Project Information Document/
Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 10-Oct-2018 | Report No: PIDISDSC24403
### BASIC INFORMATION

#### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papua New Guinea</td>
<td>P166991</td>
<td></td>
<td>Papua New Guinea Resilient Transport Project (P166991)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST ASIA AND PACIFIC</td>
<td>Oct 14, 2019</td>
<td>Jan 30, 2020</td>
<td>Transport &amp; Digital Development</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Project Financing</td>
<td>Ministry for Treasury</td>
<td>Department of Works</td>
</tr>
</tbody>
</table>

#### Proposed Development Objective(s)

The project's DO is to improve serviceability, safety, climate resilience and sustainability of roads in the Momase economic corridor.

### PROJECT FINANCING DATA (US$, Millions)

#### SUMMARY

<table>
<thead>
<tr>
<th>Total Project Cost</th>
<th>69.04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Financing</td>
<td>69.04</td>
</tr>
<tr>
<td>of which IBRD/IDA</td>
<td>50.00</td>
</tr>
<tr>
<td>Financing Gap</td>
<td>0.00</td>
</tr>
</tbody>
</table>

#### DETAILS

**World Bank Group Financing**

- International Bank for Reconstruction and Development (IBRD) 50.00

**Non-World Bank Group Financing**

- Trust Funds 19.04
- Papua New Guinea Strategic Partnership 19.04
B. Introduction and Context

Country Context

Papua New Guinea (PNG), the largest Pacific Island country, is located north of Australia in the southwestern Pacific Ocean, with a population of around 8 million inhabitants in 2016. The country covers an area of approximately 460,000km$^2$ and comprises of the eastern half of New Guinea island, four additional islands (Manus, New Ireland, New Britain, and Bougainville), and 600 smaller islets and atolls of various sizes.

PNG is a lower-middle income, resource-dependent economy, with per capita GDP of US$2,688 (2016). The country is dependent on two sector groups: the resource sector (minerals and petroleum) which dominates the formal economy; and the agricultural, forestry and fishing sector (AFF) which has a high degree of informality. The combined two sectors account for 46 percent of GDP, with the mining and petroleum sectors accounting for 26 percent of GDP and AFF making up the remainder. The resource sector accounts for the majority of exports (81 percent) followed by agriculture (19 percent).

GDP growth has been variable over the past three years, amounting to 8.0 percent in 2015, 2.4 percent in 2016, and 2.1 percent in 2017. Growth in 2018, though, is forecasted to increase by 1.6 percent only, mainly because of the earthquake which hit the country in February 2018. Economic growth has been supported by the construction and later operation of the PNG Liquified Natural Gas (LNG) plant, which opened in 2014. Nonetheless, growth is being curtailed – particularly in the non-resource economy – due to a combination of a slowdown in government spending as revenue receipts were lower than expected, coupled with shortages of foreign currency from efforts to limit the depreciation of the Kina and the downward trend in commodity prices since 2012.

Nonetheless, in the longer-term, the outlook for growth is expected to be more robust with the establishment of more resource projects in the 2020s, and a GDP growth estimated to increase to 4 percent per year.

The formal sector, which employs around 16 percent of the labor force, is failing to create sufficient jobs to absorb all those entering the jobs market, forcing the overwhelming majority to earn a living in low productivity informal sector activities. An estimated 2.5 million people are engaged in informal activities, including subsistence agriculture, whereas only approximately 465,000 people are estimated to be employed in the formal sector, which is concentrated in the National Capital District around Port Moresby, in Lae and in the mining hotspots.

Over 80 percent of the population live in the rural villages, and most of the rural population are engaged in agriculture, trade, and the transportation of goods, especially along the country’s transport corridors. Connectivity between rural communities is poor, as they are spread across the country’s rugged inland terrain and dispersed over many islands, increasing the cost of business, building infrastructure, and service delivery.
To reduce poverty, and boost shared prosperity, PNG must identify and take advantage of ‘development multipliers’ that support rural and remote areas where state capacity is limited. This will help to reduce the cost of doing business, and increase the inclusiveness of growth.

