



Report and Recommendation of the President to the Board of Directors

Project Number: 43072-015
Loan and Grant Numbers: 2795-KIR, 0263-KIR, 0387-KIR
September 2016

Proposed Grant for Additional Financing Republic of Kiribati: South Tarawa Sanitation Improvement Sector 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 2 September 2016)

Currency unit	–	Australian dollar (A\$)
A\$1.00	=	\$0.755
\$1.00	=	A\$1.324

ABBREVIATIONS

ADB	–	Asian Development Bank
EMP	–	environmental management plan
KDP	–	Kiribati Development Plan
ICB	–	international competitive bidding
KFSU	–	Kiribati Fiduciary Services Unit
MELAD	–	Ministry of Environment, Lands and Agriculture Development
MFED	–	Ministry of Finance and Economic Development
MPWU	–	Ministry of Public Works and Utilities
O&M	–	operation and maintenance
PAM	–	project administration manual
PUB	–	Public Utilities Board
Q	–	quarter
SDR	–	special drawing right

NOTE

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

Vice-President	S. Groff, Operations 2
Director General	X. Yao, Pacific Department (PARD)
Director	R. Jauncey, Pacific Subregional Office in Suva, Fiji, PARD
Team leader	J. Kohlhase, Infrastructure Specialist, PARD
Team members	T. Faletau, Safeguards Officer, PARD M. Lototele, Senior Economics Officer, PARD B. Puamau, Operations Assistant, PARD R. Rabanal, Senior Economics Officer, PARD J. Rhor, Senior Procurement Specialist, Operations Services and Financial Management Department Y. Seo, Senior Counsel, Office of the General Counsel L. Uruvaru, Associate Project Analyst, PARD
Peer reviewer	P. van Klaveren, Senior Urban Development Specialist, Southeast Asia Department

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
PROJECT AT A GLANCE	
MAP	
I. THE PROPOSAL	1
II. THE PROJECT	1
A. Rationale	1
B. Impact and Outcome	5
C. Outputs	5
D. Investment and Financing Plans	5
E. Implementation Arrangements	6
III. DUE DILIGENCE	7
A. Technical	7
B. Economic and Financial	8
C. Governance	8
D. Poverty and Social	9
E. Safeguards	9
F. Risks and Mitigating Measures	10
IV. ASSURANCES	10
V. RECOMMENDATION	10
APPENDIXES	
1. Revised Design and Monitoring Framework	11
2. List of Linked Documents	15

PROJECT AT A GLANCE

1. Basic Data		Project Number: 43072-015	
Project Name	South Tarawa Sanitation Improvement Sector Project (Additional Financing)	Department /Division	PARD/SPSO
Country	Kiribati	Executing Agency	Ministry of Finance and Economic Development
Borrower	Republic of Kiribati		
2. Sector		ADB Financing (\$ million)	
✓ Water and other urban infrastructure and services	Subsector(s) Urban sewerage		2.80
		Total	2.80
3. Strategic Agenda		Climate Change Information	
Subcomponents			
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Adaptation (\$ million)	2.80
Environmentally sustainable growth (ESG)	Natural resources conservation Urban environmental improvement	Climate Change impact on the Project	High
4. Drivers of Change		Gender Equity and Mainstreaming	
Components			
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
Partnerships (PAR)	Bilateral institutions (not client government) Official cofinancing		
5. Poverty and SDG Targeting		Location Impact	
Project directly targets poverty and SDGs	Yes	Rural	Medium
		Urban	Medium
6. Risk Categorization:		Low	
7. Safeguard Categorization		Environment: C Involuntary Resettlement: C Indigenous Peoples: C	
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		2.80	
Sovereign Project grant: Asian Development Fund		2.80	
Cofinancing		0.00	
None		0.00	
Counterpart		0.23	
Government		0.23	
Total		3.03	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

KIRIBATI SOUTH TARAWA SANITATION IMPROVEMENT SECTOR PROJECT



- Project Location
 - Ocean Outfall Upgrade
 - Sewer and Saltwater Refurbishment System
 - Town
 - Main Road
 - + International Airport
- Boundaries are not necessarily authoritative.

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 South Tarawa Sanitation Improvement Sector Project.¹

2. The proposed additional financing is to help meet the current project's expected cost overruns from expenditures incurred in completing the civil works contracts for rehabilitating sewerage systems and upgrading ocean sewage outfalls.²

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), 2016–2019 are inclusive sustainable economic growth and poverty reduction, along with improving education and health services, governance, and infrastructure.³ The KDP is aligned with the country operations business plan, 2016–2018 for Kiribati;⁴ Pacific Approach, 2016–2020;⁵ and the Midterm Review of Strategy 2020 of the Asian Development Bank (ADB).⁶ Ineffective governance arrangements have contributed to the deterioration of South Tarawa's sewerage network. The Ministry of Public Works and Utilities (MPWU), the implementing agency for the current project, is responsible for water supply and sanitation sector policy, planning, and regulation, but has insufficient capacity and resources. The Public Utilities Board (PUB) is responsible for sewerage services, but has insufficient resources and cannot charge for services.

