I. Project Context

Country Context

Kiribati (estimated population of 110,000) is a small, remote country comprised of 33 atolls and reef islands, of which 21 are permanently inhabited. The total land area is only 726 km² spanning approximately 3.5 million km² of ocean. Over half the land (388 km²) is on Kiritimati (Christmas Island) situated some 1,200 km south of Hawai’i and over 2,000 km to the east of the capital of South Tarawa.

The maritime sector is central in connecting the dispersed populated atolls and in underwriting the national economy. The Kiribati Exclusive Economic Zone contains large resources of tuna and associated species, which are exploited primarily by foreign-based fishing fleets under access agreements that contribute up to one quarter of annual GNP. The vast majority of households are dependent on either subsistence fishing to supplement cash incomes. International and inter-island shipping of passengers and goods is important both from an economic and social perspective, as
reflected in the Kiribati Development Plan 2008-2011 which identifies several strategies aimed at improving the status and performance of maritime services.

Only some 18% of the population is in permanent employment, and over half of these work for the government. Approximately 44% of the population lives in South Tarawa, and this is a magnet for internal migration from the outer islands. South Tarawa provides opportunities for cash employment and consumption, as well as access to higher education and specialist social services not available elsewhere in Kiribati. This has led to population growth of 5.2% in recent years into both North and South Tarawa. The UNDP noted that South Tarawa recorded the highest incidence of basic needs poverty in Kiribati, affecting 18.3% of households and 24.2% of the population. A household census of Betio and Bairiki villages conducted by the Sustainable Towns Programme (STP) in November 2009 found that the per capita income of 70% of residents was less than US $1.75/day. In 2006, with a Gini Coefficient of 0.35, South Tarawa was bordering on having an unreasonable level of inequality.

The revenue of Kiribati is drawn primarily from five main sources: (i) the sale of fishing licenses (access fees account for more than 50% of annual government revenue and add about 22% to the GDP); (ii) official development assistance from overseas; (iii) The Kiribati Revenue Equalization Reserve Fund (RERF); (iv) general taxation; and, (v) tariffs paid by households for services. A high dependency on donor contributions and a vulnerability to external economic and environmental factors add to the challenges faced by the country, and more specifically the infrastructure sector. Major long term concerns include environmental degradation, the capacity of the islands to support a growing population with little coordination of the settlement patterns (particularly in Tarawa), the impending vulnerability to climate change, and general long term sustainability issues.

**Sectoral and institutional Context**

South Tarawa Road Infrastructure. In South Tarawa, the communities are linked by a single main sealed road and four causeways that run east to west. For the majority of its length, the road passes through ribbon development comprising dwellings, small businesses, schools etc. all located within the confines of the atoll, which is generally no more than three meters above sea level and has an average width of only 450 meters. Virtually the entire population lives close to, and is affected by, the road’s condition.

The road system consists of about 36 km of bituminous sealed main roads (including causeways), about 20 km of secondary roads (half of which are sealed and half unsealed); and about 40 km of unsealed feeder roads. Road use on South Tarawa is growing rapidly: in central Bairiki, traffic volume on the main road has reached 6,000 vehicles per day and is growing at an average rate of 4 percent per year. As the only main road, all freight transiting South Tarawa travels along it. Since there are no weigh scales either on the road or at the international port in Betio, there is no control on vehicle loading. The current road coverage does not support access to some areas in Betio, Bairiki and other built up villages.

Current Situation. While about 7 km of main road in Betio in the west of South Tarawa was rehabilitated in 2008 using finance from Japan, some 29 km of paved roads have received no major maintenance for over twenty years. The above mentioned high traffic levels on the road combined with persistent heavy rainfall in 2009/10 have caused extensive damage, to the extent that
substantial sections have completely lost their surface and reverted to unpaved status. The state and condition of the roads in Kiribati are having both economic and social repercussions; particularly with regards to the health and safety of the population. The traffic speed has been reduced in places to 20 km/h or less as a result of the damage, and driving conditions are hazardous, particularly after the rain. In 2010 taxi drivers went on strike because they were unable to make the usual five return trips per day along South Tarawa, sometimes only managing at most three. Further, during the dry season the dust from unpaved sections of the road is contributing to upper respiratory problems among local residents.

Financing annual maintenance of the main road system in South Tarawa is estimated to cost AUD 80,000. Increasingly, from 2006 onwards, Government policy has been to move a number of expenditures, initially subsidies and more recently operations and maintenance of infrastructure, onto domestic private sector short term loan finance and to the “Development Fund” for possible donor assistance. The Budget does not specifically distinguish operations and maintenance expenditures but by extrapolating from the expenditure codes provided, it is likely that between 23-25% of the Ministry of Public Works and Utilities’ (MPWU) GOK funded budget goes towards actual operations and maintenance. Of the operations and maintenance expenditures, around 10% is for the Civil Engineering Division (CED), responsible for maintenance of roads, road drainage, bridges, causeways and the airports. The Division’s maintenance budget for the whole country was AUD 279,000 in 2007, AUD 298,000 in 2008 and AUD 195,000 in 2010.

