1. Country and Sector Background

Papua New Guinea (PNG) has enjoyed markedly improved economic fortunes since the mid-2000s. The global commodity price boom and stronger macroeconomic management underlie much of the reversal from the declining real incomes and macroeconomic volatility that characterized the second half of the 1990s and the early years of the 2000s.

The global downturn of 2009 had only a mild impact on PNG’s economy, which expanded by 5.5 percent, outperforming most other developing economies and its regional peers. This follows several years of 6 to 7 percent annual Gross Domestic Product (GDP) growth. Extractive industries underpin the country’s economy and therefore make it subject to volatile commodity prices. Sharply higher global commodity prices have strongly supported incomes (average export prices doubled between 2005 and 2008, and were still two-thirds higher in late 2010), but it is the non-minerals sector that led this resurgence, benefiting from private investment in, for instance, newly liberalized telecommunications and aviation sectors. Economic growth has recently accelerated and became broader following the agreement reached in early 2010 for the development of the PNG Liquefied Natural Gas (LNG) project, which is estimated to invest approximately US$15 billion in the medium term (more than double the country’s GDP).
Stronger fiscal management has done much to transform windfall gains from higher commodity prices into sustained growth. The Fiscal Responsibility Act placed ‘excess’ government mineral receipts associated with the rise in global commodity prices into various trust funds and into paying down more expensive external loans and the government’s unfunded superannuation liabilities. By 2010 gross public debt neared 25 percent of GDP, from about 70 percent in 2002. These accumulated surpluses then funded a fiscal impulse of as much as 13 percent of GDP in 2009-10 to counter the growth slowdown – more than permitted under the medium term fiscal strategy but with a less-than-proportionate impact on growth.

PNG’s human development indicators have lagged the economy’s recovery and progress against the Millennium Development Goals (MDGs) has fallen short. PNG faces the key challenge of leveraging its good macroeconomic performance and extractive industry revenues to improve the living standards of its population, as human development indicators remain low. A widely recognized major constraint to economic development and delivery of services is the country’s lack of good infrastructure facilities.

Lack of reliable road networks in PNG is compromising the country’s connectivity, disrupting not only access to basic social services (for instance, health and education facilities), but also hindering growth as the movement of goods and people across the country becomes either impossible, unsafe, or exceedingly costly, requiring alternative means such as air transport and difficult or dangerous sea crossings.

Road transport infrastructure in PNG does not provide adequate nationwide (and even in some instances, inter-provincial) connections. Although roads have improved over the last decade due to the Government of PNG (GoPNG) efforts --with sustained assistance from the Australian Agency for International Development (AusAID), the Asian Development Bank (ADB), Japanese International Cooperation Agency (JICA), and the World Bank-- less than 35 percent of national roads are considered to be in good condition, while thousands of kilometers of the network have not been maintained for years. Inadequate maintenance of roads assets has brought significant deterioration over time, rendering critical segments of the country’s national roads network impassable, particularly during and following the rainy season.

The condition of the country’s road infrastructure can be explained by the combination of: (i) PNG’s challenging physical environment and climatic conditions; (ii) scattered and dispersed settlement patterns resulting in long distances between population centers; (iii) long periods of funding constraints; (iv) weak institutional and management capacity; (v) reduced public sector capability to execute works; and (vi) the limited number of able local and international private contractors.

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1 The medium term fiscal strategy provides for ongoing spending to be in line with ‘normal revenues’, which are defined as non-mineral revenues plus ‘normal’ mineral revenues, which are up to the level expected without high commodity prices, estimated at 4 percent of GDP.
2 The Human Development Index (HDI) for PNG ranks the country 148th from 182 countries (source: Human Development Report (HDR) – 2009).
3 PNG’s topography is typically characterized by coastal plains and steep mountainous terrain. Its geographical location with warm climate and heavy rainfalls concentrated in short time periods brings floods and landslides; aggressive plant growth, if not controlled, quickly compromises roads drainage and results in rapid surface deterioration.
A decade of severe fiscal constraints starting in the mid-1990s brought sharp reductions of spending in road maintenance, resulting in severe deterioration in the condition of roads. The GoPNG has recognized the importance of adequate transport infrastructure in its strategic documents: Papua New Guinea Vision 2050 (November 2009); Papua New Guinea Development Strategic Plan 2010-2030 (March 2010); Medium Term Development Strategy 2011-2015, which call for significant investments to rehabilitate and adequately maintain the roads transport infrastructure in the country. The Government, through the Ministry of Transport (MoT), is currently finalizing its National Transport Strategy Plan (NTSP), which is expected to maintain a significant focus on improving the country’s roads networks.

