



PALAU:

TRANSPORT POLICY PROFILE

Insights from the Asian Transport Outlook (ATO):
Transport observatory for the
Asia – Pacific region

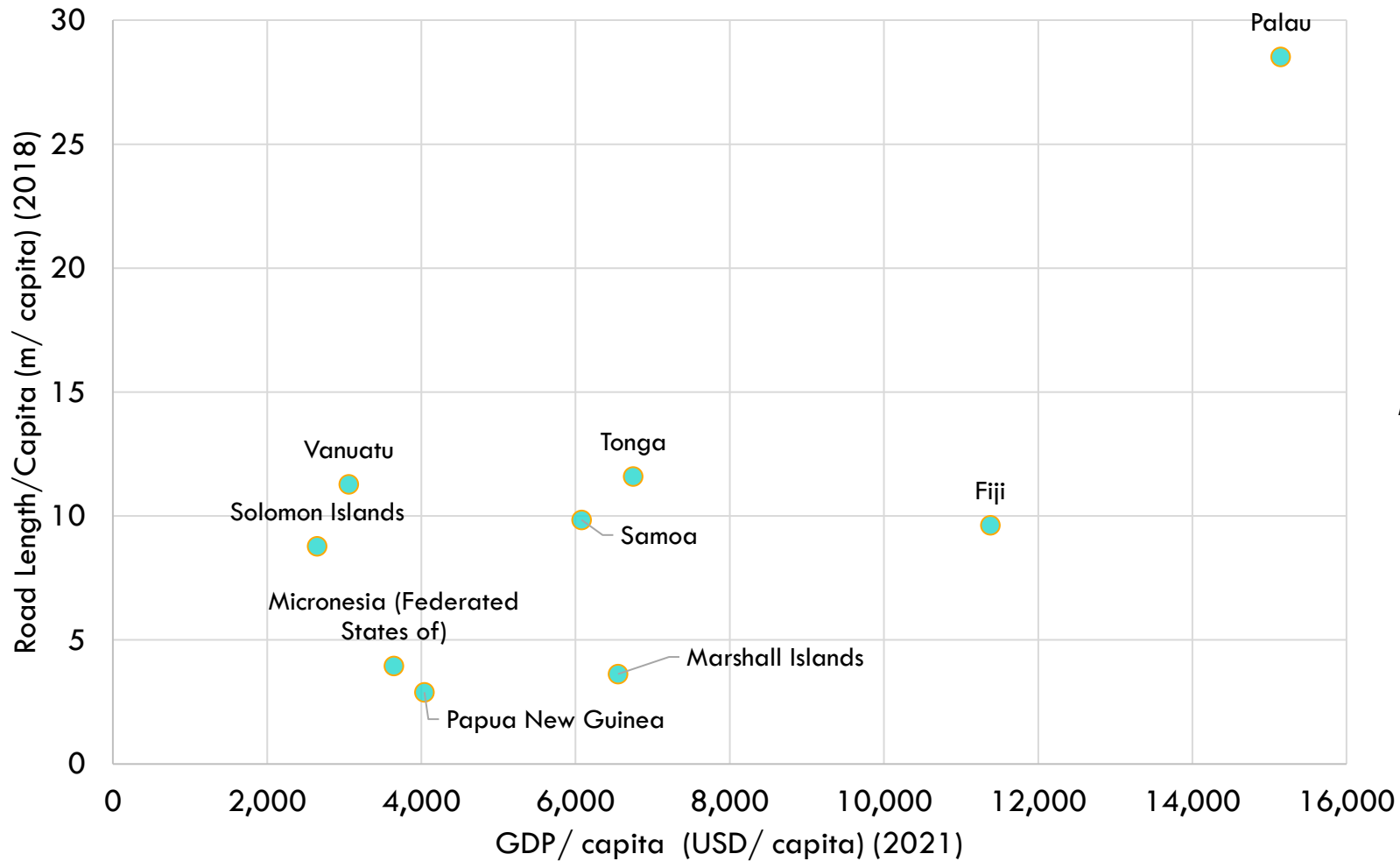
29 Feb. 2024

DATA INSIGHTS

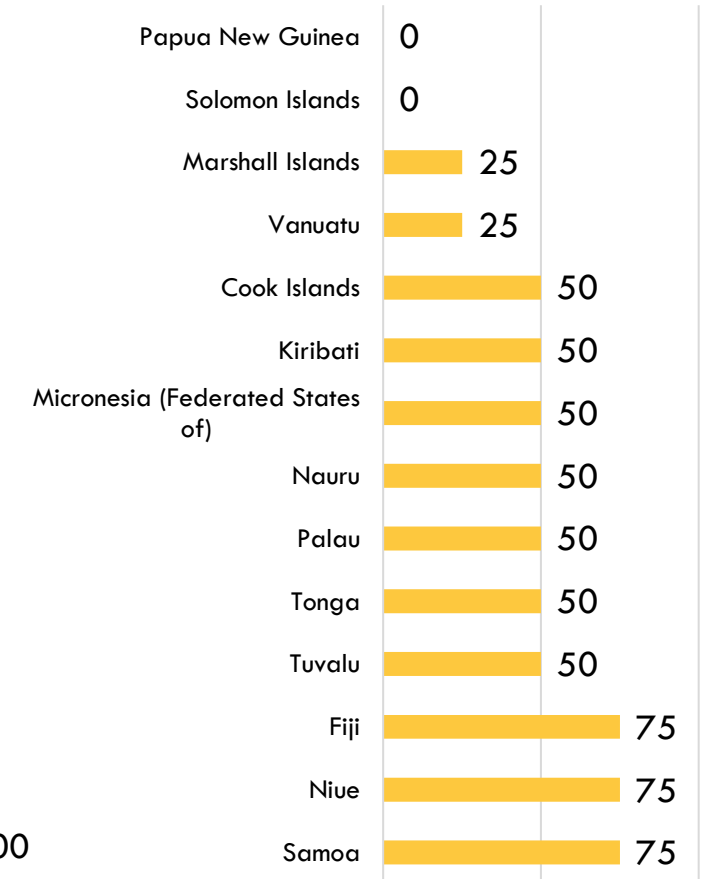
Focus on Solomon Islands, Nauru,
Vanuatu, Marshall Island, and
Palau

ROAD INFRASTRUCTURE AVAILABILITY

Road infrastructure availability

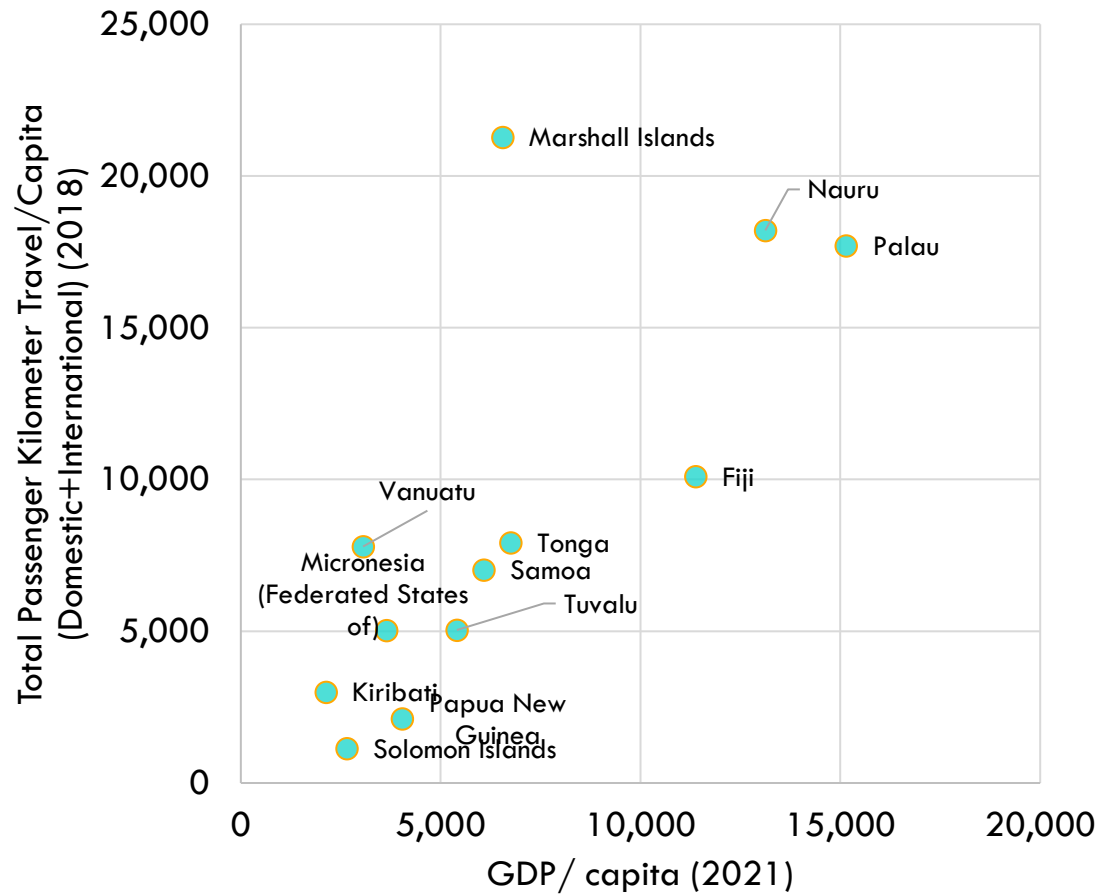


Adequacy of roads score (qualitative scoring) (2021)

