

A. Stakeholder Analysis

1. Identification of Stakeholders

1. A program of consultation and participation of key stakeholders in the design, implementation and monitoring of a project improves its effectiveness, relevance and sustainability. It contributes to economic growth, empowerment and inclusion of diverse social groups and good governance. It can expedite the processing of ADB-funded projects and reduce challenges during implementation (ADB, 2006d). The preparation of the Project has followed the principles of participatory planning involving key stakeholders. This section identifies the key stakeholders and discusses how they will be involved.

2. At the inception stage, a stakeholder analysis was carried out to identify the primary and secondary stakeholders; their interests in the proposed project, their perceptions of current problems related to road accessibility, mobility and transport services; and, the resources they could bring to the achievement of the goals and objectives of the project¹. The analysis of stakeholders and their issues was based on information provided at workshops held during the inception phase of the project, as well as by key informants in Port Moresby and the Highlands region; the analysis has been refined through community consultations and other information provided by stakeholders.

3. The principal stakeholders are the people who use the project roads. This includes the communities along the roads, as well as particular social and socio-economic groups within these communities, in particular: (i) men and women who cultivate (or could cultivate) and market various types of cash crops; (ii) women who are the vendors of surplus food crops, cash crops and cooked food at informal markets in villages and at PMV stops, as well as at larger markets and who also want to have access to health care facilities and services for themselves and their children; and, (iii) young people in particular young men who are frequently under or unemployed in rural villages. These stakeholders will benefit directly from the improvements because important needs will be addressed by the increased mobility and accessibility, although the nature and levels of benefits will vary depending on the roles and capacities of different groups. They can also benefit from the contributions they can make to the project, for example, through their involvement in road works and maintenance or because they make greater use of and can pay for increased public transport services.

4. The road transport sector constitutes another category of principal stakeholders. These include the people and companies involved in the movement of people and freight along the Highlands Highway and other roads in the region, such as: (i) public motor vehicle (PMV) drivers and (ii) their passengers; (iii) the transport companies and (iv) commercial truckers, both independent truckers and those that work for the transport companies; and, (v) the businesses and development enclaves in the Highlands region that rely on the transport services. The transporters – whether PMVs or commercial transport – are interested in lowering their vehicle operator costs as well as increasing the services they can provide. Their passengers or customers will benefit from improved, faster and, often, cheaper services. They contribute by expanding the availability of transport services for passengers and freight. In the case of development enclaves, they may contribute to the costs of maintenance through tax credit schemes and, in the vicinity of the enclaves, to the provision of health care facilities and services.

5. A third category of stakeholders are the local, provincial and national government agencies that both benefit from and are instrumental for the implementation of road improvements and, particularly, the ongoing maintenance of roads. Their interests stem, on the one hand, from their mandates to provide services to people, businesses and

¹ The stakeholder analysis also forms an integral part of the Design and Monitoring Framework (DMF).

communities in the project areas and, secondly, from their direct contributions of funds and/or technical expertise for the road maintenance.

6. Civil works contractors benefit directly from their involvement in the upgrading, rehabilitation and maintenance of the roads. This project contributes to the further harmonization of donor agency involvement in the road transport sector in PNG.

2. Initial Stakeholder Consultations

7. During the inception phase, consultation workshops were conducted in Enga and Southern Highlands provinces with provincial and district stakeholders on, respectively, 8 February and 15 February 2008. Working with the Provincial Works Managers in each province, the consultant collaborated with the Provincial Administration and/or the Governor's office to organize the workshops. The workshop targeted representatives from a range of divisions in the provincial administrations, district administrators, local government, the women's and HIV/AIDS councils, private sector businesses, churches, NGOs and other community organizations.

8. The people at the workshops engaged actively in participatory exercises to prioritize the candidate road sections to be upgraded. Initially, this was done on an individual basis, with advocates explaining the economic, social and cultural reasons for their choices. Subsequently, participants were asked to allocate K100 million to achieve different levels of road improvement; for example, would they spend small amounts to achieve some improvement on many road sections or invest the money to "do a few roads well". In Enga, participants opted for small improvements to many roads in contrast to the view of the Provincial Administration that roads to be improved must be sealed. In SHP, the results were less decisive but the process nonetheless prompted participants to articulate their choices and trade-offs.

