



PACIFIC TRANSPORT UPDATE 2018

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Welcome to the 2018 edition of the Pacific Transport Update of the Asian Development Bank (ADB). ADB's Pacific Department (PARD) partners with governments, communities, and the private sector in increasing access to essential goods, services, and opportunities, while building resilience to climate change and external shocks.

ADB's work in the Pacific transport sector supports its developing member countries in providing safe, efficient, and reliable transport services that drive equitable socioeconomic growth and sustainable results. By improving connectivity, ADB seeks to help countries in the Pacific region build strong, inclusive economies, while mitigating key challenges associated with their geographic isolation and limited resources. This update highlights some of the core activities of ADB's PARD, the impacts these activities produce, and what PARD aims to achieve in the future.



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PACIFIC TRANSPORT UPDATE 2018

ADB TRANSPORT OPERATIONS IN THE PACIFIC

■ ACTIVE
 ■ COMPLETED
 ■ PROPOSED



ROAD NETWORK UPGRADING PROJECT
Active—Total financing: \$73.32 million
 Upgrading 108 km of roads to improve connectivity, while preparing feasibility studies for 81 km of additional roads and extending maintenance programs to ensure sustainable impacts.

ROAD NETWORK UPGRADING SECTOR PROJECT
Active—Total financing: \$130.74 million
 Upgrading and climate proofing 214 km of the road network and expanding maintenance contracts to ensure a long economic life cycle.

DILI TO BAUCAU HIGHWAY PROJECT
Active—Total financing: \$49.65 million
 Upgrading and climate proofing 105 km of roads between Dili (the nation's capital) and Baucau (the second most populous city)—benefiting approximately 1,200–2,000 vehicles per day.

BAUCAU TO VIQUEQUE HIGHWAY PROJECT
Active—Total financing: \$44.00 million
 Upgrading 58 km of roads to improve safety and resilience, while expanding performance-based maintenance contracts to ensure sustainability.

PRELIMINARY ASSESSMENT FOR DILI AIRPORT RUNWAY UPGRADING PROJECT
Proposed—Total financing: \$1.50 million
 The technical assistance will help prioritize investments in the country's only international airport, which will increase passenger capacity and improve safety and security.



BUILDING RESILIENCE TO CLIMATE CHANGE IN PAPUA NEW GUINEA
Active—Total financing: \$8.00 million
 Strengthening the capacity of communities to plan for and respond to the effects of climate change, and climate-proofing a wharf in Alotau to benefit approximately 170,000 people.

MARITIME AND WATERWAYS SAFETY PROJECT
Active—Total financing: \$38.03 million
 Increasing access to essential maritime navigation information, while replacing 99 navigational aids and supplying 33 new units.

HIGHLANDS REGIONAL ROAD IMPROVEMENT INVESTMENT PROGRAM, TRANCHES 1, 2, AND 3
Active—Total financing: \$337.32 million
 Transforming land transport in the Highlands region with sequenced investments to (i) upgrade and improve more than 346.5 km of roads, (ii) establish sustainable maintenance programs for more than 400 km of roads, (iii) improve safety conditions across the roadway, and (iv) build domestic capacity to manage and maintain all assets.

BRIDGE REPLACEMENT FOR IMPROVED RURAL ACCESS
Active—Total financing: \$83.75 million
 Replacing outdated Bailey bridges with larger ones, and reassembling modular bridges to increase mobility of rural populations.

SUSTAINABLE HIGHLANDS HIGHWAY INVESTMENT PROGRAM
Active—Total financing: \$314.45 million
 Connecting people and productive economic resources across the Highlands region by (i) repairing, climate-proofing, and implementing maintenance programs for 430 km of highway; (ii) widening up to 69 bridges; (iii) installing safety feature, and (iv) improving trade logistics.

REGULATING AND SUSTAINING ROAD TRANSPORT
Completed in June 2018—Total financing: \$1.00 million
 Supporting policy and institutional reforms to improve the sustainability of investments.

CIVIL AVIATION DEVELOPMENT INVESTMENT PROGRAM, TRANCHES 1, 2, 3, AND 4
Active—Total financing: \$491.3 million
 Delivering key infrastructure and safety improvements to 19 national airports, and building domestic capacity to manage and maintain Papua New Guinea's aviation industry sustainably.

CIVIL AVIATION INVESTMENT PROGRAM
Proposed—Total financing: \$551.50 million
 The investment program will increase connectivity to Papua New Guinea's most challenging terrain by upgrading infrastructure and safety features at rural airstrips. Improvements will bolster economic growth in the agriculture and tourism industries, and support domestic institutions to ensure impacts are sustainable.



OUTER ISLAND INVESTMENT PROJECT
Proposed—Total financing: \$30.00 million
 The project will improve safety conditions and connectivity by investing in maritime infrastructure and building domestic capacity to manage and maintain assets.



SUSTAINABLE AND CLIMATE-RESILIENT CONNECTIVITY IN NAURU
Active—Total financing: \$65.29 million
 Building a climate-proof wharf at Aiwo Port to decrease wait times for shipping vessels, reduce carbon dioxide emissions, lower import costs, and increase the safety of people and goods.



OUTER ISLAND MARITIME INFRASTRUCTURE PROJECT
Active—Total financing: \$30.20 million
 Increasing connectivity to the outer islands by upgrading and constructing new assets, and building capacity to plan and implement further transport sector projects.



TRANSPORT INFRASTRUCTURE INVESTMENT SECTOR PROJECTS AND ASSOCIATED TA FOR STRENGTHENING TRANSPORT COORDINATION CAPACITY
Active—Total financing: \$150.70 million
 Upgrading priority land and maritime transport assets, including 100 km of roads, 30 bridges, and 6 rural jetties, to improve access to socioeconomic opportunities.



PORTS DEVELOPMENT MASTER PLAN
Active—Total financing: \$1.25 million
 Conducting environmental and economic assessments to increase resilience and plan for future developments in Samoa's maritime sector.

PORT DEVELOPMENT PROJECT
Proposed—Total financing: \$40.78 million
 The project will improve safety conditions and enhance the capacity of Apia Port to keep pace with projected growth in the tourism and fisheries industries.

CENTRAL CROSS ISLAND ROAD UPGRADING PROJECT
Proposed—Total financing: \$25.8 million
 The project will increase safety and mobility for villages along Samoa's Central Cross Island Road—improving access to markets, opportunities, health care, and education.



NUKU'ALOFA PORT UPGRADING PROJECT
Proposed—Total financing: \$25.00 million
 The project will repair and extend the existing port, with considerations to improve vessel navigation and safety, increase port capacity, and enhance resilience.

FANGA'UTA LAGOON CROSSING PROJECT
Proposed—Total financing: \$37.00 million
 The project will construct a bridge that will reduce travel times to and from the nation's capital, and provide an essential evacuation route in case of tsunamis. The project will support greater disaster risk preparedness, safety, and transport efficiency.



PORT VILA URBAN DEVELOPMENT PROJECT
Active—Total financing: \$38.20 million
 Supporting road, drainage, and sanitation services, while increasing resilience to flooding and other severe weather events in the nation's capital.

INTERISLAND SHIPPING SUPPORT PROJECT
Active—Total financing: \$43.63 million
 Constructing a new interisland shipping terminal, two new wharves, and three new jetties; and implementing a shipping service scheme to increase access to Vanuatu's outer islands.

ESTABLISHMENT OF THE MARITIME SAFETY ADMINISTRATION
Active—Total financing: \$1.50 million
 Improving safety regulation by supporting institutional reforms and delivering capacity building.

SUPPORTING THE VANUATU PROJECT MANAGEMENT UNIT AND THE MINISTRY OF INFRASTRUCTURE AND PUBLIC UTILITIES
Active—Total financing: \$0.23 million
 Providing support to review Vanuatu's infrastructure portfolio and delivering capacity building to ensure sustainable transport infrastructure development.

CYCLONE PAM ROAD RECONSTRUCTION PROJECT
Active—Total financing: \$24.35 million
 Supporting recovery efforts in the wake of Cyclone Pam, by reconstructing and climate-proofing road assets damaged by floods to restore socioeconomic activity to pre-flood levels.



DOMESTIC MARITIME SUPPORT SECTOR PROJECT
Active—Total financing: \$26.19 million
 Increasing access to goods, services, and opportunities by improving maritime transport—including 13 wharves and 3 landing ramps—and establishing shipping routes to remote areas.

STRENGTHENING THE SOLOMON ISLANDS' MARITIME SAFETY AND ESTABLISHING THE SOLOMON ISLANDS MARITIME SAFETY AUTHORITY
Active—Total financing: \$0.80 million
 Supporting institutional reforms and capacity building to ensure domestic authorities meet best practices for maritime safety and security.

TRANSPORT SECTOR FLOOD RECOVERY PROJECT
Completed in September 2018—Total financing: \$12.46 million
 Leveraged a "build-back-better" approach to rehabilitate and climate-proof roads and restore economic activity to pre-flood levels.

SUSTAINABLE TRANSPORT INFRASTRUCTURE IMPROVEMENT PROGRAM
Active—Total financing: \$83.20 million
 Rehabilitating key transport assets—including 30 km of roads and 4 wharves—and establishing maintenance regimes to support their long-term sustainability.

TRANSPORT SECTOR DEVELOPMENT FACILITY
Proposed—Total financing: \$6.69 million
 The facility will improve the efficiency and effectiveness of transport investments by supporting preparatory activities such as safeguard assessments, procurement, and civil works contracting.