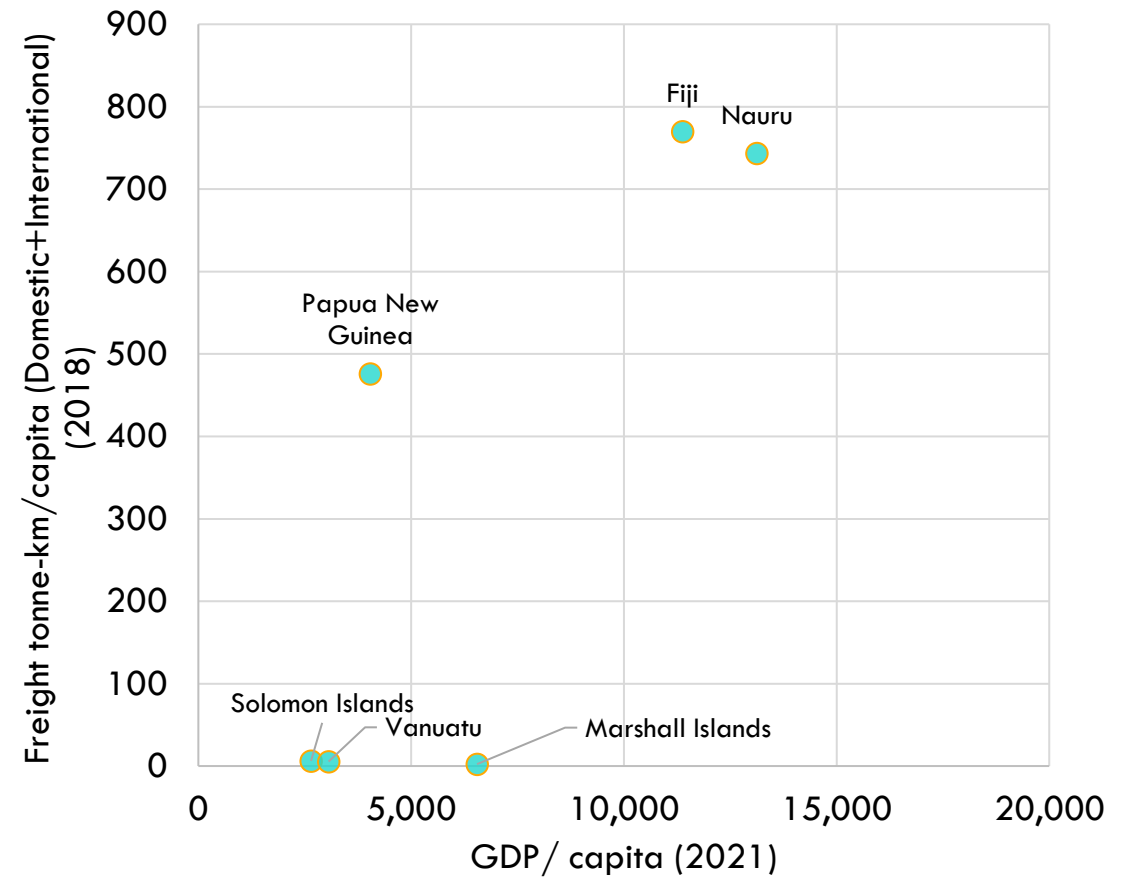


TRANSPORT ACTIVITY

Passenger Activity

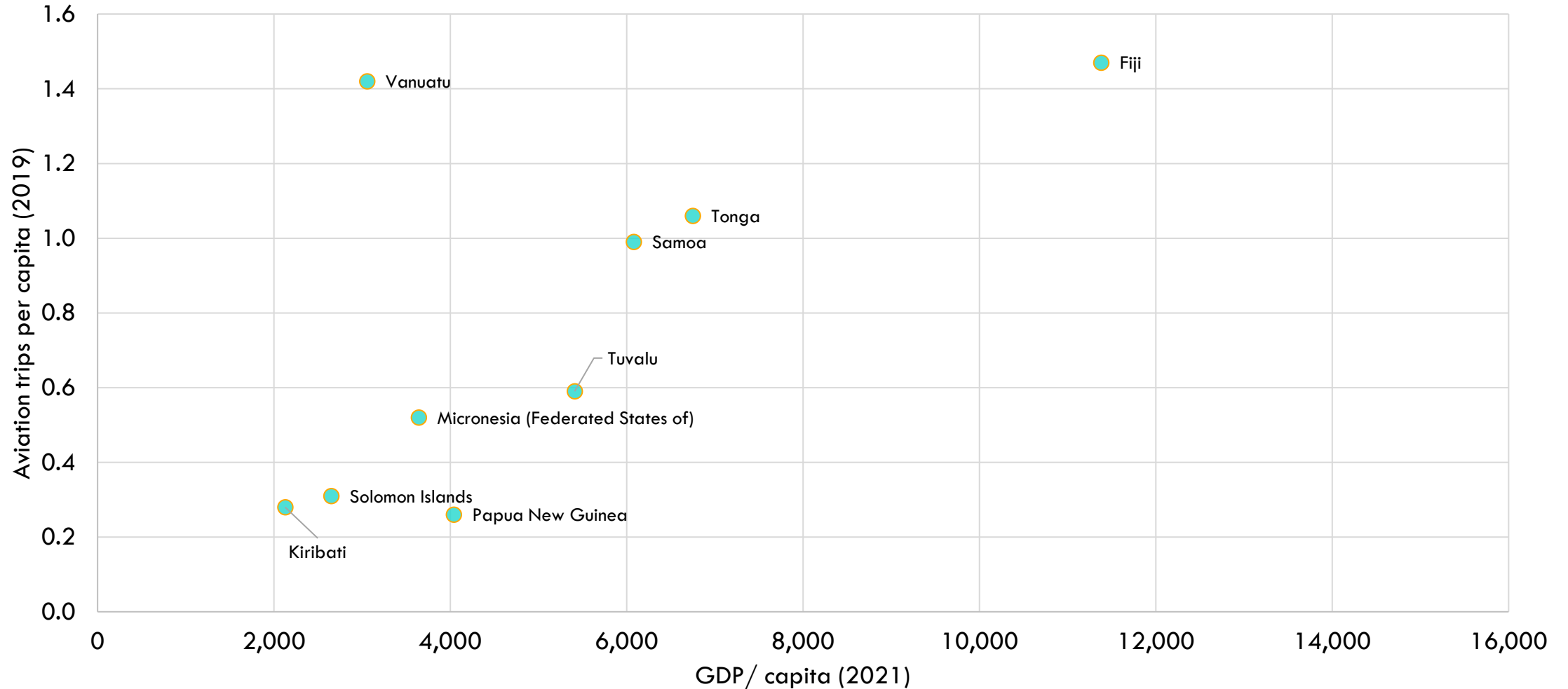


Freight Activity



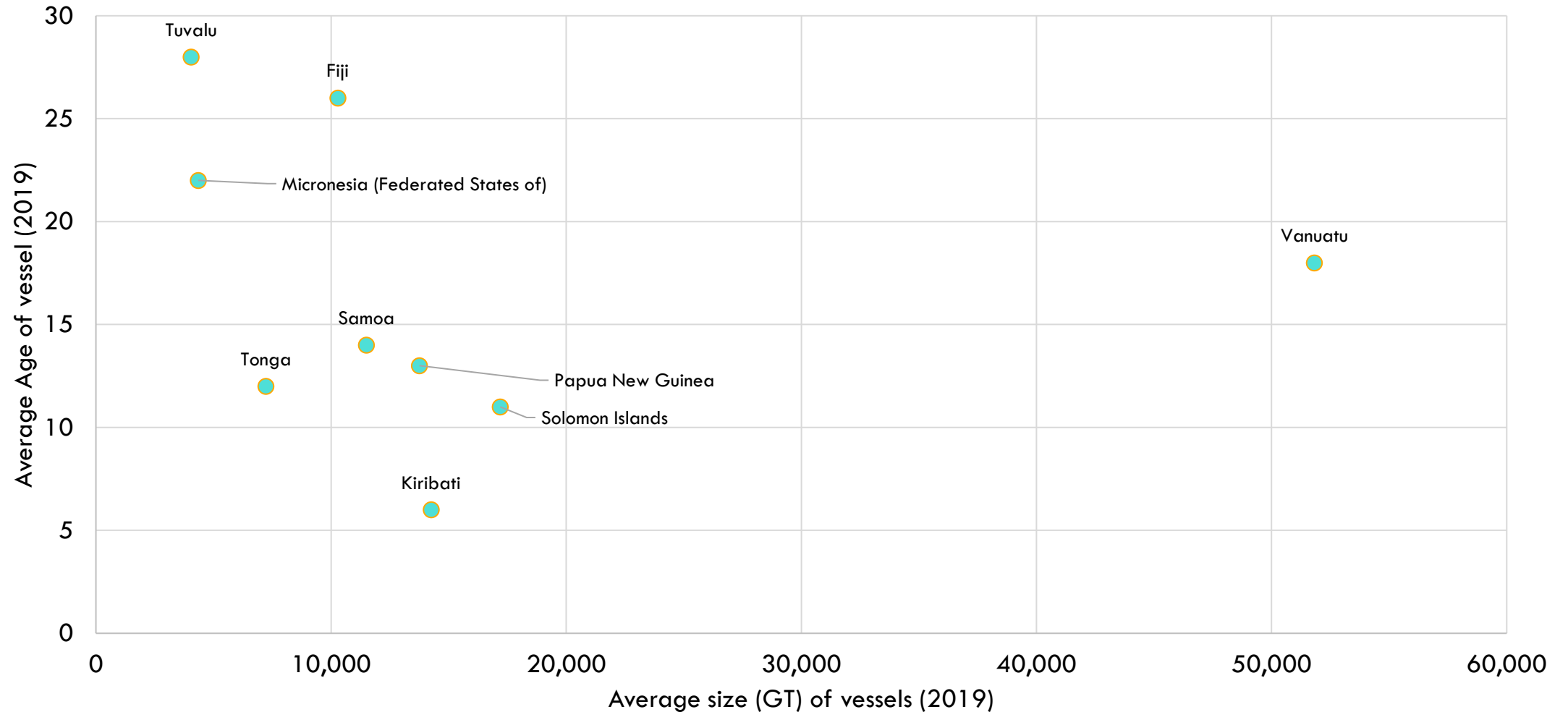
PASSENGER AVIATION ACTIVITY

Passenger Aviation Activity