9. The consultants facilitated active discussions of maintenance issues, where the strong consensus was that investment in road improvements must include strategies to ensure ongoing maintenance. There was lively debate regarding the roles of the national and provincial works departments and private sector contractors. On the one hand, there was interest in an approach whereby contractors would be awarded contracts to maintain the road for a certain period after upgrading it ("build and operate" contracts). On the other hand, many participants expressed opinions that the Department of Works, not contractors, had the long-term view that was necessary to ensure continued maintenance of roads. Other discussions addressed issues related to (i) stakeholder interests and views, (ii) opportunities for community-based maintenance and (iii) the range of benefits and concerns related to transport, social, economic, cultural and environmental impacts of the proposed road improvements. The workshops were also an opportunity to inform and discuss with participants the consultation program for the project including (i) proposed consultations and surveys in villages along selected road sections, as well as (ii) a second provincial/district workshop to be held when the project design is more developed.

10. The inception workshops involved about 20 participants in Enga and over 60 people in SHP. They succeeded to engage participants who provided invaluable information and clearly expressed a range of issues, views and priorities for the project. All participants in both locations indicated that this was the first time they had been involved in such a process, and that they appreciated it. Unfortunately, however, tribal conflicts in Enga and disrupted telephone service in SHP prevented all invited participants from attending the workshops.

Table : Stakeholder Analysis, Southern Highlands & Enga Road Maintenance Project				
Stakeholders	Stakeholder's Interests	Perceived Problems	Resources	Mandate
Rural populations in Enga and Southern Highlands Provinces	Improved road access and mobility; increased transport services	Poor access to markets, schools, health care, and government services Inadequate public transport services	Local people (men & women) provide unskilled labour for road construction and maintenance	Not applicable
Rural households that grow coffee, fruits, vegetables and other cash crops	Improved access to markets and processing plants	Poor access to markets / regional centres; inadequate transport services	Households sell more in local markets and to local businesses (e.g., supermarkets) and processing companies Able to pay for transport services	Not applicable
Women living in rural households, including female household heads	Improved access to markets; improved access to health care facilities; safe conditions to walk to / from gardens	Poor access to PMV stops / markets and health centres; inadequate transport services; daily trips to / from gardens carrying heavy loads	Women sell more at PMV stops / local markets. Local women provide unskilled labour for road construction and maintenance. Able to pay for transport services.	Not applicable
Young people living in rural communities, in particular young men	Improved access to & opportunities for wage employment and / or starting micro-enterprises	Poor access to markets / regional centres; inadequate transport services; lack of income-earning opportunities	Young people provide unskilled labour for road construction and maintenance. Able to pay for transport services.	
Clan/family groups with customary land adjacent to roads or located at quarry sites or where gravel and other materials may be sourced	Compensation for affected land; royalties for access to land	Do not receive compensation for affected land held in customary tenure, or royalties for access to land, e.g., to take gravel	Disruption and work stoppages; access to road or land blocked Continued claims by dissident members Contribute land for road improvements	Not applicable
Public (PMV) and commercial transport on Highlands Highway and feeder roads	Improved road conditions; lower operating costs; expanded business opportunities	Roads in poor condition, inaccessible; damage to vehicles; delays in providing transport services	Drivers increase routes/ services; reduce fares Trucking companies promote HIV/AIDS awareness, availability of condoms for drivers	Not applicable
PMV passengers	More frequent, safer public transport	Lack of or inadequate PMV services; slow, dangerous trips; delays due to landslides; accidents with passenger injuries	Passengers willing to pay for improved services	Not applicable
Oil/gas and mining development enclaves in 2 provinces, e.g., Oil Search, Hides, Porgera JV	Faster, less expensive transport of supplies to and products from enclaves	High costs to supply enclaves and/or to ship out; poor roads delay transport and cause damage to vehicles	Oil/gas and mining companies contribute money through tax offset or otherwise Oil/gas and mining companies promote HIV/AIDS awareness, availability of condoms for workers	Not applicable

