

SUMMARY PROCEDURE

FOR OFFICIAL USE ONLY

R166-15
20 November 2015

Proposed Grant for Additional Financing Road Rehabilitation Project (Kiribati)

1. The Report and Recommendation of the President (RRP: KIR 44281-015) on the proposed grant for additional financing to Kiribati for the Road Rehabilitation Project is circulated herewith.
2. This Report and Recommendation should be read with *Country Operations Business Plan: Kiribati, 2016–2018*, which was circulated to the Board on 9 November 2015 (DOC.IN.409-15).
3. In the absence of any request for discussion and in the absence of a sufficient number of abstentions or oppositions (which should be communicated to The Secretary by the close of business on 11 December 2015), the recommendation in paragraph 31 of the paper will be deemed to have been approved, to be so recorded in the minutes of a subsequent Board meeting. Any notified abstentions or oppositions will also be recorded in the minutes.

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Report and Recommendation of the President to the Board of Directors

Project Number: 44281-015
November 2015

Proposed Grant for Additional Financing Republic of Kiribati: Road Rehabilitation Project

Distribution of this document is restricted until it has been approved by the Board of Directors. Following such approval, ADB will disclose the document to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 31 October 2015)

| | | |
|---------------|---|---------------------------|
| Currency unit | – | Australian dollar/s (A\$) |
| A\$1.00 | = | \$0.7139 |
| \$1.00 | = | A\$1.400 |

ABBREVIATIONS

| | | |
|------|---|--|
| ADB | – | Asian Development Bank |
| EIRR | – | economic internal rate of return |
| EMP | – | environmental management plan |
| KDP | – | Kiribati Development Plan |
| KFSU | – | Kiribati Fiduciary Services Unit |
| km | – | kilometer |
| MFED | – | Ministry of Finance and Economic Development |
| MPWU | – | Ministry of Public Works and Utilities |
| PRIF | – | Pacific Regional Infrastructure Facility |
| SDR | – | special drawing right |

NOTE

In this report, “\$” refers to US dollars, unless otherwise stated.

| | |
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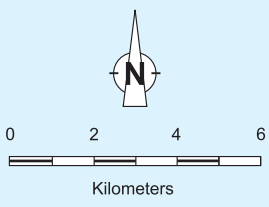
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PROJECT AT A GLANCE

| | | | |
|--|--|--------------------------------------|--|
| 1. Basic Data | | Project Number: 44281-015 | |
| Project Name | Road Rehabilitation Project - Additional Financing | Department /Division | PARD/SPSO |
| Country Borrower | Kiribati Republic of Kiribati | Executing Agency | Ministry of Finance and Economic Development |
| 2. Sector | Subsector(s) | ADB Financing (\$ million) | |
| ✓ Transport | Urban roads and traffic management | | 2.40 |
| | | Total | 2.40 |
| 3. Strategic Agenda | Subcomponents | Climate Change Information | |
| Inclusive economic growth (IEG) | Pillar 1: Economic opportunities, including jobs, created and expanded | Climate Change impact on the Project | High |
| Environmentally sustainable growth (ESG) | Urban environmental improvement | | |
| 4. Drivers of Change | Components | Gender Equity and Mainstreaming | |
| Governance and capacity development (GCD) | Institutional development | Some gender elements (SGE) | ✓ |
| Partnerships (PAR) | Implementation | | |
| Private sector development (PSD) | International finance institutions (IFI) Promotion of private sector investment | | |
| 5. Poverty Targeting | | Location Impact | |
| Project directly targets poverty | No | Urban | High |
| 6. Risk Categorization: | Low | | |
| 7. Safeguard Categorization | Environment: C Involuntary Resettlement: C Indigenous Peoples: C | | |
| 8. Financing | | | |
| Modality and Sources | | Amount (\$ million) | |
| ADB | | 2.40 | |
| Sovereign Project grant: Asian Development Fund | | 2.40 | |
| Cofinancing | | 0.00 | |
| None | | 0.00 | |
| Counterpart | | 0.24 | |
| Government | | 0.24 | |
| Total | | 2.64 | |
| 9. Effective Development Cooperation | | | |
| Use of country procurement systems | | No | |
| Use of country public financial management systems | | Yes | |

KIRIBATI ROAD REHABILITATION PROJECT



- Town
 - International Airport
 - Main Road
 - Project Road
 - Other Road Investment
- Boundaries are not necessarily authoritative.

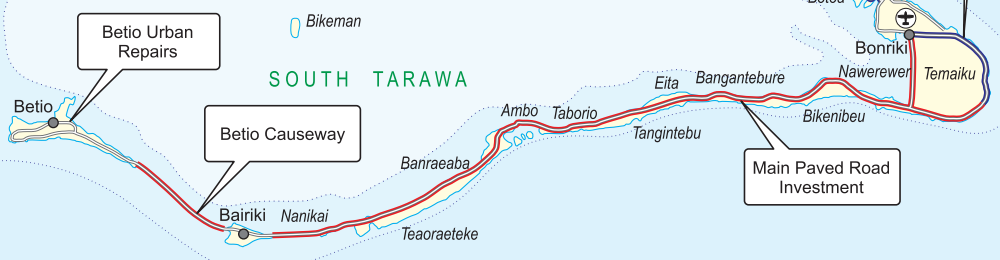
NORTH
TARAWA

L A G O O N

T A R A W A A T O L L

SOUTH TARAWA

P A C I F I C O C E A N



This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Republic of Kiribati for the additional financing of the Road Rehabilitation Project.¹

2. The proposed additional finance will help meet cost overruns and financing gaps associated with the current project,² i.e., expenditures expected to be incurred in completing the major civil works contract.