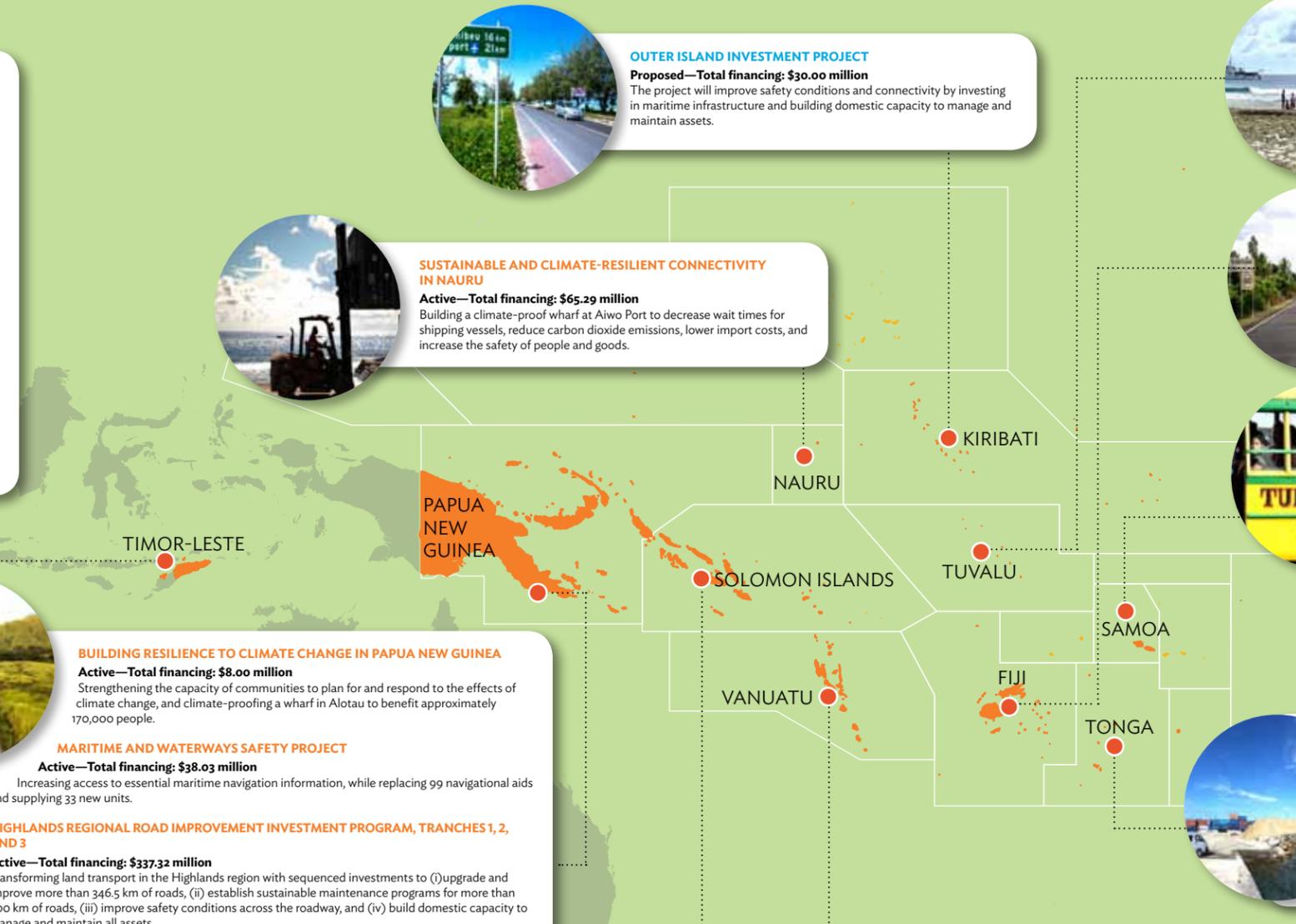


REGIONAL

STRENGTHENING CLIMATE AND DISASTER RESILIENCE OF INVESTMENTS IN THE PACIFIC
Active—Total financing: \$3.25 million
 Building capacity to access climate finance, and to prepare for and respond to disasters.

TRADE FACILITATION AND TRANSPORT LOGISTICS PERFORMANCE IN THE PACIFIC
Active—Total financing: \$3.50 million
 Addressing transport and logistical bottlenecks to reduce time and costs associated with doing trade in the Pacific.

STRENGTHENING DOMESTIC TRANSPORT CONNECTIVITY IN THE PACIFIC
Active—Total financing: \$3.50 million
 Providing policy support and helping Pacific developing member countries plan investments to improve domestic transport infrastructure and services.



OVERVIEW

The work of the Asian Development Bank (ADB) in the Pacific transport sector is empowering people and economies by increasing access to opportunities, and essential goods and services. Pacific transport operations are building resilient and sustainable links that enable communities to thrive, both now and in the future.

The *Pacific Transport Update 2018* provides an overview of ADB’s technical assistance (TA) and lending activities in the Pacific region. In line with activities on the ground, it showcases physical and nonphysical results in the areas of land, maritime, and air transport, as well as in policy planning and capacity building. The *Pacific Transport Update 2018* highlights the impacts and outcomes of initiatives completed in 2017 and 2018, and active as of September 2018. It also describes selected activities slated for implementation in the years to come.

Country Data, 2017

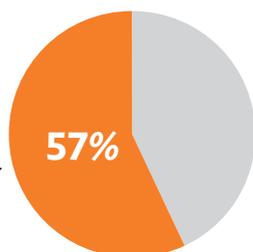
Pacific DMC	Population ('000)	Land Area (km ²)	Number of Islands/Atolls	GDP per capita (current \$)
Papua New Guinea	8,738	452,860	approximately 600	2,651
Timor-Leste	1,237	14,874	4	1,356
Fiji	885	18,274	332	5,639
Solomon Islands	670	27,990	approximately 998	1,724
Vanuatu	297	12,274	84	2,876
Samoa	197	2,934	9 plus adjacent small islets	4,258
Kiribati	113	810	33	1,729
Tonga	105	750	171	4,011
Micronesia, Federated States of	102	702	607	3,300
Marshall Islands	55	181	34: 5 islands, 29 atolls made up of an indeterminate number of islets	3,669
Cook Islands	19	240	15	15,613
Palau	18	189	more than 300	16,261
Nauru	13	21	1	8,330
Tuvalu	10	27	9	3,545

DMC = developing member country, GDP = gross domestic product, km² = square kilometer. Source: Asian Development Outlook database (2018).

PACIFIC DEPARTMENT PORTFOLIO

Transport projects account for **more than 57%** of the total value of ADB’s Pacific Department portfolio.

22 transport projects at more than \$1,750 million



2017-2020 PACIFIC DEPARTMENT TRANSPORT PIPELINE

15 projects at \$1,071 million, including \$385 million in cofinancing

SINCE 2010
11 ports



ONGOING
14 ports

SINCE 2010
19 airports



ONGOING
21 airports

Ports and airports constructed or upgraded to support safe and efficient movement of people and goods

SINCE 2010
1,032 km



ONGOING
1,173 km

Roads built or upgraded to connect communities with essential goods and services

Box 1: Strategy 2030 and Sustainable Transport in the Pacific

The key to unlocking the Pacific community's vast human capital is ensuring that its people and businesses have access to the resources they need. A safer, more efficient, and reliable transport sector in the Pacific can improve the quality of life and drive economic growth. Connecting people with essential goods, services, and opportunities—such as food, education, health care, and jobs—empowers them to develop themselves and the communities they live in.

Strategy 2030 of the Asian Development Bank (ADB) sets operational priorities for achieving a more inclusive, resilient, and sustainable development path in Asia and the Pacific. To do so, it establishes the following focus areas to guide its operations:



Addressing remaining poverty and reducing inequalities



Accelerating progress in gender equality



Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability



Making cities more livable



Promoting rural development and food security



Strengthening governance and institutional capacity



Fostering regional cooperation and integration

Text boxes in this publication highlight crosscutting sustainable transport themes, and how their implementation in the Pacific relates to ADB's Strategy 2030. In the Pacific context, improving intermodal transport can help accomplish these priorities and overcome the challenges of high import costs and limited access to goods, services, markets, and opportunities, which result from the region's challenging geography and limited resources. Designing transport assets with considerations for key safety, social, and environmental factors supports favorable integration into the communities they serve.

Sources: ADB. 2010 *Sustainable Transport Initiative: Operational Plan*. Manila; and ADB. 2018. *ADB Strategy 2030 Brochure: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

REGIONAL

ADB's Pacific developing member countries (DMCs) are scattered across 30 million square kilometers (km²) of ocean—or one-third of the earth's surface—and their combined landmass represents less than 2% of this total.¹ The remote, archipelagic geography of most Pacific DMCs, paired with their small and often dispersed populations, creates a unique set of challenges for connecting people, goods, and services across the region. At the same time, Pacific DMCs are among the most vulnerable countries in the world to the effects of natural disasters and climate change.

There is a pronounced need to increase connectivity across the region, and to ensure that infrastructure is built and managed to endure. To this end, ADB is working with its Pacific DMCs to build new connectivity infrastructure and ensure that domestic stakeholders have the capacity and resources to manage it. ADB is also helping to increase resilience to natural disasters and the effects of climate change, by integrating disaster risk management (DRM) and climate-resilient design considerations into the majority of its projects and TA in the region.

ADB's Pacific DMCs have made considerable progress toward increasing connectivity. However, a number of challenges remain to be addressed. Limited financial resources and institutional capacity contribute to transport sector development that has not kept pace with demand and, in many cases, lack of routine maintenance contributes to the rapid degradation of existing assets. Ensuring that transport networks across the region meet the needs of generations today, and that they continue to effectively connect people with goods and opportunities, requires a comprehensive, sustainable development approach.

ADB is working with governments, development partners, communities, and businesses in its Pacific DMCs to upgrade key transport infrastructure, and to ensure that local stakeholders have the capacity to manage and maintain assets.

Ongoing lending activities focus on improving intermodal links by upgrading roads, ports, and airports. Corresponding TA is building capacity and helping reform institutions to enhance safety and service delivery, and to support high-quality and long-term operation and maintenance. ADB's work with domestic and regional stakeholders is also strengthening trade, as well as responding to, and preparing for, the effects of climate change to support a more resilient, prosperous Pacific community.

Box 2: Building a More Resilient Pacific Transport Sector



Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability

Pacific island nations are among the most vulnerable countries in the world to natural disasters and the effects of climate change. Their small size, remoteness, and placement in volcanically active, cyclone-prone areas expose them to severe weather events, while their archipelagic and low-lying atoll topography increases the potential impacts of sea level rise.

Changing weather patterns can affect primary economic activity, including agriculture and tourism, while a single disaster event has the potential to erode decades of development gains by damaging infrastructure, affecting livelihoods, and diverting resources away from construction and toward reconstruction.

At the same time, communities across the Pacific have limited capacity to manage risks and respond to crises. Transport infrastructure is among the most valuable resources for responding to the effects of climate change, as it provides access to all essential goods and services. As such, designing transport infrastructure to be more resilient to severe weather events, and building institutional capacity to manage and respond to disasters, are key strategies for mitigating the negative impacts on communities and infrastructure.

Increasing the resilience of communities and infrastructure to natural disasters and the effects of climate change is a strategic focus of the Asian Development Bank's transport activities in the Pacific. Projects and technical assistance are helping design and build resilient infrastructure, and training domestic stakeholders in disaster risk management, to attenuate the impacts of disasters.

¹ ADB's 14 Pacific DMCs comprise the Cook Islands, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu.



Strengthening Climate and Disaster Resilience of Investments in the Pacific

Status: **Active**

Total financing (ADB): \$3.25 million

Increasing the climate resilience of infrastructure and institutions bears associated incremental costs. However, adaptation measures cost significantly less than reconstruction. Recognizing the need for a proactive climate financing approach, ADB has incorporated climate risk management as a standard practice in its investments, and is facilitating access to climate financing in the Pacific region.