Table : Stakeholder Analysis, Southern Highlands & Enga Road Maintenance Project				
Stakeholders	Stakeholder's Interests	Perceived Problems	Resources	Mandate
Provincial Administrations in Enga and Southern Highlands Provinces	Improved delivery of services to rural communities	Inability to provide adequate education and health services to rural communities due to poor road access	Ability to identify road improvement priorities on provincial basis; mobilize resources at provincial level Provincial funds for road maintenance	To provide public services to population of province
District Administrations and LLGs in Enga and Southern Highlands	Improved delivery of services to rural communities	Inability to provide adequate local government services to rural communities due to poor road access	Ability to identify road improvement priorities on district basis; mobilize resources at district and LLG levels	To provide local government services to populations of districts in province
National Department of Works	Upgrading, rehabilitating and maintaining national roads including Highlands Highway road network	Insufficient capital and recurrent budget	Technical capacity for subproject designs and oversight	To construct, upgrade/rehabilitate and maintain road transport infrastructure in PNG
Provincial works departments	Maintaining provincial and district roads in province	Insufficient funds;	Technical capacity for subproject designs and oversight – backstopped by national DOW if necessary	
Highlands Region Maintenance Group (HRMG)	Efficient implementation of road improvements in Highlands region		Technical and management capabilities	Act as project manager for implementation of ADB Loan 1709-PNG
National Roads Authority	Plan for management of maintenance, rehabilitation and reconstruction of roads	Staff not appointed; limited mandated	Funds from tax receipts; other charges	Manage roads designated by Minister
National Road Safety Council	Safe roads for travellers and people living along roads	Increased risks of traffic accidents	Promotional / public awareness programs about road safety	Promote road safety
Department of Transport	A safe and efficient national transport system	Poorly maintained roads; missing sections in road network		Formulation of national transport policy, planning, safety and the regulation of transport operations
Ministry of Finance			Disbursement of funds for road improvements	Manage and disburse ADB loan funds to Department of Works
Ministry of Planning			Coordination of ADB loan with	Management and implementation of MTDS Negotiate and sign loan agreement with ADB
Civil works contractors	Secure contracts to upgrade/rehabilitate and maintain project roads		Technical capacity...	
Development Agencies	Harmonize assistance to GoPNG to develop and maintain road transport system			

3. Community Consultations and Surveys

11. A program of community consultations and surveys was organized to collect information from a sample of villages and road users along the selected road sections, in order to provide information for the PSA and the economic analysis of the project. The PPTA social and economic consultants collaborated to design the program and the methods and tools for (i) community consultations, (ii) women's focus groups and (iii) small-scale surveys of households, trade store operators, market vendors and PMV drivers and passengers.

12. An experienced local consultant was engaged to carry out this program during March and April 2008. Led by Barefoot Consultants of East New Britain, two teams were deployed in different parts of Enga and Southern Highlands provinces. Each team included two men who were originally from the area and spoke local languages; the third member of each team was a woman from the local network of women's councils. These consultations were not completed in time for the results to be included in this report.

4. Consultations with Organizations and Key Informants

13. Throughout the preparation of the project, the consultants collaborated with the Department of Works to meet with, consult, obtain information from and exchange views with diverse organizations and key informants about a range of issues relevant to the technical, economic, social and environmental aspects of the project. In some instances, this involved brief meetings to provide information about the project and discuss related issues; in other instances, the consultants engaged in ongoing dialogue with potential partners regarding strategies for, for example, road maintenance, environmental management and social management of the project. In summary, some of the key consultations have included:

- (i) Ongoing meetings and consultations with road transport sector partners including Department of Works, Ministry of Transport, National Roads Authority, Highlands Region Maintenance Group and national and provincial works people in Enga and Southern Highlands provinces, to collaborate on road selection, engineering design, road maintenance strategies and other issues central to the design, implementation and management of the project.
- (ii) A meeting with transport operators to outline the project and obtain feedback on their perceived problems and their attitude to the raising of fees to guarantee a sustainable maintenance programme.
- (iii) Consultations with civil works contractors to discuss lessons learned from Loan 1709-PNG and other experiences regarding, among other issues, contractor capacity and capabilities, contract packaging and employers' risks, as a means of assessing appropriate strategies for implementation of the project.
- (iv) Meetings with other donor agencies and their consultants working in the road transport sector to ensure harmonization of initiatives and to discuss lessons learned as they apply to the proposed project.
- (v) Meetings with government agencies, donors, consultants and international and national NGOs active in the area of HIV/AIDS awareness, prevention and control, to identify key issues related to road improvements in the Highlands region and to define project strategies that coordinate with and support ongoing initiatives to target at-risk groups and the general population in the project areas.
- (vi) Consultations with government agencies including national, provincial and district representatives of women's councils and with donors, international organizations and national NGOs active in the area of women's rights and empowerment, to identify key issues related to how women can benefit from and participate in the planning and implementation of road improvements.
- (vii) Consultations with international and national NGOs and other key informants to assess the capacity of local partners to manage and implement a JFPR grant program.