Increased allocations for transport development from 2005, supported by development partners, have halted the decline and recently started to reverse the situation. The 2010 and 2011 budgets allocated significantly higher resources to transport rehabilitation and development compared to previous years, reflecting the improved overall fiscal situation of PNG and the Government’s recognition of transport as an important priority sector for economic development.

The current RMRP was approved in 2002 (International Bank for Reconstruction and Development (IBRD) Loan US$40 m), received Additional Financing in 2007 (International Development Association (IDA) Credit US$37.31 equivalent) and has provided valuable implementation experience with road transport in PNG. Although RMRP faced delays in its implementation, the original project disbursed fully and is now closed, while the Additional Financing project has now committed almost fully its available funds. Project implementation has been satisfactory, with GoPNG requesting further assistance for a follow-up project.

2. Objectives

The project development objectives are to: (i) improve road transport to project areas through providing satisfactory physical condition and safety in selected roads; and (ii) strengthen institutional arrangements for road maintenance including the participation of the private sector and communities.

3. Rationale for Bank Involvement

The rationale for the Bank’s involvement in the roads sector is to continue its well-established support of the national transport strategy. The three GoPNG strategy documents referred to above incorporate a transport sector strategy that will generally prioritize medium- and long-term infrastructure development in a number of geographically defined ‘economic corridors’, and specifically on priority roads within those corridors. The objective of this strategy is to concentrate limited resources and investment in areas of greatest economic potential, thereby maximizing the opportunities for development and growth, nationally and regionally.

As the primary focus of the road and bridge works proposed for RMRP II will be on national roads located in these corridors, the project will clearly provide direct support to the current transport sector strategy, its objectives and outcomes.
4. Description

Component 1 – (US $40 million): Rehabilitation, Upgrade and/or Maintenance of Roads and Bridges: This component will cover the physical implementation of works on sections of roads and bridges selected for rehabilitation, upgrading and/or maintenance under the project. There are two sub-components: the first comprises a number of sub-projects on the Hiritano Highway in Central and Gulf provinces that are already identified as priority projects. The second sub-component consists of funding for sub-projects that will be identified and selected through annual prioritization and planning, commencing after the first year of project implementation.

The following activities will be carried out under Component 1:

- **Rehabilitation & Upgrade to Seal of a section of the Hiritano Highway between Inawabui and Bereina – US$6.7 million; and upgrade to Seal of the Hiritano Highway between Kepamai and Kerema, including initial Routine Maintenance of the Hiritano Highway between Kepamai and Kerema – US$13.6 million. (Subtotal US$20.3 million).**

  The Hiritano Highway, connecting the country’s capital Port Moresby and the capital of the Gulf region Kerema, is considered a high priority national road as it falls within an economic corridor identified by the GoPNG to support the medium and long term economic development plans of the Central and Gulf provinces. During the last few years, a number of investments have rehabilitated various sections of this highway and –with support from RMRP—it is expected that by November 2011 the previously impassable section of the highway in the Gulf province will be re-opened. Notwithstanding these improvements, a number of sections totalling approximately 80km remain unsealed, posing challenges for traffic flow and road maintenance. This sub-component will complete the sealing of the Hiritano Highway from Port Moresby to Kerema.

- **Rehabilitation, Upgrade, and/or Maintenance of Selected National and National District Roads and Bridges – US$19.7 million.** This sub-component will involve the rehabilitation, upgrade and/or maintenance of selected road sections and bridges from within ten coastal or island provinces. Priorities for investments in specific roads will be outlined in the country’s National Transport Plan, while detailed planning is carried out by the Department of Works (DoW) Asset Management Branch, the government agency responsible for operating the Roads and Bridge Asset Management Systems (RAMS & BAMS) databases, economic analysis, planning and prioritization tools.

Component 2 – (US$7 million): Technical Assistance for Project Management, Design and Supervision Services, and Capacity Building: Following the experience of RMRP the project will include a component for technical assistance to support project implementation and to strengthen the country’s capacity to manage and maintain effectively its road network.

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4 The original eight RMRP provinces – East and West New Britain, Central, Gulf, Oro, Morobe, Manus, Western – with the possible addition of Medang and Milne Bay
The following activities will be carried out under Component 2:

*Project Management, including detailed design and supervision services – US$5 million.* To support effective project implementation and mitigate risks related to institutional capacity for project management, a consultancy will be employed to act as the Employers’ Project Manager (EPM) and support: (a) overall coordination of project activities and project management; (b) financial management; (c) bid documentation and contract procurement; and (d) detailed design and supervision of road and bridge works.