At their meeting in May 2015, governors of Pacific DMCs requested support for increasing access to climate financing, and in building capacity in DRM. The TA for Strengthening Climate and Disaster Resilience of Investments in the Pacific is ADB's response to this request, and is (i) incorporating climate change and DRM considerations into project designs, (ii) strengthening capacity to integrate climate change considerations into government planning processes, and (iii) increasing access to climate change financing. The TA is building the resilience of infrastructure, communities, and investments in the region by promoting a higher degree of knowledge sharing, and integration of climate change and DRM considerations into the development process.



Trade and Transport Facilitation in the Pacific

Status: **Active**

ADB financing: \$1.50 million

Cofinancing: \$2.00 million

Total financing: \$3.50 million

The TA for Trade Facilitation and Transport Logistics Performance in the Pacific is addressing another root cause of vulnerability in the region—geographic isolation. It is improving the trade competitiveness of Pacific DMCs by decreasing the time and cost associated with importing and exporting goods to support a more prosperous Pacific region.

The TA is conducting a regional analysis to examine trade and transport linkages, and to provide insights on where and how Pacific DMCs can respond to specific bottlenecks. Building on assessment activities, the TA is strengthening the national capacity to plan and implement further investments and policies to strengthen trade competitiveness.

The TA is undertaking activities in seven Pacific DMCs: Fiji, the Federated States of Micronesia, Papua New Guinea, Samoa, Timor-Leste, Tonga, and Vanuatu. These Pacific DMCs were selected based on their governments' interest in trade and transport facilitation, and potential synergies with ADB's current maritime, aviation, and land transport operations.² Specific activities under the TA include the following:



Institutionalizing tools to assess the efficiency of trade and logistics, by measuring the time and costs associated with trading along specific routes



Building a model to correlate trade volume with transport flows, and developing strategies and investment plans to increase efficiency



Providing training for relevant authorities to prepare investments that will improve logistics and modernize customs procedures

The TA is supporting interregional and intraregional trade by building knowledge of best practices, and by increasing access to the data needed to inform corresponding policy decisions and investments.

² The TA was designed in response to the needs identified at a regional workshop with Pacific DMCs held in Suva in April 2013.



Strengthening Domestic Transport Connectivity in the Pacific

Status: **Active**

Total financing (ADB): \$3.50 million

As countries across the Pacific work to increase transport sector infrastructure and improve service delivery, efficient project preparation and investment planning is essential to ensure successful development activities across the transport sector.

The TA for Strengthening Domestic Transport Connectivity in the Pacific is providing support for project preparation for investments that focus on improving domestic transport connectivity in a number of Pacific DMCs. The TA is currently focusing on Solomon Islands, Tonga, and Vanuatu, but will be scaled up to address similar needs in neighboring Pacific DMCs. In addition to supporting the preparation of investments, the TA is providing advisory support to advance national transport sector policies.

The Pacific Regional Infrastructure Facility (PRIF) was officially launched in August 2008 at the Pacific Islands Forum, and the corresponding PRIF Coordination Office was established through a TA in 2013.³ The purpose of the TA for PRIF Coordination Office is to improve development effectiveness and the sustainability of infrastructure investments by (i) strengthening coordination among development partners; (ii) improving policies and regulations; (iii) scaling up infrastructure cofinancing; and (iv) improving the capacity of Pacific island countries to prioritize, plan, develop, and maintain investments.

The facility covers 12 Pacific DMCs and supports five economic infrastructure subsectors (energy; information and communication technology; road, aviation, and maritime transport; urban development; and water and sanitation).⁴ A Transport Sector Working Group—comprising sector experts and PRIF partners—meets up to four times a year to review the TA and knowledge product activities of the PRIF Coordination Office, and serves as a community of practice for the PRIF partners.

Box 3: Connecting Goods and Economies across the Pacific



Fostering regional cooperation and integration

Improving trade and transport logistics across the Pacific can reduce the cost of doing business, increase private sector access to international markets, and support economic growth at the regional and national levels. Currently, weak trade and transport logistics performance is a key barrier to interregional and intraregional trade growth in the Pacific—contributing to high import and export costs and slow processing times. Overcoming these obstacles can significantly reduce the cost of goods and facilitate private sector growth.

To improve competitiveness of trade, and to facilitate the movement of people and goods, the Pacific developing member countries of the Asian Development Bank (ADB) are working to strategically reform, modernize, and strengthen institutions, and to invest in trade-related infrastructure. ADB is supporting this work by helping to identify specific bottlenecks, and working with stakeholders across sectors to overcome them.

³ The PRIF partners comprise (i) ADB; (ii) the Government of Australia; (iii) the European Union; (iv) the European Investment Bank; (v) the Government of Japan; (vi) the Government of New Zealand; and (vii) the World Bank Group, including the International Finance Corporation.

⁴ The 12 Pacific DMCs are the Cook Islands, the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

FIJI

Fiji is a South Pacific archipelagic nation with 110 inhabited islands and a land area of 18,300 km². Approximately 90% of its 860,000 residents live on the three main islands of Taveuni, Vanua Levu, and Viti Levu, and about half of the population lives in rural areas. Improving Fiji's transport infrastructure can increase access to economic opportunities and services for rural populations, and strengthen domestic and international trade.

ADB's engagement in Fiji dates back to 1970, when the country gained independence, and transport investments and TA have been a longstanding cornerstone of the partnership. Ongoing projects focus on building resilience to climate change and laying the foundation for more inclusive growth. Civil works are increasing access to markets and essential services, particularly for vulnerable groups, including rural communities, women, youth, and the elderly.

ADB is supporting connectivity across Fiji by helping the government to plan and implement a pipeline of transport works. TA and lending activities are building institutional capacity alongside new assets to improve transport services and ensure that infrastructure is both physically and financially sustained.

Transport Infrastructure Investment Sector Project and associated TA for Strengthening Transport Coordination Capacity

Status: **Active**

ADB financing (includes \$0.70 million TA): \$100.70 million

Cofinancing: \$50.00 million

Total financing: \$150.70 million

The Transport Infrastructure Investment Sector Project is improving access to socioeconomic opportunities by upgrading and rehabilitating land and maritime transport infrastructure.⁵ The project is financing a series of subprojects prioritized by Fiji's 20-Year National Transport Infrastructure Investment Plan. The project is also strengthening the institutional capacity to prioritize investments, and ensuring the timely and high-quality maintenance of transport infrastructure. The project incorporates a gender-sensitive design, and improves pedestrian access and safety along roads and bridges by installing safety safety feature and streetlights.

Physical works will include repairs and upgrading of up to:


100 km of roads and 30 bridges

6 rural jetties.

The associated TA for Strengthening Transport Coordination Capacity is building the capacity of government staff in the areas of economic and financial analysis for projects, asset management principles, procurement and contract management, climate change adaptation, safeguards, and public-private partnerships. A key feature of the capacity building is a focus on long-term asset management to support infrastructure sustainability.

⁵ Formerly titled Bridge Replacement Project



Port of Suva is Fiji's main container and multipurpose port facility.

KIRIBATI



A major road in Tarawa upgraded under the Kiribati Road Rehabilitation Project.

Kiribati is a small, remote country composed of 33 islands, spread across 3.5 million km² of ocean—distance from major markets leads to high external transport costs. The majority of Kiribati’s economic activity takes place in the public sector, which accounts for approximately 50% of gross domestic product and 80% of formal employment. Kiribati’s development priorities focus on generating employment opportunities, fostering greater environmental and fiscal sustainability, and reducing poverty.

ADB is supporting Kiribati’s national goals by helping to develop key infrastructure assets, and by strengthening domestic capacity to manage and maintain them. A safe and efficient maritime transport system is essential in connecting Kiribati’s population to economic opportunities and social services. ADB’s assistance is aligned with Kiribati’s national development priorities, and is increasing equitable access to opportunities and essential services. Improving maritime connectivity between the main island of Tarawa—where 55% of the population lives—and the outer islands can increase access to essential resources, and improve safety conditions for passengers and goods.

The Government of Kiribati has requested support from ADB and its development partners to provide safer transport to and from the outer islands. A key point of intervention will be to build and refurbish maritime landings on the outer islands to serve Kiribati’s remote communities.

Box 4: Improved Maritime Transport is Driving Economic Growth and Equitable Access to Opportunity in the Pacific.

The lending activities and technical assistance of the Asian Development Bank (ADB) in the maritime subsector are improving domestic connectivity alongside regional and international trade. At the domestic level, ensuring adequate levels of interisland shipping services is essential in connecting remote communities on outer islands to essential goods, services, and opportunities. At regional and international levels, Pacific developing member countries rely heavily on imported goods, including food, fuel, and medicine, while many Pacific economies depend on exporting natural resources and goods to drive economic growth.

Infrastructure investments are building, upgrading, and climate-proofing key maritime transport assets, while technical assistance activities are strengthening domestic maritime institutions to ensure that they have the capacity to manage essential infrastructure and services. Core activities of the ADB in the Pacific maritime subsector focus on the following:



Improving domestic connectivity to deliver safe and efficient access to goods and services



Promoting economic development by upgrading cargo ports to streamline domestic and international trade



Developing operational and maintenance plans to guarantee the sustainability of assets



Connecting remote communities to resources and opportunities



Strengthening institutional arrangements to support effective and efficient operations



Outer Island Investment Project

Status: **Proposed**

ADB financing: \$10.0 million

Cofinancing: \$20.0 million

Total financing: \$30.00 million

ADB and the World Bank have undertaken advanced project preparation activities to identify priority investments in Kiribati's transport sector. The total resource envelope will be \$30.0 million, with proposed ADB financing of \$10.00 million targeting activities in the maritime sector. The Outer Island Investment Project will address key safety concerns and improve connectivity by upgrading physical assets and building institutional capacity to manage maritime infrastructure and services.

NAURU

Nauru is a small island country with a land area of 21 km² and a population of about 11,300 people. With limited water and agricultural resources, it is entirely dependent on imports—about 95% of essential goods, including food and medical supplies, arrive by sea. Aiwo Port is Nauru’s main gateway for regional and international trade, and therefore is a critical lifeline for the country.

Currently, Aiwo Port cannot accommodate large shipping vessels, and containers are transferred one at a time by barges. Unloading approximately 200 containers can take anywhere from a few days to several weeks. In 2017, the average number of ship days for cargo ships was 21 days, and 3 days for fuel tankers. Constructing berthing and storage facilities can significantly increase port efficiency and transport safety in Nauru, thereby reducing import costs and facilitating trade. New facilities can also reduce carbon dioxide emissions from fuel tankers and cargo ships by more than 11,000 tons per year.