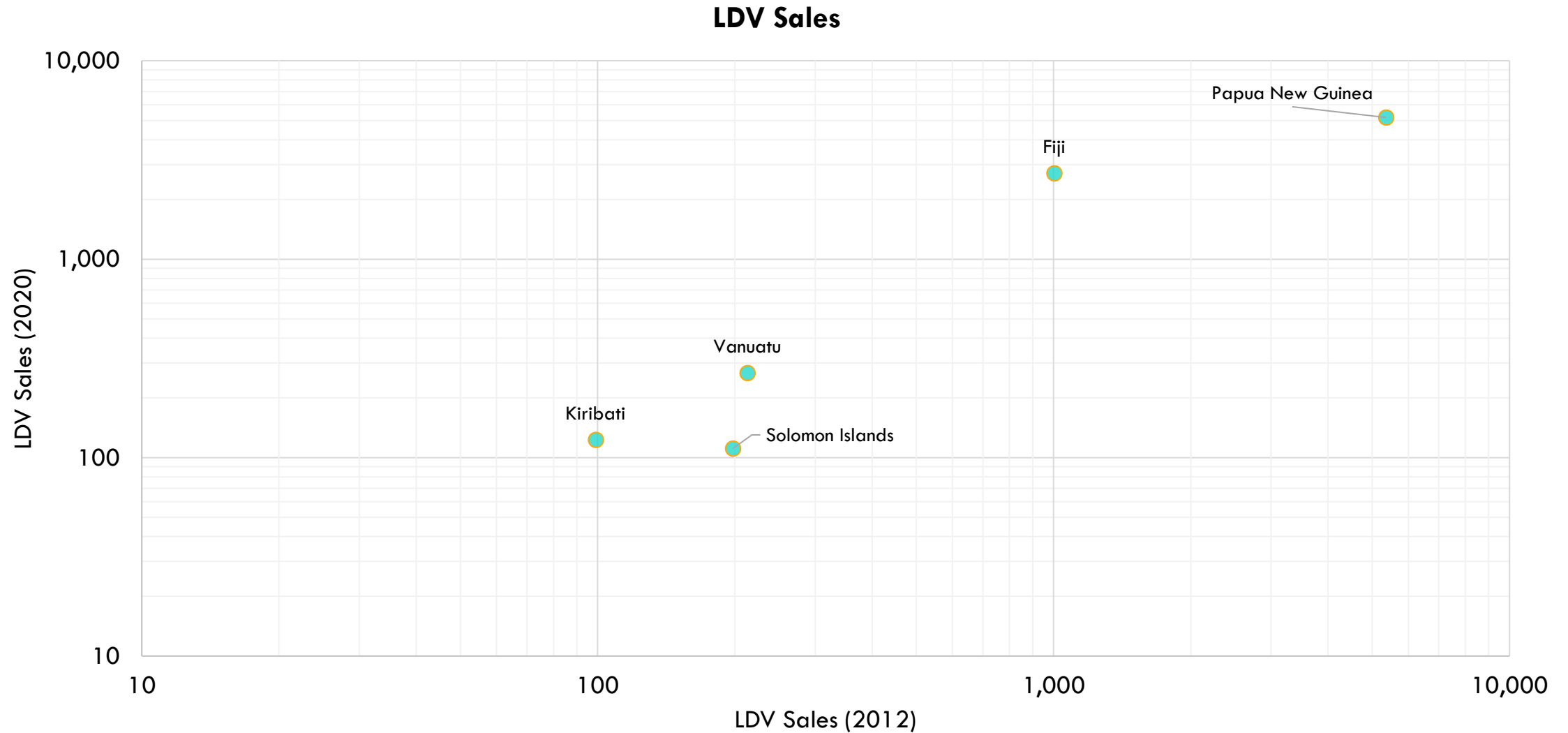


SHIPPING SERVICES

Shipping Services

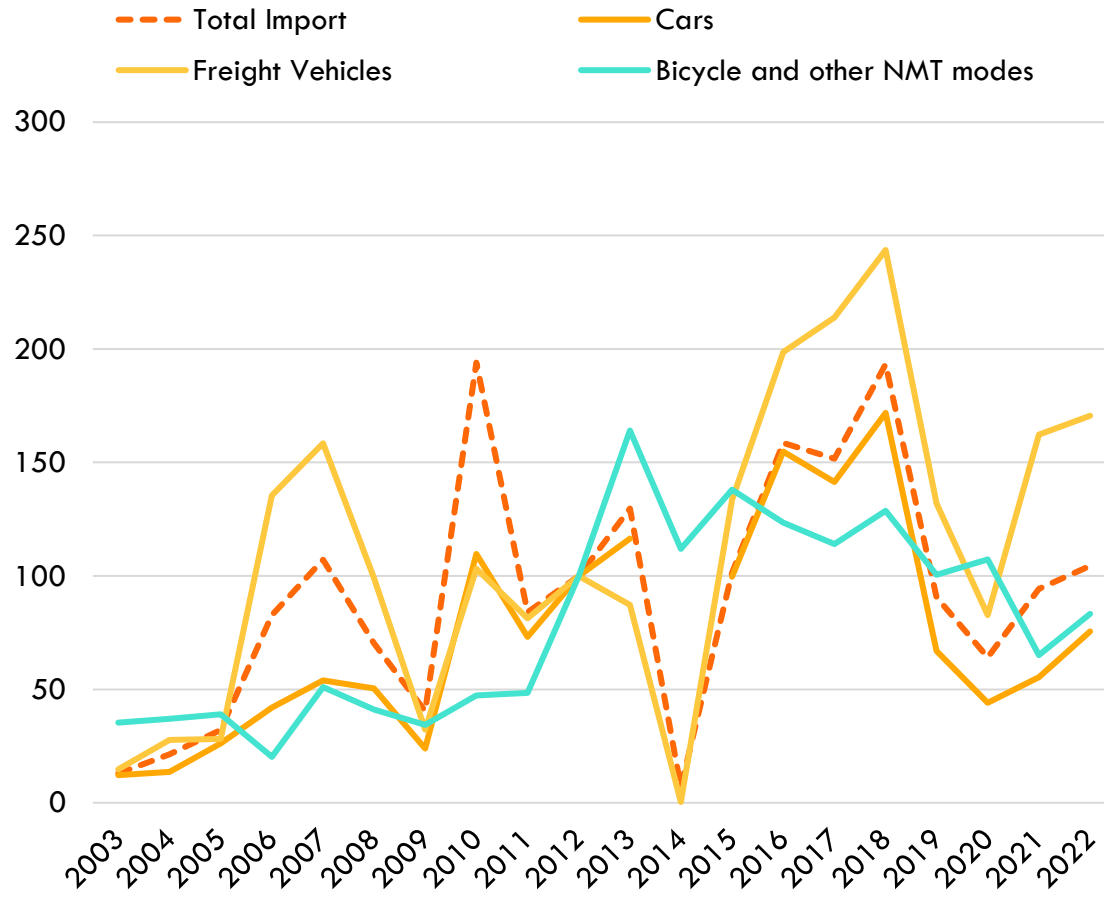


LDV SALES 2012 VS. 2020

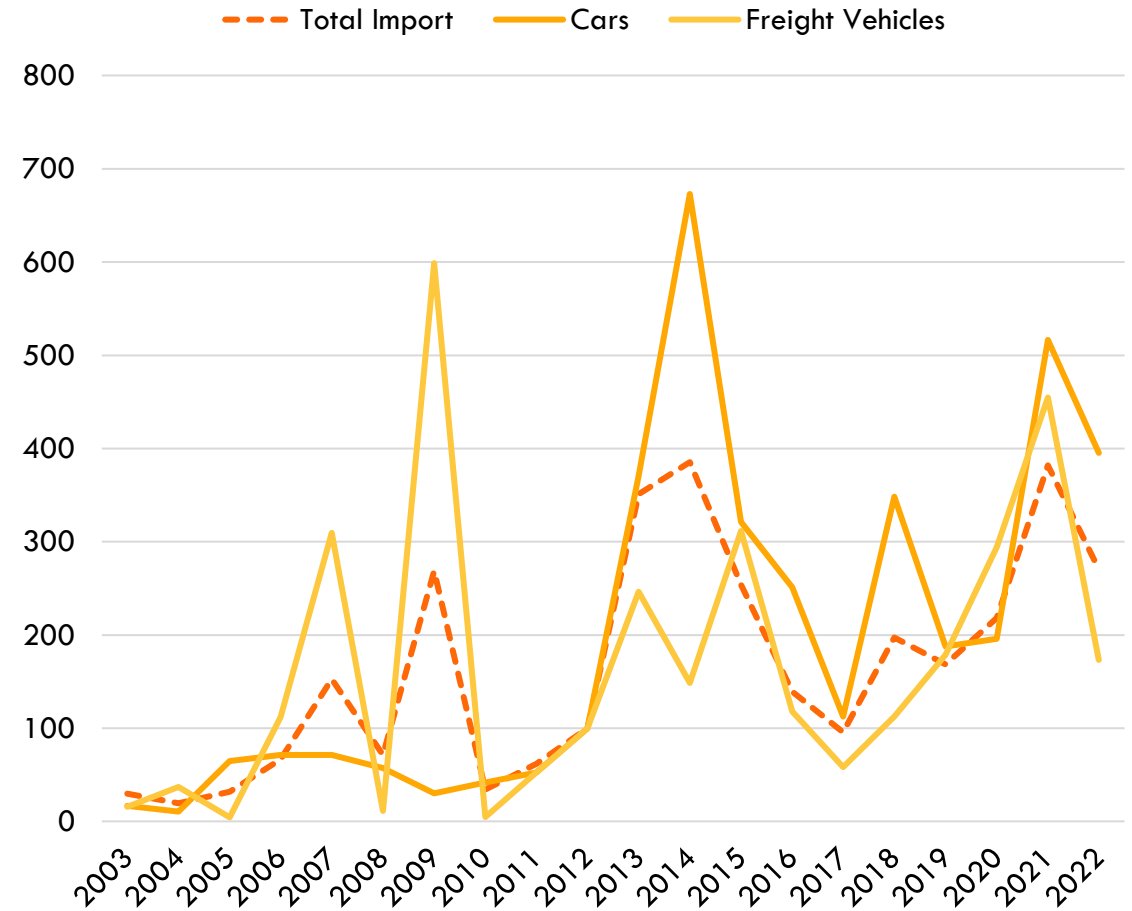


IMPORT TRENDS (2012 = 100)