II. THE PROJECT

A. Rationale

3. Kiribati is a small, remote atoll country facing special challenges and constraints to development. The development objectives set out in the Kiribati Development Plan (KDP) 2012–2015 are economic growth and poverty reduction, along with creating a sustainable environment, and better governance and infrastructure.³ The country operations business plan, 2016–2018 of the Asian Development Bank (ADB) for Kiribati,⁴ ADB's Interim Pacific Approach, 2015,⁵ and ADB's Midterm Review of Strategy 2020 align with the KDP.⁶ Fragmented and ineffective governance arrangements have contributed to the deterioration of the road network in Kiribati's capital, South Tarawa. The Ministry of Public Works and Utilities (MPWU) is responsible for road maintenance, but receives an overall annual maintenance appropriation that includes other activities and is insufficient.

4. The current project is cofinanced by ADB, the World Bank, the Government of Australia through the Pacific Regional Infrastructure Facility (PRIF), and the Government of Kiribati to rehabilitate and upgrade 32.5 kilometers (km) of paved road and 8 km of unpaved road. Development coordination between the cofinanciers and the government is strong. The current project cofinancing stands at \$57.45 million. ADB approved a loan in the amount of SDR7,621,000 (\$12 million) on 20 December 2010 (footnote 2). The ADB loan agreement was signed on 17 March 2011 and became effective on 26 August 2011. The World Bank approved a grant of \$20 million, and PRIF one of \$5.79 million, on 1 March 2011.⁷ The World Bank grant agreement was signed on 5 May 2011 and the PRIF grant agreement on 30 May 2011. In March 2015, the World Bank provided additional financing of \$6.97 million, and PRIF provided an extra \$7 million. Meanwhile, the government's contribution increased from \$1.05 million to \$5.69 million for the civil works contract. As of March 2015, the overall additional financing amounted to \$18.61 million. The impact, outputs, and outcomes are indicated in paras. 11–12.

5. The current project incurred initial delays that have been managed. The delays were attributed to significant capacity constraints within the executing agency (the Ministry of Finance and Economic Development [MFED]) and the implementing agency (MPWU). This led to improvements by the executing agency and implementing agency, such as the establishment of

¹ The revised design and monitoring framework is in Appendix 1.

² ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Kiribati for the Road Rehabilitation Project*. Manila.

³ Government of Kiribati. 2012. *Kiribati Development Plan, 2012–2015*. Tarawa.

⁴ ADB. 2015. *Country Operations Business Plan: Kiribati, 2016–2018*. Manila.

⁵ Which extends the validity of ADB. 2009. *Pacific Approach, 2010–2014*.

⁶ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

⁷ Increased from \$16 million and \$4.61 million, respectively, to account for the inclusion of an additional 5 kilometers (km) of paved road and 2 km of unpaved road.

the Kiribati Fiduciary Services Unit (KFSU) within the executing agency. The unit is staffed with a qualified financial manager, project accountants, and a procurement officer, and supported by international procurement and financial consultants financed by development partners to provide direct support to project financial management, procurement, and administration. The implementing agency recruited an international project technical advisor to support implementation and ensure adequate project monitoring and evaluation. The project steering committee meets regularly to review the project budget and deal with implementation issues.

6. In addition, the civil works contractor experienced various start-up difficulties. For one, the supply of material for the base course and of local (coral) material was insufficient or nonexistent because the local dredging enterprise was late procuring its resources. Second, the asphalt plant was due to be mobilized in August 2013, but this was delayed because the subcontractor went into receivership. Third, the Betio causeway and revetment were damaged during the extreme spring tides in January–March 2014—the revetment shows significant deterioration and is understood to be past its design life. Fourth, the contractor found undocumented underground installations (power, water, telecommunications) during earthworks. Four major high-voltage cable strikes escalated the issue to a serious health and safety risk. The first problem was solved when additional resources became available to the local dredging enterprise, and separate contractual arrangements were made between the enterprise and the contractor for excavating a barge access channel so that locally supplied aggregate would be available. The problem with the asphalt plant was solved when the contractor purchased the plant, and the equipment for batching and asphalt laying, and made it operational in April 2014. As for the Betio causeway problem, the contractor was instructed to defer pavement works and to reprogram the overall works accordingly. The deferred works were later deleted from the contract, although 0.4 km had been paved and minor repairs along the causeway had been carried out. The fourth problem was resolved by employing an electrical resource team, and health and safety procedures, to ensure a safe working environment during preconstruction clearance. Underground service installations remain a serious risk, but the measures taken ensure that works proceed safely under a revised program.