4. The current project is financed by ADB, the Government of Australia, the Multi-Donor Trust Fund⁷ under the Water Financing Partnership Facility, and the Government of Kiribati to support improvements to the health of communities in South Tarawa. Development coordination and cooperation between ADB, the cofinanciers, and the government is strong. Current project financing is \$23.10 million. On 17 October 2011, ADB approved a loan in various currencies equivalent to SDR4,700,000 (\$7.56 million equivalent) and administration of grant cofinancing of \$13.95 million equivalent from the Government of Australia (footnote 2). The Government of Kiribati is providing counterpart financing of \$0.98 million equivalent. The loan and grant agreements were signed on 3 May 2012 and declared effective on 1 June 2012. The ADB Multi-Donor Trust Fund under the Water Financing Partnership Facility provided additional financing of \$0.61 million on 14 May 2014.⁸ The expected project completion date is 30 June 2019, and the loan and grant closing date is 31 December 2019.

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

² Asian Development Bank (ADB). 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Grant to the Republic of Kiribati for the South Tarawa Sanitation Improvement Sector Project*. Manila.

³ Government of Kiribati. 2016. *Kiribati Development Plan, 2016–2019*.

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

⁵ ADB. 2016. *Pacific Approach, 2016–2020*. Manila.

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

⁷ Financing partners: the governments of Australia, Austria, Norway, Spain, and Switzerland.

⁸ ADB, Pacific Department. 2014. *Additional Cofinancing – Proposed Administration of Grant to Republic of Kiribati: South Tarawa Sanitation Improvement Sector Project*. Memorandum. 14 May (internal).

5. The current project encountered initial delays because of significant capacity constraints within MPWU and the executing agency, the Ministry of Finance and Economic Development (MFED). This led to the establishment of the Kiribati Fiduciary Services Unit (KFSU) within MFED. MPWU recruited an international project technical advisor to support the project implementation unit within MPWU, as well as ensure effective project monitoring and evaluation. The project steering committee, the National Infrastructure Development Steering Committee, meets regularly to review project implementation progress and to address issues.

6. The project performance rating has consistently been on track since January 2015. The project was performing well as of the second quarter (Q2) of 2016.⁹

- (i) **Delivery of expected outputs.** The status of the expected outputs are as follows:
- (a) Output 1 intends to engage the community in order to improve sanitation and hygiene practices among South Tarawa's population. Of the 11 local people engaged as community mobilizers, eight are women. Through the use of these community mobilizers, the project has successfully engaged South Tarawa communities and the public. A recent review of community survey data indicates a marked improvement in hygiene practices and continued effort to advocate a user-pays principle to recover water charges.
 - (b) Output 2 comprises improvements to the existing sanitation infrastructure. This includes the rehabilitation of the Bairiki, Betio, and Bikenibeu saltwater and sewerage systems and upgrading works on three sewerage outfalls. The international competitive bidding (ICB) civil works package for sewerage systems (ICB01) has been ongoing since August 2014. The ocean sewerage outfall civil works package (ICB02) had been delayed by rebidding and a redesign of the due diligence required for the work to fit within the budget. The contract was awarded in July 2016. MPWU had considered using sludge digesters in ICB01, but opted to procure conventional drying beds instead as a variation through the ICB01 contract. Procurement is expected to be completed by April 2017. Discussions are ongoing on establishing an operation and maintenance (O&M) contract for up to 5 years following completion of both civil works packages. The request for quotation for two on-site sanitation pilot packages was issued on 1 July 2016. These packages are being evaluated and are expected to be awarded by September 2016. These on-site sanitation pilot packages form the first of two candidate subproject groups. This pilot program aims to provide 39 households with on-site sanitation systems, such as septic tanks with system support, and undertake quarterly effluent and compost quality monitoring program over a 2-year period. An international sanitation engineer and a national sanitation engineer have been recruited to implement the program. The pilot program for the second subproject group is expected to proceed provided there is sufficient funding. Output 2 is anticipated to be delivered as expected, ensuring that the PUB effectively manages the wastewater in South Tarawa.
 - (c) Output 3 comprises capacity building for MPWU and PUB to improve their ability to plan and manage water and sanitation services. The capacity

⁹ ADB. 2010. *Additional Financing: Enhancing Development Effectiveness*. Manila (para. 52); and ADB. 2011. *Additional Financing. Operations Manual*. OM H5/BP. Manila (para. 3).

development component made substantial progress during the first 3 years of project implementation. Training activities under the capacity development plan have been reviewed and discussions are ongoing on further maintenance and asset management training following completion of the physical works.