(viii) Consultations with the Porgera Mine and Oilsearch.

B. Problem Definition

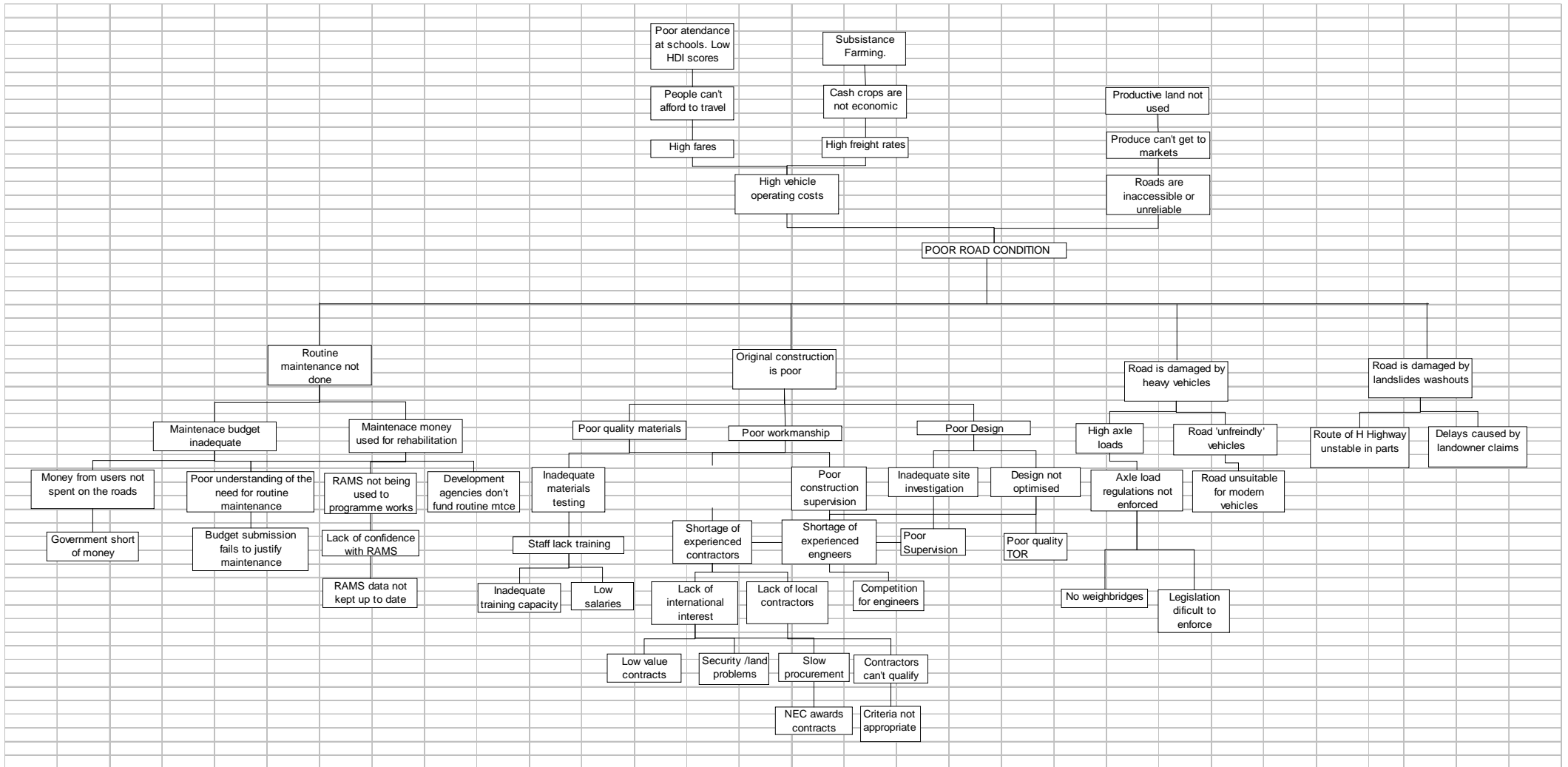
14. Stakeholders' initial perceptions of the problem are generally clear and straightforward. Users believe the roads are in bad condition and need to be repaired. The DOW sees the problem as lack of money. Actions by landowners are seen as disruptive by both groups. These 'immediate' views of the problem were extended by the consultants by discussing the need for ongoing maintenance once the reconstruction was completed. There was strong agreement with the proposition that unless the roads are maintained, the money will be wasted. Some (but not all) stakeholders felt strongly that maintenance should be done by the DOW, not by contractors: the main reason being that DOW are seen as having a long term commitment whereas contractors "put a band aid on the potholes and then leave". A long term relationship with local communities was considered essential.

