

SUMMARY SECTOR ASSESSMENT: TRANSPORT

A. Sector Performance, Problems, and Opportunities

1. Solomon Islands, a widespread archipelago, relies heavily on a multimodal transport system for (i) passenger travel for social, educational, health, and business purposes; (ii) transfer of goods from the outer islands to the capital, Honiara, for domestic trade and export; and (iii) interisland movement of consumer goods, building material, and fuel. Transport connectivity is critical because about 85% of the population is scattered in rural and often remote areas. Access to transport can serve as a social equalizer by linking communities to health, education, and economic opportunities to achieve a better livelihood. Solomon Islands is ranked 6th in the world in being at risk of disasters caused by extreme natural events such as cyclones, floods, landslides, storm surges, earthquakes, tsunamis, and droughts.¹ Climate change will affect disaster risks through changes in climate hazards, as more extreme weather events are likely to increase in the future. The country is experiencing higher temperatures, changing rainfall patterns, varying frequencies of natural hazard events, and sea-level rise. Transport infrastructure is particularly vulnerable to these hazards.

2. Major exports are logs, alluvial gold, palm oil, fish, cocoa, coconut oil and copra, and sawn timber. Fisheries offer prospects for export expansion. Growth in the tourism industry is hampered by a lack of infrastructure and limited transportation services.

3. Economic growth was between 8% and 10% in 2010 and 2011 thanks largely to resource extraction such as forestry and mining, but decreased to 4.8% in 2012 and to 2.9% in 2013 as these sectors declined.² New drivers of growth are needed, and the country must become more self-reliant since development assistance is also being scaled down.³ Solomon Islands' best prospects lie in realizing opportunities and improving flows of people and resources in geographical areas and sectors where it has a distinct advantage. Most Solomon Islanders will continue to rely on smallholder agriculture, so improving productivity of smallholder agriculture and connectivity is vital for incomes, food security, and livelihoods. Potential for growth also lies with Solomon Islands' abundant natural resources, such as fisheries and minerals, and with tourism.

1. Marine Transport.

4. Marine transport is an essential component of the transport sector because it provides access and the most affordable means of connection between and within the six main islands and some of the smaller island groups, and to neighboring countries.

5. **Maritime infrastructure.** The Solomon Islands Ports Authority, a state-owned enterprise, operates the international ports of Honiara and Noro,⁴ and eight jetties and two ramps for domestic shipping in Honiara. The port of Honiara has a 120-meter berthing facility with no cranes squeezed against heavily congested domestic jetties. A project funded by the Japan International Cooperation Agency (JICA) to build a new 180-meter international wharf reclaimed from the sea started in October 2014. The volumes of cargo handled in Honiara are relatively low compared with other countries in the Pacific; the People's Republic of China is the main trading

¹ Alliance of Development Works, 2014. *World Risk Report 2014*. Berlin.

² ADB. 2014. *Asian Development Outlook*. Manila.

³ International Monetary Fund. *Solomon Islands: Staff Report for the 2013 Article IV consultation and Second Review Under the Extended Credit Facility Arrangement and Request for Modification of Performance Criterion*. Washington, DC.

⁴ International cargo is mainly handled at the port of Honiara, Guadalcanal, while the port of Noro, in Western Province, is dedicated to the fishing industry.

partner. Of a total of 81 wharves nationwide, 33 are in maintainable condition, although some require substantial repairs, while 48 are structurally deficient or functionally obsolete and must be replaced. A dozen priority wharves, included in the 33 above, were built recently, and four others and one ramp are being built under the Domestic Maritime Support Project⁵ and JICA funding. The domestic fleet comprises 200 registered vessels. Qualified private firms carry out vessel safety inspections under the oversight of the Solomon Islands Maritime Safety Authority (SIMSA).