- (d) Output 4 involves the creation of a dedicated sanitation maintenance fund under MPWU. The fund will be available to PUB to finance sanitation O&M as well as the determination of the tariff structure. The project will set up \$0.74 million in grant funds for sanitation maintenance. The government has concurred with the policy and governance arrangements for establishing the fund. A significant delay occurred when replacing the financial advisor to support the establishment of the fund, but that position has now been filled and will provide continued support to MPWU. Complementary to the current project, the Pacific Regional Infrastructure Facility has provided technical assistance (co-led by ADB and the World Bank) to advise the government on utility services reform, including a review of the tariff structure.¹⁰ The revised design and monitoring framework proposes to change the time frame for activities under this output to align them with the current status. This output is not yet due.
 - (e) Output 5 is efficient and effective project management provided by MFED and MPWU. The KFSU ensures effective project coordination, and fiduciary and procurement support. The project implementation unit within MPWU provides direct project implementation support. MPWU also recruited a consultant technical advisor to provide effective project management. Physical work is on track and planned for completion by April 2017.
- (ii) **Satisfactory implementation progress.** Progress on contract awards is satisfactory as one of the two major civil works packages is being implemented. Overall civil works contract administration is being routinely monitored by the supervising engineer. The contract for project management and implementation services was awarded on 5 June 2012 for \$4.1 million and A\$1.0 million (totaling \$5.2 million equivalent). As of July 2016, the current contract amount was about \$6.7 million because of variations related to additional design and staff inputs. The ICB01 contract was awarded on 31 August 2014 for \$5.2 million. With 55% of the project time elapsed, the cumulative contract award is 60% (\$12.7 million) and disbursement is 44% (\$9.3 million).
 - (iii) **Satisfactory compliance with safeguard policy requirements.** Compliance with the project's social and environmental management plans and the environmental licenses for ICB01 is satisfactory. The Ministry of Environment, Lands and Agriculture Development (MELAD), which carries out routine compliance monitoring, has not reported any major issues. The ICB01 contractor routinely monitors its compliance with the environmental management plan (EMP); the consulting engineer also checks and audits such compliance. The contractor's health and safety performance was found to be of best practice. The contractor has implemented its HIV/AIDS prevention program and has engaged in community and village cleanup initiatives.

¹⁰ ADB. 2013. *Technical Assistance for the Establishment of the Pacific Region Infrastructure Facility Coordination Office*. Manila.

- (iv) **Successful management of risks.** The project has managed and mitigated the risks identified during processing and implementation. As such, the successful implementation of the project is not threatened by major risks. Nonetheless, the road infrastructure investment that is being undertaken concurrently still presents a coordination risk related to underground servicing work. Measures adopted include regular project coordination briefings ahead of work. Risks are further reviewed during administration review missions.
- (v) **On track rating.** The project's performance was rated *on track* as of Q2 2016.

7. Additional financing is needed because costs were underestimated and the ocean sewerage outfalls package required a redesign. At project inception, the consulting engineers of the project implementation unit reviewed the preliminary designs and background reports that had been prepared under the project preparatory technical assistance.¹¹ They discovered that the design reports for pumps and infiltration galleries needed improvement. The drawings, for example, did not indicate any details about service hole and pipe locations, sizes, and depths. The information was considered inadequate for environmental assessment purposes. Significant work was involved in reviewing and producing detailed design drawings and bid documents, and obtaining environmental approvals. The bid documentation was only considered conceptual, largely because the design reports and the details of the drawings were inadequate. As a consequence, an additional 12 months were required to prepare the bid documents for the core subprojects.

8. The cost estimate for ICB01 at project appraisal was \$5.9 million (A\$6.0 million equivalent),¹² following the consulting engineers review and detailed design, the cost estimate increased to \$6.8 million equivalent (A\$6.9 million). The approved contract award value was A\$7.9 million (\$7.4 million equivalent), 31.7% more than the appraisal estimate and 8.2% above the designers' revised estimate. The overall shortfall totals \$1.24 million (A\$1.33 million equivalent).¹³ Increases were primarily related to mobilization, insurance, and general costs (A\$2.6 million); and differences in prices of most items (e.g., rehabilitation and installation of pump stations, construction of service holes). Work is ongoing, and the current approved variation totals A\$0.7 million for installation of valves, connections, risers and surface boxes, and hydrants, as well as the replacement of the Bikenibeu saltwater tower. A systematic assessment of the condition of these assets found that the identified network assets have significant corrosion and must be replaced.