7. The current project is performing well so far:⁸

(i) **Delivery of expected outputs.** The project will have three outputs as follows:

(a) Output 1: The project intends to rehabilitate and upgrade 32.5 km of paved roads and 8.0 km of unpaved feeder roads. Good progress has been made in completing about 13.1 km of paved roads and 3.0 km of feeder roads so far. As at the end of August 2015, physical progress of the civil works stands at 56% completed against 89% of time elapsed. The following activities were completed: coastal protection and paving along 1.9 km of the airport road, 11.2 km of asphalt paving on the main road, 16.0 km of kerbing, and 4.5 km of U-drains. Given the failure of the armoring of the Betio causeway, and the need for the causeway to undergo major rehabilitation, the pavement works for it (2.8 km) were removed from the contract.⁹ Overall, 40% of surfacing and pavement works are completed, and ancillary activities such as footpaths, speed humps, street lighting and road signage are ongoing. The road sector reforms are also progressing well with the completion of the road safety

⁸ ADB. 2010. *Additional Financing: Enhancing Development Effectiveness*. Manila (Para. 41); ADB. 2011. *Additional Financing. Operations Manual*. OM H5/OP. Manila (Para. 3).

⁹ The government held discussions with the Government of Japan to fund the Betio causeway redevelopment at a cost of about A\$30 million. The contractor paved 0.4 km of the Betio causeway and did minor repairs to keep the length of the causeway accessible. The contractor is scheduled to do repair works to the bridge deck.

action plan, review of traffic legislation, and community-based microenterprise initiatives to continue maintenance after the project is completed.

- (b) Output 2: The contractor has employed microenterprise teams to perform routine road maintenance. The teams have had training and received manuals. It is expected that at least three teams will be formally established by 2016, during the defects liability period. The MPWU's current level of maintenance expenditure for resourcing should ensure continuous formation of microenterprises.
 - (c) Output 3: The MPWU recruited a technical advisor to ensure efficient project implementation. In addition, the KFSU ensures project coordination and fiduciary and procurement support. Works are expected to remain on track, and essentially all physical works are planned to be completed by March 2016.
- (ii) **Satisfactory implementation progress.** Procurement contracts were awarded and are being implemented. The World Bank administers the ongoing civil works contract, which is funded jointly by the cofinanciers. ADB fully administers and finances the contract of the design and supervision consultant. Overall contract administration is carried out routinely and monitored during administration review missions. The contract for the design and supervision consultant was awarded on 2 December 2010 for \$2.15 million. As of September 2015, the total contract amount is \$4.43 million because of variations related to additional design inputs, additional staff inputs for construction supervision, and environmental monitoring. The contract for civil works was awarded on 12 February 2012 for A\$48.2 million (equivalent to \$50.1 million). ADB's original contract to support the overall financing was \$7.59 million; this was revised in May 2015 to \$5.09 million when a reallocation was required to ensure sufficient funds for any further increases in consulting costs (financed 100% by ADB). ADB's loan disbursements currently stand at 74% (\$8.33 million).
- (iii) **Satisfactory compliance with safeguard policy requirements.** Compliance with the World Bank's, ADB's and national safeguard policy requirements and plans is satisfactory, and no major issues have arisen to date.¹⁰ The Ministry for Environment, Land and Agriculture Development issued the environmental license for civil works in November 2012, and the project's environmental management plan (EMP), based on the approved initial environmental examination, is routinely updated and disclosed, last in October 2014. The contractor also has a contractor's EMP (revision N) that is used to monitor compliance. Environmental monitoring reports are regularly submitted and disclosed. The contractor also has manuals and plans covering occupational health and safety, quality assurance, traffic management, and general construction techniques. The contractor's health and safety performance was found to be best practice. The contractor also engaged the Kiribati Family Health Association to conduct an HIV/AIDS education campaign for its employees. Resettlement monitoring reports were provided and indicated no major issues.
- (iv) **Successful management of risks.** The project has managed and mitigated the risks identified during processing and implementation to date. As such, no major

¹⁰ In practice, the cofinanciers entered into a Memorandum of Understanding dated 5 March 2012 which provides guidance on the cofinanciers cooperation, coordination and sharing of information in particular with the reviewing of procurement processes, as well as safeguard requirements to ensure mutual agreement on project-related matters.

risks threaten the successful implementation of the project. Nonetheless, given the project's size and complexity for a small country, and the number of other large infrastructure investments being undertaken concurrently, risks are still considered high. The health and safety concerns that arose after striking underground cables, which led to the suspension of works from 27 February 2015 to 20 April 2015, were dealt with adequately by adopting stringent safety procedures and mobilizing an electrical resource team to ensure a safe working environment. Risks are further reviewed during administration review missions.

- (v) **On track rating.** The project is rated as on track and has performed consistently well since November 2014.