Sustainable and Climate-Resilient Connectivity in Nauru

Status: **Active**

ADB financing: \$24.30 million

Cofinancing: \$40.99 million

Total financing: \$65.29 million

The Sustainable and Climate-Resilient Connectivity Project is improving port operations by building a climate-proof wharf that will decrease wait times for shipping vessels, reduce carbon dioxide emissions, lower import costs, and greatly increase the safety of people and goods in Nauru. Physical works include (i) forming a berth channel and breakwater at Aiwo Port, (ii) reconstructing port buildings and the container storage area, and (iii) strengthening the institutional capacity of the Nauru Port Authority to support sustained and efficient operations. The project is the third in the region under which ADB has supported its Pacific DMCs to access international climate financing from the Green Climate Fund.

Box 5: International Climate Resources are Strengthening Pacific Resilience

Globally, countries in the Pacific region are among the most exposed to the effects of climate change. Associated financing needs, including mitigation, adaptation, and response to disasters, are beyond the means of any single donor or government. The Asian Development Bank (ADB) is working closely with national governments and international climate resources, such as the Green Climate Fund (GCF), to rapidly mobilize climate financing and deliver impacts at scale.

Since 2015, ADB has helped three Pacific countries—the Cook Islands, Fiji, and Nauru—access a combined \$70 million in GCF resources. ADB hopes to continue working with GCF and its development partners to strengthen mitigation and adaptation measures across the region.

“The Nauru port project demonstrates how a pooling of international resources can help preserve the sea links that are so vital for the economic prospects of vulnerable populations living in the Pacific ... Our partnerships with the governments of Nauru and Australia, as well as with ADB, serve as an example of how cooperation on climate action can assist Small Island Developing States in all regions.”

Howard Bamsey
Executive Director of the Green Climate Fund

Source: ADB. 2018. ADB, *Green Climate Fund, Australia Help Upgrade, Climate-Proof Port in Nauru*. Sydney.

PAPUA NEW GUINEA

Papua New Guinea (PNG) is ADB's largest Pacific DMC in terms of landmass, population, and gross domestic product. In 2017, its population was estimated to be 8,738,000 people, spread across 20 administrative provinces on the main island of New Guinea—which houses half of the nation's population—and several smaller island groups. More than 85% of PNG's population lives in rural areas, and the country's rugged terrain and limited infrastructure constrain the provision of basic goods and services. Improving intermodal transport can increase access to employment opportunities and social services, while bolstering economic growth.

ADB is helping PNG to deliver safer and more efficient transport between rural areas, urban centers, and international destinations. ADB's ongoing lending activities focus on developing sustainable road networks, ensuring that aviation facilities meet international safety standards, and securing coastal villages against changing weather patterns. TA is complementing lending activities by increasing domestic capacity to plan, build, and maintain resilient transport infrastructure.



Building Resilience to Climate Change in Papua New Guinea

Status: **Active**

Cofinancing: \$6.6 million

ADB financing: \$29.25 million

Total financing: \$35.91 million⁶

PNG's economy and population are highly exposed to the effects of climate change. At the same time, lack of technical, physical, and financial capacity to plan for and cope with severe weather events exacerbates corresponding risks. Vulnerability to climatic events is uniquely pronounced for PNG's 800,000 coastal villagers, due to their reliance on small ports for the timely delivery of perishable food.

The Building Resilience to Climate Change in Papua New Guinea Project⁷ is strengthening the capacity of communities, government agencies, and civil society to plan for and respond to the effects of climate change. The project is (i) increasing access to adaptation financing; (ii) fostering a better understanding of climate change vulnerability and adaptation options; (iii) increasing adaptive capacity at the sectorial, national, district, and community levels; and (iv) enabling further investments in climate-resilient maritime infrastructure for coastal villages.

The project is:



sustainable fisheries and food security initiatives in **9 vulnerable communities.**



The government has requested additional financing to climate-proof a wharf in Alotau—the provincial capital of Milne Bay—which will benefit approximately **170,000 people, or 36,000 households.**

The safe and efficient management of PNG's maritime transport network directly affects the access of coastal communities to economic opportunities and essential goods and services. The government has made significant progress to strengthen maritime safety by establishing the National Maritime Safety Authority, which, in turn, has improved the maintenance of existing safety equipment, such as navigational aids and lighthouses.

⁶ Includes \$8.62 million in additional financing from ADB (\$5.00 million), Government of Australia (\$2.98 million), and Government of Papua New Guinea (\$0.64 million).

⁷ Formerly Alotau Port Climate Proofing Project.



Maritime and Waterways Safety Project

Status: **Active**

Total financing (ADB): \$38.03 million

The Maritime and Waterways Safety Project is building on the success of the National Maritime Safety Authority, and is producing mutual benefits for rural and remote communities, the wider national population, and regional stakeholders engaged in maritime trade.

The project is:



replacing **99 existing navigational aids**, installing **33 new units**,



engaging rural communities to maintain navigational aids,



developing navigational charts and extending the automatic identification network to enhance the safety information infrastructure, and



providing training on maritime safety for communities of varying sizes.

Coastal shipping, which affects 65% of PNG's poor population, will be safer and more efficient, and passenger capacity will increase. Domestic benefits include greater access to goods, services, and economic opportunity, while the region will benefit from safer, more efficient trade.

The Highlands region is a major contributor to the PNG economy through its agricultural and mineral exports.⁸ It is also home to 40% of the country's population, who rely almost entirely on the road network for movement of people and goods. The government and its development partners have invested significantly in improving the road network. However, a lack of regular maintenance has led to an overall degradation of the Highlands core road network (HCRN).

In order for the HCRN to provide an effective link between people, goods, and socioeconomic opportunities, there is a need to improve degraded portions of the network, and to ensure that routine maintenance is carried out along serviceable portions of the road system. Improvements to and regular maintenance of the HCRN can increase economic productivity of the Highlands region, drive more inclusive growth, and improve roadway safety.

The Highlands Region Road Improvement Investment Program was launched in 2008 as a multitranche financing facility.⁹ The investment program includes (i) investment projects covering improvements to about 1,400 km of the HCRN (comprising 13 segments of road) to be funded through four or more tranches; (ii) preparation and administration of long-term road maintenance contracts for the entire 2,500 km of the HCRN; (iii) support for capacity development, resource mobilization for maintenance funds, and improved road transport services; and (iv) monitoring of the socioeconomic benefits associated with ongoing improvements to and maintenance of the HCRN.

⁸ The Highlands region of PNG comprises the provinces of Western Highlands, Jiwaka, Southern Highlands, Hela, Eastern Highlands, Enga, and Simbu.

⁹ Multitranche financing facility (i) is a flexible financing instrument that enables ADB to provide assistance programmatically; (ii) facilitates long-term partnerships and constructive dialogue on physical investments as well as nonphysical (thematic and sector) interventions; and (iii) provides critical mass, predictability, and continuity.

Highlands Region Road Improvement Investment Program

Tranche 1

Status: **Completed in June 2016**

Total financing (ADB): \$99.42 million

 Improved **115 km of road**

 Launched PNG's National Transport Development Plan 2011–2020

 All project roads fitted with safety feature

 Delivered capacity building to PNG's Department of Works and the National Road Authority

Tranche 2

Status: **Active**

Total financing (ADB): \$109 million

 Improving **118 km of road**

 Securing maintenance arrangements for **500 km of the HCRN**

 All project roads being fitted with safety feature

 Delivering capacity building to the National Road Safety Council, Department of Works, and the National Road Authority

Tranche 3

Status: **Active**

Total financing (ADB): \$109 million

Cofinancing (EU): \$19.9 million

Total: \$128.9 million

 Improving **113.5 km of road**

 Securing maintenance arrangements for **200 km of the HCRN**

 All project roads being fitted with safety feature

 Delivering capacity building to the National Road Safety Council, Department of Works, and the National Road Authority

The investment program's impact will be export-driven economic growth and rural development in the Highlands region. The improved, more sustainable road network will reduce transport costs and accidents, increase connectivity between rural and urban areas, streamline access to major ports and airports, and support more equitable development.

Owing to its rugged terrain, PNG has a relatively large number of bridges (about 700 nationwide) compared to the size of its road network. Many of these are single-lane Bailey bridges that were initially used due to low-cost and fast deployment during early development stages of the national road network. However, their limited load-carrying capacity, paired with increasing traffic volumes, is causing many Bailey bridges to deteriorate—generating considerable safety risks for road users.

Bridge Replacement for Improved Rural Access

Status: **Active**

Total financing (ADB): \$83.75 million

The Bridge Replacement for Improved Rural Access Project is replacing narrow bridges on 5 of the 16 priority national roads with permanent two-lane bridges. Existing modular bridges that are in good condition, which will be replaced due to size, will be reassembled on rural roads to boost access to urban centers. The project is also developing the capacity of the Department of Works to maintain its bridge management system and to improve road safety in rural areas, where accident rates are high.

Improved accessibility of rural road networks will open up markets, increase agricultural profitability, facilitate market chain linkages with downstream processing and export markets, and expand access to health services.

Sustainable Highlands Highway Investment Program

Status: **Active**

ADB financing: \$302.85 million

Cofinancing: \$11.50 million

Total financing: \$314.45 million

The 1,200 km-long, two-lane national Highlands Highway is the central lifeline for linking people, goods, and services across the Highlands region. It connects to the HCRN, ties together 1,800 km of regional and feeder roads, provides access to international airports, and, crucially, connects the Highlands to PNG's main commercial port—Port Lae. In 2017, more than 70% of the highway was in either fair or poor condition, while 90% of the road length posed safety hazards to users and pedestrians.¹⁰

The Sustainable Highlands Highway Investment Program is being implemented in three tranches over a 10-year period. It is predicated on the observation that the majority of road pavement failures along the highway are due to prolonged lack of maintenance, and not to inadequate structural design. As such, many sections can be restored without costly reconstruction, if corrective actions are implemented rapidly. The investment program is improving physical assets and safety features of the highway system, and increase its economic life span.

¹⁰ Road conditions are rated on a scale of 1–5: (1) *very good*, (2) *good*, (3) *fair*, (4) *poor*, and (5) *very poor*. Roads that are rated in conditions 1–3 are considered maintainable, while conditions 4–5 require upgrades prior to being maintainable.

Key components of the investment program include:



repairing, climate-proofing, and implementing maintenance programs for about **430 km of the highway**;



improving trade logistics by constructing bypasses and weighing stations;



installing safety feature; and



widening and reconstructing up to **69 bridges**.

The investment program is also providing capacity building to increase transparency, accountability, and capacity for long-term management and maintenance of highway assets. The first tranche was approved in July 2017 and is overseeing roadwork and maintenance for approximately 40% of the 430 km stretch of highway.