6. **Maritime services.** Domestic shipping routes are outer-interisland routes and inner-interisland routes. Services are characterized by long distances from the main centers and export gateways, such as international ports to remote islands. The remote islands that lack reliable maritime services are among the poorest of Solomon Islands, with very small populations that contribute to low passenger service demand, which in turn affects the viability of services to these communities. This shifts service supply to higher demand routes, contributing to trade imbalances as well. Fees and charges for passengers and fleets are not regulated nor operated efficiently. The cost of shipping is not well known. Fares and tariffs are not published and only monitored along the franchise shipping scheme (FSS) routes.

7. The FSS is a system of providing financial assistance to private ship operators to run safe and regular services to areas where shipping operations are not usually commercially viable. It started in 2010 along eight routes under the Domestic Maritime Support Project. The subsidies are to be reduced over 5–10 years when these routes become commercially viable. As such, starting in mid-2016, the government must take over the payment of the FSS subsidy and consulting services to monitor shippers' claims and compliance with the FSS requirements. An assessment is under way to examine performance and to make recommendations to the government regarding future operations.

8. **Maritime transport institutions.** On 1 July 2010, the Marine Department of the Ministry of Infrastructure Development (MID) was officially transformed into SIMSA, a modern maritime safety regulator agency, to increase the efficiency of the maritime subsector, as was similarly done in the aviation subsector with the establishment of the Civil Aviation Authority. The main roles of SIMSA are to promulgate and ensure compliance with Solomon Islands' maritime law and international conventions, and significantly increase the safety of passengers and cargo traveling in domestic vessels.

9. **Challenges and opportunities.** Most wharves and jetties are in poor condition because of age and lack of maintenance. The assets are not adequately maintained and the maintenance approach is reactive. The National Transport Plan (NTP) has targeted 55 navigational aids for repair or replacement, although surface navigational aids are becoming obsolete and are replaced by electronic satellite-guided navigation in most parts of the world, suggesting that a strategic reconsideration might be warranted. Most of the registered vessels are old, of an inadequate type for the role used, or simply noncompliant. Ship owners and ship operators generally lack business skills, operations are often unprofessional, and the accident rate is high. According to SIMSA, if the vessels' type were adequate, a fleet of 50 vessels or less would be enough to meet passenger and cargo demands.

2. Land Transport

10. While coastal shipping is the preferred mode for providing rural access, land transport is

⁵ ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grant and Administration of Grant for the Domestic Maritime Support (Sector) Project in Solomon Islands.* Manila.

the country's second dominant mode of transport after maritime transport.⁶

11. **Land transport network.** The road network is about 1,500 kilometers (km) long, of which 173 km, or 12%, is sealed, and includes 377 bridges and 1,570 culverts. The provinces of Guadalcanal and Malaita account for about 59% of all roads, while 78% of sealed roads are found in Guadalcanal. Solomon Islands is among the lowest-ranking Pacific island countries in terms of road density per geographic area, second only to Papua New Guinea. However, road density in relation to the population is comparable with most other Pacific island countries. Solomon Islands' road network of sealed and unsealed roads provides 77% of the rural population with access to an all-weather road within a 2 km radius. This suggests that the size of the road network, in relation to both the population and the national revenue, is moderately adequate if the roads are properly maintained and are serviceable. However, by the end of December 2014, only 62% of the road network was in very good to fair condition, and also considered maintainable.⁷ Maintenance of roads requires a fair amount of minor to heavy repairs and, sometimes, localized rehabilitation, suggesting that the condition of the network is worse than generally conveyed by the term "maintainable". Motorized traffic is very low. In contrast, Honiara experiences daily traffic congestion because of an unusually high number of vehicles, probably beyond 10,000 for a population of 78,000. This is a consequence of cheap vehicle imports that cause a glut of private taxis.

12. **Road asset management.** Priority is given to road maintenance and repairs using labor-based, equipment-supported (LBES) contracts on unsealed roads and machine-based contracts on sealed and a few selected unsealed roads that require a heavier intervention. Budget limitations preclude MID from undertaking the volume of rehabilitation, strengthening, and periodic maintenance works necessary to rapidly reinstate and sustain the entire road network. The risk is that politically driven expensive upgrades or new works may be contracted at the expense of the maintenance and repair program, leading to a net loss of serviceable roads.