9. The ICB02 contract to rehabilitate the three ocean sewerage outfalls proposed horizontal directional drilling as the preferred construction methodology. The cost estimate for this package at project appraisal was \$4.0 million (A\$4.1 million equivalent) (footnote 12). Four bidders responded with bid prices from A\$7.5 million (\$6.7 million equivalent) to A\$17.1 million (\$15.3 million equivalent),¹⁴ or 67.5%–327.5% above the engineer's estimate. The bids were indicative of the high risks that the market placed on the remote and inaccessible country, and the arduousness of the work site. An independent review concluded that horizontal directional drilling is not recommended because of unknown geotechnical conditions and the uncertainty regarding consistency and ease of drilling through the reef. In view of the high bid prices, the tender was canceled in August 2014. The engineer recommended changing the design to the

¹¹ ADB. Kiribati Tarawa Sanitation Improvement Project. <http://www.adb.org/projects/43072-012/main>.

¹² The \$1.000 = A\$1.022 exchange rate is based on the date of Board approval (26 September 2011).

¹³ The \$1.000 = A\$1.071 exchange rate is based on the date of the contract award (31 August 2014).

¹⁴ The \$1.000 = A\$1.116 exchange rate is based on the date of bid closing (10 February 2014).

conventional over-the-reef placement for all outfalls, using materials and specifications that would improve the sustainability of the installation at an estimated cost of \$5.4 million. The estimated costs cover general establishment costs, outfall replacement, and larger diameter pipes. A temporary outfall pipeline would be required at each outfall location to maintain the existing flows of wastewater.

10. The ICB02 retendering process took 18 months. The process involved a detailed marine survey and design, an environmental assessment and public consultations, bid documentation, and tender evaluation. Following the tender evaluation, the contract award was awarded in July 2016 for A\$6.9 million (\$5.2 million equivalent).¹⁵

11. The current project meets all eligibility criteria for additional financing¹⁶ because it (i) remains technically feasible, economically viable, and financially sound (paras. 17–18); (ii) is a high priority of the government, which has included the investment in the KDP; (iii) retains the original development objectives; and (iv) is consistent with ADB's current country partnership strategy for Kiribati (footnote 5). The current project has faced challenges, but no major change in the design and implementation arrangements was required. The current project performance has been rated *on track* since Q1 2015. 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 is met.

B. Impact and Outcome

12. The impact and outcome of the project will not change. The impact will be improved health for the people of South Tarawa. The outcome will be enhanced access to improved sanitation infrastructure and services for South Tarawa's urban population.

C. Outputs

13. The outputs will not change: (i) sanitation and hygiene practices among South Tarawa's population will be improved through a community engagement program; (ii) priority water and sanitation infrastructure (i.e., the existing Bairiki, Betio, and Bikenibeu sewerage systems and the three sewerage outfalls) will be rehabilitated and upgraded, and onsite sanitation systems will be improved; (iii) MPWU and PUB will have the capacity to plan and manage water and sanitation services through a targeted capacity building program; (iv) a sanitation maintenance fund will be available to finance O&M; and (v) MFED and MPWU will provide project management and implementation services to support effective and efficient project implementation.

D. Investment and Financing Plans

14. The additional grant of \$2.8 million from ADB's Special Funds resources will increase investment in the project by 12% from the current level. The revised investment plan is in Table 1.

¹⁵ The \$1.000 = A\$1.339 exchange rate is based on the date of the Letter of Acceptance (26 July 2016).

¹⁶ ADB. 2010. *Additional Financing: Enhancing Development Effectiveness*. Manila (para. 51); and ADB. 2011. *Additional Financing. Operations Manual*. OM H5/BP. Manila (para. 4).

15. The government has requested a grant not exceeding \$2.8 million from ADB's Special Funds resources to help finance the project's civil works component.¹⁷ The government is providing \$0.23 million in taxes and duties for the additional financing. The revised financing plan is in Table 2.

Table 1: Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Civil works	7.86	2.73	10.59
2. Plant and equipment	5.26	0.00	5.26
3. Capacity building	1.18	0.00	1.18
2. Consulting services	6.01	0.00	6.01
3. Sanitation maintenance fund	0.74	0.00	0.74
Subtotal (A)	21.05	2.73	23.78
B. Contingencies^d	1.58	0.30	1.88
C. Financing Charges During Implementation^e	0.47	0.00	0.47
Total (A+B+C)	23.10	3.03	26.13

^a Refers to the original amount and previous additional financing from the Multi-Donor Trust Fund under the Water Financing Partnership Facility (financing partners: the governments of Australia, Austria, Norway, Spain, and Switzerland). Includes taxes and duties of \$0.76 million to be financed from government resources as exemptions.