Private sector development, particularly in the non-resource sector, and improving connectivity will remain key to achieving poverty reduction and shared prosperity objectives. To create employment opportunities, private investment is crucial, as demonstrated in recent investments in the oil and gas sectors, in the agriculture sector (such as coffee, cocoa, vanilla and palm oil). The transport sector in PNG is encouraging the private sector’s involvement not only in the road rehabilitation/ construction activities, but more and more also in the road maintenance activities.

**Sectoral and Institutional Context**

**Sectoral context.** PNG has a fragmented roads network: it is not possible to travel by land between most provinces or ports. Climate, topography, population distribution, economics and finance all combine to impede the creation of a seamless road system. Roads have been developed around the coastal centers or plains and along river valleys to penetrate inland, and as the Highlands Region is landlocked, air and water transport also play important roles in parallel to road transport, even though the related services are not always cost-effective.

In parallel, the road network is in need of improvement: only 38 percent of all national roads are sealed, and less than 10 percent of national roads are in good condition. Three quarters of the country’s road network becomes impassable at some point during the year, while the overall condition of the road network is declining due to lack of investment and maintenance. However, as a general principle of value-for-money, the Government is now prioritizing preventative maintenance and rehabilitation of existing infrastructure rather than building new roads.

Rural accessibility is low, with just 68 percent of the rural population living within 2 kilometers (km) of access to an all-season road, whereas the average Rural Access Index for the East Asia and Pacific Region is 90 percent. In the Highlands Region, people are required to walk more than 4 hours to reach the nearest road.

Furthermore, road safety is a concern throughout PNG. Lack of safety is exacerbated by: (i) excessive speed; (ii) the poor condition of roads and vehicles; and (iii) driver behaviour, including drink driving. High levels of fatalities and injuries associated to road accidents reflect the lack of awareness of road safety at all levels. In addition, safety for women on public transport is also a concern, besides the overall high Gender Based Violence (GBV) in PNG.

Experience shows that very close monitoring of safeguards issues is essential in ensuring the smooth implementation of road projects. The second phase of Road Maintenance and Rehabilitation Project (RMRP2) was at risk of having disbursements suspended due to serious non-compliance of the project with World Bank safeguards policies (absence of Contractors’ Environmental and Social Management Plans; non-compensation of people affected by the project on roads to be rehabilitated, partly related to the non-finalization of inventory and valuation of lost assets; and, absence of safeguards monitoring system as well as road safety surveys). Those issues were eventually addressed with close monitoring by the World Bank Team. The lessons learned from this experience will inform better project design and compliance for this project and others in the future.

PNG is highly vulnerable to the effects of climate change (especially extreme precipitation and flooding, intense storms, causing landslides, and coastal erosion), as well as other natural disasters, including earthquakes1, which have impacts on

---

1 In February 26, 2018 a magnitude 7.5 earthquake struck the Highlands region with significant aftershocks between 6.5-6.9 magnitude for three weeks.
road infrastructure. Such events have caused disruption and damage to the network previously and pose a risk to the project outcome and service delivery. Future changes in climate will exacerbate such issues and can lead to a deterioration of the network.

A screening of the proposed project for short and long-term climate change and disaster risks was undertaken using the World Bank Climate and Disaster Risk Screening Tool. To address the increasing effects of climate change, improving the resilience of road infrastructure to natural disasters and climate change through resilient construction, and strengthening the country’s limited financial and institutional capacity to proactively manage the road network would be a priority.

The proposed project was also screened using the draft GBV Risk Assessment Tool. The results suggest that the project is at substantial risk, as it entails intensive infrastructure construction. The World Bank team will undertake community engagements with women’s groups to uncover potential issues related to GBV around the project that may arise. The project construction is near school routes and other pedestrian areas that women and girls use for their daily activities. The project will be investigating how to address those issues thoroughly during the project preparation.

