Prov.[1]	Total
Number of Roads	720	354	278	1352
Total Distance (km)	1066	509	720	2295
Avg. length (km)	1.5	1.4	2.6	1.7
Of which:				
Good	646	268	456	1370
Fair	127	72	14	213
Poor	181	79	142	402
Maintenance-Critical sections	65	55	80	200
Other roads	46	36	27	111

1: Popondetta

3.3 Road Rehabilitation and Maintenance Costs

There are two elements to the road work to be carried out. One is the remaining spot patching and drainage rehabilitation work. The other is the recurrent annual road maintenance thereafter.

- **<u>Remaining Spot Patching and Drainage Rehabilitation</u>**

The remaining spot patching and drainage rehabilitation work is estimated to cost about PGK 60 million. **This work is absolutely critical** to rehabilitate the network to a condition which will allow the complete network to be maintained effectively thereafter. The Smallholder Agriculture Development Project (SADP) was predicated on the substantial restoration of the road network. This was a major element of the project and was deemed critical to the implementation of subsequent affordable maintenance programs. In the opinion of the mills, the SADP management and the Consultants, the rehabilitation of the network needs to be completed before a fully sustainable road maintenance can be implemented.

This could be considered a one-time rehabilitation initiative of a capital nature, suitable to be funded as a separate project. An allocation from the National Development Budget or some other funding source would appear to be the most practicable approach in this case[2]. As an alternative the Government could request

[2] It is a strong belief of the milling companies and smallholders that funds should be recycled from the resource and extractive industries in support of the Agriculture sector. The Sovereign Wealth Fund has been cited as a possible source of funding..

multilateral or bilateral donor funding but this would be a second choice considering the urgency of the project and the time required to arrange donor funding.

- **Annual Recurrent Road Maintenance**

Adopting the Consultant's estimate for routine road maintenance and the In-house operations estimate for periodic road maintenance shown in Chapter 4 of the Initial Design and Options Report, the funding requirements to maintain the rehabilitated smallholder road networks are estimated as follows:

• Routine Maintenance	PGK 19.4 million
• Periodic Maintenance	PGK 25.6 million
• Emergency Maintenance	PGK 5.0 million
Total	**PGK 50 million**

Once the network is brought up to a maintainable standard the annual recurrent maintenance work will be about PGK 50 million per year. The prior rehabilitation of the network to a maintainable standard is important to the system and to the effective application of the subsequent annual maintenance. These estimates do not include the costs of building additional roads in Oro which were promised but never built, leaving some growers without vehicular access to the road system. As of the end of 2013 there will be approximately 40km of these "Oro Incomplete Roads" with an estimated construction cost of K15m.

It has also been strongly noted that maintenance of the West New Britain Highway is critical. Maintaining collection roads is of little value if the main highway is not passable.

The estimated costs of rehabilitation and maintenance by project area are shown in Table 3.2.

3.4 Procurement

The one-time rehabilitation work required to bring the roads to a maintainable standard is suitable for execution by contractors. It is proposed that this work be contracted and supervised by the Department of Works (DoW) with input from Local Planning Committees (LPCs) and OPIC. OPIC maintains a database of smallholder roads including road conditions.

Many routine maintenance tasks (e.g. grass cutting, drain clearing) are labour intensive, low skill and require minimal equipment. Under SADP, community participation contracts have been let with community, social, and sporting groups. Generally these contracts are not tendered but are assigned after consultation with the communities on the roads. The program is extremely popular and so far very successful. The people take great pride in maintaining their own roads when they are paid for it. Going forward this concept should be carried on and incorporated in any RMTF arrangements.

In terms of non-manual maintenance such as patrol grading, team grading and regravelling, competitive bidding is generally considered the preferred method for procuring road maintenance work, achieving the highest quality at lowest costs. However, in situations where true competition is restricted or not achievable due to lack of sufficient resources, quality contractors and/or equipment, competitive bidding may not be optimal. In isolated areas of PNG such as the smallholder road network areas, where sufficient numbers of qualified bidders are not available, the best possible price and quality work may not be achieved. The findings of this study clearly indicate that there is a low number of available and qualified bidders for road works in the project areas. It is thus proposed that the mills themselves manage and operate the in-house road maintenance fleets that would be procured and owned by the RMTF. The annual cost of operating and maintaining the road fleet would be a contribution in-kind from the milling companies to the RMTF. On the IDOR estimates this would be K6.8m per year or 13.6% of the RMTF annual recurrent costs. If the milling company contribution to the RMTF is agreed to be 15% as recommended, the additional contribution could be in the form of emergency repairs and other assistance given by the mills using their own resources and equipment.

In effect, this is a continuation of the current procedure, except that now there is not an assured source of funding for the work and only emergency maintenance is carried out for the most part. This approach was strongly preferred by the growers over having the work executed by either government or contractors. As noted in Section 4 of the Initial Design and Options Report, the mills are the logical candidate for this part of the work.

The obvious risk inherent to this arrangement is that the milling companies will be managing the equipment on behalf of the RMTF. The possibility exists that equipment or other RMTF assets could be diverted to company roads or to other benefit of the company or that equipment may not be maintained in an optimal manner. The RMTF agreement should be structured to mitigate the major risks. Annual audits of the RMTF will be necessary in any case as it will include public funds. If the annual audit of the FFB Price Formula is implemented as planned, this would be another significant mitigation measure as the RMTF contributions will be a cost of production factor in the formula. In addition, it is recommended that the OPID unit be maintained within OPIC and that OPID would have contractual powers under the RMTF to oversee the operation of the road fleet and report to the Fund Board. In the absence of OPID then participation of Department of Works would be the next best alternative. Finally it should be noted that the fleet will be seen as belonging to the smallholders. The omnipresence of the smallholders will be the most effective control in monitoring the use or misuse of the fleet.

Table 3.2: Road Rehabilitation and Maintenance by Project Area

Project Area	Road Length (Km)			FFB/Yr.	Est. Annual Road Maint. Cost		
	Major	Minor	Total	2012	Major	Minor	Total
	Km.	Km.	Km.	Tonnes '000	Kina mil.	Kina mil.	Kina mil.
Hoskins							
Periodic					7.6	5.7	13.3
Routine					4.9	4.1	9.0
Emergency					1.2	1.1	2.3
Total	543	524	1066	440	13.7	10.9	24.7
(Rehabilitation)					32.6		
-							
Bialla							
Periodic					2.9	1.8	4.7
Routine					2.4	1.9	4.3
Emergency					0.6	0.5	1.1
Total	268	241	509	214	5.9	4.2	10.1
(Rehabilitation)					10.5		
Oro							
Periodic					4.0	3.8	7.8
Routine					2.7	3.3	6.0
Emergency					0.9	0.7	1.6
Total	304	416	720	186	7.7	7.8	15.5
(Rehabilitation)					14.4		
Totals							
Periodic					14.5	11.3	25.8
Routine					10.0	9.3	19.4
Emergency					2.7	2.3	5.0
Total	1115	1181	2296	840	27.3	22.9	50.2
(Rehabilitation)					57.5		

(The production shown here does not include Milne Bay, New Ireland and Ramu, which together produce about 42,000 tonnes of smallholder FFB.)

The conclusions of the engineering aspect of the work are as follows:

- The road rehabilitation work, with a cost of approximately 60 million kina, should be tendered in a similar manner as was done under SADP, possibly supervised by the Department of Works, and

- The annual maintenance, at a cost of 50 million kina per year, should be administered under an RMTF structure. Mechanical maintenance should be managed by the mills, overseen by the RMTF, with a fleet of equipment for each project area. Manual maintenance should be subcontracted to community groups.