^b Includes taxes and duties of \$0.23 million to be financed from government resources as exemptions.

^c In mid-2016 prices.

^d Physical contingencies computed at 10% for selected civil works; and 10% for field research and development, training, surveys, and studies. Price contingencies computed at 0.0% for 2012 and 0.5% thereafter for foreign costs; and 4.4% for 2012, 4.0% for 2013, 3.9% for 2014, and 3.0% for 2016 on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest during implementation for the Asian Development Bank loan calculated at 1% per year.

Sources: Asian Development Bank estimates.

Table 2: Financing Plan

Source	Current		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank						
Special Funds resources (loan)	7.56	33	0.00	0	7.56	29
Special Funds resources (grant)	0.00	0	2.80	92	2.80	11
Government of Australia ^a	13.95	60	0.00	0	13.95	53
Multi-Donor Trust Fund ^b under the Water Financing Partnership Facility	0.61	3	0.00	0	0.61	2
Government of Kiribati	0.98	4	0.23	8	1.21	5
Total	23.10	100	3.03	100	26.13	100

^a Administered by the Asian Development Bank (ADB).

^b Financing partners: the governments of Australia, Austria, Norway, Spain, and Switzerland. Administered by ADB. Sources: Asian Development Bank estimates.

E. Implementation Arrangements

16. The implementation arrangements for the additional financing are consistent with the ongoing implementation arrangements. These are summarized in Table 3 and described in

¹⁷ 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.

detail in the project administration manual (PAM).¹⁸ The implementation arrangements for the additional financing will ensure economy, efficiency, and responsiveness to clients.

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	1 February 2012–31 December 2019		
Estimated completion date	30 June 2019		
Grant closing date	31 December 2019		
Management			
(i) Oversight body	National Infrastructure Development Steering Committee (project steering committee): Cabinet (chair) Ministry of Finance and Economic Development; Ministry of Public Works and Utilities; Ministry of Environment, Land and Agriculture Development; Ministry of Internal Affairs; Ministry of Health and Medical Services; Teinainano Urban Council; and Betio Town Council (members)		
(ii) Executing agency	Ministry of Finance and Economic Development		
(iii) Implementing agency	Ministry of Public Works and Utilities		
(iv) Implementation unit	Ministry of Public Works and Utilities. A total of 498 person-months of consulting services will be provided to support project management and implementation.		
Procurement	International competitive bidding	5 contracts	\$13.98 million
	Shopping	8 contracts	\$0.17 million
Consulting services	Quality- and cost-based selection	1 contract existing and valid	The original procurement plan indicated an estimated value of \$5 million. The awarded contract was \$5.2 million equivalent (signed 5 June 2012).
	Individual	18 contracts	\$1.67 million
Disbursement	The loan and grant proceeds will be disbursed in accordance with the <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) of the Asian Development Bank (ADB) and detailed arrangements agreed between the government and ADB.		

Sources: Asian Development Bank and the Republic of Kiribati.

III. DUE DILIGENCE

A. Technical

17. The overall project has been assessed as technically viable, as demonstrated by the absence of any significant technical issues during the ongoing civil works and the wider sector project activities. ICB01 includes the rehabilitation of the saltwater system, service holes, sewerage systems, pump stations, electrical and/or controls equipment, saltwater towers, and intakes. Saltwater pipeline cleaning, jetting, and restoration in Betio is completed; cleaning, inspection, and repair of the sewerage system is ongoing. Work on the elevated tanks and towers is ongoing. The Betio saltwater tank has been refurbished and recoated with corrosion-resistant epoxy. The other towers in Bairiki and Bikenibeu are due for replacement. The saltwater tower at Bikenibeu is dilapidated and will be demolished and replaced. The Bairiki tower was demolished and work has begun. Work on pumping facilities has started in parallel with the ongoing reticulation upgrades. Work on the ocean sewerage outfalls has not started.

¹⁸ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

B. Economic and Financial

18. The project's economic viability was reevaluated based on the higher cost estimates. The revised economic internal rate of return is estimated at 12.7% (from 16.1% in the original appraisal), which is considered acceptable as it exceeds the 10.0% economic opportunity cost of capital adopted for the analysis.¹⁹ The high economic internal rate of return can be attributed to expected improvements in productivity resulting from reduced incidences of mortality, particularly of infants and children under 5 years of age, and from the avoided near-term risk of a serious outbreak of potentially fatal diseases such as cholera. The financial analysis concluded that the project is sustainable based on the government's commitment to (i) introduce tariffs to cover sewerage O&M costs along with service delivery improvements; and (ii) establish the sanitation maintenance fund to ensure that adequate funds are available to cover the O&M costs of the sanitation system in the short to medium term.