**Institutional context and reform agenda.** In addition to the need for infrastructure financing, associated policy and institutional reforms are necessary to sustain the development of the transport sector in PNG.

The Department of Works (DoW), in association with the National Road Authority (NRA), which is responsible for maintaining national roads which have been rehabilitated, has recently developed a draft National Road Network Strategy (NRNS) to find a sustainable way of maximising the impact of funding for PNG’s national road network totalling 8,738km.

Since the 1990s, annual funding for road maintenance and restoration of national roads has been in the order of 20 percent of calculated needs. This has resulted in significant deterioration of rural roads over time. The National Road Fund\(^2\) was created to ensure a more predictable source of funding for road maintenance. It is financed through a 4 toea per litre levy (about USD 0.013) on domestic diesel fuel. However, studies have indicated that the amount needed is closer to 20 toea per litre, and inadequate maintenance of road sector assets has resulted in significant deterioration over time. By one estimate, if the current low level of recurrent maintenance funding is maintained the road network will be critically poor by 2035.

As part of the NRNS, DoW is moving towards long-term maintenance programs for its core national network, through contracting of road maintenance to the private sector, the strengthening of small and medium-sized contractors, and the encouragement of the participation of local communities in routine maintenance of roads. This approach is currently being piloted through a performance-based maintenance contract (PBC) covering a 100km section on the Hiritano Highway, under the RMRP2. Following the implementation of the pilot approach, it is expected that the proposed project will seek to incorporate PBC for road maintenance.

**Relationship to CPF**

**The proposed Project is well aligned with the current Country Program Strategy (CPS) (FY2013-FY2018),** as building resilient road infrastructure directly supports the pillars of the CPS, specifically “*Increased and More Gender-Equitable Access to Inclusive Physical and Financial Infrastructure*”, and “*Gender-Equitable Improvements in Lives and Livelihoods*”. Building resilient road infrastructure acts as a multiplier effect for progress in agriculture and rural development, two sectors that the World Bank Group has invested in heavily over the CPS period. Road connectivity provides an opportunity for farmers to benefit from improved access to market, reducing logistics costs, and improving the ease of monitoring and

\(^2\) Approved in 2003 and operational in 2006.
The proposed Project is also in line with the Government’s Vision 2050, the PNG Development Strategic Plan 2010–2030, and the Medium-Term Development Plans I and II, as resilient road infrastructure complements those documents. PNG’s current Mid-Term Development Plan II (2016-2017) identifies Priority Transport Infrastructure as one of several goals to drive development and create an enabling environment for growth. The MTDPII’s goal, “to restore and expand the national road transport network to increase access to socioeconomic services with improved road safety improve” views effective management of the road network as necessary for socioeconomic development, supporting the delivery of a range of services such as education and health into rural and more remote areas, and the participation of women and men in activities as diverse as elections and business.

The proposed project will also contribute to the achievement of draft objectives of the third Medium Term Development Plan (MTDP) (2018-2023), which requires a resilient road transport network to create an enabling environment for growth, and overcome barriers created by geographic isolation. Under the fourth and fifth MTDP goals, Wealth Creation and Improved Service Delivery, the government has indicated that maintaining a resilient transport network will be essential to increasing revenue through developing economically integrated development and industrial zones, and increasing foreign direct investment. One such zone lies along the northern Coastal Highway in Madang and East Sepik provinces, prompting the Prime Minister’s request for World Bank assistance to rehabilitate the Ramu Highway, and highlighting the importance of the rehabilitation of the Ramu Highway.

C. Proposed Development Objective(s)

To improve serviceability, safety, climate resilience and sustainability of roads in the Momase economic corridor.