Regulating and Sustaining Road Transport

Status: **Completed in June 2018**

Total financing (ADB): **\$1.00 million**

PNG's subnational network of provincial and district roads totals about 20,000 km and serves 85% of the rural population. However, rural roads often receive fewer financial and technical resources than national roads, and many are deteriorating due to neglect.

The TA for Regulating and Sustaining Road Transport supported policy and institutional reforms to improve the sustainability of investments in the road sector. It helped strengthen road transport regulation, financial resources management for road maintenance, and capacity to plan rural road improvements. It also helped build the capacity of key public and private sector stakeholders to manage and maintain rural roads, and to engage members of the local workforce while expanding its skills pool in roadwork.

PNG's aviation industry provides essential support for tourism, business, trade, and social cohesion. However, deteriorating infrastructure and constrained institutional capacity threaten the certification of many of PNG's airports. The Civil Aviation Authority's development plan provides a framework for addressing existing gaps, but the agency requires technical and financial support to implement them successfully.

The Civil Aviation Development Investment Program was approved in December 2009 to address critical constraints. It comprises a total of four tranches, with a total funding allocation of approximately \$480 million. The investment program is overseeing upgrades to 19 priority national airports, supporting institutional reform, and building public and private sector capacity to ensure the long-term maintenance of all corresponding infrastructure. Project activities funded under Tranche 1, Tranche 2, and Tranche 3 are outlined below.



✈️ Civil Aviation Development Investment Program

Tranche 1

Status: **Completed in July 2016**

ADB financing: \$89.70 million

Cofinancing: \$23.60 million

Total financing: \$113.30 million

Activities completed under Tranche 1 helped ensure compliance with the International Civil Aviation Organization's safety and security standards for five priority airports, identified in the Civil Aviation Authority's strategic plan. Tranche 1 included (i) institutional reforms to improve air traffic services and regulatory oversight; (ii) physical works; and (iii) modernization of communication, navigation, surveillance, and fire safety equipment.



Improved safety and travel for
1.5 million people



Improved **runways or terminals**
at 5 airports



Installed security fences
at 5 airports



Procured fire trucks; as well as
communication, navigation, and
surveillance equipment



Mount Hagen Airport at the Western Highlands Province of Papua New Guinea.

Tranche 2

Status: **Active**

Total financing (ADB): \$130 million

Tranche 2 includes (i) institutional strengthening to increase the sustainability of the reformed institutions, including the National Airports Corporation, Air Services Limited, and the Civil Aviation Safety Authority; (ii) physical works; and (iii) procurement of equipment for communication, navigation, surveillance, and fire safety.



Improving safety and travel



Installing **security fences at 6 airports**



Improving **runways and taxiways at 5 airports**



Procuring **9 fire trucks**; as well as **communication, navigation, and surveillance equipment**

Tranche 3

Status: **Active**

Total financing (ADB): \$248 million

Tranche 3 includes (i) institutional strengthening to increase the sustainability of the National Airports Corporation, Air Services Limited, and the Civil Aviation Safety Authority; (ii) physical works; and (iii) procurement of equipment for communication, navigation, surveillance, and fire safety.



Improving safety and travel



Constructing **market areas inside 3 airports** to promote production and sale of local artifacts by women, within airport premises



Improving **runways or terminals at 9 airports**



Installing **security fences at 3 airports**



Constructing **1 air traffic control tower and airfield lighting at 9 airports**

Upon completion in 2019, the Civil Aviation Development Investment Program will have built or upgraded a total of 13 airport terminals and landside facilities; improved runways, taxiways, and airside facilities at 15 airports; and helped secure certification from the International Civil Aviation Organization for Jacksons International Airport. In line with national priorities and the successful implementation of the investment program, the government has requested further investments in aviation infrastructure and corresponding support to build institutional capacity.



Civil Aviation Sector Investment Program

Status: **Proposed**

ADB financing: \$274.00 million

Cofinancing and government counterpart: \$276.00 million

Total financing: \$550.00 million

The National Airport Corporation is working to improve connectivity between domestic airfields and PNG's international airports to support economic growth in the tourism and agriculture sectors, and to deliver improved connectivity to PNG's remote communities. To address these goals, the Civil Aviation Sector Investment Program will (i) improve the condition and sustainability of rural airstrips; (ii) upgrade infrastructure, and finance operational and safety equipment for key airports; and (iii) build institutional capacity and support policy interventions to support cost recovery, equitable service delivery, and improved sector efficiency.

Box 6: Leveraging Public-Private Partnerships for Airports in Papua New Guinea

Public-private partnerships (PPPs) can deliver new and improved infrastructure, with limited costs to the public sector. Leveraging private sector engagement can also help ensure the sustainability of assets and a high quality of services. The Asian Development Bank (ADB) is working with the Government of Papua New Guinea to strengthen the business environment and enable new value creation through PPPs.

In February 2017, ADB and the National Airports Corporation of Papua New Guinea signed a transaction advisory services agreement, leveraging a PPP to develop a new international passenger terminal and infrastructure development at Jacksons International Airport in Port Moresby. The new terminal will enable the airport to meet traffic demands over the next 30 years.

The project is the first PPP transaction advisory engagement undertaken by ADB in both the country and the Pacific region as a whole. ADB is developing a bankable commercial structure to tender the project to international investors, and will help the National Airport Corporation award the concession and reach financial close. The transaction will help establish a model for scaling up PPPs in Papua New Guinea, and, more broadly, in the Pacific region.

Source: S. Groff. 2017. ADB scaling up assistance to PNG. *Asian Development Blog*. Manila.



SAMOA

Samoa is a geographically compact country in the South Pacific, with a total landmass of 2,831 km² spread across two main islands (Savaii and Upolu) and several smaller ones. Approximately 70% of its population (188,000 residents) lives in rural areas, and the majority of the workforce is engaged in subsistence activities.

Samoa's economy is dependent on its fisheries sector and agricultural products for exports, and on importing most of its fuel and commodities. Large distances from major international markets create high import costs and limit trade. However, its relative proximity to neighboring island countries—including American Samoa, the Cook Islands, Niue, Tonga, Tokelau, and Tuvalu—creates the potential to expand Samoa's current role as a regional transshipment hub.

Maritime transport is the economic lifeline for the country and, as such, improving the corresponding infrastructure and services is essential for driving economic growth. To meet the growing needs of its economy, Samoa will need to increase the capacity of its existing port, and implement measures to enhance safety and build resilience to climate change.



Port Development Project

Status: **Proposed**

Total Financing (ADB): \$42.03 million¹¹

As demand grows, Apia Port is increasingly overcrowded and vulnerable to sea swell. This impacts the safety of vessel operations during the wet season and currently results in losses of up to 20 ship berth days a year. The main wharf in Apia was constructed in 1966 and has since benefited from a number of upgrades and expansions.¹² However, further investments are needed to increase the port's safety and capacity.



Ports Development Master Plan

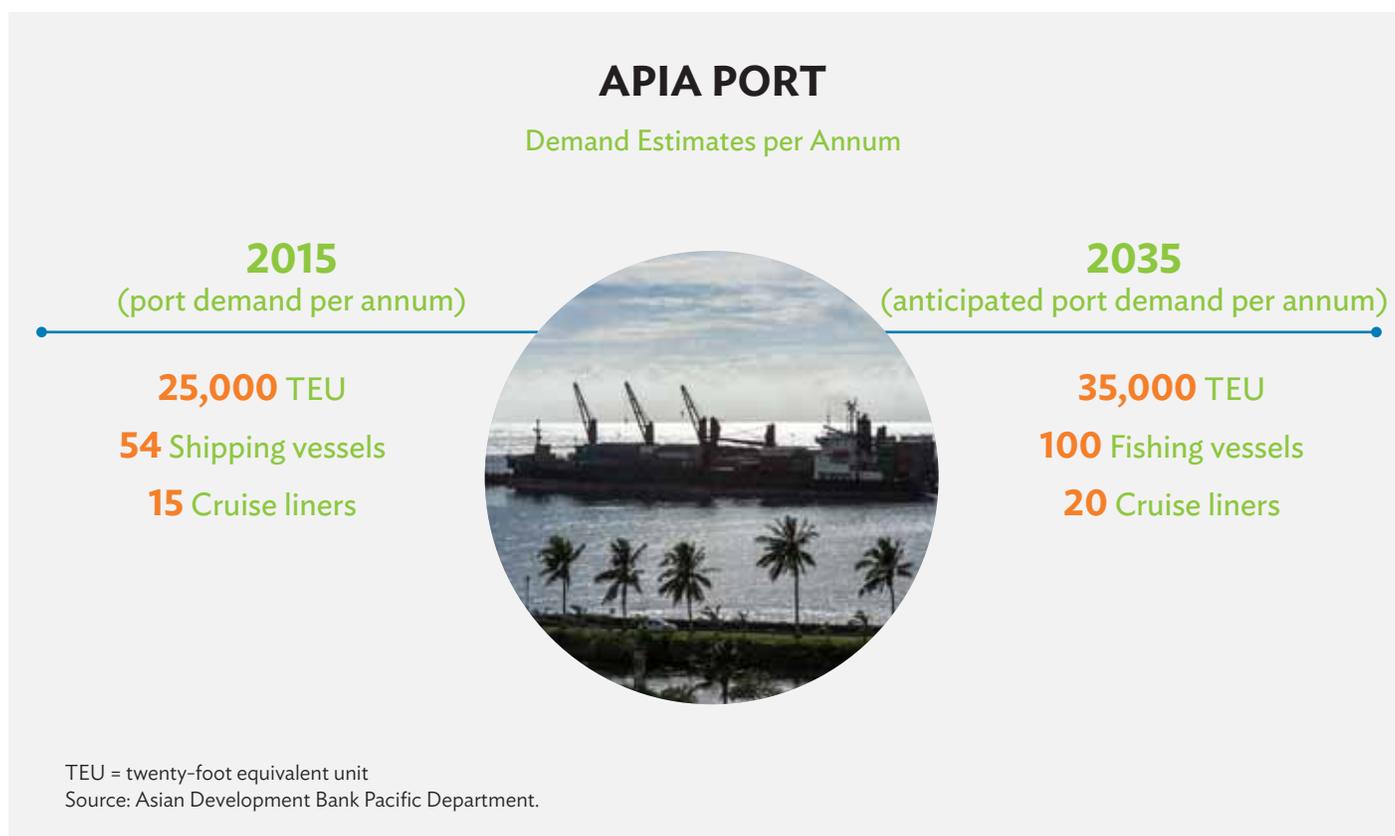
Status: **Active**

Total financing (ADB): \$1.25 million

ADB's TA for the Ports Development Master Plan is assisting the government to conduct demand assessments and a swell mitigation study. The studies contributed to the formulation of a 20-Year Ports Development Master Plan, which was endorsed by the cabinet in June 2016. The government has since requested support from ADB to increase port capacity and improve resilience to climate change.