C. Governance

19. **Financial management.** A public expenditure and financial accountability assessment, conducted in Kiribati in 2010, indicated that public financial management is weakened by (i) lack of fiscal discipline, (ii) nonretirement of advances, (iii) lack of financial reconciliation between MFED and the line ministries, (iv) lack of effective expenditure commitment controls, and (v) outdated legislation and regulations.²⁰ Since that assessment, ADB and other development partners have assisted the government in designing and implementing the Kiribati Public Financial Management Plan, 2011–2014.²¹ Improvements in public financial management have been noted, and plans are in place to update the public expenditure and financial accountability assessment in 2017.

20. The financial management arrangements for the current project will continue for the additional financing. MFED will continue to be responsible for the overall financial management of the project, and a full-time qualified project accountant will continue to handle all financial management activities. The project will continue to use direct payment and imprest fund disbursement procedures, and all required audits will be carried out. For the current project, no audited project financial statements are overdue and no financial management issues are pending. All four audited project financial statements were submitted early and were issued with unqualified opinions.

21. **Anticorruption.** ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and MFED. The specific policy requirements and supplementary measures are described in the PAM (footnote 18).

22. **Procurement.** KFSU has assisted MPWU in procuring all project goods, works, and services under the current project, with close oversight by ADB. Initially ADB administered the selection of project management and implementation consultants. The coordination between KFSU and MPWU is ongoing.

¹⁹ Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

²⁰ Government of Kiribati. 2010. *Kiribati: Public Financial Management—Performance Report*. Tarawa. http://asia.ifad.org/web/kiribati/resources/-/resource_library/5919/newsletter.

²¹ Government of Kiribati. Kiribati Public Financial Management Plan, 2011–2014. Unpublished.

D. Poverty and Social

23. The current project will directly contribute to poverty reduction and provide social benefits through improved sanitation and hygiene practices, and enhanced access to improved sanitation among South Tarawa's population. This is expected to result in significant health improvements, higher productivity, and lower expenditures on medical treatment.

24. The project serves the port area of Betio, a prostitution hub, where there is considerable risk of sexually transmitted infections and HIV transmission. While the current HIV prevalence rate in South Tarawa is reported to be low, the port is a hub for international fishing vessels and about 30% of the population has a sexually transmitted infection. The current project carries out an HIV prevention program for the contractor's employees and communities near the project site.

25. **Gender.** The current project is classified *effective gender mainstreaming*. Most project outputs have specific gender design features to facilitate women's participation in, and access to, project benefits. The gender action plan aims to ensure that any potentially harmful effects on women are avoided, with specific actions that will allow women to benefit from the project. The gender action plan includes awareness and behavior change campaigns that have been ongoing with support from a community engagement and gender specialist, as well as community mobilizers. The community engagement outreach has been running concurrently with targeted gender training for MPWU, PUB, urban councils, and community leaders.

E. Safeguards

26. **Environment.** The current project is classified category B for the environment under ADB's Safeguard Policy Statement (2009) as impacts are site-specific. Mitigation measures are in place through approved initial environment examinations, in accordance with the project's environmental assessment and review framework. Corresponding EMPs have been prepared with national requirements met and environmental licenses issued by MELAD for ICB01 and ICB02. Since the additional financing is for cost overruns only, with no new or additional civil work, it is classified category C. The environmental assessment found that the project will enhance the overall environmental quality of freshwater and nearshore marine areas through upgraded sewage and sanitation facilities. An international environment specialist and a national environment inspector are engaged to ensure compliance monitoring of the EMPs and reporting to MELAD. A climate change adaptation risk evaluation was conducted and considered in the infrastructure design.

27. **Involuntary resettlement.** The current project is classified category B for resettlement. An updated resettlement plan for the project and a land resettlement review framework are in place to provide guidance for any unanticipated impacts. The additional financing is classified category C, as it is designated for civil works to replace three sewerage outfalls on public land. The additional financing will not entail any new or additional civil work that would result in land acquisition or resettlement.

28. After detailed design, there is no known legal impediments regarding access to sites, and all surrounding landowners have been advised of the work. Safeguards monitoring reports for the original project are regularly submitted and disclosed.

29. **Indigenous peoples.** The current project is classified category C for indigenous peoples. It will have no impact on any distinct and vulnerable group of indigenous peoples, as defined

under the Safeguard Policy Statement. The beneficiaries are the people of South Tarawa, who are largely from the i-Kiribati ethnic group. All project outputs will continue to be delivered in a culturally appropriate and participatory manner.