Key Results (From PCN)

Progress will be measured against the following PDO-level indicators:

a) Performance in rehabilitation and maintenance contracts meet agreed key performance indicators;
b) Development and implementation of climate resilient road construction norms;
c) Breakwaters and protection walls installed in the project area;
d) Slope stabilization and coastal erosion constructions built along the project road sections;
e) Strengthened Road management capacity of DOW; and
f) Completion of road safety audits and establishment safety ratings (iRAP stars classification) at least for the Ramu highway.

A detailed results framework will be developed during preparation.

Project Beneficiaries:
The primary project beneficiaries are the road users. Road users are expected to benefit from the rehabilitation and road safety improvements including better road quality and level of serviceability, and savings derived from shorter travel times.

The road rehabilitation and maintenance will provide direct access to national roads to numerous communities in Madang and Morobe Provinces and, in particular farmers living and working along the Ramu Highway road corridor. It will also
reduce transport cost and improve road safety.

The Project will directly contribute to the related regional economic development of the country, by reducing transportation costs and linking communities to broader markets, especially for agricultural products and commercial goods around the Ramu highway.

Road safety improvements will also reduce the annual economic losses associated with road accidents. The project will also focus on women’s safety campaigns.

The proposed project will provide employment to the local communities, specifically targeting women in routine road maintenance and PBC activities.

Lastly, the proposed project will seek to enhance women’s participation in the DoW workforce.

D. Concept Description

**Parallel project preparation for higher impacts.** The proposed project is being prepared in parallel with the PNG Agriculture Commercialization and Diversification Project (P166222), which is aiming, inter alia, to increase smallholder farmers’ access to market. By designing both projects with a geographical focus in the Momase Region (Ramu-Madang) economic corridor, task teams hope to achieve strong geographic complementarity between the two projects, removing a major bottleneck to farmers’ capacity to access market.

**Project proposed components and activities.** The project’s components would be as follows:

**Component 1: Momase Region Economic Corridor Support (US$65.0 million).** The Country’s National Transport Strategy (NTS) indicates that the Highlands Highway, connecting the five inland provinces with the main coastal ports and the country’s main port at Lae, is important “backbone infrastructure”. Historically the World Bank has supported GoPNG through project funding for road maintenance and rehabilitation in ten coastal and island provinces, including Madang and Morobe in the Momase region. The Government has designated the Ramu Highway, located in these two provinces, as the focus of the World Bank’s investment under this proposed project. This highway is a critically important land transport route in PNG and is one of eight “Priority Core Roads” identified in the recent NRNS. The Ramu Highway forms the primary connection between Madang and Lae city ports, and connects those cities to the Madang, Morobe and Eastern Highlands provinces. The highway supports important mining and agro-industrial activities in the region, specifically beef, sugar and palm oil production. The current poor condition of the highway restricts businesses in moving products as some of its sections are not trafficable by heavy vehicles, such that businesses in the Ramu and Markham Regions would generally prefer to ship produce to Madang through Lae Port in order to avoid the significant risks involved with transportation via the western sections of the Highway, and thereby incurring higher transportation costs.

The Ramu-Madang Highway remains a critical piece of infrastructure for the Government’s long-term plan to develop road infrastructure along an economic corridor on the north coast of the country to the border with Indonesia. In October 2017, Minister for Works declared the coastal highway from Wutung in West Sepik to Madang through Wewak

---

3 The Highland Highway, Sepik Highway, the Ramu-Madang Highway, Hiratano Highway, Magi Highway, New Britain Highway, Boluminski Highway and the West Coast Highway in New Ireland Province.
as an international highway connecting Jayapura in Indonesia. The Minister further outlined the government’s intention to address the missing link between West Sepik’s capital Vanimo and Wewak in East Sepik in order to create a continuous road transport link between Indonesia, along the Coastal Highway to Madang.

**Physical connectivity along the Ramu Highway.** The available funding limits the scope of this project to improving the Ramu Highway. Other donors (notably DFAT through Transport Sector Support Program (TSSPII), and the ADB) are currently working on several sections of this highway. The World Bank support will help continue and complete unfunded crucial rehabilitation works on this road, and fund performance-based maintenance activities over a five-year timeframe.