8. The request for additional financing is a consequence of an underestimation of costs, delays and other implementation issues, inflation in costs of materials, exchange rate fluctuations, and increased transportation costs. The cost estimate for civil works at appraisal of the current project was \$29.5 million. Four bidders responded with bid prices ranging from A\$49.6 million (equivalent to \$51.9 million) to A\$64.5 million (equivalent to \$67.5 million), or 17%–36% above the engineers' estimate. The minimum bid price was A\$15.2 million over the cost estimate. Of the components the project estimate was lowest for only the cost categories for works required for general (\$10 million), pavement (\$6.6 million) and water (\$0.9 million). The possible causes of the deviation from cost estimate to final contract price were analyzed as follows: (i) \$9.53 million resulting from fluctuations in the US\$–A\$ exchange rate and inflation since cost estimation in 2010; and (ii) \$7.46 million arising from additional works needed but not budgeted at the time of appraisal;¹¹ and (iii) \$3.76 million stemming from the civil works' general costs because of remoteness. The preparation of cost estimates was higher than budget provisions. The underestimation was caused by the lack of historical precedent for a project of this magnitude in Kiribati, which holds a lesson for future cost estimations. Due to the absence of data, the estimate relied on developing unit rates and costs from principles using basic costs of materials, equipment and labour. Comparisons with recent similar projects in the Pacific region showed the project cost to be an outlier. This is indicative of the high risks that the market placed on the remote and inaccessible country, and the arduousness of the work site. A comparative analysis of the 4 bids showed there was reasonable consistency in the rates offered, and the rates of the lowest evaluated bid was considered to be acceptable. On the basis of the assessment the unit rates and prices offered by the bidders were reasonable and reflected the true competitive market price.

9. The civil works contract awarded on 12 February 2013 was for A\$48.2 million (equivalent to \$50.1 million).¹² The funding gap of \$21 million was identified in late 2012 upon completion of the civil works bidding. The project's budget at the time of \$34.44 million had allocated an indicative \$29.1 million (inclusive of \$3.8 million in contingencies) to civil works. Currently, the financing gap for the civil works contract is about \$2.40 million. In addition, cost overruns total about A\$7.55 million (equivalent to \$5.35 million). The consulting engineers have prepared the assessment taking into account costs to completion, such as the actual and potential contract variations, claims, currency fluctuations, and extension of time. The cost

¹¹ On 31 January 2011, the regional director of ADB's Pacific Subregional Office approved the change in project scope that increased the length of the main road by about 5 km from Tanea to Buota, and the Temaiku loop road; upgrading of an extra 2 km of feeder roads; and the replacement of about 7 km of water supply transmission main between Teoraereke and Betio.

¹² The bid was denominated 13.00% in Australian dollars, 81.41% in New Zealand dollars, and 5.58% in US dollars. The contract was signed on 12 February 2013 and the start date was 1 July 2013. The procurement contract summary sheet created at the time of contract award was for \$7.59 million, to align with ADB's allocation of the loan proceeds.

overruns and the financing gap need to be dealt with to allow the project to be completed and to ensure that the project development objectives are met. The ADB grant of \$2.4 million in additional finance will fill in the shortfall.

10. The current project meets all eligibility criteria for additional financing because (i) it remains technically feasible, economically viable, and financially sound; (ii) the government includes the investment as a high priority in the KDP; (iii) it is consistent with the current project's development objectives; and (iv) it is consistent with ADB's current country partnership strategy.¹³ The current project has faced significant challenges, but did not require any major change in the design and implementation arrangements. The design and implementation problems were fully and satisfactorily solved, and the current project performance has been rated on track since November 2014. Additional financing is a suitable modality to make sure that (i) the overall project is successfully completed by the current loan closing date, (ii) the targets and indicators of the design and monitoring framework are successfully achieved, and (iii) the project development objective are met.

B. Impact and Outcome

11. The impact and outcome of the project will not change as a result of the additional financing. The impact of the overall project, including additional financing, will be an improvement in socioeconomic conditions for the people of South Tarawa. The outcome will be their access to a safe, sustainable, and well-maintained road network.

C. Outputs

12. The outputs will not change as a result of the additional financing. The outputs will be that (i) the government rehabilitates and upgrades the road network on South Tarawa, (ii) community-based enterprises have the capacity to maintain the road network, and (iii) the MPWU provides efficient implementation support.

D. Investment and Financing Plans

13. The additional grant of \$2.4 million from ADB's Special Funds resources will increase the previously revised investment in the current project by 4.1%. The revised investment plan is in Table 1.

Table 1: Project Investment Plan
(\$ million)

| Item | Original Amount ^a (Dec/2010) | Revised Amount ^b (Jan/2011) | Current Amount ^c | Additional Financing ^d | Total ^e |
|--|--|---|-----------------------------|-----------------------------------|--------------------|
| A. Base Cost^f | | | | | |
| 1. Civil works | 25.28 | 29.46 | 45.75 | 2.64 | 48.39 |
| 2. Consultants services | | | | | |
| a. Design and construction supervision | 2.23 | 2.23 | 6.92 | ... | 6.92 |
| b. Capacity development | 0.98 | 0.98 | 0.51 | ... | 0.51 |
| c. Project management | 0.58 | 1.03 | 2.24 | ... | 2.24 |
| 2. Land acquisition | 0.05 | 0.05 | 0.13 | ... | 0.13 |

¹³ ADB. 2010. *Additional Financing: Enhancing Development Effectiveness*. Manila (Para. 51); ADB. 2011. *Additional Financing. Operations Manual*. OM H5/BP. Manila. Para. 4.

| | | | | | | |
|-----------|--|--------------|--------------|--------------|-------------|--------------|
| | 3. Goods | 0.16 | 0.16 | 0.16 | ... | 0.16 |
| | Subtotal (A) | 29.28 | 33.91 | 55.71 | 2.64 | 58.35 |
| B. | Contingencies^g | 4.12 | 4.64 | 1.61 | ... | 1.61 |
| C. | Financing Charges During Implementation^h | 0.26 | 0.29 | 0.13 | ... | 0.13 |
| | Total (A+B+C) | 33.66 | 38.84 | 57.45 | 2.64 | 60.09 |

... = not available.