¹¹ Total financing includes parallel ADB financing of \$3.00 million for a project design advance, \$1.25 million for the Ports Development Master Plan TA, and \$1.00 million for an attached TA titled Enhancing Port Efficiency and Piloting Green Port Initiatives.

¹² Apia Port was initially constructed in 1966 under a grant from New Zealand. The Japan International Cooperation Agency (JICA) subsequently rehabilitated the port—following cyclone damages in 1992—and built a new wharf in 1999. In 2015, JICA approved a grant to extend the wharf, rehabilitate the container yard, improve navigational safety, upgrade passenger facilities, and rehabilitate tugboats to meet international operating standards.



The Port Development Project will enhance the safety and capacity of Apia Port by (i) extending the existing breakwater to protect against swell during the rainy season, (ii) enlarging the turning basin to accommodate more vessels, and (iii) reconfiguring the port precinct and container terminal to improve efficiency. The project will complement ongoing port development works funded by the Japan International Cooperation Agency (JICA) (footnote 6).

Central Cross Island Road Upgrading Project

Status: **Proposed**

Total financing (ADB, including project preparatory TA): \$25.8 million

In addition to supporting maritime connectivity, ADB is assisting the government to prepare and implement a land transport project that will increase mobility and safety conditions for eight villages along the Central Cross Island Road.

The project will rehabilitate and climate-proof the road and, in turn, is expected to (i) improve access to public services; (ii) increase tertiary education rates; (iii) provide faster and safer access to medical services; and (iv) support economic growth, particularly in the tourism sector. Road improvements will also contribute to the island's disaster preparedness, as the road provides an alternate route for evacuation and post-disaster relief between the northern and southern coasts. In May 2018, the ADB Board of Directors approved a \$800,000 TA to conduct preconstruction activities—project implementation is slated for 2019.

SOLOMON ISLANDS

Solomon Islands is a large island country, with a land area of about 28,000 km² (distributed across more than 900 islands), and one of the largest maritime exclusive economic zones in the world, at 1,589,477 km². The country's extensive multimodal network comprises 1,500 km of roads (about 170 km sealed and 1,330 km unsealed); 90 wharves; and 22 air fields, nationwide. The safe and efficient operation of Solomon Islands' transport assets is essential in providing equitable access to socioeconomic opportunities.

Solomon Islands has a narrow economic base, which centers on forestry and mining. The country needs new drivers of growth to place it on an equitable and financially sustainable development path. Some of Solomon Islands' best prospects for growth include commercializing agriculture, and expanding its fishery and tourism industries. The successful development of these sectors will depend largely on the country's ability to increase the connectivity of people and goods across its 300 inhabited islands.

Solomon Islands is working with ADB and its development partners to improve land, sea, and air transport, and to ensure that domestic stakeholders have the capacity to manage and maintain key assets in the future. Strengthening the existing transport network, and ensuring its long-term sustainability, will enable Solomon Islands to leverage its considerable wealth of natural and human capital to drive socioeconomic growth.



Domestic Maritime Support Sector Project

Status: **Active**

ADB financing: \$15.00 million

Cofinancing: \$11.19 million

Total financing: \$26.19 million

Interisland maritime transport is an essential service for connecting communities, goods, and social services across Solomon Islands. The provision of frequent, reliable, and safe domestic shipping services is of particular importance to rural communities, as their distance from larger domestic markets can limit access to economic opportunity and modern goods and services.

The Domestic Maritime Support Sector Project is increasing the economic inclusion of rural island communities by improving infrastructure and establishing new shipping services to remote areas.

The project has:



constructed and rehabilitated **13 wharves and 3 landing ramps**, and



established a franchise **shipping scheme to service 8 areas** that would otherwise be too remote to support commercially viable routes.

Newly established routes have supported commerce—allowing rural communities to export copra—and increased connectivity between remote areas and larger islands. The project's anticipated completion date is June 2019.



Strengthening the Solomon Islands' Maritime Safety and Establishing the Solomon Islands Maritime Safety Authority

Status: **Active**

Total financing (ADB): \$0.80 million

ADB is providing TA to complement enhanced maritime infrastructure and service delivery. The TA for Strengthening the Solomon Islands' Maritime Safety and Establishing the Solomon Islands Maritime Safety Authority (SIMSA) is providing ongoing support for institutional reform and capacity building, and is helping ensure safe shipping practices and clean seas in Solomon Islands.

The TA is supporting SIMSA in becoming compliant with international maritime safety standards. It is accomplishing this by (i) restructuring SIMSA to improve its commercial standing, (ii) supporting ongoing reforms, and (iii) providing training for SIMSA staff. The TA is increasing SIMSA's compliance with international maritime laws and standards to ensure a higher level of safety and environmental protection.



Transport Sector Flood Recovery Project

Status: **Completed in September 2018**

Total financing (ADB): \$12.46 million

On 3–5 April 2014, prolonged heavy rainfall associated with Tropical Cyclone Ita caused severe flooding in Solomon Islands. The areas worst affected were east and west Guadalcanal and the capital, Honiara. Major infrastructure such as roads, bridges, housing, and sewerage and water supply systems were damaged or destroyed—halting economic activity and severely affecting people and communities.

HUMAN IMPACTS



23
fatalities



10,000
people displaced

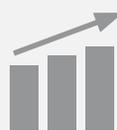


52,000
people affected

ECONOMIC DAMAGES AND LOSSES



\$107.7 million in total damages (56% to housing and 23% to transport assets)



Damaged transport assets were estimated to account for **63%** of recovery needs.

In May 2014, ADB and its development partners conducted a rapid assessment of the impacts of the flash floods, and mobilized funds to respond to priority concerns. The assessment identified repairs to roads and bridges as key areas for mitigating secondary effects on people's lives and the nation's economy. ADB's support built on experience implementing transport projects in the country, and focused on bridges and roadways. Complementary support from the World Bank and the United Nations is financing recovery efforts in the housing, water supply, health, and education sectors.

The Transport Sector Flood Recovery Project leveraged a "build-back-better" approach to ensure damaged assets were rebuilt to a higher standard of climate and disaster resilience. The project constructed 3 high-level bridges, 3 low-level bridges, and 70 meters of cross culverts on the Guadalcanal Main Road, in both the eastern and western directions of Honiara. Selected sites also included river training and embankment protection. The project helped restore socioeconomic activities to pre-flood levels.

Sustainable Transport Infrastructure Improvement Program

Status: **Active**

ADB Financing: \$21.00 million

Cofinancing: \$57.70 million

Cofinancing for the associated TA for Strengthening the Capacity of the Ministry of Infrastructure Development: \$4.50 million

Total financing: \$83.20 million

The Sustainable Transport Infrastructure Improvement Program was approved in May 2016 as a results-based lending (RBL) modality.¹³ It is designed to increase access to socioeconomic opportunities and drive inclusive growth. The program and associated TA for Strengthening the Capacity of the Ministry of Infrastructure Development are building domestic capacity to plan, build, and maintain key transport assets. Crucially, they are pooling government and development partner resources to deliver comprehensive support for developing the transport sector.

Solomon Island's extensive road network gives 77% of its rural population access to an all-weather road within a 2 km radius. However, in 2014, only 62% of the road network was in maintainable condition, and safety conditions were poor (footnote 6). In addition, only 33 of the total 81 wharves in Solomon Islands were in maintainable condition in the same year.

The program is improving as much as 40% of all maritime networks and 50% of the road network. The program is producing the immediate outcome of a safer, more efficient transport sector by rehabilitating degraded infrastructure. It is helping ensure long-term results by building domestic capacity to develop, monitor, and maintain assets. Outputs include the following:



Upgrading **30 km of roads** from unsealed to sealed roads



Reconstructing **4 wharves** for improved safety and gender-responsive access



Increasing the proportion of roads under regular maintenance from **41% to 85%**



Building **6 gender-responsive facilities** in appropriate locations

¹³ RBL is a performance-based form of financing, where disbursements are linked to the achievement of results, as opposed to upfront expenditures. The RBL modality was selected for this program because of its ability to (i) align infrastructure and capacity targets with donor support, to meet longer-term development goals; (ii) incentivize greater accountability to meet development goals and lower transaction costs, which can lead to more efficient public spending; and (iii) rely on country systems to deliver a well-defined and monitored program to support the sustainability of results beyond program completion.



Increasing the proportion of **wharves under regular maintenance from 9% to 100%**



Annually updating transport action plans—based on sustainability criteria such as inclusiveness, economic effectiveness, and accessibility to basic services—and improve fiduciary controls and safeguard systems



Rehabilitating transport infrastructure for all users, with safety, gender-responsiveness, and climate- and disaster-resilient features



Building the capacity of the Ministry of Infrastructure Development to ensure its ability to effectively implement and priority transport projects with a reduced level of TA



Supporting the government to increase its annual contributions to the National Transport Fund by 60%



Transport Sector Development Facility

Status: **Proposed**

ADB financing: 6.00 million

Cofinancing: \$0.96 million

Total financing: \$6.96 million

As ADB continues to work with Solomon Islands to implement priority projects under its National Transport Plan, building capacity in design and implementation can increase project efficiency and efficacy. The Transport Sector Development Facility will improve the readiness of transport projects by supporting domestic stakeholders in pre-design activities (including the preparation of safeguards and due diligence assessments), as well as procurement and civil works contracting. In turn, the facility will support Solomon Islands to implement its ambitious pipeline of transport works, and increase efficiency in processing corresponding loans. It will also help ADB and the government coordinate investments with other development partners to deliver comprehensive improvements at scale.

TIMOR-LESTE

Timor-Leste is a relatively large island nation, with a population of 1.2 million people and a landmass of 14,874 km². More than 70% of its population lives in rural areas and engages in subsistence farming, with nearly half of the population living below the national poverty line.

Timor-Leste's development strategy focuses on promoting economic growth and diversification by expanding access to high-quality infrastructure. Considerable oil reserves and corresponding extraction projects have fed continued economic growth, and the government is investing heavily in developing the country's human and physical capital—infrastructure investments from 2012 to 2017 alone reached nearly \$3 billion. Improving connectivity across Timor-Leste can significantly increase access to essential goods and services, promote economic growth, and help ensure that development follows an equitable path.

As a geographically compact nation, the majority of domestic transport in Timor-Leste is by land. The country's 6,000 km road network accounts for approximately 90% of passenger transport and 70% of freight. Although the majority (80%) of Timor-Leste's roads are (or were once) paved, lack of maintenance has led to considerable degradation; 70% of all national roads (1,426 km) and district roads (869 km) are rated to be in very poor condition, and require upgrades to make them serviceable by routine maintenance (footnote 6).