4 FUNDING OPTIONS

4.1 Introduction

As shown in Chapter 3, there are two separate road funding requirements. The remaining spot patching and drainage rehabilitation work is a one-time requirement of about 60 million kina to bring the road system into a condition where annual maintenance can be carried out effectively. It should be funded as a separate item and implemented as soon as possible. The recurring annual maintenance work to be carried out thereafter has an estimated average cost of 50 million kina per year.

The engineering aspects of the road rehabilitation and maintenance are well understood. The main problem now is to secure a source of funds. As noted previously, the one-time road rehabilitation should be funded by the Government as a separate item and implemented as soon as possible. The funding of the recurring annual maintenance is less straightforward.

4.2 Potential Funding Sources for Annual Maintenance

A number of possible funding sources were considered in detail in the preparation of the Initial Design and Options Report. The initial approach at that time was geared toward the procedures normally used in a traditional road maintenance trust fund and attempted to find primarily a set of user charges which could be used as sources of the funding. The main possible sources included a provincial fuel levy, a levy on road vehicles, a rebate on the mills' fuel costs, government matching funds, the tax credit scheme and possible allocations from the planned Sovereign Wealth Fund among others.

It was determined that the situation of the smallholder roads was far different from those of conventional RMTFs, for reasons shown in the report. It was also seen that individual user charges or combinations of user charges and levies at acceptable levels would raise only small amounts of revenue in relation to the amounts required for the annual road maintenance. As shown at length in the Initial Design and Options Report of March 2013, Chapters 8 through 13, the imposition of an array of conventional user charges and other possible levies, including a provincial fuel tax, a FFB levy, a vehicle registration fee and an export duty (which would be vigorously opposed) would together produce less than Kina 10 million per year. In addition, the result would be a complex collection of small individual sources which would be difficult to manage and maintain on a continuing basis and which would impose inequities on the payers. Finally, such sets of user charges would violate the common admonition, primarily from the mills, to "keep it simple". This left the tax credit scheme or an allocation from the Government Development and/or Recurrent Budgets, or the Sovereign Wealth Fund or similar, as the main possible and practicable funding sources for the government contribution.

The tax credit scheme has been used by the mills to finance minimal amounts of emergency maintenance carried out in the past, with reimbursements limited to 1.5 percent of the assessable income of the mills. Even with an allowable deduction of 6 percent of assessable income, the resulting funding would be small relative to the needs, especially as the profitability of the mills is declining in the current economic environment. The revenue in any given year would not be related to needs but rather to the profits of the mills. Experience indicates that reimbursement under the scheme is slow and uncertain. Finally, some stakeholders prefer that most of the tax credit revenue go to social uses such as medical and educational projects rather than to the roads. Arguably, the tax credit scheme is more appropriate for larger capital projects such as building and bridge construction rather than the maintenance of short sections of road. Thus, the preferred funding of the Government contribution would be from the budget using specific budget programs, the proposed Sovereign Wealth Fund or such other direct source as may be designated by the Government.

4.3 Division of Responsibilities

4.3.1 Introduction

The initial suggestion for the annual maintenance RMTF was for an arrangement whereby the government would provide 50 percent of the funding, the mills 25 percent and the smallholders 25 percent. This was an arbitrary allocation meant only to be used as a starting point for discussion. Subsequent discussions have led to the conclusion that neither the mills nor the smallholder growers would be in a position to contribute 25 percent of the cost and would strongly resist attempts to impose these levels for reasons indicated in the Initial Design and Options Report. As a result, it was suggested that the Government provide 80 percent of the annual maintenance cost and the industry (the mills and the smallholder producers) the remaining 20 percent.

4.3.2 Government Contribution

In the case of the government contribution, **it is customary in most countries for the government, whether national, provincial or local, to provide and maintain the road infrastructure and pay 100 percent of the costs of roads on publicly-owned lands**. In the case of the oil palm smallholder road system, the roads serve primarily the palm oil industry but they also serve other purposes, including access to educational and health facilities, police, judiciary and other government departments, banking, and transport of produce (other than oil palm) to market and store goods from the market. The major roads are important to the transport of logs, which requires relatively heavily-loaded trucks which inflict significant road damage. The smallholder roads also contribute to national cohesion and have important political benefits. **The users of these roads, primarily the mills and smallholder growers, also pay to the Government road user taxes, including fuel taxes, vehicle import duties, registration fees and similar charges, which are normally used in part to fund road maintenance**, even though the Government has provided almost no maintenance**. Finally, road maintenance was promised by the National Government** and enshrined in the Master Agreements between the State and the project developers when the smallholder schemes were established. It could well be argued that the National Government should pay the full costs of the rehabilitation and maintenance of the roads.

4.3.3 Industry Contribution

In this case, however, it seems appropriate that the palm oil industry (the mills and the growers), as the main beneficiaries, should also pay part of the cost. The mills would not receive a direct financial benefit from the road improvements as the transport costs of the smallholder production are paid by the smallholder growers. However, they would benefit through more reliable and timely deliveries from the smallholders and increased FFB throughput. The growers themselves would benefit directly through the reduction of transport costs from and to the smallholder plots. It is estimated that the transport costs of the fresh fruit bunches, currently between about 40 and 50 kina per ton, could be reduced by about 20 percent, for savings of about 8 to 10 kina per ton, if the roads were rehabilitated and properly maintained.[3]

Regarding the ability of the industry to pay, the PNG palm oil mills have had some very profitable years in the past decade and the mills have committed significant resources to smallholder road maintenance and other programs to support the smallholders, even though there is no formal requirement for the mills to carry out the road maintenance. Recently however, a mineral, oil and gas boom in PNG has had a severe impact on the plantation sector. . Increasing costs of production and appreciation of the Kina have been experienced together with a weaker international price relative to the high peak prices experienced from 2006-2012. The main milling company in PNG, NBPOL, has stated that they are operating very near their break-even level and that they cannot bear any more cost burdens. In the case of the growers, they have shown strong resistance to the imposition of any levies in addition to those already imposed, although there was some agreement to pay up to 5 percent of the recurring maintenance cost. In the current environment it is beyond the ability of the mills and smallholders to contribute half of the cost of road maintenance, nor is it appropriate that they do so.

4.3.4 Conclusion

Under the circumstances, it would be appropriate and in fact essential for the Government to contribute most of the road maintenance costs.

A contribution by the beneficiaries, the smallholders and the mills, is also appropriate. The smallholders will profit from higher production and lower transport charges. The mills will profit from higher production. Aside from direct benefit it is essential that there is an element of “ownership” of the RMTF by the growers and the millers as it will enhance the sustainability of the project. At inception it was proposed that the user contribution would be 50% shared equally by the growers and the mills (SADP Project Appraisal Document, 2007). Over the course of the consultancy, 2012 and 2013, extensive consultations were held with smallholders and milling companies. The milling companies indicated that they were not in a financial position to contribute cash to an RMTF. There was an indication that they might be willing to operate an in-house road fleet as a contribution in kind. The estimated value of such a contribution is 13.6% of the required funding. We have therefore proposed the mills contribution to be 15%.

Based on over forty meetings with villagers, growers, and grower representatives it is clear that although there is strong support for an RMTF, the smallholders would prefer to pay nothing towards it. If they must pay they would prefer that other levies (OPIC, OPRA, Sexava) be diverted to the RMTF. K1 per ton was the most popular level of contribution after zero. There was some support for levies in the K1 to K5 range but there was virtually no traction for levies above K5 per ton. Basically the growers are suffering “levy fatigue”, they feel that they are very much under-paid for their produce, and they blame the Government for the state of the roads. The conclusion of this report is that K3.50 would be the maximum contribution that can be expected from the smallholders.