*Capacity Building and Technical Assistance for Road Sector Support – US$1 million.* This sub-component will aim to strengthen the capacity to manage and maintain the road sector, following on from the work undertaken during the current RMRP. It will include consulting services and training for: (a) strengthening of small and medium-sized contractors for road rehabilitation, upgrade and/or maintenance operations, (b) institutional strengthening of the National Roads Authority (NRA) for ensuring effective road maintenance is undertaken, and (c) carrying out monitoring and evaluation activities to improve the information database on road usage.

*Incremental Operating Costs – US$1 million.* This sub-component will fund incremental operational costs incurred by DoW for the implementation of the project and may include (a) maintenance and operation of equipment and vehicles procured or used for the management of the project; (b) salaries paid to staff hired for the purposes of the project; (c) travel costs and per diems; (d) consumable office supplies; (e) communication, printing and publications; (f) bank charges; and (g) other miscellaneous costs.

5. Financing

<table>
<thead>
<tr>
<th>Source:</th>
<th>($m.)</th>
</tr>
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<td>BORROWER/RECIPIENT</td>
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<td>International Development Association (IDA)</td>
<td>37</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
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6. Implementation

The responsibility for rehabilitation and upgrade works for PNG’s roads network lies with DoW, which is the key implementing agency of RMRP and undertakes most of the activities in the sector supported by other development partners. On this basis, DoW will be the lead agency for the project overall, and particularly for works carried out on national roads and bridges. Roads that are in good condition or roads that are rehabilitated and/or upgraded to an acceptable standard may be transferred to the NRA, which then assumes responsibility for their maintenance. It is anticipated that this arrangement will continue for the duration of RMRP II. NRA will therefore be the agency that may gradually be responsible for implementing routine maintenance on a growing number of sections of national and national district roads. RMRP II will not fund NRA directly, as the institution is relatively new and is only gradually increasing
the length of roads for which it assumes responsibility, while NRA is expected to pursue a number of projects for which it has already accumulated unspent resources over the last few years.

For the proposed Component 2, which includes technical assistance for project management, detailed design and supervision, and various capacity building efforts, DoW will ensure that these tasks are carried out under the project. DoW will be the agency responsible to facilitate these activities by engaging necessary firms or individuals as required. As with the current satisfactory arrangements under RMRP, DoW will also acquire the services of an EPM. The EPM, in close collaboration with DoW, will be responsible for the following:

- Preparing annual work programs;
- Preparing project cash-flow requirements;
- Making recommendations on the selection of design and supervising engineers;
- Preparing bidding documents;
- Assisting with bid evaluation and recommendations for award of contracts;
- The timely execution procurement and implementation of the project; and
- Supervising environmental clauses in the bid documents for civil works.

The EPM will also assist DoW in the administrative aspects of project supervision and monitoring, including critically reviewing the performance of contractors and consultants, implementing the financial control system for project-related expenditures, and ensuring that reports and project audits are submitted on a timely basis.

To ensure satisfactory project implementation on the ground, for both national and national district roads and bridges, a Provincial Employer’s Project Manager (PEPM) will be provided in provinces at the time that physical works are taking place. The PEPMs will report directly to the EPM, who in turn will report directly to the Project Manager, who is assigned by the Secretary of DoW.

Despite the large scope of management and implementation activities assigned to the EPM, overall responsibility for project implementation will still lie with DoW. In particular, the DoW, in consultation with the EPM and PEPMs, will identify priority works for inclusion in the annual investment program. Subsequently, DoW will review and approve the annual investment program and will submit an annual budget.

Finally, the project will benefit from a Steering Committee, which will include representatives from: (i) the Department of National Planning and Monitoring; (ii) the Department of Treasury; (iii) the NRA; (iv) the Department of Transport; and (v) will be chaired by the representative of the Department of Works. The Steering Committee will provide general guidance and oversight of the project to ensure effective coordination among the various agencies and alignment with the GoPNG strategic priorities.
7. Sustainability

A major risk associated with investment in road upgrading or rehabilitation in PNG is the historic insufficiency of allocated funds in the GoPNG annual budget for maintenance of the national and national district road networks. For newly completed roads, this shortage of resources often results in inadequate, or complete lack of, routine and/or periodic maintenance of the road carriageway and drainage. As a result this leads to rapid deterioration of the new road, associated increases in travel times and vehicle operating costs, and ultimately the temporary or permanent loss of access if the road surface and pavement suffer serious damage.

The GoPNG recent strategic documents, along with budgetary increases for maintenance and rehabilitation of roads, and continuous engagement with other development partners, indicate the Government’s commitment to improving PNG’s transport sector and the roads in particular.