15. During further discussions, other issues have been identified as contributing to the problem. These have been further expanded in consultation with GOPNG, road maintenance contractors, provincial governments and the Highlands Road Maintenance Group. A problem tree for the road maintenance sector in Papua New Guinea is has been developed and is shown as Figure 1. Possible solutions are included in Figure 2. The issues were discussed in a workshop chaired by the Secretary for Works and involving senior officers from National Planning, Treasury, Transport, Works and Lands.

16. The main problems identified were:

- Inadequate Maintenance Expenditure
- Inappropriate Maintenance Strategy
- Poor Construction Quality
- Poor construction supervision / lack of trained staff
- Inadequate contract administration
- Non-availability of competent and capable contractors
- Procurement delays
- Security
- Landowner Claims

17. These problems are discussed in more detail in Appendix 2 "Road Sector Analysis:



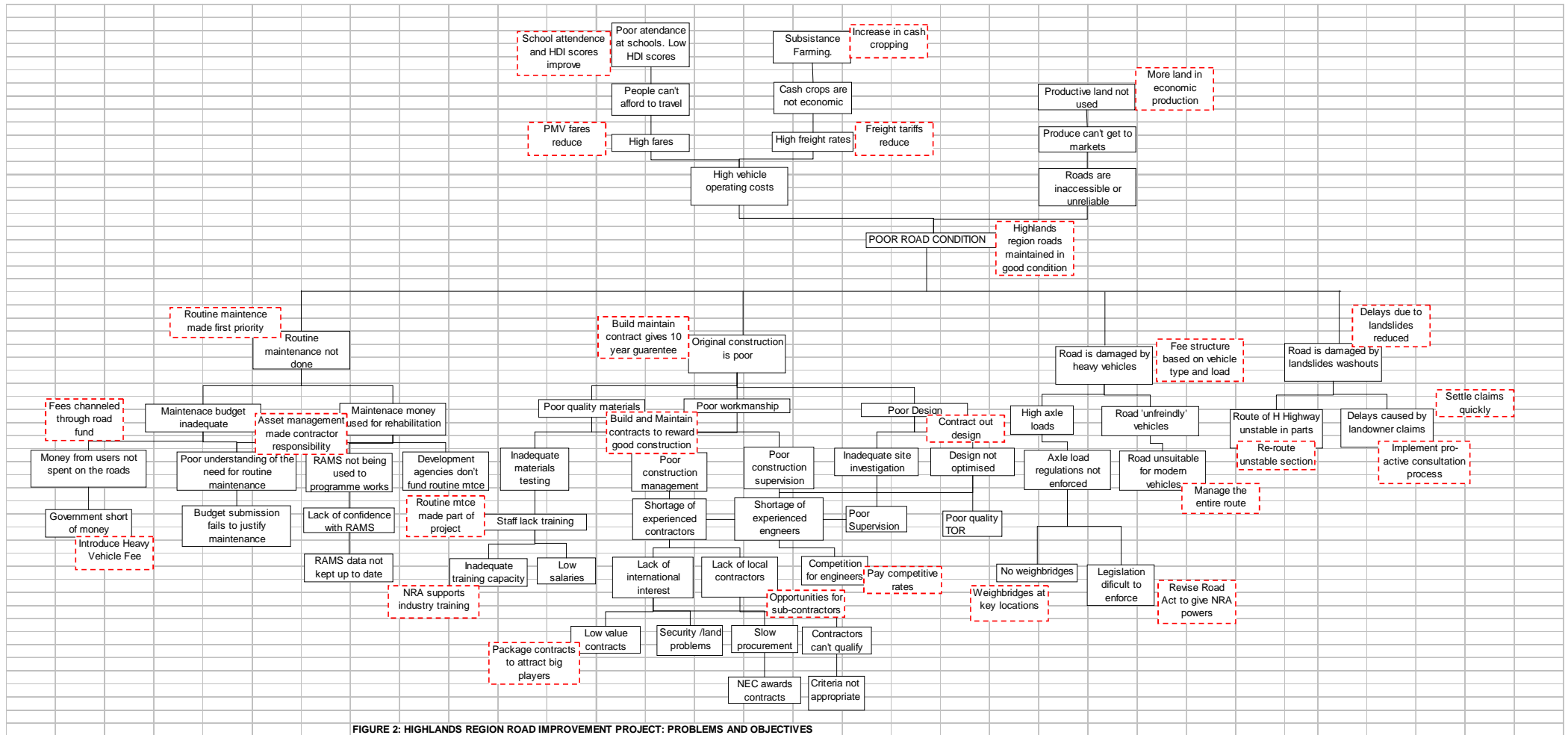


FIGURE 2: HIGHLANDS REGION ROAD IMPROVEMENT PROJECT: PROBLEMS AND OBJECTIVES

C. Selection of Roads

1. Initial List

18. An extensive discussion and consultation process was followed in determining the roads to be included in the first tranche. The Aide Memoir for the ADB Inception mission² envisaged that the Project would include about 250 km roads in the Enga and Southern Highlands provinces. Discussions with DOW, MOT and representatives of the Provincial Governments indicated that these roads should include (i) improvement of the remaining sections of the highlands highway, (ii) improvement to other priority highways of national importance, and (iii) priority provincial roads.

19. During the inception stage, the consultant team met with national and provincial works personnel and the provincial administrations in Wabag and Mendi to discuss the roads to be included in the Project. The intended nature of the Project as the first tranche of a multi-tranche funding facility was discussed, with the implication that although not all the roads the provinces wanted could be accommodated; other roads may be picked up in later tranches. Criteria for selecting priority roads were discussed and agreed as follows:

- Roads that are part of the highlands highway or are missing links in the network that is already being rehabilitated