It is therefore proposed that the Government contribute the full cost of the one-time road rehabilitation (K 60 million) and 80 percent of the annual maintenance cost of K 50 million. The remaining 20 percent would be covered by the mills and the growers in the ratio of 15 percent for the mills and 5 percent for the growers. For the growers, this would represent a payment of about 3 to 3.5 kina per ton of FFB.

[3] Based on an approximation using the VOC sub-model of HDM4 and assuming an improvement in road condition from poor to fair.

The National Government is the only reasonable possible source for the funding of the rehabilitation and initial procurement of maintenance equipment. This should be funded and tendered out as early as possible.

It has was agreed in June 2013 that an application would be made under the Public Investment Program for the funding of the road rehabilitation and the initial procurement of maintenance equipment as well as some limited maintenance to road sections that were rehabilitated under SADP. The application was submitted by OPIC on 30 June 2013 for inclusion in the 2014 GoPNG development budget.

As noted previously, it has been reported that some of the roads fall under different administrative classifications, such as provincial roads and institutional roads. Regardless of administrative classifications, these roads should all be considered to be national smallholder grower roads for the purposes of the Road Maintenance Trust Funds. Administrative distinctions without functional differences should be avoided as far as possible.

5 CONCLUSIONS AND RECOMMENDATION

5.1 Conclusions

The main conclusions of the study are summarized below.

1. The deteriorated condition of the roads presents a threat to the smallholder palm sector. The roads must be rehabilitated as soon as possible and maintained thereafter.

2. The one-time rehabilitation cost is estimated to be 60 million kina. The cost of maintenance following the rehabilitation is estimated at 50 million kina per year.

3. The National Government is the only reasonable possible source for the funding of the rehabilitation and initial procurement of maintenance equipment. This should be contracted out as early as possible. It was agreed in June 2013 that an application would be made under the Public Investment Program for the funding of the road rehabilitation and the initial procurement of maintenance equipment as well as some limited maintenance to road sections that were rehabilitated under SADP. The application was submitted by OPIC on 30 June 2013 for inclusion in the 2014 GoPNG development budget.

4. Three Road Maintenance Trust Funds should be established; one for each project area. A discussion paper is presented at Annex 1 outlining possible terms and conditions for the establishment of an RMTF. After discussion and modification this outline could be the basis for an agreement to be drafted by the Consultants Legal Practitioner.

   It should be understood that these would not be conventional RMTFs. They would not raise funds through road user charges as is normally done with road trust funds. Various road user charges or levies for the smallholder road system are not practicable at this stage. Traditional road user charges would provide relatively small revenue and would result in an unnecessarily complex and inequitable system of charges. The main purpose of the RMTFs is to encourage an assured, reliable and sustainable source of road maintenance funds and to ensure that the road maintenance resources are used effectively and in the interests of the smallholder growers.

5. The concept of the Road Maintenance Trust Funds is strongly supported by the smallholder growers. The mills and growers strongly prefer three separate funds with separate boards and separate sets of equipment; one for each project area.

6. The National Government should pay for 80 percent of the annual maintenance cost. The palm oil industry (the mills and the smallholder growers) should pay the remaining 20 percent. The National Government of Papua New Guinea committed to providing road maintenance when the smallholder schemes were first established. One objective of the Trust Funds is to enshrine that commitment in a legal instrument which would guarantee the annual payments.

7. In the short run the mills are the most able to carry out the maintenance. They already have road maintenance fleets and experience in maintaining oil palm roads. They carry out almost all of whatever maintenance is being done on the smallholder roads, even though they have no formal obligation to do so. The mills also have a strong incentive to maintain the roads because a significant part of their oil palm fruit

supply depends on the smallholder road system. There is strong opposition to the idea of government or contractors carrying out the annual maintenance, at least in the early years. This could change as the situation evolves.

8. The mills should contribute 15 percent of the maintenance cost as a contribution in kind in the form of managing and operating the maintenance fleets. The fleets should be supplemented with the addition of equipment at an estimated cost of about 6 million kina. This initial purchase cost and periodic replacement costs are already included in the estimated annual maintenance cost but advance funding will be required for the initial procurement.

9. The smallholder growers should contribute about 5 percent of the maintenance cost through a levy of about 3 kina per ton of fresh fruit bunches. The road improvements should reduce transportation costs by about 9 kina per ton. Some growers agree; most are opposed to any additional levy; some are not sure. Most growers would sacrifice OPIC and other levies in favour of the RMTF levy. A contribution from the growers would help to assure strong grower representation on the Boards of Directors of the trust funds.

10. The means of funding of the Government contribution would be at the discretion of the Government. The Government contribution should be automatic and committed. It should not depend on discretionary budget allocations in each year. The best solution may be a mechanism whereby revenue generated by mineral and other resource development is committed to an RMTF. Funding from the Sovereign Wealth Fund (SWF) would be an example.

11. The Tax Credit Scheme would be a less satisfactory source of funding of the RMTFs, even if the eligible funding were to be increased from 1.5 percent of assessable income to 5 or 6 percent. The amounts generated would still be small compared to the needs, the revenue in any given year would be uncertain and the revenue, based on the profitability of the mills, would not necessarily reflect the maintenance needs. Experience to date suggests that reimbursement under the scheme is slow and cumbersome. In any case, there is some consensus that most of the tax credit revenue would be better suited for use in social projects such as health and education.

12. It would be beneficial to set up a rolling fund for the RMTFs with an initial Government contribution equal to the estimated annual maintenance cost in each project area. There would be subsequent automatic Government contributions in each year to replenish the funds in the amount of the previous year’s maintenance cost.. Seed funding for the RMTF was committed by PNG Sustainable Development Program in the amount of USD1.1m. However, the milling companies have refused to enter into any RMTF agreement until the planned road rehabilitation is substantially completed. This will take more than one year, probably two. It therefore seems unlikely that the seed money will be available from PNGSDP.

13. The continuation of OPIC, to help oversee the formation of the RMTFs and the road maintenance among other duties, is supported by many of the growers’ groups, although there is some resistance to the payment of the associated levies. It is suggested that OPIC be continued at least through the early years of the RMTFs.

5.2 Recommendation

The key to the rehabilitation and maintenance of the oil palm smallholder road system is the agreement of the Government to provide the funding as proposed in this report. With encouragement from the Department of National Planning and Monitoring, OPIC has submitted a PIP application for 2014 funding to complete the rehabilitation. The application is supported by DNPM, Secretary of the Department of Agriculture and the Governors of Northern and WNB Provinces. Further Ministerial and Heads of Department support is being sought.

In phase three of this consultancy a trust fund agreement will be drafted generally in line with the recommendations of this report. Should the PIP funding become available and the rehabilitation successfully completed then OPIC should work with the stakeholders; the proposed parties to the trust, to finalize an agreement for on-going maintenance, supported by robust funding arrangements.

ANNEX 1: FOR DISCUSSION – DRAFT TERMS AND CONDITIONS FOR AN RMTF AGREEMENT

Under the TOR's for this consultancy SMEC is providing a Legal Practitioner to draft a Trust Fund instrument. For discussion purposes some draft terms and conditions are presented in this annex. If the stakeholders can agree on the text, then it will become guidance for the Legal expert.