F. Risks and Mitigating Measures

30. Major risks and mitigating measures are described in detail in the risk assessment and risk management plan.²² Overall, the risks are being managed and mitigated under improved project implementation arrangements, in particular the establishment of 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 at PUB and the government's reinstated subsidy for community service obligations to assist O&M funding for water and sewerage infrastructure.

IV. ASSURANCES

31. 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 PAM and legal documents.

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

V. RECOMMENDATION

33. 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 \$2,800,000 to the Republic of Kiribati for the additional financing of the South Tarawa Sanitation Improvement Sector Project, from ADB's Special Funds resources; and such other terms and conditions as are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao
President

14 September 2016

²² 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			
<p>Current project Improved health of South Tarawa's population</p> <p>Overall project Unchanged</p>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<p>Outcome Current project South Tarawa's urban population has enhanced access to improved sanitation infrastructure and services</p> <p>Overall project Unchanged</p>	<p>Current project By 2019, 80% of the South Tarawa community in Bairiki, Betio, and Bikenibeu has access to improved sanitation (2010 baseline: 64.3%)</p> <p>Overall project Unchanged</p>	<p>Census data, and household and income expenditure survey</p> <p>WHO and UNICEF joint monitoring data</p>	<p>Climate change impacts are more severe than predicted by current models.</p>
<p>Outputs Output 1 Current project Sanitation and hygiene practices among South Tarawa's population are improved</p> <p>Overall project Unchanged</p>	<p>By 2018</p> <p>Current project 1a. People defecating in the open reduced to 5% (2005 baseline: 56%)</p> <p>Overall project Unchanged</p> <p>1b. 50% of consulted women in South Tarawa respond that their families practice hand washing with soap (2011 baseline: <20%)</p> <p>Overall project Unchanged</p> <p>1c. 50% of households in South Tarawa have adequate hand-washing stations in their homes (2011 baseline: <20%)</p> <p>Overall project Unchanged</p>	<p>1a–c. MFED project progress reports and surveys</p>	
<p>Output 2 Current Project Wastewater in South Tarawa effectively managed by the PUB</p> <p>Overall project Unchanged</p>	<p>Current project 2a. By 2018, water quality tests indicate fecal coliform concentrations of 9–127/140 enterococci/100 milliliters in nearshore areas where ocean outfalls are located (2010 baseline: 110–229/100 milliliters)</p> <p>Overall project</p>	<p>2a–b. MFED project surveys and Ministry of Environment, Lands and Agriculture Development lagoon water quality monitoring data; PUB data</p>	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<p>Output 3 Current Project MPWU and PUB will have the capacity to plan and manage water and sanitation services</p> <p>Overall project Unchanged</p>	<p>Unchanged</p> <p>2b. By 2016, technical performance of onsite sanitation systems is demonstrated in 35 locations in South Tarawa (2014 baseline: 0)</p> <p>Overall project Unchanged</p> <p>Current Project 3a. By 2018, PUB sanitation tariff revenues cover at least 85% of total sanitation O&M costs (2011 baseline: no tariff)</p> <p>Overall project Unchanged</p> <p>3b. By 2018, at least 80% of MPWU and PUB staff successfully complete gender sensitivity, hygiene, and sanitation training (2011 baseline: 0% of staff trained)</p> <p>Overall project Unchanged</p> <p>3c. By 2016, 90% of MPWU Water and Sanitation Engineering Unit staff undergo training on approved National Sanitation Guidelines</p> <p>Overall project Unchanged</p>	<p>3a–c. PUB data; MFED project progress reports</p> <p>3b. Gender-disaggregated data in MFED project training and consultation records</p>	
<p>Output 4 Current Project Adequate funds available to PUB to finance required sanitation O&M</p> <p>Overall project Unchanged</p>	<p>Current Project 4. By 2018, PUB annual asset management plans are fully financed and executed for at least 5 consecutive years (2011 baseline: asset management plans are neither prepared nor costed)</p> <p>Overall project Unchanged</p>	<p>4. MFED project progress reports</p>	
<p>Output 5 Current Project Project management and implementation</p>	<p>By 2018 Current Project 5a. PMU meets annual contract awards and</p>	<p>5a–b. MFED project progress reports</p>	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<p>services by MFED and MPWU ensure effective and efficient project implementation</p> <p>Overall project Unchanged</p>	<p>disbursements</p> <p>Overall project Unchanged</p> <p>5b. 100% of PMU and PIU staff successfully complete gender sensitivity training</p> <p>Overall project Unchanged</p>		
Key Activities with Milestones			
<p>1 Sanitation and hygiene practices among South Tarawa's population improved.</p> <p>1.1 In consultation with other development partners and government agencies, develop work program on sanitation and hygiene by the end of Q4 2012. (completed and ongoing review)</p> <p>1.2 Train and recruit at least 10 community motivators in target communities by Q2 2013. (ongoing)</p> <p>1.3 Carry out community-based sanitation and hygiene awareness activities from Q3 2013 to Q3 2019. (ongoing)</p> <p>1.4 Carry out public awareness campaign in South Tarawa from Q3 2013 to Q2 2019. (ongoing)</p> <p>1.5 Carry out baseline data collection in Q1 2013, a monitoring survey in Q1 2016, and an impact survey in Q3 2019. (ongoing)</p> <p>2 Wastewater in South Tarawa effectively managed by PUB.</p> <p>2.1 Tender and award civil works contracts for sewerage system rehabilitation by the end of Q2 2014. (completed)</p> <p>2.2 Procure a sewer cleaning plant by the end of Q2 2014. (in progress)</p> <p>2.3 Carry out and commission sewerage infrastructure by the end of Q2 2017. (changed)</p> <p>2.4 Procure and install milliscreens by the end of Q3 2016. (changed)</p> <p>2.5 Procure and install sludge digesters by the end of Q4 2015. (changed)</p> <p>2.6 Upgrade ocean outfalls by Q2 2017. (changed)</p> <p>2.7 Carry out group 1 candidate subproject (onsite sanitation pilot) feasibility, design, and tendering by the end of Q3 2016. (changed)</p> <p>2.8 Carry out group 1 candidate subproject (onsite sanitation pilot) implementation by the end of Q1 2017. (changed)</p> <p>2.9 Carry out group 2 candidate subproject feasibility design and tendering by Q3 2017. (changed)</p> <p>2.10 Carry out group 2 candidate subproject implementation by Q1 2018. (changed)</p> <p>3 MPWU and PUB have the capacity to plan and manage water and sanitation services.</p> <p>3.1 Advisors in financial management and sewerage system O&M are embedded in PUB during Q1 2013–Q4 2017. (ongoing)</p> <p>3.2 Capacity development training activities are developed and implemented for MPWU and PUB staff by Q4 2017. (ongoing)</p> <p>3.3 National Sanitation Guidelines are finalized, based on the results of the onsite sanitation pilot, by Q3 2017. (changed)</p> <p>4 Adequate funds available to PUB to finance required sanitation O&M.</p> <p>4.1 Governance arrangements for the sanitation maintenance fund are designed in consultation with relevant government agencies for endorsement of the project steering committee by Q1 2017. (changed)</p> <p>4.2 Support is provided for the establishment and management of the sanitation maintenance fund, including the provision of secretariat services such as monitoring and reporting on available maintenance funds from Q1 2015 to Q1 2018. (ongoing)</p> <p>5. Project management and implementation capacity of MFED and MPWU strengthened.</p> <p>5.1 Operational PMU and PIU are established by the end of Q2 2012. (ongoing)</p> <p>5.2 Gender action plan is implemented and monitored by Q2 2012. (ongoing)</p>			