Further revenues are derived from a toll on the Dai Nippon Betio causeway which raises an average AUD 300,000 per year, reserved for maintaining the causeway. The Causeway Fund currently holds some AUD 2.5 m of accumulated revenues. An average AUD 150,000 of maintenance is purportedly carried out each year. The vehicle registration and driver license fees are collected by the two Urban Councils and administered through local consolidated revenue accounts. The Council accounting codes do not distinguish between vehicle licenses and other types of licenses (e.g. business licenses, dogs, etc.) but are estimated to be in the order of AUD 70,000 annually. Under the South Tarawa Plan (STP), the Councils currently are in the process of establishing performance based budgeting systems including dedicated accounts for specific services including maintenance of feeder roads and solid waste management. There are taxes of 7 and 8 cents/liter on diesel and petrol respectively.

II. Proposed Development Objectives
A. Current Project Development Objectives – Parent
The project will improve the condition of South Tarawa's main road network and help strengthen road financing and maintenance capacity.

III. Project Description
Component Name
Component A: Civil Works

Comments (optional)
This component consists of the main civil works activities to be undertaken on the South Tarawa road infrastructure. The activities include:
- Reconstruction and Rehabilitation of Paved Roads on South Tarawa. Betio Toll booth to
Ananau Causeway (~19.25 km), Ananau Causeway (~2.25 km), Temaiku road (~6.10 km). 11km of water main.

- Rehabilitation of Paved Roads in Betio & Bairiki. Repairs to localized pavement failures and drainage improvements in Betio.
- Sealing of Feeder Roads. Up to 8 km of unsealed urban feeder roads with high traffic volumes will be sealed and provided with improved drainage.
- Road Safety Improvements. Improvements including solar street lighting, road signage and pavement markings.
- Consulting Services. For the design and supervision of civil works.

**Component Name**
Component B: Road Sector Reform

**Comments (optional)**
Activities to strengthen the road sector and ultimately lead to more sustainable main road infrastructure in South Tarawa:

- Micro-Enterprises for Routine Road Maintenance. Provision of assistance in the form of (i) training, (ii) procurement of basic plant and equipment, and (iii) operational support for the management and monitoring of contracts, in order to promote the establishment of micro-enterprises to undertake routine maintenance.
- Drafting of Legislation. Updating the Kiribati road law as well as legislation dealing with speed and driving under the influence of alcohol.

**Component Name**
Component C: Project Support

**Comments (optional)**
Specialist support to the GOK for implementation of the project.

- Establishment of the Kiribati Fiduciary Services Unit (KFSU) to ensure the smooth operation of the project. The KFSU will handle procurement and financial management, planning and reporting.
- Establishing the Project Support Team (PST). A PST Manager/Technical Auditor will support the MPWU with implementation of the civil works activities.
- Project associated incremental operating costs (e.g. telecommunications, local workshops for stakeholders, procurement-associated activities, etc.)
- A valuation specialist to identify the appropriate compensation rates for trees and other assets affected.
- An NGO to monitor implementation of the RPF.

**IV. Financing (in USD Million)**

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<th>Amount</th>
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<td>Total Bank Financing</td>
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<td>Financing Gap</td>
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V. Implementation

Current Implementation Arrangements. Current responsibility for maintaining the main roads in South Tarawa lies with the MPWU, and more specifically the CED of the MPWU. The Highway Authority – administered by the Ministry of Communications, Transport and Tourism Development (MCTTD) – is responsible for general road safety and approving road related requests for features such as speed humps and bus stops. The engineering capability within the relevant divisions of MPWU is limited and there are no fully qualified Civil Engineers. As noted above, the urban councils have the responsibility for local road maintenance.

The only road contracting capability in Kiribati rests with the MPWU where the CED has some donor-provided plant and machinery for road construction and maintenance work. While there are some private sector firms engaged in building construction, to date they have not been engaged in road maintenance work.

For implementing the project, the ‘Kiribati Fiduciary Services Unit’ (KFSU) based in the Ministry of Finance and Economic Development (MFED) will be established. The intent is for the KFSU to provide financial management and procurement support to all the World Bank and IDA financed projects in Kiribati. It is comprised of a KFSU manager, two procurement assistants, two accountants, supported by an International Financial Management Advisor, an International Procurement Advisor and an international advisor to the KFSU Manager.