1. The template agreement will be separately applicable to each of the three oil palm scheme areas; Hoskins, Bialla, and Popondetta but may be adapted as suitable for each scheme. Establishment of the RMTF at one scheme is not dependent on establishment of the RMTF at the other two schemes.

   In future the program may be adapted for other smallholder oil palm schemes such as Milne Bay and New Ireland

2. Parties to the Agreement

   - The Independent State of Papua New Guinea (the State)
   - The scheme Milling Company (the Company)
   - The scheme Growers Association (the Association)
   - The Provincial Government

3. Establishment of the RMTF

   The RMTF will be established as a single bank account at a major bank in the appropriate Provincial Centre.

   Articles of Association will be agreed and adopted.

   The RMTF will be governed by a Board of Trustees. The Board will be composed of ex-officio Trustees or their delegates representing:
   - The Provincial Government Administrator
   - The Provincial Department of Works Manager
   - The Milling Company General Manager
   - The Milling Company Transport Manager
   - The Growers Association Chairman
   - The Growers Association Secretary

   The Chairman of Trustees will be elected annually by the Board and will have a casting vote

   Meetings will be held quarterly and a quorum will be three of which one will be a Government Representative, one will be a Milling Company Representative, and one will be a Growers Association Representative.

4. Duties of the Trustees

   The Trustees will approve on an annual basis a physical and financial budget for the RMTF. The budget will be approved and submitted in a timely manner to the Parties.

   The Trustees will review on a quarterly basis the work program of the RMTF against the planned work program and will adjust the program as required. The

Trustees will ensure that the prioritization of work is done in a transparent manner consistent with the cost/benefit of planned maintenance and in consideration of extraordinary hardships facing individual smallholders or communities.

The Trustees will review on a quarterly basis the accounts of the RMTF and will ensure that the RMTF is at all times managed in a transparent and business like manner. The Trustees will ensure that the RMTF is at all times solvent.

The Trustees will ensure that an annual report and financial statements are prepared and audited with the audit opinion delivered within six months of the end of the financial year.

The Trustees will actively communicate to the parties the operations and results of the RMTF.

5. Administration of the RMTF

The RMTF will be administered by OPIC until such time as an independent management capability is established under the direction of the Board of Trustees.

Engineering
A minimum of one engineer will be employed to:

- Maintain the Road Asset Database and Condition Survey
- Work with the Company to formulate the mechanical maintenance program
- Oversee and report on the mechanical maintenance program
- Assign and Administer Community Participation Contracts

Financial Management
A minimum of one accountant will be employed to:

- Maintain the accounts of the RMTF and prepare reports against budget
- Maintain and reconcile the bank account
- Prepare payments

Cheque signatories will be any two of three trustees of which one will be a Government Representative, one will be a Milling Company Representative, and one will be a Growers Association Representative.

6. Conditions Precedent

The existing road network in the scheme area must be substantially rehabilitated to a “fair” or “good” condition before the RMTF agreement will take effect. While a portion of the rehabilitation has been done under the Smallholder Agriculture Development Project (2009-2013), it is estimated that a further K57m will be required across the three schemes to complete the rehabilitation. This does not include bridge construction and repair or the “Oro Incomplete Roads” neither of which is contemplated under this agreement at this time and will be addressed separately from this agreement.

The State will be responsible for the substantial completion of the rehabilitation of the smallholder road network as a condition precedent of this agreement.

Most of the road maintenance will be done by the operation of an in-house fleet of heavy equipment. Initially this equipment will be owned by OPIC, a statutory body, on behalf of the smallholder community. When the RMTF becomes effective the machinery assets will be transferred to the RMTF.

For the foreseeable future the in-house fleet (the Road Fleet) will be operated by the Company under the direction of the Board.

The assessed minimum composition of the road fleet is:

Hoskins	Bialla	Popondetta
2 x Grader	1 x Grader	2 x Grader
1 x Roller	1 x Roller	1 x Roller
1 x Water Cart	1 x Water Cart	1 x Water Cart
1 x Single Cab Ute	1 x Single Cab Ute	1 x Single Cab Ute

The State will be responsible for the procurement of the minimum required road fleet as a condition precedent of this agreement.

7. Contributions by the State

The State will deposit into the RMTF account 80% of the estimated costs of the road maintenance program for the coming year in equal quarterly instalments at least one quarter in advance of the expected expenditure.

[The State contribution could be in the form of a Tax Credit or an allowable deduction; i.e. 300% of maintenance costs incurred. In such a case the Company would deposit funds to the RMTF account on behalf of the Government]

The State will monitor the RMTF through its usual budgetary and financial control processes (DNPM, DoTreas).

8. Contributions by the Company

Contingent on the State making its contribution in full and on time then the Company will operate the in-house road fleet according to work programs approved by the Trustees and will submit invoices to the RMTF for the work done on an “at cost” basis. The invoiced amount will be treated as an “in kind” contribution from the Company.

According to the Consultants estimates the direct cost of fleet operation including management costs and overheads is approximately 9% of total maintenance costs. To bring the Company’s total contribution to 15% of the maintenance costs, the Company will provide additional routine and emergency maintenance using its own road fleet and other resources to supplement the in-house fleet. These charges will again me “at cost” including an allowance for management costs and overheads but no profit margin and no “ownership costs” for its fleet.

9. Contributions by the Association

The Association will facilitate all consultations with smallholder growers regarding road maintenance activities including the prioritization of works, the work program, consent for work to occur, installation of run-off drains, and all disputes and claims for compensation.

The Association will actively communicate all RMTF business to and from the smallholder growers including explanation of rates paid for community participation contracts and explanation of RMTF levies.

10. Contributions by the Smallholders

The smallholders will contribute 5% of the cost to their road maintenance. This is estimated to be about K3.50 per ton of FFB.

However, it was quite clearly the view of most of the growers that they want "no additional levies". They would like the levies redirected from OPIC, PNGOPRA, Sexava, or Transport towards the RMTF.

OPIC and PNGOPRA levies are subject to legislation (OPIC) and a membership charter (PNGOPRA). It would be difficult to change these.

It is anticipated that effective road maintenance will lead to a decrease in transport cost of up to K10 per ton.

Proposal:

Savings on transport costs up to K3.50 per ton are redirected to the RMTF.

1) The audited average transport cost for 2012 is set as the benchmark price. The average fuel cost for the year 2012 is also set as a benchmark.

2) When the monthly transport charge is calculated in 2014 and subsequent years it is compared to the 2012 benchmark. (The change in the price of fuel needs to be eliminated because it is not relevant to the calculation of savings from road maintenance. Fuel usage, on the other hand is quite relevant as better roads lead to less fuel usage.)

3) Any reduction in the net (of fuel) transport charge is not passed on to the grower but is instead redirected to the RMTF.

4) Any increase in the net transport charge, and any increase or decrease in the fuel price element is passed to the grower as usual.

5) After the end of year five of the RMTF a calculation is made: How much has been collected from the redirection of transport charge savings and how much was payable by the smallholders at K3.50 per ton? The difference is refunded to the growers.

6) Subsequently, the comparison to benchmark is discarded. The transport charge is calculated normally and a K3.50 per ton surcharge is added for RMTF.

7) Assuming that the growers contribution is lower (less than K3.50) in the early years and higher towards the end of the five year period that should not

adversely affect the program. The money will be there when the capital replacement program starts to kick in.