Asian Development Bank	
Loan (Special Funds)	Grant (Special Funds)
\$7.56 million (current)	\$0.00 (current)
\$0.00 (additional)	\$2.80 million (additional)
\$7.56 million (overall)	\$2.80 million (overall)

Government of Australia^a	Multi-Donor Trust Fund under the Water Financing Partnership Facility
Grant	Grant
\$13.95 million (current)	\$0.61 million (current)
\$0.00 (additional)	\$0.00 (additional)
\$13.95 million (overall)	\$0.61 million (overall)

Government of Kiribati
\$0.98 million (current)
\$0.23 million (additional)
\$1.21 million (overall)

Assumptions for Partner Financing

Current
Not applicable

Overall
Unchanged

MFED = Ministry of Finance and Economic Development, MPWU = Ministry of Public Works and Utilities, O&M = operation and maintenance, PIU = project implementation unit, PMU = project management unit, PUB = Public Utilities Board, Q = quarter, UNICEF = United Nations Children's Fund, WHO = World Health Organization.

^a In accordance with the cofinancing agreement between the Government of Australia and the Asian Development Bank dated 27 January 2012.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=43072-015-2>

1. Grant Agreement
2. Sector Assessment (Summary): Water and Other Urban Infrastructure and Services
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. Gender Action Plan
11. Initial Environmental Examination
12. Environmental Assessment and Review Framework
13. Resettlement Plan
14. Resettlement Framework
15. Risk Assessment and Risk Management Plan