13. **Road rehabilitation and maintenance.** Under the proposed Sustainable Transport Infrastructure Improvement Program, the Government of Solomon Islands will cover about 85% of the cost of routine maintenance of the maintainable roads and wharves, which in turn represent about 60% of the roads and wharves nationwide. Because of the relatively large volume of transport infrastructure assets compared with the limited budget, it would take about 20 years for the government to be able to fund 100% of the routine maintenance of its roads and wharves, assuming that they would be reinstated by external aid over the same period. This conclusion assumes that Solomon Islands would enjoy a 5% annual gross domestic product growth, and external aid would progressively decline to 40% of MID's budget from its current 80% over the same period.

14. The domestic road construction industry is developing rapidly in response to better-planned and better-communicated public demand. New entrants, however, require that MID continue the training support to the private sector. MID will also need to step up contractors' performance to ensure equitable treatment and quality. Under the program, LBES contracts have the potential to generate the equivalent of about 1,750 person-years of full-time employment, of which about 50% should be for women.

15. **Land transport institutions and services.** Unlike most countries, Solomon Islands does not have a ministry of transport; MID covers the provision of both land transport infrastructure

⁶ Government of Solomon Islands. 2010. *National Transport Plan (2011-2030)*.

⁷ Road conditions are based on a scale of 1–5: (1) excellent, (2) good, (3) fair, (4) poor, and (5) very poor; roads in condition 1–3 are considered maintainable.

and transport services, including transport regulation and policy.⁸ No public transport services exist, but numerous small private operators appear wherever demand arises in a market that is hardly regulated.

16. **Challenges and opportunities.** The cost of maintaining the network is relatively high because it conceals expensive capital works required on recurrent degraded areas. A proper classification system and asset condition classification would project a more accurate picture of the road network and the level of intervention required to rehabilitate and maintain it.

17. In the near future, LBES contracts should develop into output-based maintenance contracts covering longer road lengths to alleviate contract administration and supervision efforts. Beforehand, the targeted unsealed network should be reviewed based on a cost–benefit analysis of regular maintenance.

18. By international standards, unit rates for works are high in Solomon Islands; containing, if not curtailing, them should be a priority of MID. The cost of civil works may continue to increase with demand even under more competition, unless (i) unit rates are systematically tracked and controlled using bid-cost breakdown analyses; (ii) less expensive designs are used, without neglecting climate change adaptation; and (iii) rigorous work supervision and contract management are enforced.⁹ The road and bridge standards developed by MID could be expanded by introducing less-expensive designs adapted to low traffic situations.

19. Road safety, as much as maritime shipping safety, is a serious concern.¹⁰ If SIMSA is tackling the latter, MID is not giving much attention to the former. Formal safety audits are not conducted nor are accident data routinely collected. Yet rural communities feel endangered and consistently cut the roadway across the width near markets and houses to reduce vehicle speeds. In Honiara, where traffic has increased considerably, motorized vehicles encroach on pedestrian walkways and put pedestrians, especially children and the elderly, at risk. The situation is aggravated by weak enforcement of the national drink-driving law.

3. Air Transport

20. Air services are essential for medical emergency and delivery of relief aid, for business people or tourists whose time value is generally high, and for the transport of high-value goods.¹¹

21. **Aerodrome assets.** The government owns the Henderson International Airport (HIR) and seven national airports, operated by the Civil Aviation Division of the Ministry of Communications and Aviation (MCA). In 2013, HIR absorbed almost 60% of all traffic. Twenty other airfields are in community or customary ownership, and the MCA administers arrangements that maintain scheduled flights into some of them. HIR, Nusatupe, and Munda are the only airports with a paved runway.