The proposed project will fund a single contract for the design and rehabilitation of 40-45km of the road, with a performance-based maintenance of approximately 175km of the Ramu Highway from Pompaquito bridge to Madang airport junction in Morobe province. This investment will leverage the Government’s significant investment in the Highlands Highway, and Australia’s existing rehabilitation works under the TSSP-II, which when completed will create a rehabilitated road corridor from the Coastal Highway north of Madang to the Highlands Highway. In line with the draft NRNS, the implementation of the works will be through a design, build and long-term maintenance contract, but the comparative merits of this approach with other models will be subject to detailed consideration during project preparation.

The treatment of the highway is considered through 4 sections as shown below:

<table>
<thead>
<tr>
<th>Table One: Possible Ramu Highway treatment options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>1 Waterais Junction / Yokia Bridge</td>
</tr>
<tr>
<td>2 Yokia Bridge / Usino Junction</td>
</tr>
<tr>
<td>3 Usino Junction / Tapo Ford</td>
</tr>
<tr>
<td>4 Tapo Ford / Madang</td>
</tr>
</tbody>
</table>

Based on a brief initial review of two recent studies, and discussions with TSSPII technical staff, the project’s nominated value of a total of US$69.04 million would be insufficient to cover all the rehabilitation, reconstruction and maintenance of critical sections of the Ramu Range section of the highway (Section 3 in the Table above), and the routine and periodic maintenance of the remaining length (Sections 1, 2 and 4 above) for a nominal 4-year period. This preliminary estimate will be subject to a more detailed review of costs and appropriate level of treatment during the project preparation.

Furthermore, the two studies referenced above highlight the problems on the Ramu Range section of (i) unstable slopes causing frequent and slow-moving landslips, (ii) very steep gradients requiring vertical realignment and/or climbing lanes, (iii) the slurry pipeline which runs adjacent to the road, and (iv) numerous drainage-related problems. These issues, which are also related to climate change effects, will need to be carefully addressed during project preparation to ensure that

---

appropriate measures (such as the development and/or application of climate resilient norms) are included in the design of works.

**Road safety strengthening.** In parallel with the road conditions improvement, awareness of road safety issues along the Ramu highway will be strengthened through measures aiming to reduce accidents and fatalities, including the improvement of the road condition and better implementation of regulations (speed limits, monitoring of vehicle conditions, more controlled drink driving, etc.). Those measures will be further developed during the project preparation. The project will contribute to improved quality and safety of pedestrians’ facilities, by implementing targeted traffic safety campaigns and awareness measure with the focus on needs of women traders working in adjacent markets and school children who use the road as pedestrians.

**Search for higher impacts on the corridor by further empowering women.** The proposed project will aim to further empower women in the targeted population. Along the road, the project will explore opportunities to directly contribute to increasing women’s labor force participation for routine road maintenance, and envisages that the procurement of contracts will require bids to include a description of how many women will be hired alongside men or indicates that women would be hired at the same rate as is given to men. In parallel, the project will also enhance employment opportunities for women from local communities in paid jobs under the PBC contract. Like in the overall country, female labor in the targeted Region is mainly concentrated in rural, informal and subsistence work, primarily in the agriculture sector focused on subsistence crops and petty trade of garden products. This approach would open up further work opportunities to those women. An intermediate results indicator to track changes in economic opportunities for women would be added.

At the central level, the project will aim for a higher participation of female workforce within DoW and training their female staff on the management and supervision of PBCs to support their future leadership role in the planning and decision-making process in the road sector.