Solomon Islands

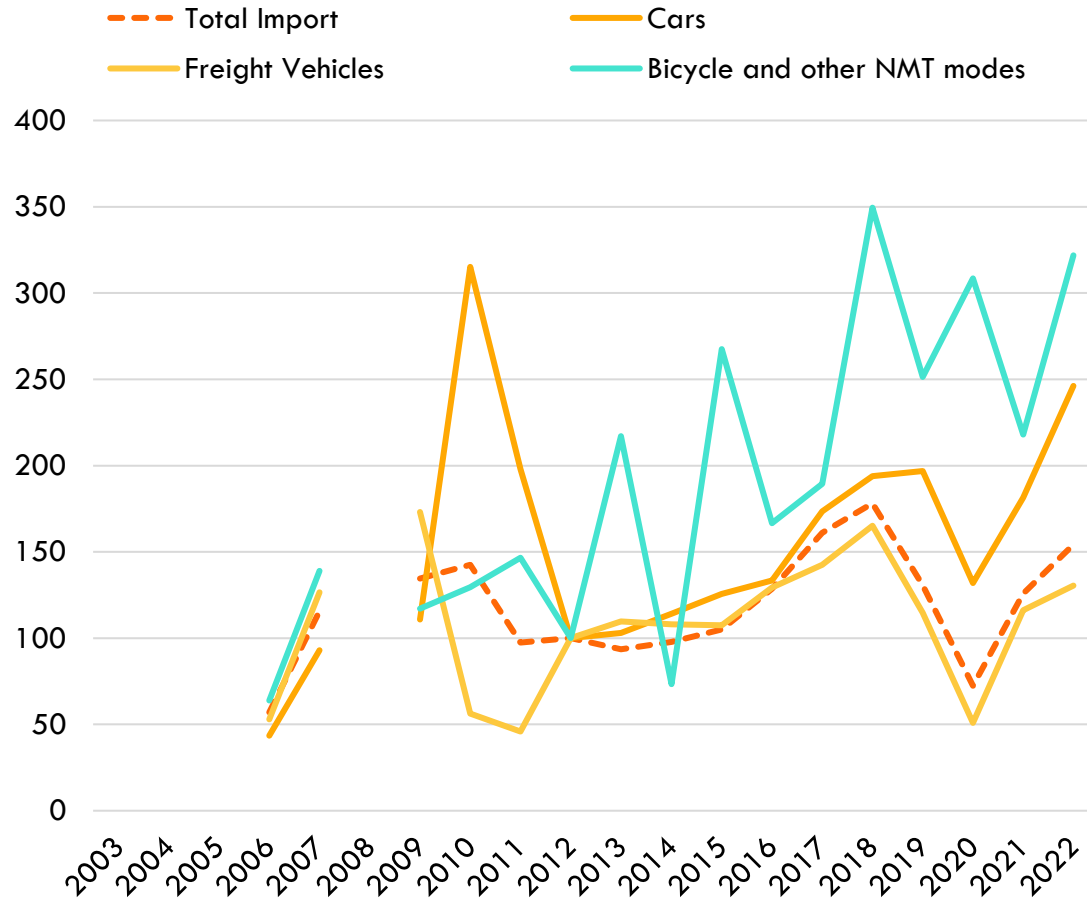


Nauru

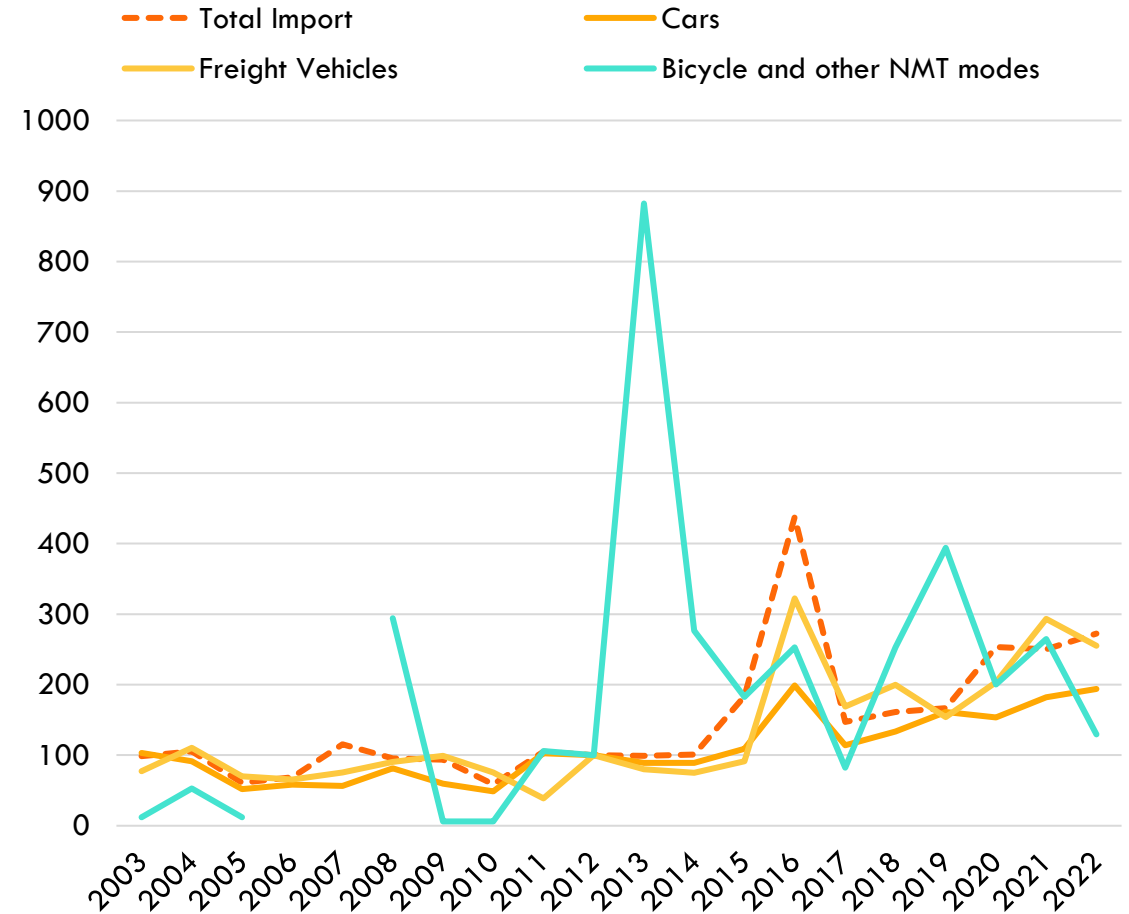


IMPORT TRENDS (2012 = 100)

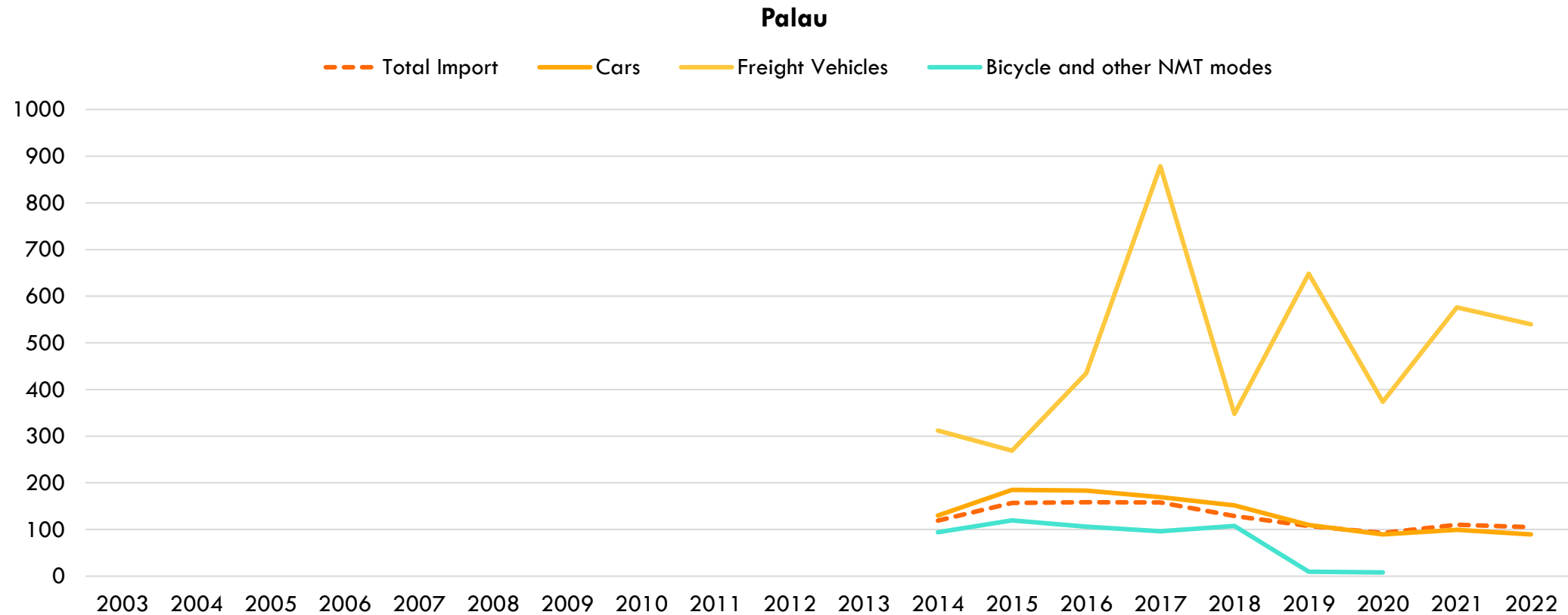
Vanuatu



Marshall Islands



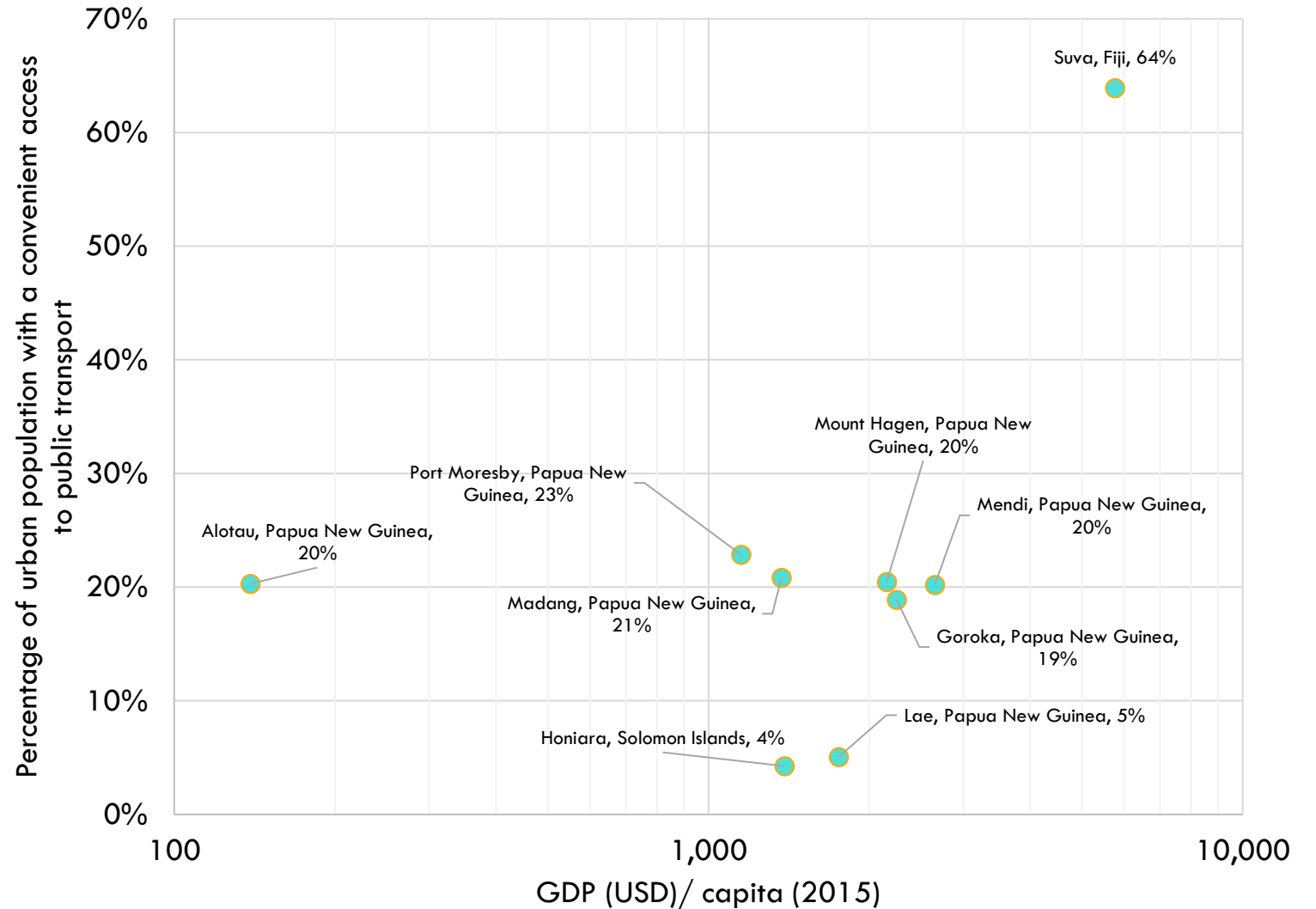
IMPORT TRENDS (2012 = 100)



