

## SECTOR ASSESSMENT (SUMMARY): TRANSPORT (WATER TRANSPORT [NON-URBAN])

### A. Sector Road Map

#### 1. Sector Performance, Problems, and Opportunities

1. The Republic of Kiribati is one of the most remote and geographically dispersed countries in the world. The country's 33 islands are scattered over 3.5 million square kilometers (km<sup>2</sup>) in central and western Pacific Ocean. The estimated population is 115,847, of which about half live in the capital, South Tarawa, which has an area of only 16 km<sup>2</sup>.<sup>1</sup> The remainder are dispersed in small communities across 20 populated atolls within three main island groups, the Gilbert Islands in the west (90% of the population), the Line Islands in the east (10%), and the Phoenix Islands in the center, which are virtually uninhabited other than a small government presence. An outlying island, Banaba, is about 250 km west of the Gilbert Islands. The average population of the outer islands is around 2,000. Kiritimati, the largest of the Line Islands, has a population of about 5,000.<sup>2</sup>

2. The distances between population centers are vast. Kiritimati in the Line Islands is some 3,300 km east of South Tarawa, the largest of the Gilbert Islands. Kiribati is constrained by geographic isolation, a small population, and high transport and shipping costs. Its low-lying atolls are vulnerable to the impacts of sea level rise, storm surge, coastal erosion, and saltwater intrusion. South Tarawa attracts internal migration from the outer islands because of opportunities for employment and consumption as well as access to higher education and social and health services that are not available elsewhere in the country. The Government of Kiribati's strategic vision is to stem migration from the outer islands by improving infrastructure and ensuring that everyone can access services and associated opportunities and by achieving inclusive trade and private sector growth.<sup>3</sup>

3. The nation depends upon maritime transport to import essential manufactured goods, export agriculture and fishery products, and connect and resupply outer island communities. Only two ports are capable of handling international shipping: one in Betio, which serves the Gilbert Islands, and the other in Kiritimati, which supplies the Line Islands and Phoenix Islands. Domestic shipping services (interisland) are provided by small independent shipping companies and the government-owned operator, Kiribati National Shipping Line.

4. Reliable and safe connectivity is critical for outer island development. Movement between the islands involves air and sea travel. Flights to the outer islands are much faster but more expensive than sea voyages, which may take several days. Air and sea transport services struggle to meet reliable schedules. Airfields, especially those in the outer islands, are occasionally closed because of poor runway conditions, especially after heavy rains. Maritime transport (shipping) used for passenger, cargo, and vehicle movement to the outer islands is similarly unreliable, with distant island communities sometimes waiting long periods for resupply. High-profile maritime incidents in 2009 and 2018 have highlighted the importance of safety in maritime operations.

5. Outer island transport infrastructure has seen no significant investments in the past 10 years. Most islands have no ports or jetties. Transfers from ship to shore, especially for

<sup>1</sup> The World Bank. <https://data.worldbank.org/country/kiribati> (accessed 29 January 2020).

<sup>2</sup> This sector assessment (summary) is based on ADB. 2020. *Kiribati Transport Sector Assessment*. Available on request.

<sup>3</sup> Government of Kiribati. 2015. *Kiribati Development Plan 2016–19*. Tarawa.

passengers, can be uncertain and involve wading some distance to land in several islands. The government's 20-Year Vision (2016–2036) identifies this challenge, listing port infrastructure, boat channels and passages, aids to navigation, hydrographic surveys, and nautical charts as needing improvement to deliver economic and social benefits.<sup>4</sup>

6. The subsidized copra industry is pertinent to the economy and to maritime transport, especially in the outer islands, where trading opportunities are extremely limited, and producers are paid a guaranteed price in cash when they bring copra in for weighing. Copra movement is a significant component of outer island shipping. One objective of the Copra Fund Subsidy, which began in the mid-1990s, is to encourage people to remain in the outer islands rather than migrate to South Tarawa. The logistics of bringing copra to international markets is complex and the process can be lengthy, in both time and distance.

7. Aside from copra, the volume of cargo carried by sea between the islands is small. However, outer island communities are still highly dependent on safe, reliable shipping access for the transfer of bulk fuel, cargo, vehicles, building materials, plant, and equipment, as well as passengers. The outer islands have few motor vehicles, mainly mopeds, motorcycles, and light trucks. These are delivered via landing craft vessels during suitable states of tide. Proper maintenance of outer island transport infrastructure such as roads and airstrips will require maritime transport capability that can reliably and affordably carry heavy vehicles, plant, and machinery to these islands, and deliver them safely ashore. Kiribati lacks this capability because of a shortage of suitable vessels and the infrastructure needed to support such operations. Improvements in hydrographic surveying, nautical charting, and aids to navigation, along with strengthened institutional capacity in maritime safety regulation, are needed to advance the safety, efficiency, and sustainability of outer island maritime transport.