In parallel, as gender inequality and violence remain a major concern in PNG, the proposed project would contribute to reduce gender gaps by developing a Gender-based violence (GBV) and Violence Against Children (VAC) Strategy, which will include GBV and VAC prevention and support service activities such as Codes of Conduct, worker and manager trainings, community awareness raising activities and support service trainings to build institutional capacity to support survivors of violence around the Ramu highway. It is also proposed to include GBV and VAC training programs for the contractors working on and possibly around the Ramu Highway as part of this new project. Similar trainings are also taking place on projects in Vanuatu, Samoa and Tuvalu, with projects which have done excellent work thus far on mitigating the risks of GBV and VAC increasing gender equality in the workforce (such as increasing the number of women), and on enhancing other positive gender benefits from safe roads and transport infrastructure. The Results Framework will include the following indicators: “Successful implementation of the GBV and VAC Strategy,” “Percentage of workers that have signed the Codes of Conduct,” and “Percentage of Workers that have attended the Codes of Conduct training”.

**Component 2: Institutional Strengthening, Project Management & Technical Assistance (US$4.04 million).** This component would finance the settlement and operating costs for a Project Implementation Unit within DoW, as well as a range of institutional strengthening initiatives and technical assistance to provide sustained management and technical skills development to DoW and its Provincial Works Units.

---

For more than a decade, several donors have supported the GoPNG on the issues affecting the management of national highways and the underlying institutional and funding constraints. The proposed project would support the GoPNG to implement some of the key recommendations, such as securing reliable funding in support of multi-year maintenance contract, which requires support from the Treasury and MoF; further definition and clarification of the “decentralized responsibility” for sub-national roads; and the establishment of a responsible and accountable road agency, vs. the current multiple layers of checks and controls. Other support would be further discussed with DoW, such as a TA to prepare a PBC for the rehabilitation and maintenance of the entire Hiratano Highway corridor and national highways in the Southern Coastal region; a TA for Road Asset Management System enhancements, and strengthening of Quality Assurance/Quality Control for construction and maintenance works; the strengthening DoW’s regional/provincial office covering the Ramu Highway and preparation of an area-wide PBC for other roads (national, provincial and local) in that region; and increasing the number of women in the DoW workforce.

Component 3. Supporting Post-disaster recovery (through a zero-budget Contingency Emergency Response Component). As other Pacific Island Countries, PNG remains vulnerable to climate change and severe weather events. Therefore, this component would help in financing emergency responses to an eligible crisis or emergency and activities that will help to enhance long term strategic planning, as needed. This can help to reduce the impacts of future extreme weather events.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The Ramu Highway is a 175 kilometer national road (13) which runs between Madang City (Madang Province) and Watarias Junction (Morobe Province) where it connects with the Highlands Highway. The highway passes through Madang, Rai Coast, Usino-Bundi and Markham districts servicing a population of approximately 210,000 people.

From Madang, the highway traverses an undulating coastal plain, before turning inland and rising to 450 meters, passing between the rugged Finisterre and Adefentar mountain ranges (4000 meters). This section of the road is unstable and frequently blocked by landslides. The Ramu nickel project’s Kurumbukari Mine is located 40 km west of Usino in the foothills of the Bismarck Range and the project’s slurry pipeline runs adjacent to the road.

The road then descends into the Ramu valley, running parallel to the Ramu River. The valley and hills surrounding it consists of grassland and coarse sandy soils. Remnant forest typically remain around waterways. Much of the land along the road is utilized for grazing and cropping. Ramu Agro-industrial Ltd operates large scale commercial sugar, oil palm and cattle operations in the valley around Gusap and Dumpu. The remaining land is used for subsistence agriculture. No Conservation Areas or Protected Areas are located near the highway.

B. Borrower’s Institutional Capacity for Safeguard Policies

The proposed implementation arrangements will involve the Department of Works and Implementation (DoWI) as the single Implementation Agency. DOWI has acted as Implementing Agency throughout the 16 years of World Bank-supported roads project implementation and as a result is familiar with the Bank’s safeguard policies. Despite this support, DoWI’s institutional and managerial capacity for environmental and social risk management is severely limited
and performance is moderately unsatisfactory.