ANNEX 2: SUMMARY OF SMALLHOLDER CONSULTATION MEETINGS

1. Introduction

There have been two rounds of meetings with smallholder growers and their representatives during the course of this project. The first round took place in May 2012 near the inception of the study and consisted of over 20 consultations with smallholder growers over a period of three weeks in May 2012. The Team spent about one week in each of the OPIC Project areas of Hoskins, Bialla, and Popondetta.

The main purpose of these Phase 1 consultations was to listen to the ideas of smallholder growers concerning road maintenance and the proposed RMTF. After a brief introduction by local officers and a brief explanation of the proposed RMTF, the forum was given over to the smallholders, who expressed their concerns, ideas and complaints (largely in Tok Pisin). Some additional information, mostly clarifications, was given by the OPIC officers. The responses were recorded and translated later into English. A summary of the first round of meetings was shown in Annex 1 of the Inception Report and a further summary was included in the Initial Design and Options Report.

The Phase 2 consultations followed the same pattern, again with over 20 consultations with smallholder growers over a period of three weeks in the OPIC Project areas of Hoskins, Bialla, and Popondetta. Prior to this second round, the findings and conclusions of the study to date, as shown in the Initial Design and Options Report, were distributed to the project areas for review. These were explained and discussed at the meetings and the respondents were invited to express their opinions on these and other transportation issues.

The main results of the two sets of meetings in regard to road rehabilitation and maintenance are summarized below.

2. Major Findings

2. 1 General Support for the RMTF

Round 1: The most important finding was the general support for the RMTF and the readiness to contribute to the fund by the smallholder growers.

Round 2: There was almost universal support for the formation of an RMTF in each project area, primarily as this was seen as the most likely way to improve the condition of the roads. The readiness to contribute was less certain.

2. 2 Willingness to Pay

Round 1: The most common amount stated by the farmers regarding their willingness to pay is generally relatively small at about 1 kina per ton FFB, although some suggested paying PGK 1.0 per block rather than per ton; others indicated willingness to pay of up to PGK 4.0 per ton.

Round 2: Some agreed to pay up to 5% of the maintenance costs into a RMTF, and a levy of up to about 3 kina per ton was generally considered a reasonable level of contribution, there was resistance to the payment of another levy in addition to those already charged to the smallholder growers. Willingness to pay was strongly dependent on the reduction of other levies.

2. 3 Proposed Smallholder Pay Share

Round 1: In general, it was accepted that the Government should pay the largest share; the mills the second largest share and the smallholders the smallest share.

Round 2: There was general agreement with the suggestion that Government should pay 80 percent, the mills 15 percent and the growers a maximum of 5 percent. There was significant resistance to the 5 percent in some cases and many complaints regarding the existing levies. Many believed that they were already paying for too many things that the government should pay for.

2. 4 Already Paying Too Many Levies

Round 1: Many of the respondents felt that they are already paying too many levies deducted from their FFB revenue. The levies include OPIC (K 4.0), OPRA (K 2.0), Sexava (K1.5) and their Grower Association (levy varies). Many felt that some or all of these deductions should be used to pay for the smallholder contribution to the RMTF.

Round 2: There was the same consensus that there are already too many levies on the smallholders. Some of these should be diverted to the RMTF rather than having an additional levy.

2. 5 Re-Assess the Price Formula

Round 1: In all meetings, the respondents complained about the current Price Formula (with a payout ratio of 57% to the smallholders and 43% mills) and called for re-assessing it. The general feeling was that the current formula is outdated and does not pay the smallholder a fair share. The general feeling was that if the Price Formula is re-evaluated their share will increase, and from this increased share they could finance their part of the RMTF.

Round 2: Although it was occasionally mentioned, there were no strong representations regarding the price formula.

2. 6 Government should pay for RMTF

Round 1: Some sentiment was that the smallholder roads are Provincial roads and thus they are solely the responsibility of the Provincial governments which should pay for them, wholly or in substantial part. Some LSS respondents argued that the Government “made them come” to grow oil palm and thus the Government should pay for the roads.

Round 2: Oil palm was brought to PNG through the Government with Government promises, including the roads. Government is responsible and should pay the costs. Some promised roads were never built (the “Oro Incomplete Roads”) and some were completely impassable (the “no-go roads”).

2. 7 Proposed Other Financial Sources for RMTF

Round 1: Some of the ideas about financing the RMTF included an export tax, a local sales tax, use of LNG earnings on gas and oil, and reassessment of the transport cost charged by the mills.

Round 2: There was little discussion among the growers of the possible sources of the Government contribution. The mills supported the use of LNG earnings on gas and oil or a similar resource-based source.

2. 8 Inefficiency of NGO and Government Agencies

Round 1: Many of the respondents complained about the inefficiency of NGO and Government agencies, including OPIC, OPRA, DOW, Provincial Government, etc. They referred to a sense of neglect by these bodies with respect to the roads as well as to their livelihoods, schools, housing and living conditions.

Round 2: These sentiments were generally repeated. Corruption in government was often mentioned as an important part of the problem.

2. 9 Missing Road Sections

Round 1: Several respondents in Popondetta complained strongly that their blocks are lacking a road to connect them into the smallholder oil palm road network. Apparently about 100 km of the road network have never been built (a legacy of a previous WB loan project), in spite of the fact that the smallholders have developed oil palm farms and have been in place for up to 20 years. These growers complained that they have to haul their fruits by wheelbarrow for distances of 3 to 5 km. They refuse to pay for the RMTF before this problem is resolved.

Round 2: The same complaint was again stressed by the growers, especially in the Popondetta area.

2. 10 No Progress in SADP Road Improvement

Round 1: Respondent complained about the lack of progress concerning the upgrading of smallholder roads in the WB/OPIC/SADP Program.[4]

Round 2: There should be assurance that the funds will really go into the maintenance of the roads.

2. 11 Purchase and Operate In-House Road Equipment

Round 1: There was strong sentiment for purchasing and operating in-house road equipment for road maintenance instead of hiring contractors. The feeling was that the Oil Palm Project areas lack enough dependable contractors, the tendering process takes too long (SADP experienced long delays in procuring road rehabilitation contracts) and that only in-house service can respond more immediately to changing maintenance needs. As to who will operate and maintain the in-house equipment fleet, the ideas varied widely. They include all possible options (depending on the respondent) including OPIC, DOW, the mills, and even the smallholder themselves. There was a strong sentiment that purchasing and operating in-house road maintenance equipment – one fleet for each project area – is the much preferred alternative.

Round 2: There was an almost unanimous opinion that each of the 3 areas should have its own RMTF and maintenance fleet. It was generally agreed that the mills should operate the equipment, at least in the short run.

[4] A substantial amount of road rehabilitation work was completed under SADP, however, given that only half of the planned work was done, and less than half of the Oro Incomplete Roads constructed, the complaint remains justified.

2. 12 Board Composition

Round 1: Some respondents emphasized that that the proposed RMTF boards should include representatives of the Growers' Associations while a few rejected any involvement by the existing GA's. Proposed membership on the Board included the Provincial Governments, the mills, DOW, the Local Planning Committees and possibly others as agreed.

Round 2: The growers insisted that they must have strong representation on the RMTF boards of directors.

3. Women's Viewpoint

Round 1: In general, women were even more supportive than men with respect to the RMTF. Women were generally a minority in the audience and tended less to voice their concerns. But when women talked they came out very clearly and very strongly in support of the RMTF and in contribution to it, whatever is needed. That is not only in order to improve FFB haulage but in order to improve social, education, health and family life.