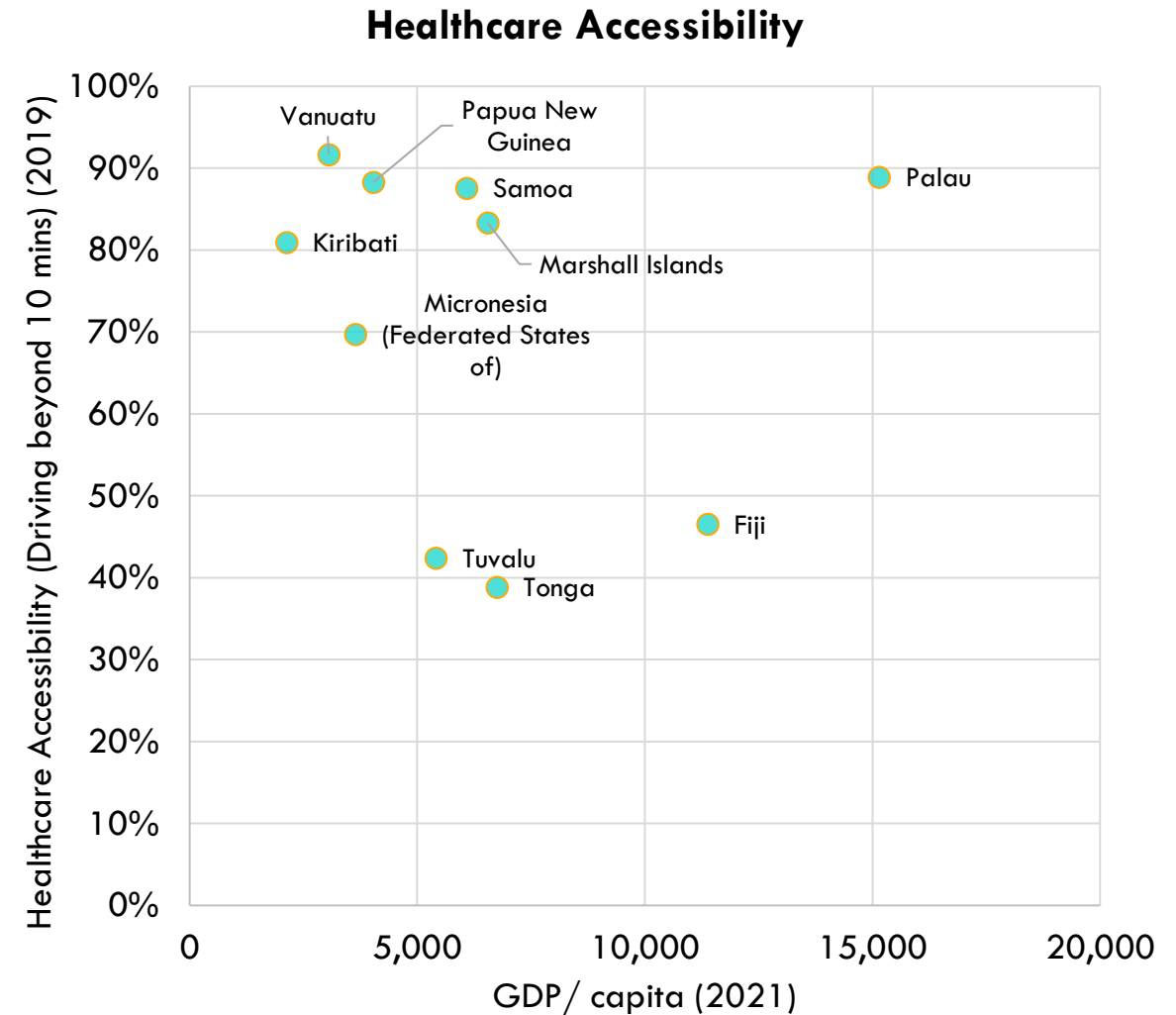
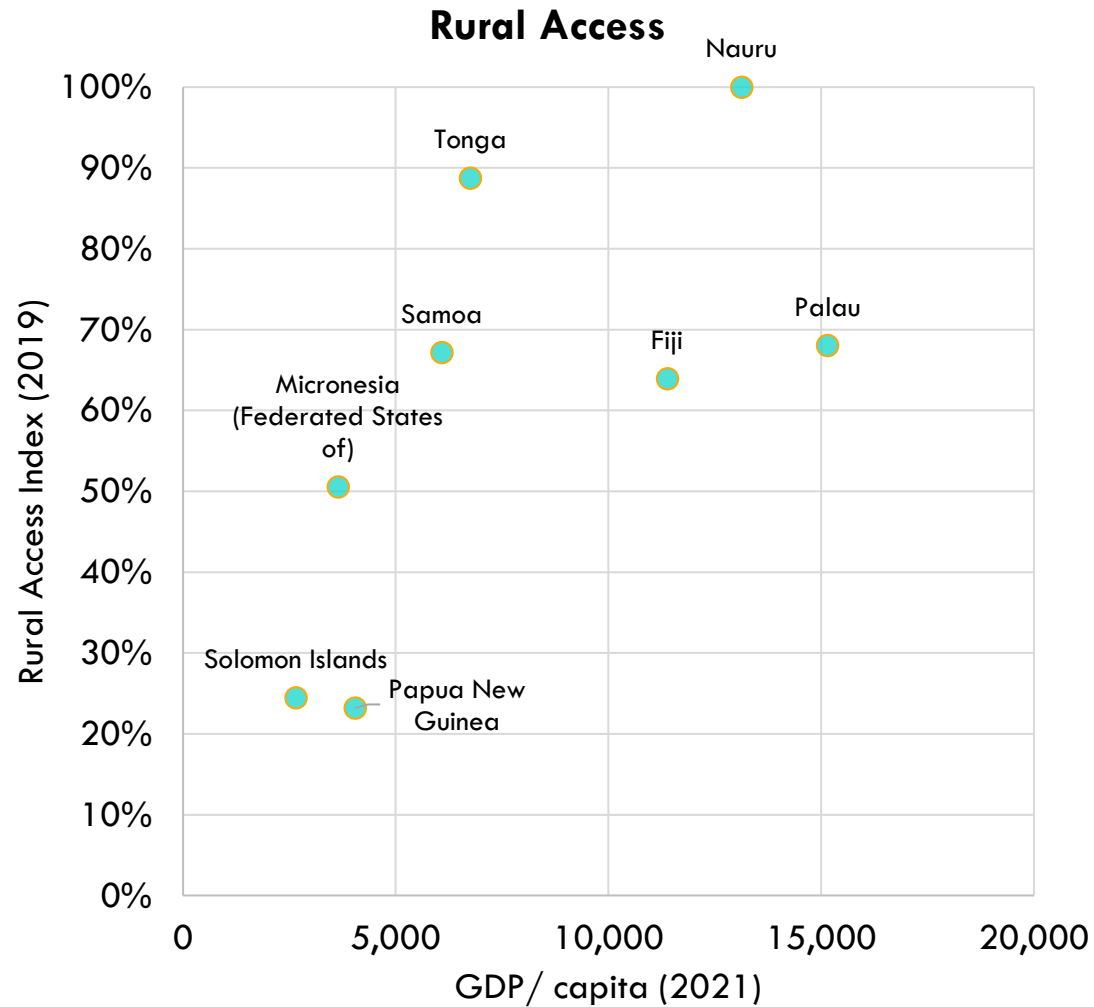
- Massive growth in the import of freight vehicles.

URBAN ACCESS

- The population weighted average for the Pacific SIDS indicates that only 27% of the urban population has a convenient access to public transport.
- A limitation of the data, is that it only considers formal public transport modes.
- Although a substantial data for mode share is not available, it can be reasonably understood that the formal public transport mode share is significantly low, because of the low accessibility.

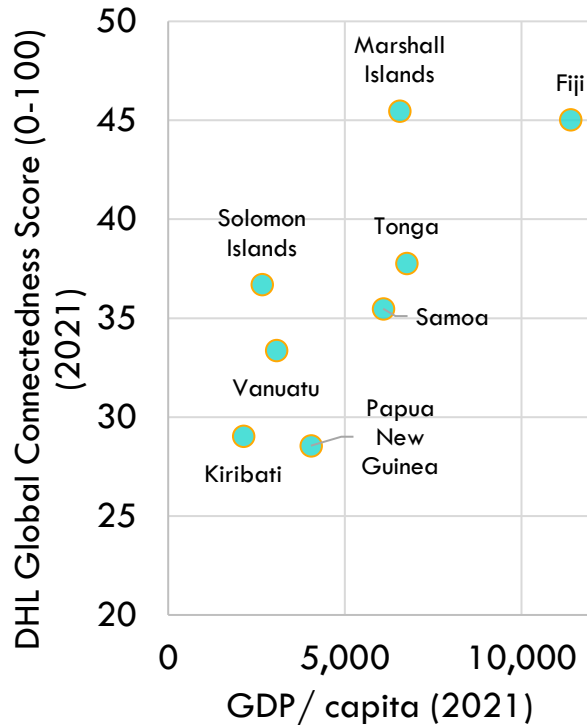


RURAL AND HEALTHCARE SERVICES ACCESS

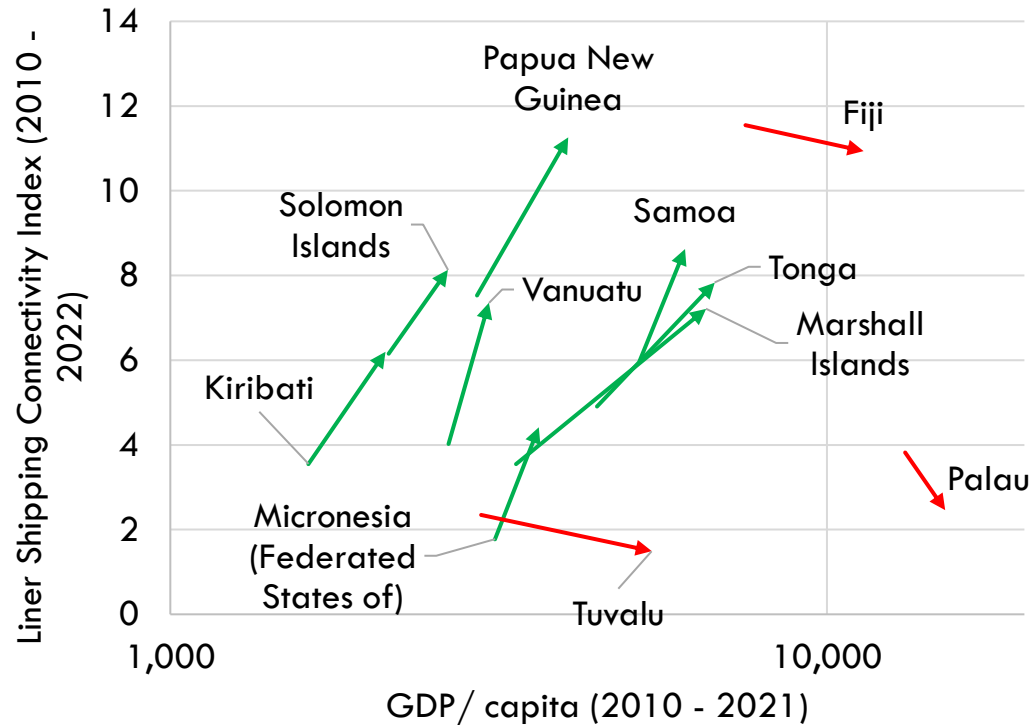


NATIONAL LEVEL CONNECTIVITY

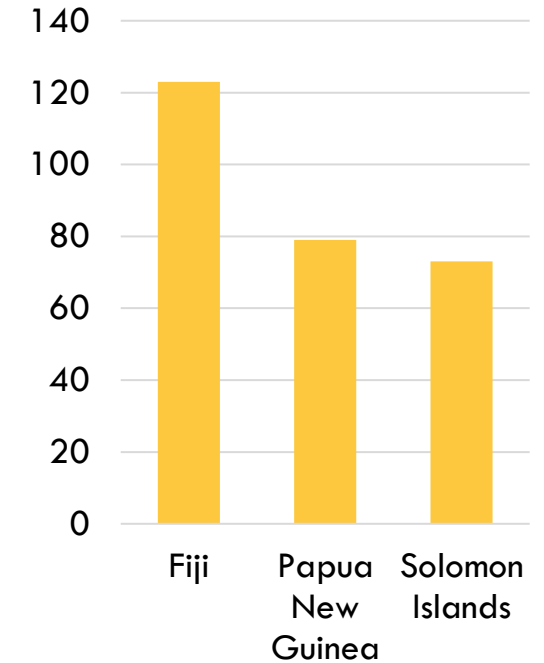
Global Connectedness



Liner Shipping Connectivity Index



Overall LPI Rank (2023)