- Roads that link significant population centres to the Highlands Highway network
- Roads where preparatory work has already been undertaken and where there are no significant safeguard issues, enabling them to be prepared as part of the first tranche

20. Workshops were undertaken in Wabag and Mendi, which provided further (non-binding) guidance on the priorities as seen by those participants. The long list of road sections selected for consideration in the Project and discussed in the workshops were:

Enga Province

- | | |
|----------------------|-------|
| ▪ Yampu-Londol | 27 km |
| ▪ Wapenamanda Kompam | 60 km |
| ▪ Kandep Peane | 29 km |
| ▪ Tsak Ring Road | 35 km |
| ▪ Kandep –Margarima | 32 km |
| ▪ Laiagam Porgera | 65 km |

Southern Highlands Province

- | | |
|-------------------|-------|
| ▪ Magarima –Ambua | 41 km |
| ▪ Tari – Koroba | 39 km |
| ▪ Mendi – Peane | 22 km |
| ▪ Mendi-Kagua | 41 km |
| ▪ Mendi Tambul | 38 km |

² TA 4945-PNG: Preparing the Highlands Highway Rehabilitation Project (Southern Highland and Enga Provinces Networks) Inception Mission (16-22 November 2007) ADB, Manila.

2. Proposed List

21. The National Transport Development Plan Update 2006-2010 (NTDP) addresses infrastructure improvement, institutional and legislative reforms in the transport sector with the aim of providing safe and dependable transport services to all sections of the community in PNG in a cost efficient and effective manner. The Plan identifies the Highlands Highway, the Porgera-Togoba Highway and the Koroba Road amongst its list of sixteen roads of national importance. The designation of the Highlands Highway now includes the Mendi-Wabag road through Kandep.

22. The selected corridors are essentially the same as those identified by the transport infrastructure priority study (TIPS) undertaken in 2005, which prioritized major road corridors in PNG. This study identified the Highlands Highway to Mendi, its extension in Southern Highlands Province (SHP) to Koroba, the Enga Highway from its junction with the Highland Highway at Togoba to Porgera and the Erave road in SHP as priority road corridors. The NTDP states that government funds should address the sixteen priority roads first and that development partners should also be influenced by the priorities set out in the NTDP.