^a Includes taxes and duties of \$3.0 million financed by the Asian Development Bank (ADB), the Pacific Regional Infrastructure Facility (PRIF), the World Bank, and government resources.

^b Includes taxes and duties of \$3.8 million to be financed from ADB, PRIF, the World Bank, and government resources.

^c Includes taxes and duties of \$5.7 million to be financed from ADB, PRIF, the World Bank, and government resources.

^d Includes taxes and duties of \$0.24 million to be financed from government resources through its counterpart cash contribution.

^e Includes taxes and duties of \$5.9 million to be financed from ADB, PRIF, the World Bank, and government resources.

^f In mid-2015 prices.

^g Physical contingencies computed at 15% for civil works. Price contingencies computed at 5% on foreign exchange costs.

^h Includes interest and commitment charges. Interest during construction of ADB's loan from the Asian Development Fund was computed at an interest rate of 1%. The service charge for the World Bank's International Development Association credits is 0.75% of the disbursed and outstanding credit balance.

Sources: Asian Development Bank, Government of Kiribati, and World Bank estimates.

14. The government has requested a grant not exceeding \$2.4 million from ADB's Special Funds resources to help finance the project's civil works component.¹⁴ The revised financing plan is in Table 2. The government has agreed to provide additional counterpart financing if any financial shortfall occurs.

Table 2: Revised Financing Plan
(\$ million)

| Source | Original | Additional Financing | | | Total |
|--|----------------------|----------------------|----------------------|-------------|--------------|
| | Amount (Dec/2010) | Amount (Jan/2011) | Amount (May/2015) | Amount | Amount |
| Asian Development Bank | | | | | |
| Special Funds Resources (loan) | 12.00 | 0 | 0 | 0 | 12.00 |
| Special Funds Resources (grant) | 0 | 0 | 0 | 2.40 | 2.40 |
| Cofinanciers | | | | | |
| World Bank | 16.00 | 4.00 | 6.97 | 0 | 26.97 |
| Pacific Regional Infrastructure Facility | 4.61 | 1.18 | 7.00 | 0 | 12.79 |
| Government of Kiribati | 1.05 | 0 | 4.64 | 0.24 | 5.93 |
| Total | 33.66 | 5.18 | 18.61 | 2.64 | 60.09 |

Sources: Asian Development Bank, Government of Kiribati, and the World Bank estimates.

E. Implementation Arrangements

15. The implementation arrangements for the additional financing are consistent with the ongoing implementation arrangements. These are summarized in Table 3 and described in detail in the project administration manual.¹⁵ The implementation arrangements for the additional financing will ensure economy, efficiency, and client-responsiveness.

¹⁴ A country's eligibility for Asian Development Fund grants under the revised grant framework is determined by its risk of debt distress. The latest debt sustainability analysis determined that Kiribati had a high risk of debt distress and was therefore eligible to receive 100% of its Asian Development Fund allocation as grants.

¹⁵ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Table 3: Implementation Arrangements

| Aspects | Arrangements | | |
|---------------------------|--|--------------------------------------|---|
| Implementation period | 4 January 2016–28 February 2017 | | |
| Estimated completion date | 31 August 2016 | | |
| Grant closing date | 28 February 2017 | | |
| Management | | | |
| (i) Oversight body | National Infrastructure Development Committee (project steering committee): Secretaries: Office of the President (chair); Ministry of Public Works and Utilities; Ministry of Finance and Economic Development; Ministry of Transport and Communications; Ministry of Environment, Land, and Agriculture Development; Ministry of Internal Affairs; Commissioner of Police; Kiribati Association of Non-Governmental Organizations | | |
| (ii) Executing agency | Ministry of Finance and Economic Development | | |
| (iii) Implementing agency | Ministry of Public Works and Utilities | | |
| Procurement | International competitive bidding | 1 contract (existing valid contract) | The original procurement plan indicated an estimated value of \$34.44 million. The awarded contract value was \$50.1 million (signed 12 February 2012). The contract is expected to be completed by March 2018, after the associated 24-month defects liability period. |
| Consulting services | Quality- and cost-based selection | 1 contract existing and valid | The original procurement plan indicated an estimated value of \$2.2 million. The awarded contract value was \$2.15 million (signed on 1 December 2010). |
| Disbursement | The grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB. | | |

ADB = Asian Development Bank.

Sources: Asian Development Bank, Republic of Kiribati, and the World Bank.

III. DUE DILIGENCE

A. Technical

16. The overall project has been assessed as technically viable, as demonstrated by the absence of any significant technical issues during the ongoing civil works. Project preparation included a comprehensive road safety audit of all of South Tarawa's roads, and the recommendations have informed the detailed engineering design.¹⁶ An initial key challenge was the scarcity of local material for road construction. During project preparation, it was anticipated that locally required materials would be sourced from the European Union-funded Environmentally Sustainable Aggregate Tarawa Project and from importing processed aggregates.¹⁷ Local coral material was made available by excavating new channels through the local commercial dredging company, and from the borrow pits of the implementing agency's plant vehicles unit.