The Government of Timor-Leste is working closely with ADB and its development partners to plan and implement a comprehensive series of upgrades to the national road network.¹⁴ In total, development partners will have supported upgrades to about 560 km (39%) of key sections of the road network by the end of 2019.¹⁵ ADB-financed projects alone will have upgraded 287 km of national roads in the same year, with 100 km of these works already complete.

Pages 25–27 highlight key activities and physical works under the Road Network Upgrading Project, the Road Network Upgrading Sector Project, the Dili to Baucau Highway Project, and the Baucau to Viqueque Highway Project.

Road Network Upgrading Project

Status: **Active**

ADB financing: \$51.06 million

Cofinancing: \$22.62 million

Total financing: \$ 73.32 million

The project is financing upgrades for the roads from Dili to Liquica, and from Tibar to Glen. It is substantially increasing access to Dili from the west and supporting feasibility studies for further upgrades to the road network. Additional financing packages (included in the above total) are enabling the construction of a 4.55 km section of the Tasitolou–Tibar road, and will allow for the construction of two district feeder roads.

 Upgrading about
108 km of road

 Increasing safety
through community
outreach and education

 Expanding the
maintenance
program of
the Ministry of
Infrastructure

 Preparing
feasibility studies
for **81 km of
additional
principal roads**

¹⁴ Development partners include ADB, the Government of Australia, the European Union, JICA, and the World Bank.

¹⁵ The Government of Australia and the European Union have focused on the rehabilitation and maintenance of secondary rural roads through the development of small-scale contractors and community involvement. These activities complement civil works on national roads, and are helping to connect remote populations to the country and its growing economy.

Box 7: Building Domestic Capacity to Sustain Impacts in the Pacific

Providing regular maintenance for transport infrastructure extends its economic life, and creates opportunities for local businesses and communities to engage in the development process. Although many Pacific island countries have (or once had) adequate transport infrastructure to meet their connectivity needs, lack of financial and human resource allocations has led to the accelerated degradation of transport assets. This requires costly upgrades, which can be avoided in the future by improving maintenance practices. Maintaining infrastructure is less costly than rebuilding it.

In parallel to its lending activities in the Pacific transport sector, the Asian Development Bank (ADB) supports project sustainability by building domestic capacity to plan and implement ongoing infrastructure maintenance beyond project completion. By engaging local governments, businesses, and communities, ADB is supporting its Pacific developing member countries in increasing the physical and financial sustainability of their transport sector.

Promoting Sustainable Land Transport Infrastructure in Timor-Leste

Status: **Active**

Total financing (ADB): \$1.00 million

The ongoing infrastructure investments are overhauling the core road network in Timor-Leste, and will increase connectivity for urban and rural populations across the country. However, current financial allocations for road maintenance are insufficient, and the country lacks policy and institutional frameworks to support long-term sustainability. ADB is delivering technical assistance (TA) to help ensure that upgraded roads serve their planned life cycles.



Strengthening governance and institutional capacity

The TA for Promoting Sustainable Land Transport Infrastructure in Timor-Leste is developing a comprehensive road maintenance strategy and plan, and preparing a concept design for a sustainable road maintenance program. The maintenance plan includes a 20-year capital investment and operation and maintenance strategy, an organizational reform plan to support implementation, and a review of suitable policy

instruments to facilitate the integration of the national Transport Sector Master Plan into the wider context. Overall, the TA is helping ensure that long-term road maintenance is carried out in a cost-effective and resource-efficient manner.

Road Network Upgrading Sector Project

Status: **Active**

ADB financing: \$126.22 million

Cofinancing: \$4.50 million

Total financing: \$130.74 million

The Road Network Upgrading Sector Project is improving access to the roads that service the north coast, in both the eastern and western regions of Timor-Leste. Civil works will include the north-south links from Manatuto to Natarbora, from Baucau to Viqueque, and an inland road from Lautem to Lospalos.



Upgrading and climate proofing **214 km of road**



Increasing safety through community outreach and education



Expanding performance-based maintenance programs

Dili to Baucau Highway Project

Status: **Active**

Total financing (ADB): \$49.65 million

The Dili to Baucau Highway Project is upgrading and climate-proofing 105 km of the national road between Dili (the nation’s capital) to Baucau (the second most populous city). Of this total, ADB is financing 56 km of road connecting Manatuto and Baucau, and JICA is financing the 49 km section from Dili to Manatuto.

  Upgrading and climate proofing **105 km of road**. Improved roads will benefit **1,200–2,000 vehicles per day**.

 
 Increasing safety through community outreach and education

 Expanding performance-based maintenance programs

Baucau to Viqueque Highway Project

Status: **Active**

Total financing (ADB): \$44.00 million

The Baucau to Viqueque Highway Project is upgrading the roads between Baucau and Viqueque, with considerations for better resilience to climate change and socially-inclusive design. The associated TA for Promoting Sustainable Land Transport Infrastructure will help ensure that the Baucau to Viqueque Highway and other national roads under construction are managed and maintained sustainably.

  Upgrading and climate proofing **58 km of road**

 
Increasing safety through community outreach and education

 Expanding performance-based maintenance programs

The work of ADB and its development partners in the transport sector is driving more equitable socioeconomic growth across Timor-Leste, and providing more efficient movement of people and goods to a growing number of communities. Improvements to the road network will significantly increase access to markets and essential services across the country (including health care and education), and facilitate cross-border trade with Indonesia. Corresponding community outreach and training programs are improving roadway safety, increasing opportunities for formal employment, and supporting the ongoing maintenance of transport infrastructure.

Preliminary Assessment for Dili Airport Runway Upgrading Project

Status: **Proposed**

ADB financing: \$0.23 million

Building and maintaining core infrastructure, including airports and sea ports, are key pillars of Timor-Leste's Strategic Development Plan (2011-2030) as the country requires critical infrastructure to support its growing economy.

President Nicolau Lobato Airport, in Dili, is the only international airport in Timor-Leste, handling about 150,000 passengers per year. The government plans to upgrade the airport to meet modern international standards for safety and security, and to boost passenger capacity to one million people per year. These improvements will support growth of the tourism industry and other economic sectors in Timor-Leste. The TA for Preliminary Assessment for Dili Airport Runway Upgrading Project will support the government to prioritize investments for forthcoming works.

Box 8: Bridging Gender and Skills Gaps with Sustainable Transport



Accelerating progress in gender equality



Addressing remaining poverty and reducing inequalities

Opportunities for cash employment across the Pacific are in short supply, and women often have less access to existing opportunities than men. At the same time, contractors cite the lack of qualified domestic workers as a key constraint for implementing projects. Skills gaps represent missed opportunities for both contractors and domestic workforces. Building the skills and qualifications of domestic workers can increase equitable access to employment opportunities and reduce operating costs for contractors.

The Asian Development Bank is working with communities and contractors to bridge skills gaps across the Pacific—increasing opportunities for gainful employment and deepening the social impacts of its investments. To support greater levels of gender equality and equitable participation in the work force, the Asian Development Bank's tendering process requires gender-sensitive design to increase women's participation in the workforce. The result has been deeper engagement of domestic workers in infrastructure works, and increased opportunities for women to find meaningful employment.



A woman on her way to Becora Market in Dili.

TONGA

Tonga comprises five island groups—Tongatapu, ‘Eua, Ha’apai, Vava’u, and Niuas—spread across 171 islands in the western South Pacific. Approximately 70% of the population (105,000 people in total) lives on the main island of Tongatapu, which houses the national capital, Nuku’alofa. The rest of the population is distributed across 36 surrounding islands. Maritime transport plays a key role in connecting communities on the outer islands to essential goods and services on Tongatapu, as well as driving economic growth, mainly through the tourism sector.

Transport infrastructure in Tonga is relatively well-developed compared with other Pacific DMCs. Tongatapu enjoys a high density of roads, though many are unpaved; unlike the majority of South Pacific nations, maritime infrastructure in Nuku’alofa comprises several docking facilities, including a separate cruise liner terminal. However, despite the prevalence of assets, much of Tonga’s transport infrastructure is in need of upgrades or repair to increase resilience to natural disasters and climate change.



Nuku’alofa Port Upgrading Project

Status: **Proposed**

ADB financing: \$15.00 million

Cofinancing: \$10.00 million

Total financing: \$ 25.00 million

Tonga’s main gateway port—the Queen Salote International Wharf—was built in 1967 and has a domestic island ferry terminal, two international container vessel berths, and a separate cruise liner terminal. JICA is currently financing a new harbor, which will move the domestic ferry terminal 1 km to the west of the main wharf.

In the medium term, tourism and publicly funded infrastructure projects will continue to be the main driver of Tonga’s economy. However, increasing container and transshipment capacity at the Queen Salote International Wharf provides opportunities to establish Tonga’s role as a regional transshipment hub. Relocation of the domestic ferry terminal affords opportunities to restructure Tonga’s main commercial port. Doing so can improve port efficiency; lengthen the existing wharf to accommodate increased trade volumes and larger vessels sizes over the coming 20-year period; and crucially, increase resilience to the effects of climate change and natural disasters.

ADB will support Tonga to undertake feasibility studies for developing and expanding the Queen Salote International Wharf. The project preparatory TA for the Nuku’alofa Port Upgrading Project will assess options for repairing, strengthening, and lengthening the existing wharf, while taking into account requirements for vessel navigation, loading and unloading, and design considerations to increase resilience to natural forces.



Fanga’uta Lagoon Crossing Project

Status: **Proposed**

Total financing (ADB): \$37.00 million

Nuku’alofa is located on a low-lying area of Tongatapu, and is therefore particularly vulnerable to the effects of severe weather events such as tsunamis. However, the main road network on Nuku’alofa has limited evacuation routes, and requires improvements to increase its resilience to climate change and natural disasters.

The proposed Fanga’uta Lagoon Crossing Project will build a bridge connecting Nuku’alofa to southern Tongatapu, across Fanga’uta lagoon. The crossing will span about 500 meters across the shortest route over the lagoon, and will provide (i) shorter journeys to the capital for people living in central and eastern parts of Tongatapu, (ii) a higher-capacity link out of Nuku’alofa that can be used as an evacuation route to higher ground in the event of a tsunami, and (iii) an arterial road for future urban developments in high-lying areas that are less vulnerable to the impacts of climate change and natural disasters.

TUVALU

Tuvalu is one of ADB's smallest Pacific DMC, and consists of nine atolls spread across 680 km² of ocean in the Southwest Pacific. Approximately 60% of Tuvalu's 10,000 inhabitants live in the capital, Funafuti, with the remainder distributed across its outer islands. International flights depart to and from Funafuti twice a week, and a commercial cargo ship arrives in the capital once every 3 weeks. Domestic transport relies entirely on two government-owned ships that travel between Funafuti, the outer islands, and Fiji, to provide essential goods and services, including food, fuel, and medical care.