Round 2: Special efforts were made by the female OPIC Communications Officer to hold separate discussions with the women at the meetings whenever this was possible. In general, the women supported the majority comments regarding support for the RMTF and for making a contribution. The other main observations were as follows:

Oro Area

- The poor road network results in women delivering babies in the villages (in most cases) which is dangerous. Some had to walk long distances to get to the main road/highway (4-5km) or the nearest aid post/health centre
- They were unable to transport garden produce to the main markets for extra income apart from oil palm. Some had been willing to walk 4-5km with heavy loads to get to the main markets
- Sick people are unable to get treatment as soon as possible because of the poor road network.
- There is a double deduction, with the POPGA levy being deducted from both the father and the mother's card. Women think it's unfair. It should be made only from the father's card and not them because, out of the many tons of the family block harvest, the mother is given only 1 ton while the rest goes to the father.
- There are also other social issues arising as a result of higher income being generated from oil palm and are affecting women and children like promiscuity, alcohol abuse, rape, drug abuse, violence against women, HIV/AIDS + other STIs just to name a few.
- For these social issues, they claim that the husbands tend to think that they are the head of the family and can spend the money as they like. They spend it on women and alcohol and this creates division in the family. The children feel they are being neglected and turn to drugs and other illegal activities and come back home with violence to get out their frustrations (in most cases) and this adds to other problems down the line. Women are the ones suffering and they feel that these issues have to be looked at somehow apart from the road issues.

Bialla and Hoskins Areas

We also took time after the main meetings to get views from women especially on issues affecting women with regards to poor road conditions. This is specifically for the women in Bialla and Hoskins project areas only, after we learnt from the Popondetta consultations that women are reluctant to speak during meetings with only one or two speaking on behalf of all.

- Mama lus prut is a good idea but with the poor road conditions and in no go zone areas, we women walk 4-5km with their lus prut to get to the main roads and they gave up most times.
- Sometime they are just left to rot because they just give up
- We also had to walk distances with our sick children and other family members to get health care
- With poor road conditions, pregnant mothers are the ones at risk, as most times they give birth at home or along the way
- School children miss classes and eventually gave up school because when it rains, areas flood and no transport or they simply can't walk and cross streams
- In one or two incidents women get held up by village boys when they return from town with house necessities because they had to walk distances from main road to their house/village – poor roads. This further causes violence when the woman's husband and relatives retaliate
- Also with the mama and papa cards, woman claims the 1 ha payment that they receive is not enough to cater for the household. Fathers get more and misuse in drinking, women and other social activities which also leads to violence in the house.
- Work on Oil palm is hard labour and even harder with poor road conditions, and when the distribution of income is not fairly distributed, sons are the ones that retaliated back at their fathers especially and this is also another big problem. They turn to drugs and cause even bigger problems in the community like rape and others. Women are the one suffering all the time

Brief Summary Notes for the 2nd Consultation Meetings with Smallholders 14th – 30th May 2013

The following shows summaries of the translated meeting notes. It has not been edited for content.

There was a good turnout of growers in all the three project areas during the consultation meetings and although there were few women, they had representatives speaking on behalf of women growers.

Also, in Bialla and Hoskins a number of areas had pre-discussions and sent their representatives to speak on behalf of them.

Below is the summary of these meetings in 3 parts;

1. Popondetta – Oro Province
2. Bialla – West New Britain Province
3. Hoskins – West New Britain Province

All three project areas share the same views and suggestions below:

I. They wanted RMTF to be set up because they need good accessible roads so they can get money and these oil palm roads serve other purposes as well in their daily living

II. Each project area must have their own RMTF, because the conditions and the size of the areas vary which means the frequency and amount of maintenance work will vary. This further result in the costs being higher in one area and lower in another, and no one would want to contribute towards someone else's benefit.

III. However, they are not willing to contribute anymore extra kina to RMTF because:

   - Too many deductions (levies) already made to their fortnightly income at the moment
   - FFB price currently is not enough to sustain them with daily needs and other family obligations
   - Haven't heard anything on the FFB price review so why contribute
   - High cost of transport imposed by mills which should have been used on road maintenance and is not happening
   - It is the national government's full responsibility to fix these roads.

IV. However, they suggested that growers' contribution should come from the existing levies. Most suggested;

   - To completely do away with either OPIC/OPRA or the Sexava levy and put into RMTF. Specific reasons were stated to justify why each of these levies should be completely done away with
   - Or to get a portion from each existing levies to make up the total number of percentage that growers agreed to contribute to RMTF. The agreed amount to be contributed to RMTF varies from area to area. (details below under each Project area)

V. There's also a question raised from all three project areas (especially VOP growers) on whether RMTF will also look at building new roads or is it strictly for maintenance only. They still have big portion of land and willing to plant more palms but only problem is there is no road.

1. Popondetta Project Area

There were 5 separate meetings held in 5 different venues which are most central and accessible to all growers. The areas are;

- Sorovi Community Centre – Sorovi Division
- Isivini Community Centre – Igora Division
- Igora Community Centre – Igora Division
- Awala village – Division
- Illimo OPIC division Office – Illimo Division

Because of the rain, the meeting at Sakita was cancelled

Issues/suggestions/views shared by all growers in Popondetta only

- We're not seeing anything good happening from the levies paid to OPIC, OPRA and Sexava so these levies should be put into RMTF (as shared by all)
- Even though oil palm is seen to generate revenue for the government, we (growers) are not seeing any benefits at all. Our standard of living is very poor and we're struggling. All our hard work's gone to other people's luxury (because levies paid, high cost of transport, FFB price not good)
- Very little to nothing at all was said on the Fuel Tax and Tax Credit Scheme. It seems they all opted for the 50/25/25 % contribution to be contributed by the three main stakeholders; Govt, Mills + growers as suggested in the initial stage of this project. But, growers think that 25% is too much. Below is a list of their suggestions as to how much they are willing to contribute;
  - Isivini, Igora + Awala all went for – grower 10% Mills – 10% Govt – 80%
  - Illimo: Grower – 5% Mills: 15% Govt – 80%
  - Sorovi alone didn't agree to the idea of growers contributing to RMTF because of the above top reasons (similar to the other). Also, there was another suggestion made; they will only contribute if they see or hear of any success story elsewhere. Trial it in Bialla or Hoskins or a specific division and if it works, then bring it to Sorovi

Who to do the maintenance work?

- OPIC and growers don't have the capacity to handle big machineries so big contractors should to do the maintenance work BUT with close supervision from the public works. This is because from previous experiences, big contractors don't do a good job. They do a rushed job to win time and money.
- We should keep the OPIC engineers to continue with the work they are doing
- Local community groups should be involved as well in the road works
- Long term, look at having own fleet and manage own operations

Who to manage RMTF?

- It was not clear here except that they mentioned there should be a board of directors in place and growers should be well represented in this board in terms of decision making

2. Bialla Project Area

There were 5 separate meetings held in 5 different venues which are most central and accessible to all growers. The areas are;

- Soi Community Centre – Meramera Division (mostly LSS)
- Sege Community Centre – Cenaka Division (VOPs)
- Tiauru Community Centre – Cenaka Division
- Wilelo Community Centre – Mataururu Division
- BOPGA Office, all VOPs – Mataururu Division

Issues/suggestions/views shared by growers in Bialla:

- The Oil Palm Industry is the national government's project, they brought us here (those in the Land Settlement Scheme blocks) and road maintenance is the government's responsibility. Maintenance of Oil Palm roads should be included in the National Government's annual budget
- Remove Sexava levy and put to RMTF because it's not needed all the time (Wilelo Growers)
- Specific issues raised on the OPIC levy; (voiced by Cenaka and Meramera Division)
  - Clarify and review OPIC levy and reduce number of extension staff, too many of them and unnecessary cost.
  - OPIC was to be trial for 5 years only when it was set up, but since then the government has forgotten about it and growers have been funding it. It's about time govt fund OPIC and the levy should be put to RMTF
  - DAL to look after OPIC operations
- After all they all opted for their contribution to come from existing levies and that monies should be put into RMTF after the government puts money.