8. The outer islands have two international airports—one in South Tarawa (Bonriki), one in Kiritimati—and 19 domestic airports. Four of the domestic airfields are being upgraded to accommodate the newly acquired Dash 8 aircraft of Air Kiribati Ltd. (AKL). Serving the Phoenix Islands, the Kanton airfield has fallen into disrepair and needs rehabilitation to be fit for large aircraft operations capable of supporting ecotourism development under the Phoenix Islands Protected Area (PIPA), and to be available as a point for Extended-Range Twin-Engine Operational Performance Standards for air service emergencies in the Line Islands and Phoenix Islands. Domestic air services are unreliable and link the Gilbert Islands only.

9. Tarawa is linked by air to Fiji, with weekly flights to Nauru, Micronesia (Kosrae and Pohnpei), the Marshall Islands, and Tuvalu. Kiritimati has weekly links with Fiji and Honolulu. There is no scheduled direct air service between Tarawa and Kiritimati. Travel between the Line Islands and the Gilbert Islands depends on shipping (a 2- to 3-week journey) or by air travel, which involves overnight transiting through Fiji.

10. Aside from South Tarawa, Kiribati has few vehicles or roads. The main road in South Tarawa, which connects the airport with the main seaport and passes through densely populated areas, has been recently upgraded. Completed in November 2016, the Kiribati Road Rehabilitation Project was carried out in partnership with the Government of Kiribati and sponsored by the Asian Development Bank (ADB), the World Bank, and the Government of Australia, improving more than 30 km of critical roads.<sup>5</sup> This road is the only transport route on South Tarawa and is vital to the entire population. The project also installed footpaths, speed

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<sup>4</sup> Government of Kiribati. 2016. *Kiribati 20-Year Vision, 2016–2036*.

<sup>5</sup> Asian Development Bank (ADB). 2018. *Completion Report: Road Rehabilitation Project in Kiribati*. Manila.

bumps, street lighting, and road signs to improve safety. Training and jobs are being provided for women and men participating in road maintenance microenterprises, boosting incomes for local communities.

11. The condition of roads in the outer islands is generally extremely poor. Within each island (atoll), separate islets are sometimes linked by causeways or bridges. Many are damaged or missing, which means that the only available connections are by boat. The core material of reef mud used in road construction is prone to premature damage from heavy rain. During extended periods of dry weather, the reef mud generates dust, stirred by wind and traffic, creating a health hazard and community nuisance.

12. The status of roadworks in the outer islands affects linkages with tourism, fisheries, and agriculture, limiting the development of potential economic opportunities. More investment is needed in recurring road and runway maintenance.

## **2. Government's Sector Strategy**

13. Improving infrastructure and access to basic services for outer island populations is among the guiding principles of the government's published strategic directives, including the Kiribati Development Plan (KDP) 2016–2019,<sup>6</sup> and the nation's long-term vision document, Kiribati 20-Year Vision 2016–2036 (footnote 4). The government's strategy is to stem migration from outer islands by improving infrastructure and ensuring that everyone can access services, associated opportunities, and by achieving inclusive trade and private sector growth. Aspirations for improved infrastructure include upgraded roads and airfields, which, because of the dependency on maritime access for plant and materials, can be realized only with appropriate maritime infrastructure. The KDP promotes private sector development.

14. The Kiribati 20-Year Vision addresses the need to develop outer island infrastructure, specifically listing the requirement for upgraded hydrographic surveying, with improved knowledge of the seabed and coastline being a fundamental requirement of any infrastructure project. This issue is prominent in the statements of requirement by ministries and stakeholders.

15. The Transport Sector Strategic Development Plan, published in February 2016, identifies the requirement for more regular and reliable shipping and air services to link the outer islands with the government and commercial hubs of South Tarawa and Betio.<sup>7</sup> The plan recommends improved coordination of transport services, safety, and tourism, including the creation of a transport coordination and development unit within the Ministry of Information, Communication, Transport and Tourism Development (MICTTD). The recommendation has not been implemented.

16. Tourism potential, including in the outer islands, is reflected in the government's long-term vision. The economic benefits of increased cruise ship visits have been studied and proven in other Pacific island countries, including Vanuatu, and while potentially viable in certain areas of Kiribati, cruise ship access would require improved hydrographic surveying and charting.<sup>8</sup> Because of some high-profile marine casualties in recent years, domestic vessel safety will need to be improved and confidence restored if any tourism venture involving domestic sea travel is to

<sup>6</sup> Government of Kiribati. 2015. *Kiribati Development Plan 2016–2019*. Tarawa.

<sup>7</sup> Government of Kiribati. 2016. Transport Sector Strategic Development Plan, MICTT/CF/K-B11, NTU International ApS, February. Tarawa.

<sup>8</sup> Australian Department of Foreign Affairs and Trade, Carnival Australia, and International Finance Corporation (World Bank Group). 2014. *Assessment of the Economic Impact of Cruise Ships to Vanuatu*. August.

succeed.