22. **Air services.** Five airlines are currently operating scheduled and unscheduled services from and to Solomon Islands: Virgin Australia, Air Niugini, Air Calédonie International (better known as Aircalin), Fiji Airways, and the country's national carrier, Solomon Airlines, which is a

⁸ Details on MID's institutional organization and performance can be found in Institutional Assessment (accessible from the list of supplementary linked documents in Appendix 2 of the main text).

⁹ The current average price of labor-based routine plus specific maintenance per km and per year is SI\$55,000; 4 years ago the cost estimate was SI\$25,000.

¹⁰ The 2010 World Health Organization Report includes 3.8 road fatalities per 100,000 inhabitants—45% of the deaths concerning pedestrians, and 22% drivers and passengers of cars.

¹¹ This section draws upon documents provided by the Ministry of Communications and Aviation (MCA), MID, the World Bank, and the draft final report of ADB. 2011. *Technical Assistance for Institutional Strengthening for Aviation Regulation*. Manila (TA 7684-REG).

state-owned enterprise. Solomon Airlines operates all domestic routes and handles the majority of international traffic. Passenger numbers are expected to keep growing over the next decade at a rate beyond 5%. Solomon Airlines suffers from significant diseconomies of scale, with small traffic on most domestic routes and little flexibility in the choice of the aircraft given the long distances between islands.

23. **Aerodrome operations.** MCA is responsible both for policy development and for the operation and management of airports' air traffic services, facilities, navigation systems and equipment, security, and asset management and development. MCA undertakes the maintenance of airports and airfields as well as security services using either its own staff or contracted services. Ground-handling services are conducted by Solomon Airlines for all scheduled passenger services, and by Solomon Island Terminal Services Limited, a private company, for nonscheduled services.

24. **Safety and security regulation.** The Civil Aviation Authority of Solomon Islands was established as a separate and independent safety regulator by the 2008 Civil Aviation Act. However, it is supported by staff seconded from the MCA. To meet international standards for safety and security, the government should achieve the full separation of operator and regulator. Solomon Islands has ratified the Pacific Islands Civil Aviation Safety and Security Treaty, and entered into a service-level agreement with the Pacific Aviation Safety Office.¹²

25. **Public sector financing.** An Aviation Special Fund (ASF) was established in 2009 with the intention of receiving government contributions, revenue from air navigation fees for flights through Solomon Islands' airspace, landing charges, and receipts from donations, which will all be used for operating, developing, and maintaining aviation infrastructure and facilities in accordance with international safety standards. Currently, the ASF is insufficient to fund all infrastructure maintenance and development needs of the aviation sector. Moreover, a lack of transparency and weak internal controls in the management of the ASF hinder its effectiveness and potential to mobilize the financial assistance of development partners. The effective implementation of the 2013 Public Finance Management Act should improve the situation because it requires the audit of all special funds.

26. **Challenges and opportunities.** The challenges faced by Solomon Islands are similar to those faced by other Pacific nations, i.e., (i) limited fiscal space to fund expensive aviation infrastructure; (ii) limited capacity to develop and manage regulatory systems; and (iii) long, thin airline routes that make it difficult to sustain the quality and frequency of airline services and recover operating costs.

27. The MCA is considering two policy options for air transport operations: the corporatization of all government-owned airports through a private concession, and the privatization of Solomon Airlines. Because a concession would not be commercially viable without government financial support, it is of critical importance to maximize the revenue streams realistically against the expenditure program by setting the safety and security levy at the appropriate level.

4. Transport Sector Budget and Expenditure Trend

28. In the period 2011–2013, the sector budget was about SI\$875 million, of which the government accounted for 15% and external aid for 85%. In the period 2011–2014, it was SI\$1,038 million and government contribution was 20%.¹³ Government contribution increased

¹² The Public Aviation Safety Office is an international civil aviation regulatory and advisory body that is responsible for aviation safety and security in 10 states of Oceania.