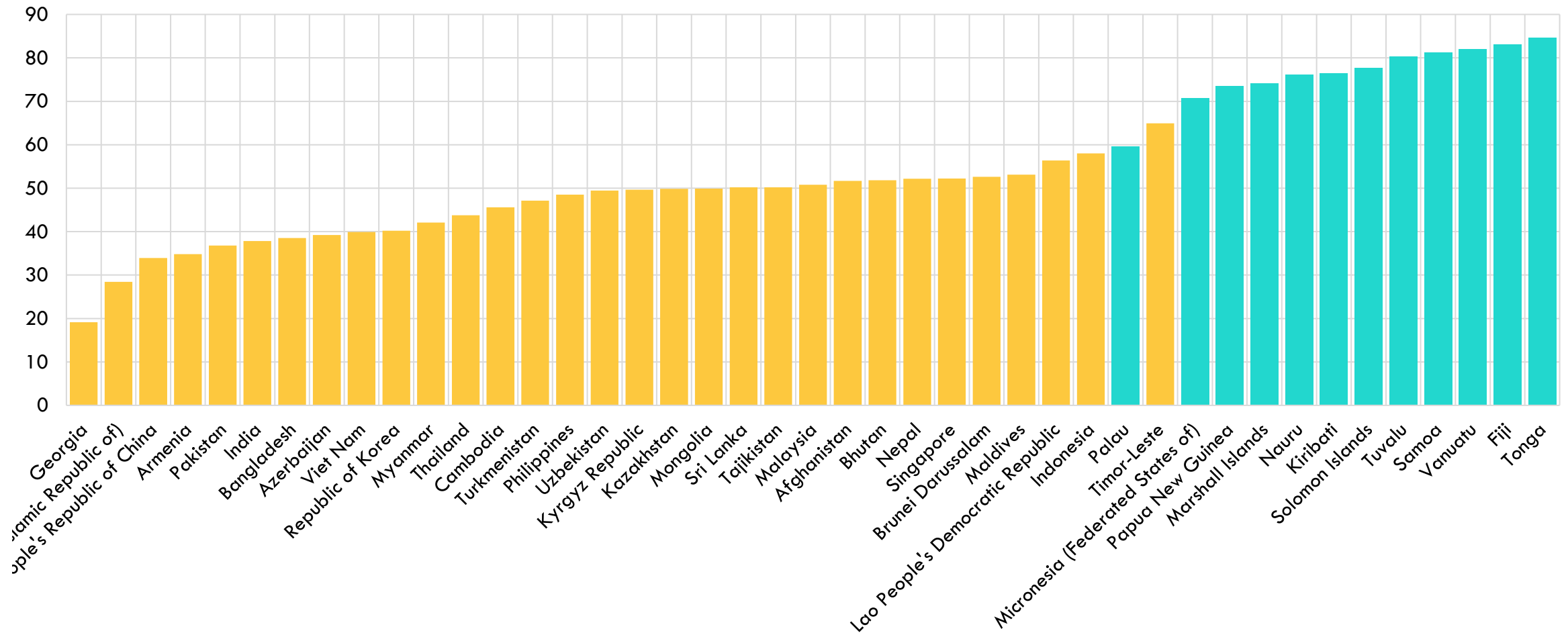
- DHL Global Connectedness Index (GCI) is a measure of globalization. It highlights key developments in international flows of capital, trade, information, and people.

- 27% of the Pacific SIDS have downgraded the Liner Shipping Connectivity Index between 2010 and 2022.
- The Marshall Islands showed a steep improvement

- Generally, the overall LPI Ranks for the Pacific SIDS is low.

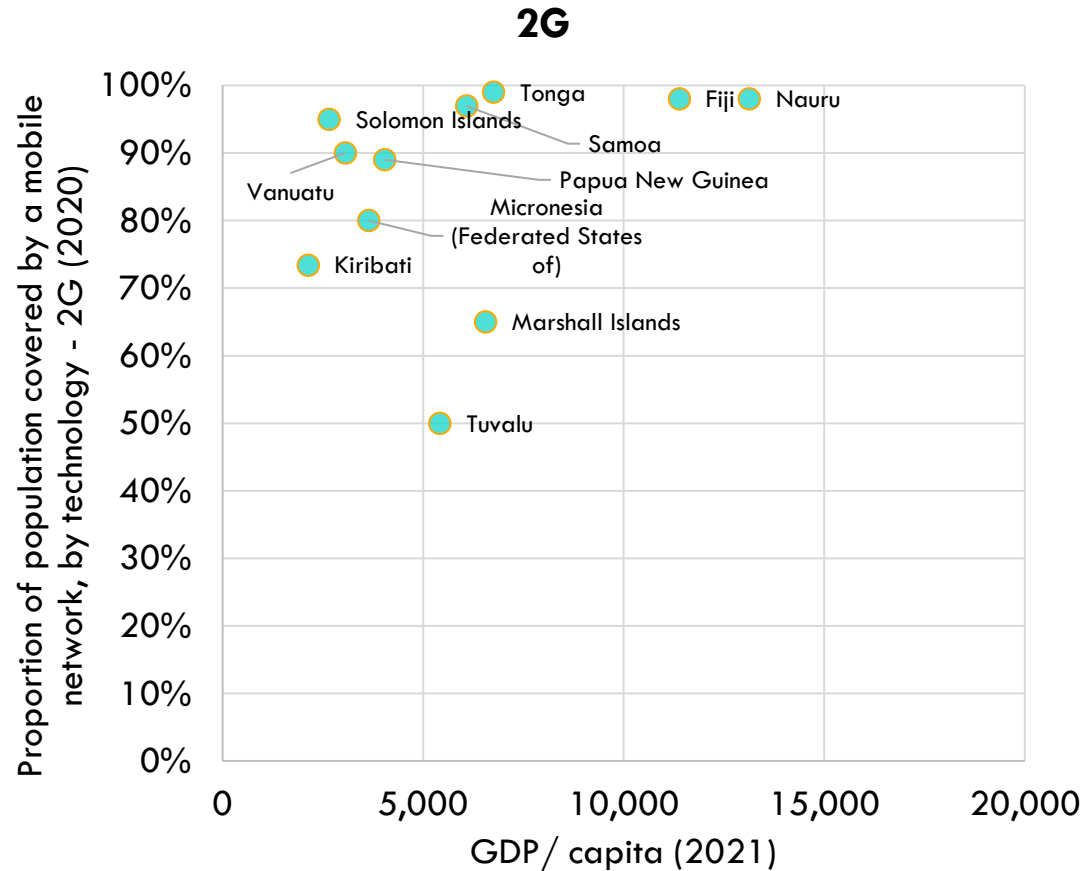
REMOTENESS INDEX

Remoteness index, 2015



- Remoteness is defined as the tradeweighted average of the distance from world markets.
- All the Pacific SIDS lie highest in the Remoteness Index.

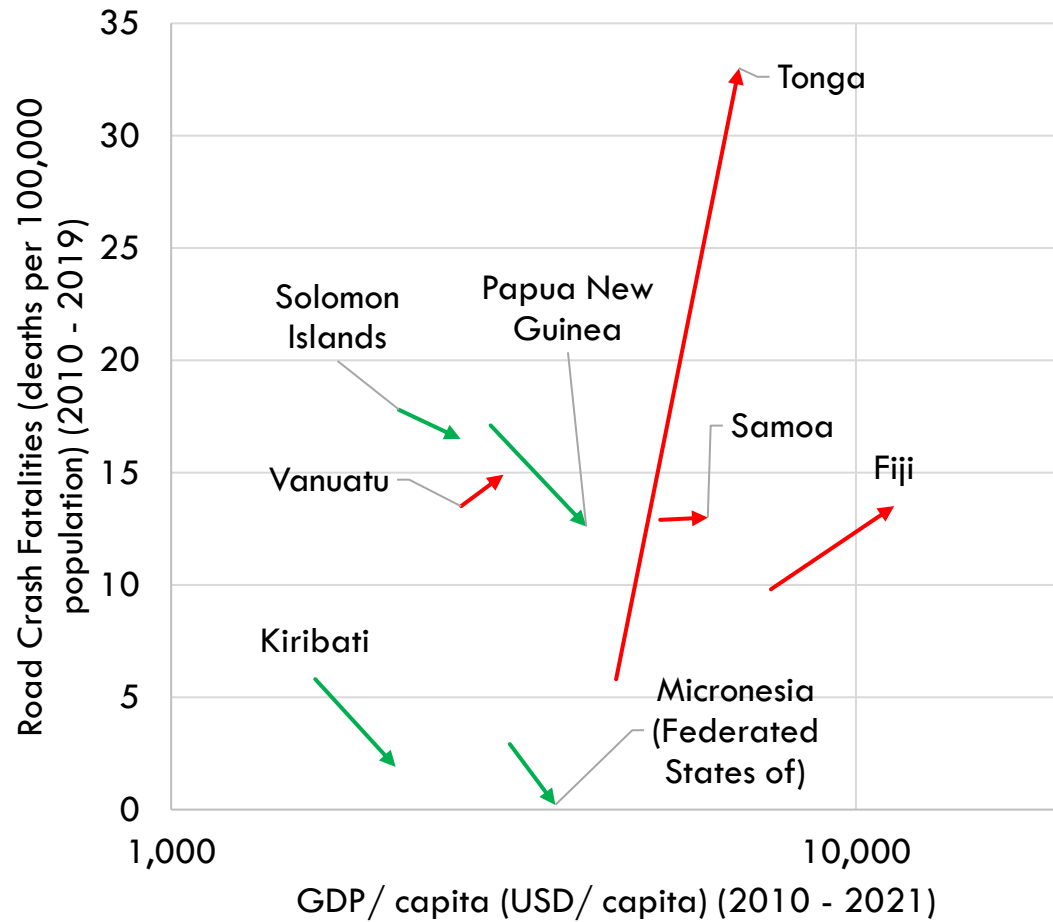
MOBILE NETWORK COVERAGE



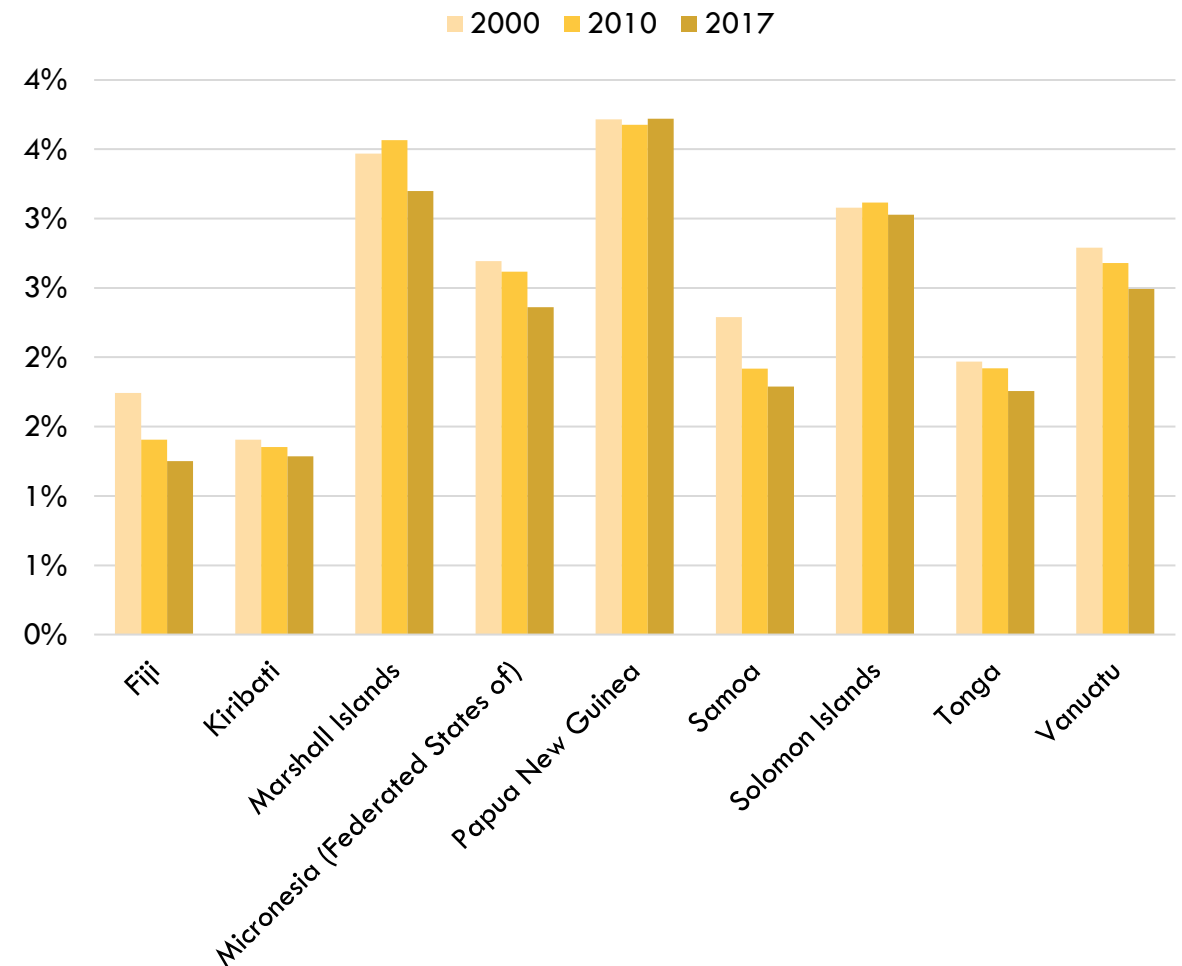
- Except for Marshall Islands and Tuvalu, the countries have more than 70% population covered by the 2G mobile network.
- The countries are slowly progressing in the 3G space.