Currently, none of Tuvalu's outer islands have docking facilities to accommodate government shipping vessels. As such, goods and passengers must be transferred to and from shore by small workboats. Only three of the outer islands—Vaitupu, Nanumea, and Nukufetau—possess docking facilities for smaller crafts, which are in need of repair. Transfers between government ships and the outer islands are inefficient, unsafe, and often cannot take place during rough waters, low tide, or at nighttime.

Tuvalu's National Strategy for Sustainable Development, 2016–2025 calls for safer and more efficient maritime transport to (i) enhance economic development, especially local fisheries; (ii) improve livelihoods and safety conditions in the outer islands; and (iii) reduce migration from the outer islands to Funafuti, which is experiencing overcrowding and corresponding urban challenges.

Improving maritime transport in Tuvalu can support more equitable provision of social services, provide enhanced access to economic opportunity, and foster greater resilience to the effects of climate change.



Outer Island Maritime Infrastructure Project

Status: **Active**

ADB financing: \$26.70 million

Cofinancing: \$3.50 million

Total financing: \$30.20 million¹⁶

The Outer Island Maritime Infrastructure Project is helping Tuvalu overcome connectivity constraints by improving maritime facilities on three outer islands, and by building government capacity to plan, implement, and maintain transport infrastructure. The project is increasing access to the outer islands by (i) constructing a new harbor on Nukulaelae and rehabilitating boat ramps on Nanumaga and Niutao; (ii) building capacity to operate and maintain assets; and (iii) developing a transport sector master plan for further sequenced investments, with a view toward promoting economic activity through fisheries and tourism. In September 2018, ADB approved \$16.9 million in additional financing to construct a new workboat harbor in Niutao.



Men and children transporting goods in the outer islands in Tuvalu

¹⁶ Includes \$16.9 million additional financing allocation from ADB (\$15.40 million) and government counterpart financing (\$1.50 million).

VANUATU

Vanuatu is a western Pacific archipelago with a total landmass of 12,189 km² spread across 83 volcanic islands. Approximately 75% of its 247,000 residents live in highly dispersed rural areas, where the provision of goods and services is limited. Increasing access to safe, efficient, and reliable transport is essential for driving socioeconomic development, and for ensuring that benefits are distributed across the population. Existing transport infrastructure includes a road network of about 2,300 km, 26 domestic airfields (and 3 international airports), 10 public ports and jetties on the outer islands, and 2 international ports.

In spite of existing assets, transport services are limited, and the condition of transport infrastructure is deteriorating. This is largely due to unpredictable financial allocations and limited government capacity to support routine maintenance. Vanuatu's placement on the Pacific Ring of Fire exposes the nation to heightened risk of natural disasters, and emphasizes the need to factor climate-resilient design and planning into all transport sector development.

ADB is working with the Government of Vanuatu to improve and maintain physical transport assets, enhance service delivery, and increase transport safety. Collaboration with the government and its development partners is supporting increased resilience planning and response to natural disasters in both urban and remote areas.

Box 9: Capturing Opportunities with Well-Planned Urban Development



Making cities more livable

Populations across Pacific developing member countries of the Asian Development Bank (ADB) are moving to cities. This creates a new set of opportunities and challenges for the Pacific transport sector. As people migrate from dispersed island communities to urban centers, increasingly centralized populations can facilitate delivery of goods

and services, and provide new opportunities for formal employment and economic growth. However, capturing these opportunities requires that urban infrastructure development keep pace with the needs of increasingly dense populations.

If growth is not planned and adequately managed, higher population densities can threaten public hygiene and place considerable strain on the transport sector by increasing congestion and accelerating the degradation of roads and other assets. Early stage planning of infrastructure deployment and maintenance is essential for reaping the socioeconomic benefits associated with sustainable urban development.

As Pacific populations become increasingly urban, it is also important that governments and development partners allocate resources to ensure that rural populations continue to have safe and reliable access to goods, services, and economic opportunities. ADB's work in the Pacific transport sector is enabling stakeholders to plan sustainable urban development, while ensuring that rural populations stay connected to the goods and services they need.

Port Vila Urban Development Project

Status: **Active**

ADB financing: \$4.33 million

Cofinancing: \$33.87 million

Total financing: \$38.20 million

The nation's capital, Port Vila, houses approximately 44,000 residents, and is Vanuatu's largest population center and main commercial hub. It has already expanded beyond its originally defined urban boundaries due to rapid economic development, rural-urban migration, and the proliferation of informal settlements.¹⁷ ADB is building government capacity to plan and maintain urban infrastructure, and to ensure that essential transport, drainage, and sanitation services keep pace with population growth.

¹⁷ The Greater Port Vila area, which includes the main municipality and its surrounding urban and peri-urban communities, housed approximately 58,000 residents in 2009—the population is expected to reach 109,000 by 2025.

The Port Vila Urban Development Project is upgrading 13 km of roads, installing and rehabilitating a combined 14.5 km of storm water pipes, and improving the drainage capacity of three catchments—significantly increasing Port Vila’s resilience to floods and the effects of climate change. The project is also improving sanitation services for 4,500 households in the greater Port Vila area; training government staff to manage and maintain roads, sanitation, and drainage facilities; and leveraging training opportunities to increase employment opportunities for women.

Interisland Shipping Support Project

Status: **Active**

ADB financing: \$26.38 million

Cofinancing: \$17.25

Total financing: \$43.63 million

Many of Vanuatu’s outer islands lack the infrastructure and services needed to link rural populations with essential goods and services.¹⁸ The Interisland Shipping Support Project is increasing access to socioeconomic opportunities by

 constructing **1 new interisland terminal in Port Vila, 2 new island wharves, and 3 new jetties,** and rehabilitating **2 outer island wharves.**

All sites will be fitted with appropriate ancillary infrastructure, such as market shelters and storage areas, and will be designed to endure a life span of 50 years. Design considerations include climate-proofing measures and adopting a low-maintenance strategy, in recognition of limited maintenance capacity on the outer islands.

The project is complementing infrastructure investments by providing subsidies for voyages to destinations that, otherwise, would be commercially unviable, and by appointing people to communicate the transport needs of rural communities to private sector operators. New and refurbished facilities will reduce wait times, provide all-weather access, and improve safety conditions for loading and unloading at ports. The shipping support schemes will increase access to safe and reliable transport services for residents on the outer islands.¹⁹

Establishment of the Maritime Safety Administration

Status: **Active**

ADB financing: \$0.50 million

Cofinancing: \$1.00 million

Total financing: \$1.50 million

The TA for Establishment of the Maritime Safety Administration is complementing increased interisland transport services by improving safety regulation and enforcement. It is increasing maritime safety by revising existing legislation, establishing the Office of the Maritime Regulator, and building the capacity of corresponding staff to oversee new regulation.

¹⁸ The five outer islands are Ambae, Espiritu Santo, Malekula, Pentecost, and Tanna.

¹⁹ To support financial sustainability, the subsidies will be phased out gradually as the routes become financially viable.

 **Supporting the Vanuatu Project Management Unit and the Ministry of Infrastructure and Public Utilities**

Status: **Active**

Total financing (ADB): \$0.23 million

The TA for Supporting the Vanuatu Project Management Unit and the Ministry of Infrastructure and Public Utilities is further strengthening institutional capacity and guiding more effective project management. It is reviewing Vanuatu's infrastructure portfolio and building domestic capacity to manage and maintain future projects, thereby supporting more sustainable transport sector development.

 **Cyclone Pam Road Reconstruction Project**

Status: **Active**

ADB financing: \$21.67 million

Cofinancing: \$2.68 million

Total financing: \$24.35 million

As Vanuatu scales up its portfolio of transport infrastructure projects to meet the needs of its population, there is a pronounced need to increase the resilience of investments, and to strengthen domestic capacity to manage and respond to severe weather events.

In 2015, the Category 5 Tropical Cyclone Pam struck Vanuatu with wind speeds estimated at 250 km per hour and gusts peaking at 320 km per hour. The storm caused severe flooding and widespread damages. A rapid post-disaster needs assessment highlighted the need for swift repairs along the Efate Ring Road to minimize secondary economic impacts, and to restore connectivity to essential service centers, including hospitals, schools, and markets.



Reconstructing the Efate ring road damaged by the Cyclone Pam floods and storm surges in March 2015.

HUMAN IMPACTS



65,000
people displaced



80%
of all rural livelihoods
affected

ECONOMIC DAMAGES AND LOSSES



\$449.40 million
in total damages



\$205 million recovery needs
for housing, health care, and education^a



\$34 million recovery
needs for transport

Note: ADB and its development partners are collaborating on a range of projects to directly address social sector needs, in tandem with the transport sector work described above.

The Cyclone Pam Road Reconstruction Project is reconstructing and climate-proofing damaged portions of the Efate Ring Road to restore connectivity between Port Vila and communities across Efate. The project is taking a “build-back-better” approach to reconstruction and will help restore socioeconomic activities to pre-cyclone levels.

Physical works commenced in August 2017 and will:



rehabilitate a **10 km road section**,
reconstruct **9 bridges**,
reconstruct **9 culverts and causeway structures**, and
oversee ground improvement to **1 landslide site**.

The ADB Board of Directors approved \$8.2 million in additional financing to rehabilitate an additional 6.2 km of roads and reconstruct 4 more bridges.

The project will increase climate resilience by protecting sealed pavement against erosion, improving drainage, and training rivers to cope with surges. The project is also building government capacity in the areas of climate- and disaster-risk preparedness for both rural and urban areas.

Box 10: Delivering Impacts in the Pacific

The work of the Asian Development Bank (ADB) in the Pacific transport sector focuses on constructing and upgrading key infrastructure, and on ensuring that domestic stakeholders have the capacity to manage and maintain it for generations to come. Through its lending and technical assistance activities in the Pacific transport sector, ADB seeks to:

- (i) connect people to essential resources and to each other;
- (ii) increase the resilience of communities and infrastructure;
- (iii) support economic development and the creation of jobs;
- (iv) provide safe, efficient, and reliable transport services; and
- (v) ensure equitable access to opportunity.

Pacific Transport Update 2018

This publication provides an update of transport projects and assistance of the Asian Development Bank (ADB) in the Pacific as of 2018. ADB continues to assist in the development of the transport sector in 14 Pacific countries through technical assistance, loan, and grant financing. The bank also provides support for transport sector policy, investment planning, capacity building, and new capital infrastructure investment. It is currently implementing transport projects and technical assistance in Fiji, Kiribati, Nauru, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tuvalu, and Vanuatu.

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ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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