It seems they initially all opted for the 50/25/25 % contribution to be contributed by the three main stakeholders; Govt, Mills + growers as suggested in the initial stage of this project. But, growers think that 25% is too much. Below is a list of their suggestions as to how much they are willing to contribute;

- Soi – grower 3% Mills – 15% Govt – 80%
- Sege – Growers Mills – Govt – 80%
- Tiauru – Growers – Mills – Govt – 80%
- Wilelo – Growers – Mils – Govt – 80%
- Mataururu VOPs – Growers – 5% Mils – 15% Govt – 80%

Who to do the maintenance work?

- At the initial stage, having an in-house fleet will be too costly to manage so get good contractors to do the work but they should be closely supervised (Sege Growers)
- Others think there should be a joint partnership somewhere to manage the fleets
- Mills to do maintenance work for now because they have the capacity to (Tiauru growers)

Who to manage RMTF? (views on this didn't come out quite clear)

- There should be a RMTF board in place and the board should have control over the management of the fleets and RMTF as a whole
- The board should have a have a grower rep, LLG rep + rep from the Estates (Cenaka Division)
- Growers should have a say in the use of these funds, therefore should be well represented

3. Hoskins Project Area

There were 7 separate meetings held in 7 different venues which are most central and accessible to all growers. The areas are;

- Buvussi – Buvussi Division
- Kapore – Kavui Division
- Sarakolok – Nahavio Division
- Valoka – Siki Division
- Morokea – Nahavio Division
- Rerengi – Nahavio Division
- Loa – Salelubu Division

<u>Issues/suggestions/views shared by all growers in Hoskins are;</u>

- The Tax Credit Scheme – company doesn't use this for all roads but only certain roads and concentrate on the main highway
- Look for other options instead of coming and asking us for money (Kapore)
- Sexava levy to be withdrawn from the company and put to HOPGA
- Mills are benefiting from growers and suppressing growers
- No spin off benefits
- No harvest for section 9 +10 because NBPOL refuse to go to these areas.
- Will there be any consultations after RMTF is set up? (Sarakolok)
- LLG willing to corporate (Mosa LLG President)
- Still waiting to hear about the pricing formula
- If we opt for the 50/25/25%, mills should not use the TCS as their share of contribution to RMTF, it should come separately

It seems they all opted for the 50/25/25 % contribution to be contributed by the three main stakeholders; Govt, Mills + growers as suggested in the initial stage of this project. But, growers think that 25% is too much. Below is a list of their suggestions as to how much they are willing to contribute;

- Buvussi – grower 3% Mills – 15% Govt – 80%
- Kapore – Growers Mills – Govt – 80%
- Sarakolok – Growers – Mills – Govt – 80%
- Valoka – Growers – Mils – Govt – 80%
- Rerengi – Growers – 5% Mils – 15% Govt – 80%
- Morokea – Growers Mills Govt
- Loa – Growers Mills Govt

OPIC fails to play its part in bringing growers issues to the national government like other commodities like cocoa, coffee and copra

Current SADP funding did not cover all areas (voiced in Kapore and Rerengi)

<u>Who to do the maintenance work?</u>

- OPIC to have in-house fleet OPIC to create a RMTF Dep. and make use of current engineers to do the work
- OPIC to oversee the maintenance work and manage the in house fleets, not mills because growers don't have direct communication with the mills. No trust with mills to do a fair work to cover all areas
- Don't want big contractors to do the work
- Contracts should not be given to mills
- Give contracts to local contracts
- Current work done by contractor is not right because they did a sub-standard work which is not right (pointed out by a local contractor of Sarakolok)

Who to manage RMTF?

- RMTF board of directors to be put in place with growers representatives
- Growers, OPIC should take up a big composition in the RMTF board of directors
- The BOD to control how funding is disbursed and used
- It shouldn't be a separate entity because there's a lot of misuse going on, instead put the funds directly to OPIC general operations for now
- The board should have representatives from each division level

ANNEX 3: SUMMARY OF PALM OIL MILL, GOVERNMENT AND OTHER CONSULTATION MEETINGS

Smallholder Agriculture Development Project
IDA Credit No. 4374 Project ID No: 079140

May 26, 2013

Project Coordinator Notes on Various Meetings held in regards to RMTF.

Tuesday May 14th, 2013
Meeting with Northern Province Administrator, Owen Awaita

A copy of the RMTF IDOR was delivered to the administrator and some background information discussed with him. The meeting was adjourned to Friday May 17th to give him an opportunity to read the document. The meeting on Friday did not eventuate but it was agreed that discussions would be held during the PSC meeting in Hoskins.

Wednesday May 15th, 2013   10.00am
Meeting with Emergency Road Repair Committee, convened by Chairman, POPGA, Dixon Daima

Mr. Scott and Mr. Griffiths were invited to attend this ad-hoc meeting. We heard that 830 blocks were currently out of production due to “no go” roads. OPID was asked to assist to scope the works required to open these roads.

Two representatives from the Governor’s office, Roderick and Rollie attended. We explained the RMTF study to date and requested a meeting with them to try and build support for the program. Roderick stated that the study would be good input to the five-year development plan that they are preparing. They agreed to a meeting on Friday the 17th but the meeting did not eventuate.

4.30pm
Meeting with OPIC

Project Manager, 2 x Field Managers, and three DM’s attended. RMTF progress to date was explained. All OPIC staff fully support the RMTF concept. There was discussion on whether and how much the Growers would want to contribute.

Friday May 17th, 2013   3.30pm
Meeting with the Executive of POPGA
(Bill Griffiths, Mike Scott)

The POPGA executive confirmed that they had reviewed the summary of the IDOR and that they fully supported the implementation of an RMTF. They did express concern that many Growers are averse to any more deductions from their pay. The Executive feel that the payslips given to Growers is too detailed. It would be better not to publish details of deductions on payslips.

The Executive unanimously supported the operation of an in-house fleet, either under Higaturu or another party. They feel that the Growers need to own their own equipment.

There was also support for the Community based contracts for drain and culvert clearing and vegetation control.

POPGA advised that the Batue community is preparing to sue OPIC and WB over their incomplete roads and bridge.

Wednesday 22nd May, 2013   8.30am
Meeting with Harry Brock, GM New Britain Palm Oil
(Bill Griffiths, Mike Scott, Lillian Bago)

Harry advised that the Minister of National Planning and Monitoring had visited NBPOL and the Minister had expressed support for smallholder road rehabilitation and maintenance. The Minister was also in favour of increasing the tax credit limit from 1.5% and using the increase for roads. The Provincial Government, however, is keen to use at least some of the TC funds for social programs; schools and aid posts for example.

While NBPOL accepts that the Governments contribution to the RMTF could come from a higher limit of 5-6% on the TCS, they question whether that would deliver sufficient funding. SADP requested an estimate of NBPOL's tax credit for the next five years.

Bill presented the Power Point summary of the Initial Design and Options Report with general discussion ensuing.