ROAD SAFETY STATUS

Road Crash Fatalities

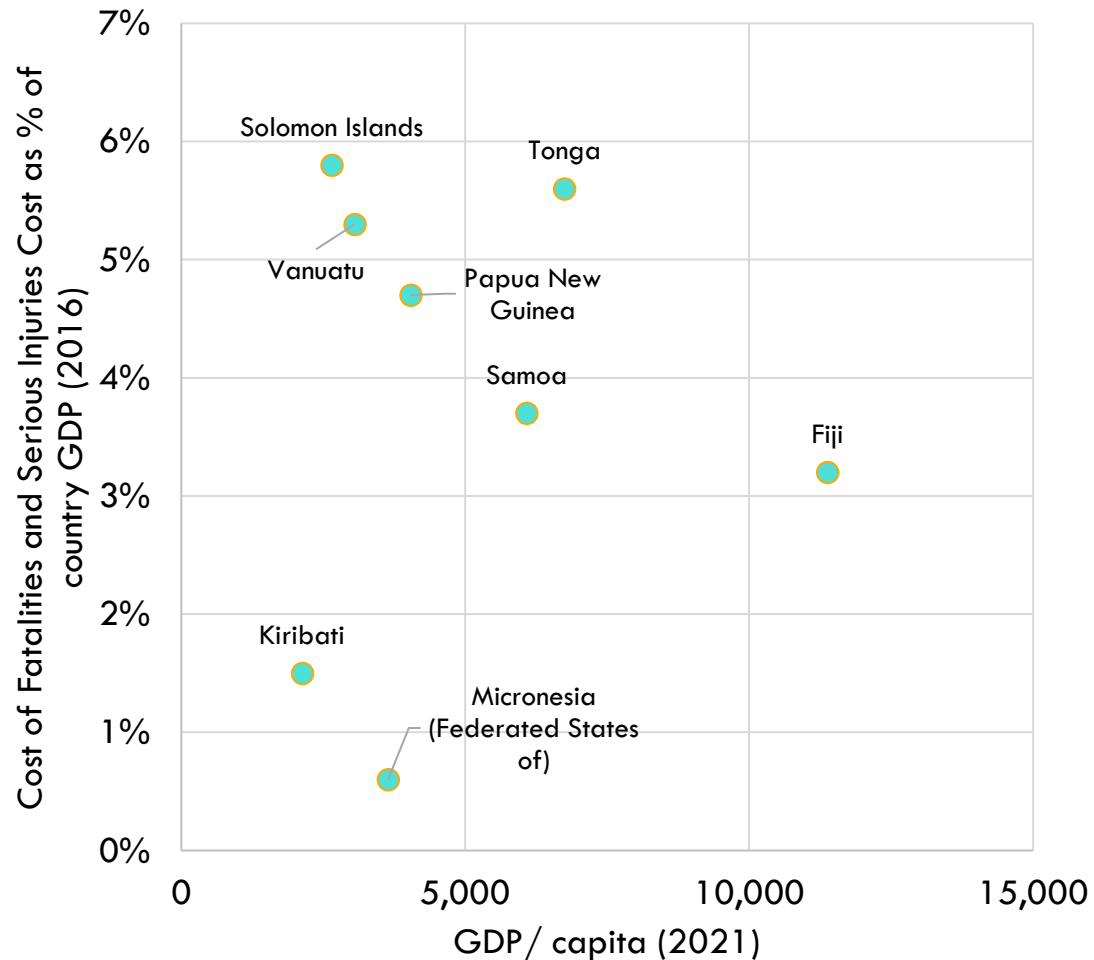


Share of Road Traffic Crash Fatalities in total deaths

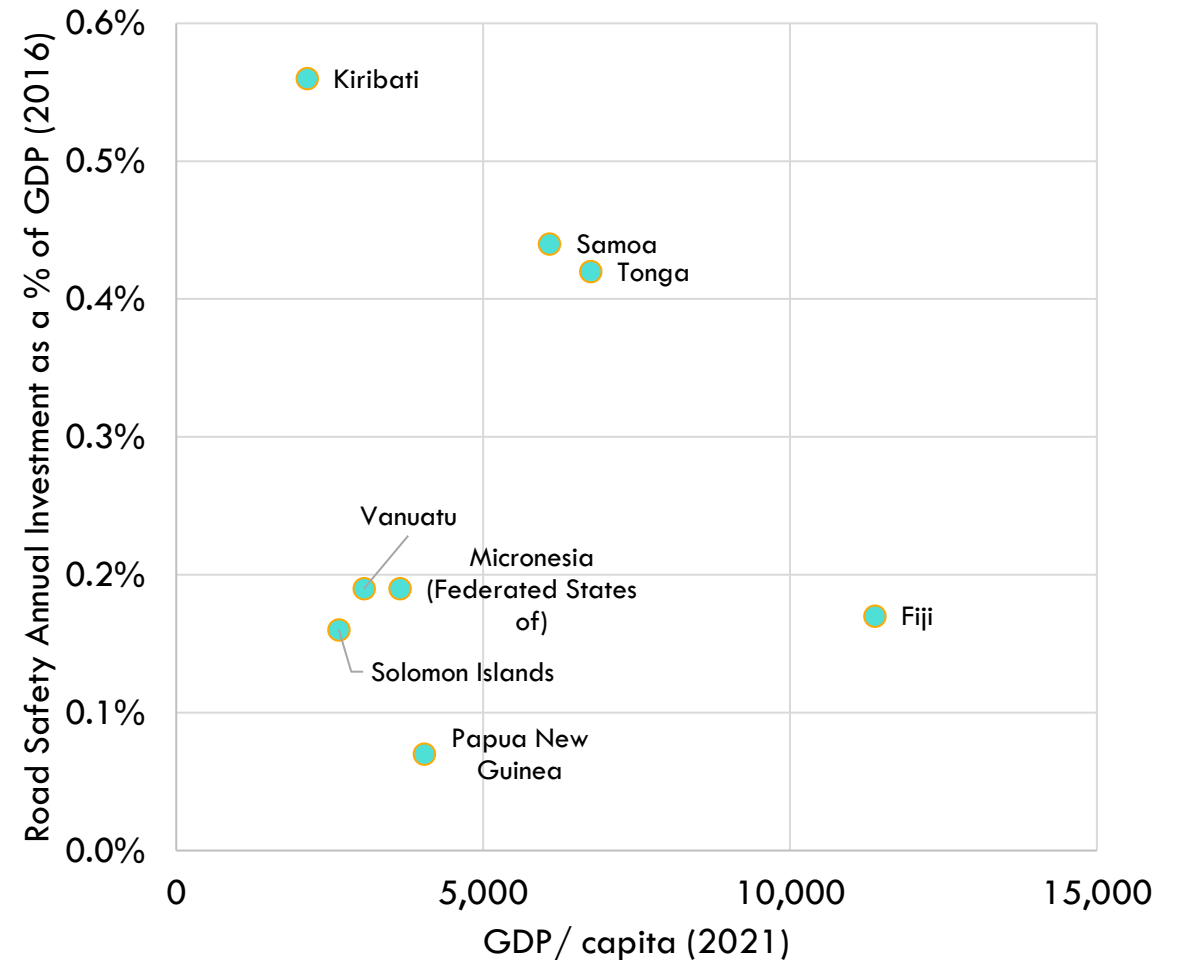


ROAD SAFETY STATUS

Road crash fatalities cost

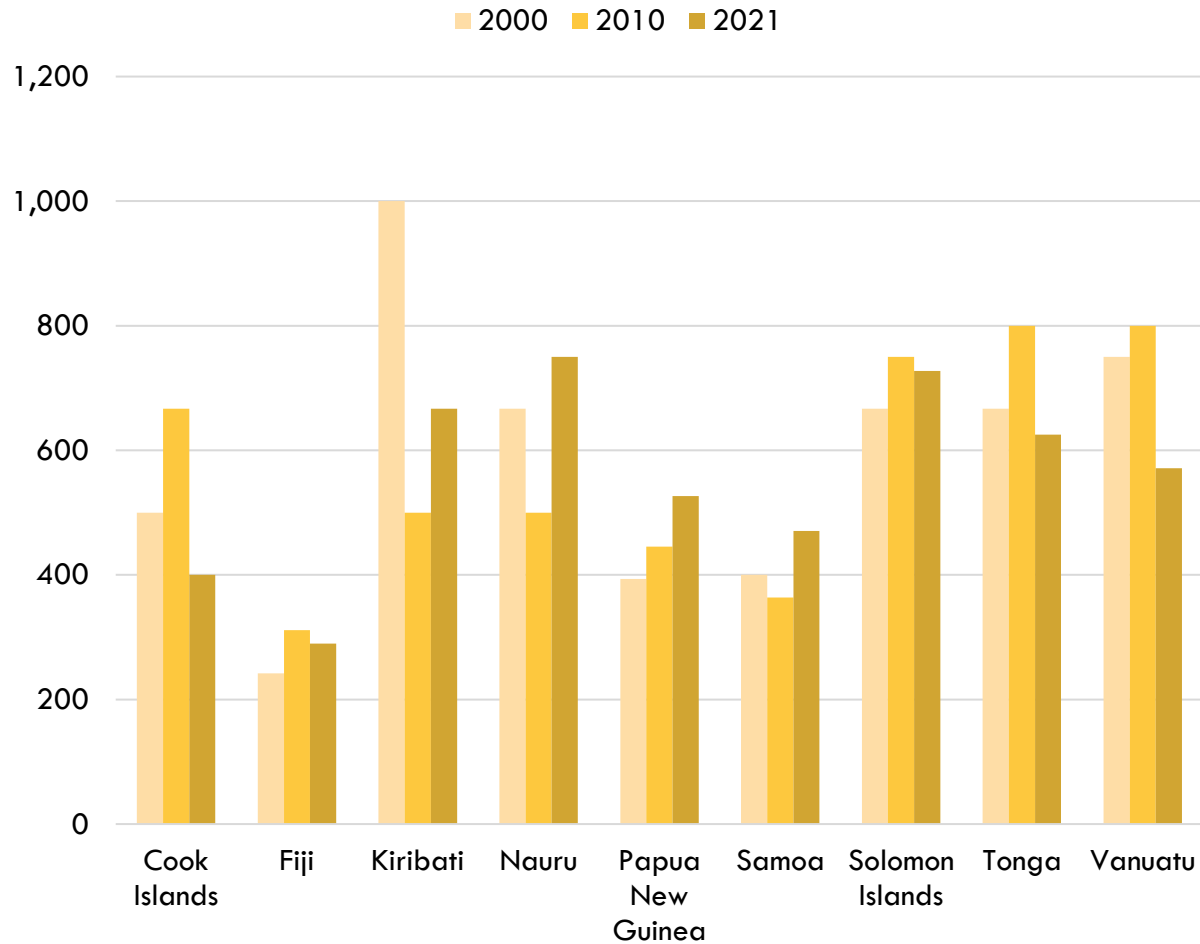


Road safety investments

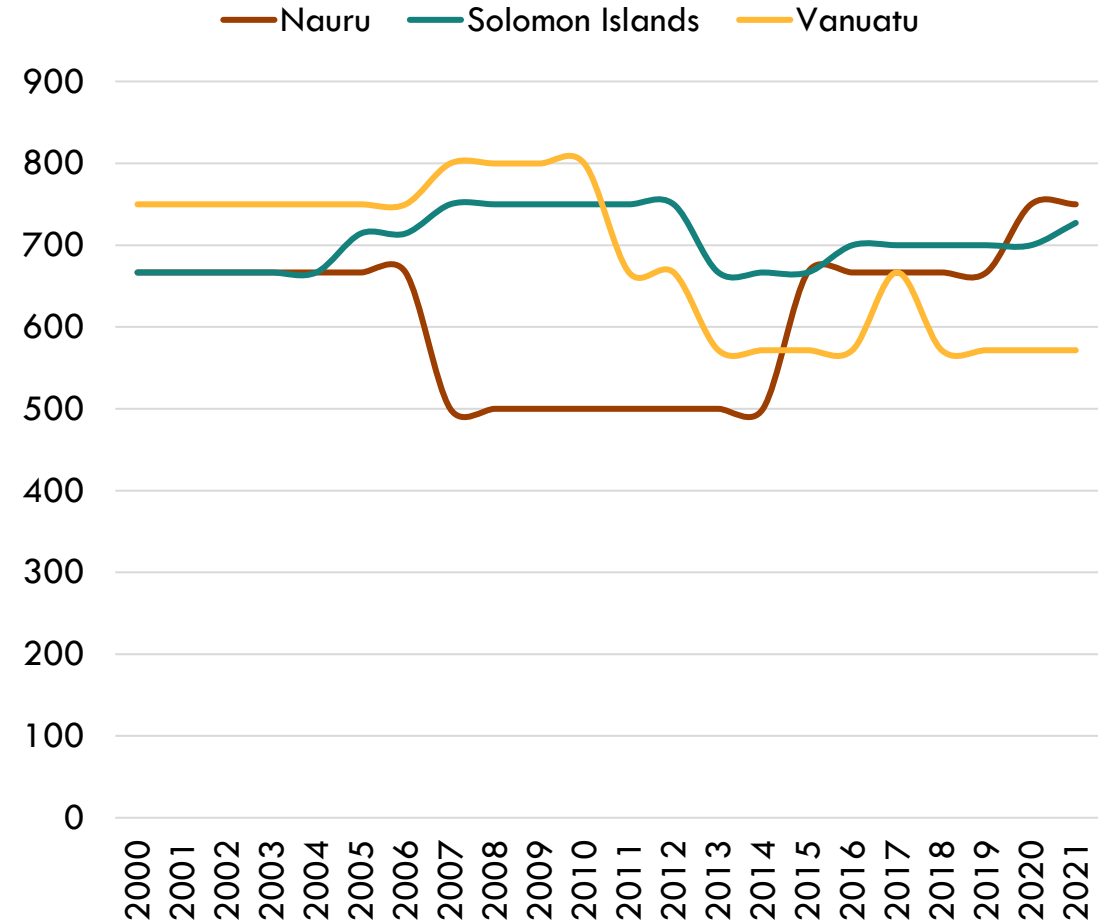


GRID EMISSIONS FACTOR

Grid emission factors for electricity (gCO₂/kWh)

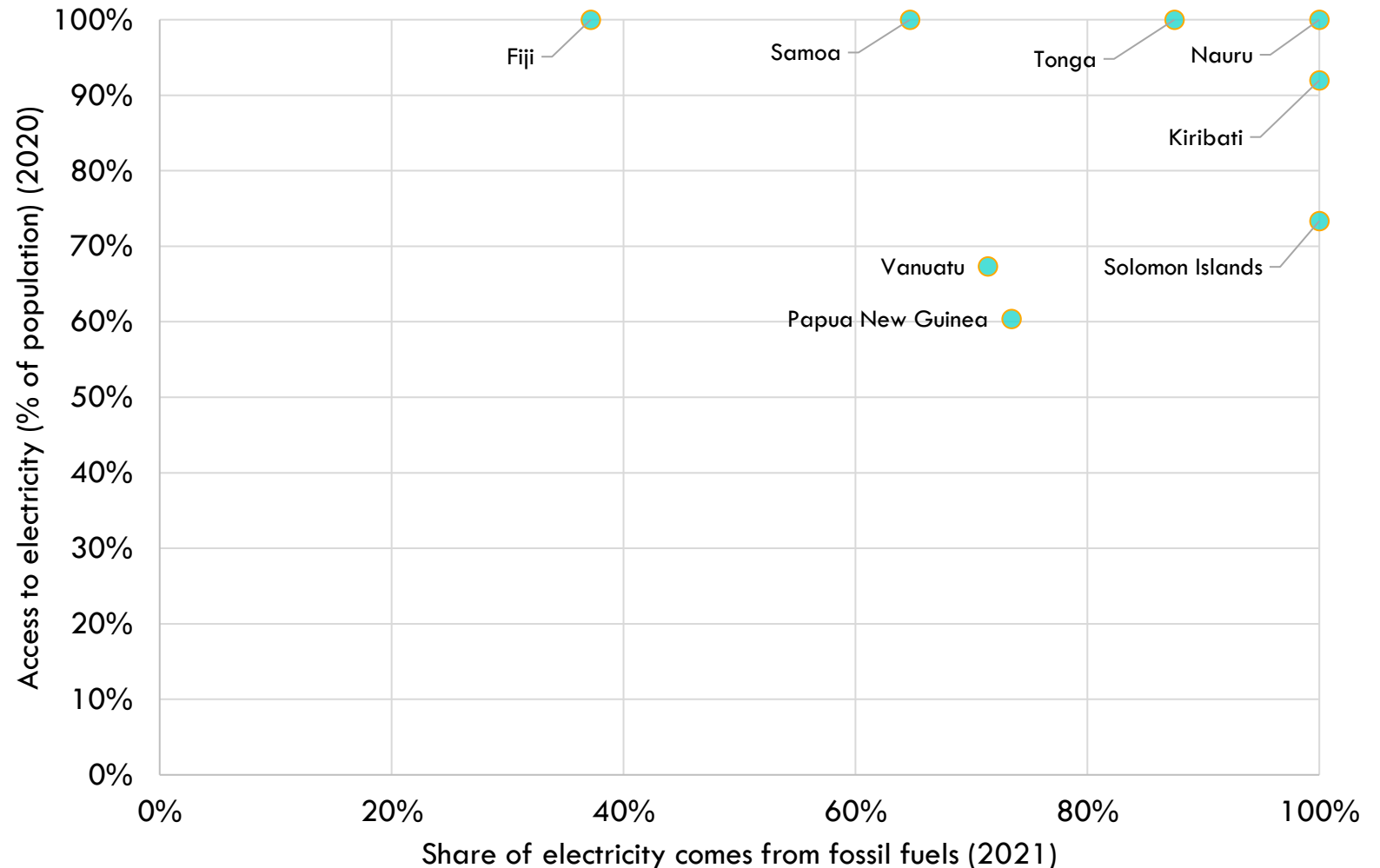


Grid emission factors for electricity (gCO₂/kWh)