For RMRP II, as under RMRP, the risk will be significantly mitigated by handing over roads and bridges completed under the project to the NRA for sustainable maintenance through long-term, performance-based, outsourced maintenance contracts. Although the NRA is still in its infancy and is itself constrained by funding limitations, it is actively expanding its revenue base, which will enable it to take over and maintain an increasing length of national roads. According to a recent report, GoPNG intends to (i) increase the existing levy on diesel; (ii) add a similar levy on petrol; (iii) commence collection of road damage charges on heavy vehicles; (iv) institute a mechanism to transfer resources from the tax credit scheme to the road fund; and (v) explore other potential means of enhancing cost recovery in order to finance road maintenance.

It is expected that the first upgrading contracts under RMRP II will be completed and handed over to NRA in Year 2 of the project. Prior to this point, the project will work closely with the NRA to develop an appropriate mechanism for procuring and managing long-term performance-based maintenance contracts. Subsequently, the project will closely monitor the progress of the first contracts during the remaining two or three years of project implementation, to ensure that the maintenance program is being effectively implemented and will continue in a sustainable manner beyond the project closing date.

8. Safeguard Policies (including public consultation)

The project triggers OP 4.12 on Involuntary Resettlement due to the potential for small land acquisition or land impacts during the rehabilitation of the road. During RMRP a Resettlement Planning Framework (RPF) was prepared, but it was never used due to the lack of land acquisition under the project. A new RPF based on the existing one has been prepared. This revised RPF will be able to deal with any land or livelihood impacts that arise. Public consultations were held in early 2011 at seven sites along the Hiritano Highway to consult stakeholders of the project and disclose the RPF. The RPF is available in English and Tok Pisin. Similar arrangements, including consultations and preparations of resettlement plans or

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5 Papua New Guinea: Improving Road User Charges and Private Sector Participation in Road Development – ADB 2009
frameworks will take place once the subprojects have been confirmed in later years. DoW will be responsible for implementing any necessary land acquisition, in consultation with the Lands Office, and will monitor that any necessary payments are completed.

The project also triggers OP 4.10 on Indigenous People (IP) as most of the communities in the provinces the project is targeting fulfil the characteristics of indigenous peoples as per paragraph 4 of OP 4.10. As a result, the Borrower will not prepare a separate Indigenous Peoples Plan/Indigenous Peoples Policy Framework, but the following aspects of an IP Plan have been integrated in the design and preparation of the project (See Annex 3 for details): (a) free, prior and informed consultation leading to broad community support is being conducted during project preparation; (b) a framework for free, prior and informed consultation will be put in place during project implementation; (c) measures to ensure culturally-appropriate benefits are being included in the project; (d) measures to ensure that adverse impacts are mitigated, including an appropriate grievance system, will be in place, and (e) measures for disclosing key project documents are in place. Given that ongoing social assessments have been carried out throughout the project provinces under RMRP, including a social assessment along the Hiritano Highway undertaken in 2010, a new social assessment will not be carried out for this project. By and large, the arrangements that were put in place to address IP issues effectively under the RMRP, which have been found to be suitable, will be implemented under RMRP II.

The project is classified as Category B under OP 4.01 Environmental Assessment. The environmental impacts of roads reconstruction in PNG are predictable and are effectively mitigated through proper design and implementation of the environmental safeguards instruments.

The project involves the rehabilitation and maintenance of existing roads, keeping within the set road width and right of way. Typical construction related impacts are increases in dust, noise, traffic disruption and debris disposal. Development and use of borrow pits and quarry sites used as source of road construction material are also to be expected. Other impacts relate to the establishment of temporary construction camps, such as sanitation and solid waste management.

An Environmental and Social Impact Management Plan (ESIMP) was prepared in 2001 for the original RMRP. An updated Environmental Management Plan (EMP) based on the ESIMP has been prepared for the road package in the first year of implementation of the RMRP II (on the Hiritano Highway). Public consultations have also been carried out for the project to be done in the first year. An Environmental and Social Management Framework (ESMF) has also been prepared to cover the safeguards requirements of projects to be identified after the first year of implementation of the RMRP II. The EMP, ESMF, and minutes of Public Consultations required for project implementation have been satisfied and disclosed. The compliance by the Contractors to the safeguards instruments will be monitored and supervised by the EPM and the Provincial Employers Project Managers (PEPM). The DoW Environmental Unit will provide oversight and guidance.

9. Contact point
Contact: Demetrios Papathanasiou
Title: Senior Infrastructure Specialist
Tel: 5740+6522 / 61-2-9235-6522
Fax:
Email: dpapathanasiou@worldbank.org
Location: Sydney, Australia (IBRD)

10. For more information contact:
   The InfoShop
   The World Bank
   1818 H Street, NW
   Washington, D.C. 20433
   Telephone: (202) 458-4500
   Fax: (202) 522-1500
   Email: pic@worldbank.org
   Web: http://www.worldbank.org/infoshop