¹³ Program Expenditure and Financing Assessment (accessible from the list of linked documents in Appendix 2 of the main text.

from an annual average of SI\$43 million over 2011–2013 to about SI\$73 million in 2014. The same observation applies to the National Transport Fund (NTF), for which government contributions reached more than SI\$30 million in 2013 and 2014, after a slow start at around SI\$10 million. The government is expected to sustain its funding trend with contributions to the NTF gradually, reaching SI\$65 million in 2018. By contrast, expenditures were lagging till 2014, when it reached SI\$88 million. Under the proposed program, the average annual NTF budget will increase to SI\$117 million, and the targeted financial implementation rates are 70% in 2016, rising to 80% in 2020 incentivized by a disbursement-linked indicator.

B. Government's Sector Strategy

29. The 2011–2030 NTP formally sets out the strategic and policy agenda of the government, i.e., to (i) expand transport services, (ii) develop physical infrastructure with a clear emphasis on maintenance, (iii) improve the capacity of government agencies, and (iv) create opportunities for private participation.

30. The program's objectives fit the government's sector strategy in that they help (i) improve the operational capacity of the Central Project Implementation Unit, (ii) strengthen the country systems and increase their use among operators and regulators, (iii) maintain and rehabilitate priority infrastructures identified in the NTP, (iv) develop private sector and community skills, and (v) foster coordination between development partners within the sector-based framework.

31. **Challenges and opportunities.** Since 2011, the annual NTF work program has been developed as a proxy to the NTP 3-Year Action Plan. The NTF board's secretariat is updating the 3-Year Action Plan by the first quarter of 2016.

32. The two overarching issues are the operational capacity and budget constraints. The former can be managed by increasing the number of qualified staff and hiring the necessary implementation support. The latter requires affordable work programs and a tight control of cost and performance. In both cases, an enabling and effective management is a requisite. Past records show that operational capacity is the dominant issue, as budgets have never been fully disbursed. The proposed program will assist with capacity supplementation with an attached technical assistance.

33. Since the NTF inception, MID has on average allocated 48% of its annual resources to the NTF.

C. ADB Sector Experience and Assistance Program

34. ADB has been providing extensive assistance to the transport sector for more than 15 years. Support has primarily focused on the road and maritime subsectors, and included post-conflict emergency works as well as post-disaster rehabilitation. Policy and advisory technical work on sector reform was mostly provided through technical assistance.

35. ADB's Post-Conflict Emergency Rehabilitation Project was completed in 2008. The two Solomon Islands road improvement projects, which rehabilitated and maintained the road network extensively, were completed in 2011 and 2012.¹⁴ The Solomon Islands Emergency

¹⁴ ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Solomon Islands for the Post Conflict Emergency Rehabilitation Project*. Manila. ADB. (2006). *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grant to Solomon Islands for the Road Improvement (Sector) Project*. Manila and ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Asian Development Fund Grant and Administration of Grants, Solomon Islands: Second Road Improvement Project*. Manila.

Assistance Project was completed in 2012.¹⁵ The wharves component of the Domestic Maritime Support Project closed in December 2014; the FSS component will continue until 2018 or the depletion of funds, whichever comes first. The Transport Sector Development Project, a key pillar of the sector-based approach, is winding down and will be completed by mid-2016. ADB technical assistance has strengthened MID's institutional capacity and transformed the Marine Department of MID into SIMSA while clarifying its structure and roles. The Japan Fund for Poverty Reduction, administered by ADB, funded the strengthening of national environmental and social safeguards in the transport sector, and developed the managerial capacity of MID. ADB will continue to support the government's sector-based approach, and strengthen country systems and MID's operational capacity through the program until 2020. In doing so, ADB leverages support from the Government of Australia while closely coordinating with the Government of New Zealand, JICA, and the World Bank.

¹⁵ ADB. (2007). *Report and Recommendation of the President to the Board of Directors on a Proposed Asian Development Fund Grant to the Solomon Islands for the Emergency Assistance Project*. Manila.