The day-to-day management of the project will be through the Ministry of Public Works and Utilities (MPWU), with the assistance of a Project Support Team (PST). The PST will be led by an international consultant who has the dual role of PST Manager and Technical Auditor. This consultant’s responsibility is to assist the MPWU with: (i) managing the design and supervision Consultant; and, (ii) independently auditing the technical quality of civil works. The PST Manager will also act as a general advisor to the MPWU for other donor financed projects as necessary.

Government Commitment. Recognizing the key role that the road system plays in the economy and social fabric of such an isolated and dispersed country, the Government of Kiribati (GOK) has acknowledged the need, not only to rehabilitate the infrastructure, but also to undertake necessary sector reforms and institutional strengthening to ensure sustainable financing and the maintenance of the Kiribati road network.

VI. Safeguard Policies (including public consultation)

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Social
As the only major road connecting communities in South Tarawa, the road provides essential access to all services, including government, education, health, the airport, the port, local wharves, markets, churches, NGOs and businesses. There are no alternative routes. The road is also the main thoroughfare for pedestrians, even though there are few areas with proper provisions for non-motorized traffic.

The road’s condition is currently causing major social disruptions to South Tarawa. All vehicle owners experience high and frequent damage to vehicles resulting in premature ageing of the vehicles, high maintenance costs and unroadworthy vehicles on the road. Cyclists are deterred from using the road and there are few footpaths, pedestrian crossings, road signage, bus-stops, and shelters. During the rainy season the road is almost impassible and speeds drop significantly. Taxi and bus drivers reduce or even stop their service due to the wear and tear on their vehicles. The holes in the road and edges pool with water and present health risks from mosquito-borne diseases. In the dry season the dust from the road affects those living nearby and pneumatic illnesses have been reported from those affected by dust.

Road safety is a major concern with a growing incidence of road accidents due to increased traffic, the age and condition of vehicles and dangerous driving. Perversely, the current poor condition of the road is probably a factor in reducing the number of serious accidents due to its influence on vehicle speeds. The project will address road safety through a multi-faceted approach:

- During project preparation, the Task Team’s road safety specialist undertook a detailed road safety audit of the South Tarawa paved road network. This identified the existing deficiencies from an engineering perspective. This audit will be provided to the designers and used during project implementation support to ensure that the road safety issues are fully addressed.

- In addition to civil works activities to address road safety, there is a need to also address the problem from a multi-sectoral perspective. This would involve providing support to other key participants in road safety, such as the police, health and education sectors. To this end, the project will develop and implement a multi-sectoral road safety action plan. This will be done in consultation with the existing National Road Safety Task Force Committee

Displacement of people is not envisaged during the implementation of the project however the rehabilitation works are anticipated to result in:

i. Loss of residential land of estimated 8,246 m² for: (a) providing the roads with an engineered alignment; (b) drainage easements; and (c) stopping areas. The individual portions to be acquired from compounds are minimal and have no impact on the concerned households’ income sources and livelihood according to surveys of the affected households.

ii. Loss of trees has been estimated with 131 affected coconut palm, pandanus and breadfruit trees. There are between one and four trees per affected owner who confirmed that their families’ incomes were not dependent on these trees.

iii. No loss of primary and secondary structures and no relocation of households.

iv. No loss of agricultural land.

v. No loss of common property.

vi. No Project cases of economic resettlement and vulnerable people.

The loss of land and trees affects an estimated 348 landowners including 21 organizations (mainly
churches) and 28 owners with two or three plots potentially affected. In the concerned 11 villages, the estimated 2,319 household members of the affected households represent about 5% of Tarawa’s total population. Taking into account that several landowners are sometimes affected by the same strip of land to be acquired, this leads to about 193 cases where land is lost only, 31 cases where both land and trees are affected, and 55 cases where trees are lost only. The resettlement cost is estimated at about AUS 121,000, which will be financed by the GoK. A Resettlement Action Plan (RAP), acceptable to the Bank, was finalized and is in use on the project. The RAP was disclosed in Kiribati and at the InfoShop on May 2, 2013. The RAP is based on the Resettlement Policy Framework (RPF) disclosed during project preparation. The GoK have been very effective in addressing land acquisition issues of the project, and by October 2014 over 94% of land issues were resolved. For the remaining 6%, the estimated cost of approximately AU $6,000 has been deposited to an escrow account for payment once the outstanding issues are resolved. An NGO has been recruited by the project to monitor RAP implementation and to ensure that any grievances that arise are properly addressed. No major issues have been reported.

HIV/AIDS. It is reported that HIV/AIDS in Kiribati is spread through sexual transmission, with the prostitution industry that services the international fishing vessels being of high risk. While the prevalence of HIV/AIDS is reported to be low, a study in 2004 found that Chlamydia is endemic among both pregnant women (13.0%) and seafarers (9.3%). This creates potential for a spread of HIV/AIDS. In accordance with the requirements of the Bank’s Standard Bidding Documents, the project undertaking an HIV/AIDS Information and Education Campaign (IEC) for the contractor’s employees, sub-contractors, consultants, as well as local communities in the proximity of the project site using the HIV/AIDS in Transport Toolkit (www.theroadtogoodealth.org).