DOWI will retain the support of a full-time Employer’s Project Manager (EPM) including international environmental and social safeguards specialists to assist in preparation of safeguard instruments for this project. The Bank will undertake a formal capacity assessment of DoW in accordance with the World Bank’s Indicative Checklist for Assessing Borrower Capacity: Implementing Agencies and Interim Guidance On Assessing Borrower Capacity For Addressing Environmental And Social Issues Associated With Investment Projects Supported By The World Bank.

TA for environmental and social risk management has been included in the project to strengthen DoWI’s safeguard capacity. This will include: (a) project support to enhance asset management capacity, (b) international experts with national counterparts, as DoW staff, who will closely work with them, aiming an on-site transfer of knowledge through on-job-training, and (c) the safeguards Institutional Capacity Strengthening Programme detailed in the RMRP2 Additional Financing (RMRP II AF) ESMF (2013) will be implemented. Further, the capacity within DoWI for oversight of OH&S issues is expected to be limited and the project will consider including a capacity-building program for the implementing agency.

Based on the preparation activities, agreements will be made as to the level and type of safeguard supervision required to lift DOW capacity in relation to E&S risk management during project delivery.

**C. Environmental and Social Safeguards Specialists on the Team**

Thomas John Callander, Social Specialist  
Nicholas John Valentine, Environmental Specialist

**D. Policies that might apply**

<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The Project is proposed as Category B. The Project involves the rehabilitation and maintenance of the existing Ramu highway. This includes road rehabilitation/reconstruction between Usino Junction and Tapo Ford (~40 km) and performance-based maintenance of approximately 175 km of the Ramu highway from Waterais Junction, Morobe Province to Madang airport junction in Madang province. The works will be conducted within the exiting gazetted corridor. Clearance will be limited to 10 meters either side of the carriageway. Limited carriage way widening will occur for a number of passing lanes within the rehabilitation/reconstruction section. Environmental risks are associated with the project include unstable slopes causing frequent and slow-moving landslips, very steep gradients, a poorly...</td>
</tr>
</tbody>
</table>
engineered nickel slurry pipeline running closely adjacent to the road, numerous drainage-related problems, and occupational health and safety during construction. Key social risks associated with the project include loss of/inadequate compensation for affected economic assets, community health and safety including, road/site safety, gender-based violence (GBV), violence against children (VAC) and other issues associated with labour influx, disproportionate impacts on indigenous people and other vulnerable groups (i.e. poor households, women and children), and community unrest arising from real or perceived inequities and unmitigated impacts.

There are no potential large-scale, significant or irreversible impacts associated with the Project.

Environmental and social risks and impacts can be managed through environmentally-sustainable/safe road design and the implementation of standard environmental, safety and social management measures during construction.

An Environmental and Social Assessment (ESA) and Environmental and Social Management Plan (ESMP) Abbreviated Resettlement Action Plan (ARAP) will be prepared for the Project. The impact assessment will assess direct and indirect impacts, as well as cumulative and induced impacts of the road development financed by the project as well as other activities in relevant regional scope (e.g. expansion of palm oil production through better accessibility/transport infrastructure). The project will also include the development and implementation of a GBV/VAC strategy.