23. In order to comply with the NTDP, ADB decided that the first tranche should be limited to roads in the list of sixteen roads in the NTDP. A substantial length of the long list roads are (not surprisingly) sections of the NTDP priority list. Nipa Magarima and Wapenamunda –Wabag are on the NTDP priority list and are in need of upgrading and rehabilitation but were not included in the original long list because it was understood that they were included in other programmes. This is no longer the case, so they have now been added to the proposed list for the first tranche. The final list is

Enga Province

- Wapenamanda Wabag 29 km
- Laiagam Porgera 65 km
- Kandep Peane 29 km

Southern Highlands Province

- Nipa Magarima 26 km
- Magarima –Ambua 41 km
- Tari – Koroba 39 km
- Mendi – Peane 22 km

A total of 251 kilometres.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
Impact Economic development and poverty reduction in the Highlands region	By 2020 <ul style="list-style-type: none"> • Increased contribution of Highlands region economy to the GDP (from _ to _) • Increase in household incomes (from _ to _) • Increased agricultural production (from _ to _) • Lower incidence of poverty (from _ to _) 	<ul style="list-style-type: none"> • National Statistics 	Assumptions <ul style="list-style-type: none"> • Political stability • Continued Government support for road infrastructure • Security issues are adequately addressed by the Government
Outcome Improved accessibility and reduced transport cost in the Highlands region	By 2018 <ul style="list-style-type: none"> • Reduced average travel time (from _ to _) • Improved road transport services (from _ to _) • Lower fares (from _ to _) 	<ul style="list-style-type: none"> • National Statistics • NRA surveys 	Assumptions <ul style="list-style-type: none"> • Adequate resources are available for road infrastructure improvements Risks <ul style="list-style-type: none"> • NRA does not remain an independent entity
Outputs <ol style="list-style-type: none"> 1. 1,400 km roads of the core network improved to maintainable level; 2. The 2,500 km core road network is maintained; 3. Improved capacity of NRA staff to maintain roads and DOW staff to develop and rehabilitate roads; 4.1 Improved policies in place to _____; 4.2 More efficient organization of NRA and DOW to deliver their services; 5. A new National Transport Development Plan (NTDP) for 2011 to 2020. 	By 2018 <ul style="list-style-type: none"> • The core road network of Highlands region improved from 1,100 km to 2,500 km • Maintenance contracts in place for the entire 2,500 km core road network • Quality of annual road development and maintenance plans improved • Road user charges increased from _ to _ • Overloaded vehicles reduced from _ to _ • Road accidents reduced from _ to _ • NTDP (2011-2020) approved by the Government 	<ul style="list-style-type: none"> • Quarterly project reports • ADB review missions • National Statistics • NRSC reports 	Assumptions <ul style="list-style-type: none"> • DOW to proceed with acquisition of the right of way for all national roads • Adequate counterpart funds are available • Government's continued support of institutional and policy reforms Risks <ul style="list-style-type: none"> • Security conditions • Availability of capable contractors willing to work in the Highlands region
Activities with Milestones <ol style="list-style-type: none"> 1. Rehabilitation and improvement of 1,400 km roads: <ol style="list-style-type: none"> 1.1. Preparation of design and bid documents (timeframe); 			Inputs ADB: \$400 million Government: \$240 million

<ul style="list-style-type: none">1.2. Tendering and award of civil work contracts (timeframe);1.3. Implementation of civil work contracts (timeframe);2. Maintenance of 2,500 km core road network:<ul style="list-style-type: none">2.1. Other Roads (1,100 km):<ul style="list-style-type: none">2.1.1. Undertake condition surveys (timeframe);2.1.2. Prepare bid documents for long-term maintenance contracts (timeframe);2.1.2. Tendering and award of maintenance contracts (timeframe);2.1.3. Implementation of maintenance contracts (timeframe);2.2. Improved Roads (1.400 km):<ul style="list-style-type: none">2.2.1. Execute long-term maintenance contract provision in the existing civil works contracts (timeframe);2.2.2. Implementation of maintenance contracts (timeframe);3. Consulting Services (design, construction supervision, maintenance planning, capacity development):<ul style="list-style-type: none">3.1. Short-listing consultants and finalizing RFP (timeframe);3.2. Evaluation and contract award (timeframe);4. Consulting Services (policy and institutional reforms)<ul style="list-style-type: none">4.1. Short-listing consultants and finalizing RFP (timeframe);4.2. Evaluation and contract award (timeframe);5. Consulting Services [National Transport Development Plan (2011-2012)]<ul style="list-style-type: none">5.1. Short-listing consultants and finalizing RFP (timeframe);5.2. Evaluation and contract award (timeframe).	Co-financiers: \$160 million
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