Gender Analysis. Kiribati has ratified the Convention on the Elimination of All Forms of Discrimination Against Women, and women’s basic rights are protected under Kiribati’s constitution. In reality, women’s social status is low, and men have greater access to and control of political, economic, knowledge, and time resources. Women comprise 51.5% of the workforce and 37% of those in paid employment. The need to address gender issues is widely recognized. Women in Kiribati shoulder almost all the home care responsibilities and their assumption of roles as care givers, nurturers and providers for the family means that they are particularly affected by the lack of cash income, the impact of price rises for food and basic necessities, the availability of water and sanitation, and accessibility to health and education services. The improvements to the road, and provision of footpaths and other safety features, will help address some of these issues. Kiribati has a national unemployment rate of 6.1%, with official male unemployment of 5.6% and female unemployment of 6.6%. Unemployment in the urban population is estimated at 10.9%. An alternative unemployment measure which excludes village workers (those involved in subsistence activities) from the labor market, gives a national rate of 14.6%, urban 16.8%, male 12.2% and female 18.2%. Yet another definition includes defining village workers as unemployed on the basis that these people would look for work if they believed cash work was available, and gives an unemployment rate of 64.5% nationally (59.6% for men and 70.3% for women). Irrespective of how it is calculated, women are over-represented in the unemployment statistics relative to men. During project design consideration was given to providing special employment opportunities to women. There was considerable community interest in the employment opportunities presented by the project both in the construction phase and the ongoing road maintenance component. There was
much support for ensuring local people were employed where possible and extending the employment opportunities as much as possible. The suggestion that non-skilled labor be employed on short-term contracts was favorably received. The suggestion that some jobs be ‘reserved’ for vulnerable groups was generally supported with women and youth identified as possible target groups. The greatest support was for unemployed young people to be given these opportunities. To that end, the availability of project employment has been advertised widely in country, and recruitment has been conducted giving equal opportunity to all. As an example, the Contractor has taken on 21 women to undertake routine road maintenance, with these three groups taking a longer term roles in road maintenance beyond the project.

Environment

The Project is rated as a Category B project due to the environmental impact.

The environmental license for civil works was issued by GoK on November 26, 2012. An Environmental Management Plan (EMP) was prepared and disclosed at the Bank’s InfoShop on October 2, 2012. The EMP has been subsequently updated and redisclosed, most recently on October 1, 2014 (InfoShop) to reflect the final project designs and other developments. It has been supplemented by the Contractor’s EMP (disclosed April 1, 2014) and a Coastal Protection EMP (disclosed on December 12, 2014). Environmental supervision on the project to date has only been moderately satisfactory and the supervision consultant is taking steps to strengthen their performance.

The Bill of Quantity includes costs for environmental management and the contractor shall have payments adjusted as necessary should there be non-compliance. The government, through Ministry of Environment, Land and Agricultural Development (MELAD), will monitor the D&S consultant and contractor as appropriate. The World Bank and Asian Development Bank will monitor environmental compliance during missions.

As noted in the original PAD, the bulk of the road construction materials will be imported from offshore destinations such as Fiji. This will minimize the demand on the limited local resources. The European Union is financing an ‘Environmentally Safe Aggregates Tarawa’ (ESAT) project with support from the Secretariat of the Pacific Community Applied Geosciences and Technology Division (SOPAC). Due to delays with the ESAT project, the GoK advised the Bank in June 2014 that limited extraction of materials from currently disturbed areas would take place until other material through the dredging of ESAT channels is available.

The main potential environmental impacts identified include: (i) disturbance including noise and dust arising from loading and unloading, and transportation of construction materials (aggregates and bitumen) by dump trucks; (ii) noise and dust arising during scarifying the existing road base, construction of the new road base and construction of the new surface; (iii) erosion and sedimentation from exposed surfaces that may affect the lagoon environment during the construction processes; (iv) risks from the use and disposal of hazardous materials such as used fuel and lubricants; and, (v) increased risk of accidents from increased vehicle movements.

The improved road will result in higher speeds. As noted above, to ensure that there is proper safety to road users and local residents, the project undertook a road safety audit of the design. This identified a range of actions to be taken to improve road safety. In a beneficiary survey
undertaken for the project, 98.5 percent of respondents expressed concern over safety on the road. Women’s safety was of particular concern, with requests for more frequent bus stops and improved street lighting. The project addressed these concerns by significantly increasing both the number of bus stops and solar street lights. Much higher road safety standards including speed humps, kerbs, footpaths and street lighting (through all speed control zones as identified by the local Councils) are being implemented by the project. The project will also implement a multi-sectoral road safety action plan.

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