17. The Ministry of Fisheries and Marine Resources Development is developing tuna transshipment hubs in Tarawa and Kiritimati, offering services for fishing vessels to support their fishing operations in Kiribati and nearby waters. The development will include expanding tuna processing, which will be positive for Kiribati and fishing operators. Freight agreements with Nauru Airlines and Solomon Islands in 2017 aimed to increase export quantities of higher-grade tuna, providing additional export income and boosting local employment

18. To improve mobility, the government recently purchased a 40-seat Dash 8 aircraft to meet the ever-growing demand for domestic air travel, and to establish a link to neighboring countries as a stepping-stone toward full-scale international air service. This long-term plan includes the institutional strengthening of AKL to improve its domestic and international air service capability, tar-seal the runways in the outer islands, procure an aircraft such as a Boeing 737 (or equivalent from other aircraft makers), and review and establish air service agreements with certain countries in the Pacific and beyond. All outer island runways are to be upgraded by tar sealing. Scheduled flight frequency per month will be increased according to forecast demand, a move envisaged to support the government's development plan for tourism and fisheries.

19. The PIPA has potential to attract specialist tourist activities related to marine and bird life. The airport on the main island, Kanton, lacks the basic facilities needed to establish regular services. Kanton needs investment in air, sea, and road infrastructure to realize its tourist potential. Kanton could then be served as a halfway point between Tarawa and Kiritimati to ease direct air service between them. The inadequacy of nautical charting in Kanton is of concern to regional shipping operators and a major limitation on the progress of any development.

20. Improved outer island transport infrastructure could reduce the navigational risks to shipping, stimulate investment in the sector, and improve community confidence in the safety of sea transport. Bathymetric data obtained from hydrographic surveys will improve knowledge of the seabed, marine habitats, the coastline, and maritime boundaries, and will inform decisions relating to climate adaptation and resilience in these extremely low-lying islands. Improved shipping services will enable maintenance infrastructure to flourish in the outer islands, leading to improved roads and airstrips.

## **B. Major Development Partners: Strategic Foci and Key Activities**

21. ADB and World Bank have been working closely with the government since 2016 to develop a strategy and range of interventions to support outer island transport, leading to the proposed project. The Government of New Zealand provides ongoing assistance in delivering a series of maritime safety programs, and the Government of Australia has a long-term engagement that has included the provision of a police patrol boat, along with technical advisers and maintenance support for more than 20 years, and a new 40-meter patrol boat in 2020. Other key transport projects are summarized in Table 1.

**Table 1. Major Development Partners (Transport)**

<b>Development Partner</b>	<b>Project Name</b>	<b>Duration</b>	<b>Amount (\$ million)</b>
<b>Port Development</b>			
Government of Japan	Project for Expansion of Betio Port	2010–2014	\$33.8
<b>Roads</b>			
World Bank	Kiribati Road Rehabilitation Project	2010–2016	\$27.0
Government of Australia	Kiribati Road Rehabilitation Project	2010–2016	\$15.7
Asian Development Bank			
Government of Japan	Kiribati Road Rehabilitation Project	2010–2016	\$14.4
	Project for Reconstruction of the Nippon Causeway	2016–2018	\$31.7
<b>Aviation</b>			
World Bank	Kiribati Aviation Investment Project	2012–2019	\$35.6

Source: Asian Development Bank.

### **C. Institutional Arrangements and Processes for Development Coordination**

22. The Ministry of Finance and Economic Development (MFED) aims to centralize procurement and financial management of major donor projects in Kiribati and hosts the entity established for this purpose: the Kiribati Fiduciary Services Unit (KFSU). The KFSU has supported several ADB- and World Bank-financed projects for procurement, financial management, and overall coordination. Implementing agencies for the proposed project will include the Ministry of Infrastructure and Sustainable Energy and the MICTTD. An outer island implementation unit will be established and housed in the MFED. The unit will have overall responsibility for project management, safeguard compliance and monitoring, and project evaluation.

### **D. ADB Experience and Assistance Program**

23. In the 1980s, ADB supported rehabilitating the Betio shipyard and improving the power distribution system in Tarawa. In the late 1990s, ADB aided sanitation, public health, and better environmental management, including restructuring the Public Utilities Board to enable it to provide sustained water supply, sanitation, and solid waste management, and to carry out conservation work. ADB began cofinancing operations in Kiribati in 1995. Since then, cumulative direct value-added official cofinancing commitments have amounted to \$72.03 million for five investment and \$4.64 million for seven technical assistance projects.

24. The World Bank's review of the jointly delivered Kiribati Road Rehabilitation Project has lessons for the proposed project: (i) regional approaches are useful to tackle major infrastructure developments in small island and fragile states; (ii) while the central approach to procurement and technical expertise provides substantial benefits, it can be challenging to implement; (iii) support is needed on the ground; (iv) despite the project's focus and major financing for institutional strengthening and capacity development, the complexity of building capacity in isolated states requires more time than anticipated; (v) more implementation support is needed; and (vi) remoteness premiums need to be factored into project financing.

25. A safe and efficient transport system is essential to connect the population, especially in the outer islands, to economic opportunities and social services. ADB will continue to aid transport in alignment with national development priorities and focus on increasing equitable access to opportunities and basic services.

### Problem Tree for Transport