17. The road runs near the edge of the lagoon for most of its length. A rise in sea level, extreme annual cycles of spring tides, and increased erosion are the most significant threats to its sustainability. Coastal protection works, including wave energy modeling, are ongoing under phase 3 of the World Bank-financed Kiribati Adaptation Project.¹⁸ The government also

¹⁶ World Bank. 2010. *Report of the Road Safety Audit on Tarawa, Republic of Kiribati*. Sydney.

¹⁷ The European Union funded Environmentally Sustainable Aggregate Tarawa project provides an alternative supply of construction aggregate from the lagoon basin. The project aims to meet South Tarawa's rapidly growing aggregate demand while reducing pressure on beach mining.

¹⁸ Phases 1 and 2 of the Kiribati Adaptation Project were implemented by the World Bank and supported by the World Bank, the Global Environmental Facility, the Government of Australia, the New Zealand Aid Programme, the Japan Policy and Human Resources Development Climate Change Fund, and the United Nations Development Programme. A parallel project by the European Union also involves coastal protection work.

requested the World Bank, as a Green Climate Fund-accredited entity, to prepare a detailed coastal protection program for potential funding from the Green Climate Fund. The drainage design has taken into account the possible risk posed by heavier rainfall in future years. Because some future climate scenarios also forecast longer and more intense droughts, the project has considered directing runoff to soak pits to increase groundwater.

B. Economic and Financial

18. The project's economic viability was reevaluated on the basis of higher cost estimates. Although higher costs have reduced the overall economic internal rate of return (EIRR) to 28.6% (from 40.3% in the original appraisal),¹⁹ the project remains economically viable.²⁰ As expected, the largest reductions in EIRR correspond to sections that involve the largest unit cost inflation rate, i.e., St. Anne–airport intersection and Airport Road. In contrast, higher EIRRs are now expected from expansions in scale for sections of Temaiku Road (from 2.9 km to 6.1 km) and feeder roads (from 6.0 km to 6.9 km, at slightly lower unit costs). Each remaining project section has an individual EIRR well above the standard benchmark of 12%, and robust EIRRs are maintained even under various adverse scenarios considered in sensitivity analyses. High rates of return largely reflect heavy demand from traffic of up to 6,000 vehicles per day on the existing road system, and the benefits of rehabilitation from the current poor condition. Unquantified benefits—e.g., road safety improvements, which tend to generate rates of return even greater than those for rehabilitation, and potential decongestion on Temaiku Road, which provides access to the only remaining uninhabited state land in densely populated South Tarawa—further bolster the economic viability of the project.

19. The project roads are non-revenue-earning, operated by MWPU—a noncommercial unit that receives annual allocations for operation and maintenance of infrastructure assets. Recent and ongoing public sector management and public financial management reforms are refocusing scarce resources toward funding of essential government functions and services, including infrastructure operation and maintenance. These would therefore facilitate consistently adequate allocations to MWPU for periodic road maintenance. Government allocations are likely to be funded through the Revenue Equalization Reserve Fund, which should ensure adequate operation and maintenance funding and the sustainability of infrastructure assets.

C. Governance

20. **Financial management.** A public expenditure and financial accountability assessment, conducted in Kiribati in 2010, indicated that public financial management is weakened by a lack of fiscal discipline, nonretirement of advances, lack of financial reconciliation between MFED and the line ministries, lack of effective expenditure commitment controls, and outdated legislation and regulations.²¹ Since then, development partners, including ADB, have assisted the government in designing and implementing the Kiribati Public Financial Management Plan, 2011–2014.²² Improvements in public financial management have been noted, and plans are in place to update the public expenditure and financial accountability assessment in 2015.

21. The financial management arrangements for the current project will continue for the additional financing. The World Bank, in its appraisal of proposed additional financing for the

¹⁹ When excluding the now-cancelled Betio causeway, the appraised project's overall EIRR was 36.6%.

²⁰ Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

²¹ Government of Kiribati. 2010. *Kiribati Public Financial Management—Performance Report*. Tarawa.

http://asia.ifad.org/web/kiribati/resources/-/resource_library/5919/newsletter.

²² Government of Kiribati. *Kiribati Public Financial Management Plan 2011–2014*. Unpublished.

project, rated the financial management performance *satisfactory* and ADB is content to rely on the World Bank's information. MFED will continue to be responsible for the overall financial management of the project. A full-time qualified project accountant is continuing to handle all financial management activities. The project is continuing to use direct payment disbursement procedure, and all required audits will be carried out. For the current project, no audited project financial statements are overdue, or financial management issues pending. Of the three audited project financial statements received, two were submitted early and one was submitted after the deadline. All audit reports were issued with unqualified opinions.

D. Poverty and Social

22. The project will directly benefit the entire population of South Tarawa, for whom the road is a vital shared communal asset. As the lone vehicular transport route on the atoll, the road provides access to the airport, the port, local wharves, markets, churches, nongovernment organizations, businesses, as well as government, education, and health services. It sustains economic development, links communities, and is also the main thoroughfare for pedestrians.