NBPOL supports some sort of RMTF arrangement given that sufficient funding is delivered in 2014 to complete the essential road rehabilitation work. They would hope that the fund arrangements are as simple as possible. Harry agrees that there needs to be a suitable governance structure if public funds are involved and that participation by Department of Works is appropriate allowing that the administration of the fund is overseen by stakeholders with proper audits and reporting.

NBPOL is currently spending about K8.0m per year on emergency road repairs for smallholders, some of the money coming from the TCS.

They believe that they are in the best position to operate any in-house road maintenance fleet due to the lack of suitable contract operators in the Province. Given that an in-house fleet of equipment is acquired by OPIC / RMTF, then NBPOL may be willing to operate the fleet but this would be their only contribution; i.e. no cash contribution. Nor would they want to get cash reimbursements from the fund.

On smallholder contribution to the RMTF, Harry agrees that there should be some contribution through levy but recognizes that it will be minimal at least in the near future. He suggested that a K2 deduction would be more palatable if OPIC levy was reduced by K1.

Harry agreed that SADP should share its Road Asset Database with NBPOL. With mutual updating of the system it will be more sustainable.

10.30 am
Meeting with Steven Raphael, West New Britain Provincial Administrator
(Bill Griffiths, Mike Scott, Ben Darius, Lillian Bago)

The Administrator advised on his discussions with the Minister of NPM that there should be more Government funds channelled to the agriculture sector. They had also discussed re-invigorating the Commodity Roads Improvement Project. Mr Raphael believes that the RMTF could be a timely initiative given the recent support shown by the Minister and also the Minister of Works and the Prime Minister. We need to make a submission before the end of June.

Implementation should be through Works Department.

Mr. Raphael stressed that there is a need for transparency, independence, and accountability regarding the TCS. There is a perception that NBPOL has their own agenda for the TCS, WNB Administration would like to see any increase in the tax credit limit go towards non-road social projects. He also noted that whereas K14-15m had been available under TCS in previous years that would be reduced to K3m in 2013.

The Administrator is comfortable with the in-house road fleet concept.

3.00 pm
Meeting with OPIC Bialla
Attendance Register
Minuted by Lilian Bago and Ben Darius

There was unanimous support for the RMTF by the Bialla staff. RMTF = Heaven as the PM put it. The staff believed that RMTF should be administered under OPIC with Government funding.

4.00 pm
Meeting with Bialla Oil Palm Growers Executive
Attendance Register
Minutes by Lilian and Ben

There was unanimous support for the RMTF by the Bialla executive but they feel that they are funding everything; OPIC, OPRA, and now road maintenance. They would like to see the Government funding before any deductions are made from Growers.

Thursday 23rd May, 2013 8.30am
Meeting with Graham King, GM Hargy Oil Palms
(Bill Griffiths, Mike Scott)

Mr. King had reviewed the IDOR and is generally supportive of the concept but reiterated POPAs concern that nothing could be formalized until the full rehabilitation of the road network is achieved.

Mr. King noted:

- OPID would not be a sustainable option for overseeing smallholder road works after the expiry of SADP. DoW has improved its skill base in recent years and they should be the responsible supervisor under an RMTF that includes other stakeholders in the governance structure. OPIC might be able to afford one good engineer to contribute to supervision.
- K50m per year for maintenance on the three projects seems high. The Consultant was asked to re-check the numbers.
- While Hargy supports the in-house fleet concept they note that there is more contractor capacity in Bialla than previously due to less work in Kimbe. Hargy may be willing to operate and maintain the road fleet.

- The RMTF must encompass work on the New Britain highway as the most serious constraint to production is highway closures during the wet season. There is no point in maintaining feeder roads if there is no access to the mill.
- Hargy estimates that K2m per year will be available from Hargy under TCS if the rate is increased to 5%. They favour using a good portion of this for non-road infrastructure projects.

Friday 14th June, 2013 9.30am
Meeting with Department of National Planning and Monitoring
DNPM – Reichert Thanda, Linda Taman, Loise Kuarughin
Growers – Dickson Daima (Chairman POPGA), Oka Ailan Kamale (Chairman BOPGA)
Palm Oil Council – Ian Orrell, Executive Director
Palm Oil Producers – Graham King (GM Hargy Oil Palms)
OPIC – Leslie Wungen, Mike Scott
SMEC Consultants – Bill Griffiths

OPIC and the Consultant delivered a power point presentation outlining the study to date incorporating the main findings of the Initial Design and Options Report as well as the preliminary findings of the Draft Final Report. The main points covered:

- A conference was held in Kimbe on the 5th of June with the Prime Minister, MDAL, MFinance, MDPW, WNB Governor, NCDC Governor, Oil Palm Processors, OPIC, and others. The PM's directive was "Oil Palm Roads will be funded".
- The strategy under SADP was to rehabilitate 440km of road and implement a sustainable road maintenance arrangement with an element of user pay. 200km was completed under SADP. Funds are now exhausted and the project is closing on 31 December 2013.
- Poor road condition is the Number One constraint on smallholder oil palm production. There has been no Government funding for road maintenance since 1995.
- The estimated cost for completion of the road rehabilitation work is K57m not including bridge repairs or completion of Oro Incomplete Roads. The estimated annual cost of road maintenance is K50m.
- If the road rehabilitation is not substantially completed then sustainable road maintenance will not be economically feasible. POPA's stated position is that they will not agree to an RMTF until rehabilitation is completed.
- Annual maintenance costs of K50m are based on two assumptions (a) road rehabilitation is completed and; (b) an in-house fleet is acquired to carry out the bulk of the routine maintenance. If these conditions are not met then sustainable maintenance becomes more expensive.
- The cost of in-house road fleets for the three project areas is estimated at K6.5m, however, three graders are being procured under SADP.
- Extensive consultations with the Growers and the Millers have led the Consultants to the conclusion that for annual road maintenance the maximum contribution acceptable to Growers would be 5% and the maximum contribution acceptable to the Millers would be 15%, leaving 80% of the costs to be provided by GoPNG.
- Various channels for GoPNG funding have been investigated including; a fuel tax, the Tax Credit Scheme, tax super-deduction (similar to 200% deduction allowable for R&D), other additional taxes, investment budget, and recurrent budget.

The report findings were discussed during the presentation and following the presentation.

The Growers Representatives reiterated their stance that there should be no additional levies on the smallholders. They have suffered and paid too much for too long and it is now time for the Government to support the sector.

Palm Oil Council spoke on the current economics of the industry; decrying the “Dutch Disease” impact on agriculture in general and oil palm in particular. POC also stressed that oil palm is the biggest agricultural commodity in PNG and the only one that isn’t stagnating but without more Government support the continuing success of the Industry is at stake.

POPA reiterated their position that, whilst supporting the concept of an RMTF, they will not sign-up unless the rehabilitation is completed.

DNPM was appreciative for the presentation and opportunity to review SADP’s progress towards an RMTF. They apologized that they had invited other representatives from Finance, Treasury, Works, and Agriculture but none had turned up.

DNPM fully supports OPIC in seeking to continue the work of SADP to achieve the main objective of the project – sustainable road maintenance. Although WB funding will finish, a significant investment has been made and if the project is not brought to completion the investment will be to some extent wasted. They will continue to work with OPIC to try and achieve the original SADP objective of sustainable road maintenance for the smallholder oil palm growers.

DNPM suggested that the immediate thing to do is for OPIC to prepare a PIP Grant application for the 2014 investment budget. Staff at DNPM will be available to assist OPIC with the application preparation but warned that allocations would be made on a sector basis and OPIC should submit their application through DAL. OPIC should seek support from National Ministers, especially MDPW and Provincial Governors.