The Project also includes a Contingency Emergency Response Component to support emergency activities that ensure continued achievement of the project development objective. A CERC ESMF will be prepared to outline the approach and principles for managing potential E&S impacts and risks of the CERC in accordance with the World Bank’s Rapid Response to Crises and Emergencies: Procedural Guidelines.
<table>
<thead>
<tr>
<th>Performance Standards for Private Sector Activities OP/BP 4.03</th>
<th>No</th>
<th>The Borrower/ Lead implementer is the Government / Public Entity, not a Private Entity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Habitats OP/BP 4.04</td>
<td>Yes</td>
<td>The project involves the rehabilitation and maintenance of an existing highway and is therefore not expected to significantly impact natural habitats. The ESA/ESMP will include an assessment of the potential impacts on natural habitats (including potential induced impacts) and outline measures to avoid, mitigate and or manage these impacts.</td>
</tr>
<tr>
<td>Forests OP/BP 4.36</td>
<td>No</td>
<td>The project will not impact on any forested areas hence this policy is not triggered.</td>
</tr>
<tr>
<td>Pest Management OP 4.09</td>
<td>No</td>
<td>The project will not involve pest management hence this policy is not triggered.</td>
</tr>
<tr>
<td>Physical Cultural Resources OP/BP 4.11</td>
<td>Yes</td>
<td>The project involves the rehabilitation and maintenance of an existing highway and is not expected to impact on physical cultural resources in the area. The ESA/ESMP will include an assessment of potential impacts and outline measures to avoid, mitigate or manage these impacts - including chance find procedures.</td>
</tr>
<tr>
<td>Indigenous Peoples OP/BP 4.10</td>
<td>Yes</td>
<td>The project is located in areas where Indigenous Peoples are the sole or the overwhelming majority of direct project beneficiaries. An Indigenous People’s Development Plan (IPDP) will be prepared during project preparation to ensure that all requirements of OP 4.10 are fully considered and addressed in project design. A full Social Assessment will be conducted in the project area as part of the ESA and will include consultations with local government, local communities and various community groups (i.e. youth and womens groups). The social assessment and ESA process will ensure free and prior informed consultation is undertaken and broad community support is achieved for the project.</td>
</tr>
<tr>
<td>Involuntary Resettlement OP/BP 4.12</td>
<td>Yes</td>
<td>The project involves the rehabilitation and maintenance of an existing highway and at present, no involuntary land acquisition is expected to be required. The project may impact buildings, livelihoods, crops, trees and other assets that are present within the road corridor.</td>
</tr>
</tbody>
</table>
A Resettlement Action Plan/Abbreviated Resettlement Action Plan will be prepared to assess potential impacts and outline measures to avoid, mitigate or manage these impacts – including fair compensation where impacts are unavoidable.

Communities will be consulted as to ensure there are no pending issues such as disputes or affected families with the current alignment and Right of Way (RoW).

A formal grievance redress mechanism will be established to manage potential grievances arising during project implementation.

<table>
<thead>
<tr>
<th>Safety of Dams OP/BP 4.37</th>
<th>No</th>
<th>The project will not finance any dams as defined under OP4.37</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>No</td>
<td>The project does not impact or relate to any known international waterways as defined under the policy.</td>
</tr>
<tr>
<td>Projects in Disputed Areas OP/BP 7.60</td>
<td>No</td>
<td>The project is not located in any known disputed areas as defined under the policy.</td>
</tr>
</tbody>
</table>

**E. Safeguard Preparation Plan**

Tentative target date for preparing the Appraisal Stage PID/ISDS

Aug 30, 2019

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

ESA, ESMP, ARAP and IPP to be initiated May 2019 and completed by August 2019.

**CONTACT POINT**

**World Bank**

Noroarisoa Rabefaniraka  
Sr Transport. Spec.

**Borrower/Client/Recipient**

Ministry for Treasury  
Charles Abel
Hon.
Jerry_Bagita@treasury.gov.pg

Implementing Agencies
Department of Works
David Wereh
Secretary
dwereh@works.gov.pg

FOR MORE INFORMATION CONTACT
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

| Task Team Leader(s): | Noroarisoa Rabefaniraka |

Approved By

<table>
<thead>
<tr>
<th>Safeguards Advisor:</th>
<th>Peter Leonard</th>
<th>17-Oct-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Manager/Manager:</td>
<td>Almud Weitz</td>
<td>17-Oct-2018</td>
</tr>
<tr>
<td>Country Director:</td>
<td>Mona Sur</td>
<td>23-Oct-2018</td>
</tr>
</tbody>
</table>