23. Private car owners, bus and truck operators, freight handlers, retailers and wholesalers, utility providers, public transport users, motorcyclists, cyclists, pedestrians, residents, businesses, and the government will all benefit directly from the project. It will reduce roadside dust, thereby improving air quality, leaving homes, shops, and vehicles cleaner, and reduce damage to equipment. New footpaths will improve pedestrian safety and cut back reliance and spending on vehicle transport.

24. The port area of Betio, which the project road serves, is the site of a prostitution industry that presents the risk of HIV/AIDS transmission. While the current HIV/AIDS rate in South Tarawa is reported to be low, the port is a hub for international fishing vessels and an estimated 30% of the sexually active population has a sexually transmitted infection. There is a risk that infection rates will increase. The current project diligently carries out the HIV/AIDS information and education campaign for the contractor's employees, subcontractors, consultants, and communities near the project site. The Kiribati Country Coordinating Mechanism has been established by the government to coordinate HIV/AIDS activities, including voluntary counseling and testing facilities. The civil works contractor has subcontracted the Kiribati Family Health Association to deliver the HIV/AIDS information and education campaign.

E. Safeguards

25. **Environment.** The current project is classified as category B, and the EMP prepared was updated to reflect ongoing impacts. The project is currently operating under the revised version 5 of the EMP approved in October 2014. The resulting contractor's EMP (revision N) was accepted in August 2015. The main potential impacts are (i) disturbance from dust arising from loading, unloading, and transportation of construction materials; (ii) noise; (iii) erosion and sedimentation from exposed surfaces during construction, which may affect the lagoon environment; (iv) risks from the use and disposal of hazardous materials such as used fuel and lubricants; and (v) greater risk of accidents from more vehicle movements. Detailed mitigation measures were incorporated in the project, as outlined in the EMP. An international environment specialist and a national environment inspector are engaged during the construction phase to ensure compliance monitoring of the EMP and reporting to the Ministry of Environment, Land and Agriculture Development. The environmental classification for the additional financing is categorized as C since the project will cover cost overruns and not involve a change in scope.

26. **Involuntary resettlement.** The project is classified as category B, and the resettlement plan has been updated to reflect anticipated impacts and provide guidelines for any unanticipated impacts. The additional financing is categorized as C since no buildings are to be relocated and no economic crops are affected under this project. To the extent possible, the roads to be rehabilitated will follow the current road alignment, and any resettlement or compensation for economic loss will be undertaken in accordance with the updated resettlement plan. To date, compensation for loss of land and assets, mainly for loss of fruit-bearing trees, has been paid to 97% of affected persons—327 in total. An escrow account has been established for compensation of the remaining 13 affected persons as soon as the pending court cases are resolved and affected persons are traced.

27. **Indigenous people.** The project is classified as category C for indigenous peoples. The inhabitants of South Tarawa are from a single ethnic group. No customary, cultural, economic, social, or political institutions set South Tarawa apart from the rest of Kiribati's society.

F. Risks and Mitigating Measures

28. Major risks and mitigating measures are described in detail in the risk assessment and risk management plan.²³ Overall, the risks are being managed and mitigated under improved project implementation arrangements, in particular the establishment of the KFSU and the engagement of a technical advisor. The integrated benefits and impacts are expected to outweigh the costs. The overall sustainability of the project is being bolstered by institutional reforms of the road subsector, revisions to the existing traffic laws, and adequate budgetary allocations to meet road maintenance requirements through community-based microenterprises.

IV. ASSURANCES

29. The government has assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and grant documents.

30. The government has agreed with ADB on certain covenants for the project, which are set forth in the grant agreement.

V. RECOMMENDATION

31. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding \$2,400,000 to the Republic of Kiribati from ADB's Special Funds resources for the additional financing of the Road Rehabilitation Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao
President

20 November 2015

²³ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

REVISED DESIGN AND MONITORING FRAMEWORK

| Impact the Project is Aligned with the Kiribati Development Plan. Current project The socioeconomic conditions of the population of South Tarawa will have improved. Overall project Unchanged. | | | |
|--|--|--|---|
| Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
| Outcome Current project The population has access to a safe, sustainable, and well-maintained road network in South Tarawa. Overall project Unchanged. | Current project Increase in average travel speed from 20 km per hour to 40 km per hour by April 2013. Decrease in road casualties from 7 per year (2007) to 5 per year (2013). Adequate financing for road maintenance (base \$1,000 per km, target \$1,500 per km by 2013). Overall project Increase in average travel speed from 20 km per hour to 40 km per hour by August 2016 (changed because civil works are not scheduled to be completed until 2016). Decrease in road casualties from 7 per year (2007) to 5 per year (2016) (changed because civil works are not scheduled to be completed until 2016). Adequate financing for road maintenance (base \$1,000 per km, target \$1,500 per km by 2016) (changed because civil works are not scheduled to be completed until 2016). | Project-specific surveys by project consultant. Police and Ministry of Health statistics colated in the annual report of a road safety council. Government accounts. | The government is complacent about road condition after rehabilitation and neglects maintenance. |
| Outputs Output 1 Current project The government rehabilitates and upgrades the road network on South Tarawa. | Current project By April 2013, 27.5 km of paved road and 6 km of unpaved road rehabilitated or upgraded to maintainable condition (average road roughness index no higher than 3 by 2013). Rehabilitated or upgraded roads are: (i) St. Anne–airport (21.5 km) and Temaiku spur (2.8 km), (ii) Betio and Bikenibeu roads | MFED's quarterly progress reports. | Government is inexperienced in implementing major projects. Increases in prices of fuel and raw materials result in cost overruns. |

| Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
|--|--|---------------------------------------|-------|
| Overall project Unchanged. | (repairs), (iii) Betio causeway (3.2 km), and (iv) feeder roads (6.0 km). Overall project By August 2016, 32.5 km of paved road and 8 km of unpaved road rehabilitated or upgraded to maintainable condition (average road roughness index no higher than 3 by 2016). Rehabilitated or upgraded roads are: (i) St. Anne–airport (21.5 km) and Temaiku spur (5.3 km), (ii) Betio and Bikenibeu roads (repairs), (iii) Betio causeway (0.4 km), (iv) feeder roads (8.0 km), and (v) Buota road (2.5 km). (Changed because civil works are not scheduled to be completed until 2016; deletion of Betio causeway and increase in paved roads by 5.0 km and feeder roads by 2.0 km in 2011). | | |
| Output 2 Current Project Community-based enterprises have the capacity to maintain the road network. Overall project Unchanged. | Current project By May 2013, six community-based enterprises contracted to undertake road maintenance covering 45 km of road network. Overall project By August 2016, three community-based enterprises contracted to undertake road maintenance covering 45 km of road network. (Changed because civil works are not scheduled to be completed until 2016; microenterprise consultant indicates that three enterprises may be most appropriate). | | |
| Output 3 Current project The MPWU provides efficient implementation support. Overall project Unchanged. | Current project Physical works completed by April 2013 within budget. Overall project Physical works completed by August 2016 (changed because civil works are not scheduled to | | |

| Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
|---------------|---|---------------------------------------|-------|
| | be completed until 2016). | | |

Key Activities with Milestones

1. The road network in South Tarawa is rehabilitated and upgraded by the MPWU.
 - 1.1. Design and supervision consultants will prepare detailed designs and bidding documents. Starting on 5 January 2011, completed by 30 April 2011. (Completed)
 - 1.2. Bids will be invited for civil works. Starting on 1 May 2011, completed by 31 August 2011. (Completed)
 - 1.3. The MFED will award a contract for rehabilitating and/or upgrading project roads by 30 October 2011. (Completed)
 - 1.4. The contractor will construct the project roads. Starting on 12 February 2013, completed by 16 March 2016. (Changed)
2. Community-based enterprises have the capacity to maintain the road network.
 - 2.1. The main civil works contractor will identify groups and group leaders for community-based microenterprises in consultation with the MPWU. Starting on 12 February 2013, completed by 16 March 2016. (Changed)
 - 2.2. Groups will be trained by the main civil works contractor in the delivery of basic road maintenance and by a consultant in small business management. Starting on 12 February 2013, completed by 16 March 2016. (Changed)
 - 2.3. Groups will be provided with basic road maintenance equipment by the main civil works contractor by 16 March 2016.
 - 2.4. Groups will be employed by the main civil works contractor as independent subcontractors for the duration of the defects notification period from 16 March 2016 to 15 March 2018. (Changed)
 - 2.5. Groups will be employed as independent contractors by the MPWU from 16 March 2018 under performance-based road maintenance contracts prepared by a consultant. (Changed)
3. The MPWU provides efficient implementation support.
 - 3.1. The MFED will set up accounting and project management accounts by January 2011. (Completed)
 - 3.2. The Asian Development Bank will select consultants for design and supervision services, and the MPWU will finalize a contract by November 2010. (Completed)
 - 3.3. The MPWU will provide counterpart facilities and personnel by January 2011. (Completed)
 - 3.4. The design and supervision consultant will report progress during the design and contract procurement phases, and monitor and report on progress of the civil works at quarterly intervals. (Unchanged)
 - 3.5. The MPWU, supported by the consultant, will manage the construction contract. (Unchanged)

Inputs

| Asian Development Bank | |
|--------------------------|----------------------------|
| Loan (Special Funds) | Grant (Special Funds) |
| \$12.0 million (current) | \$2.4 million (additional) |

| World Bank | Pacific Regional Infrastructure Facility | Government |
|---------------------------|--|--------------------------|
| Grant | Grant | |
| \$26.97 million (current) | \$12.79 million (current) | \$5.69 million (current) |

Assumptions for Partner Financing

Current project

Unchanged.

Overall project

Unchanged.

km = kilometer, MFED = Ministry of Finance and Economic Development, MPWU = Ministry of Public Works and Utilities.

Sources: Asian Development Bank, World Bank, and Government of Kiribati.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=44281-015-2>

1. Grant Agreement
2. Sector Assessment (Summary): Transport
3. Project Administration Manual
4. Summary of Project Performance
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Initial Environmental Examination
11. Resettlement Plan
12. Risk Assessment and Risk Management Plan