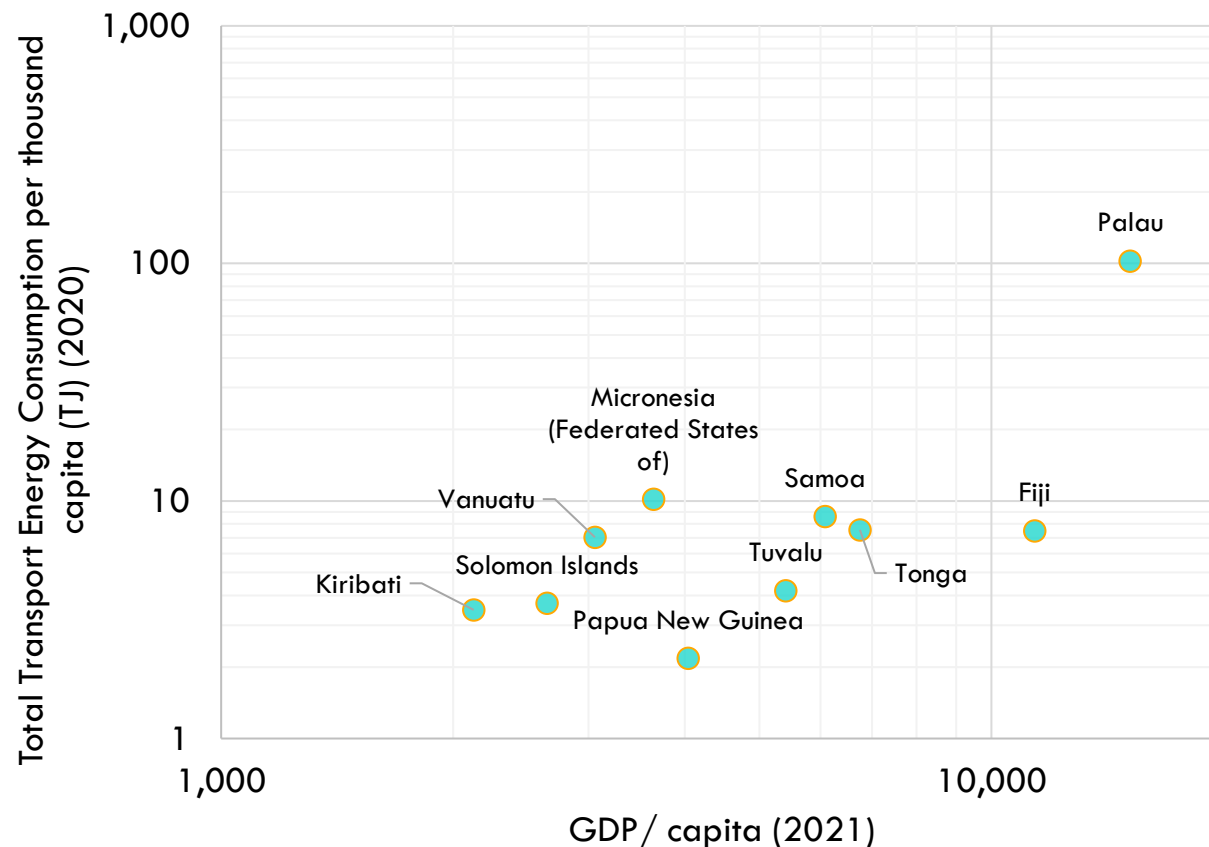
ACCESS TO ELECTRICITY VS. SOURCE OF ELECTRICITY

- Access to electricity is the percentage of population with access to electricity. Electrification data are collected from industry, national surveys and international sources. It contains mainly data from nationally representative household surveys (including national censuses).
- Solomon Islands has 100% of its electricity coming from fossil fuels and as of 2020, about 70% of the population had the access to electricity.



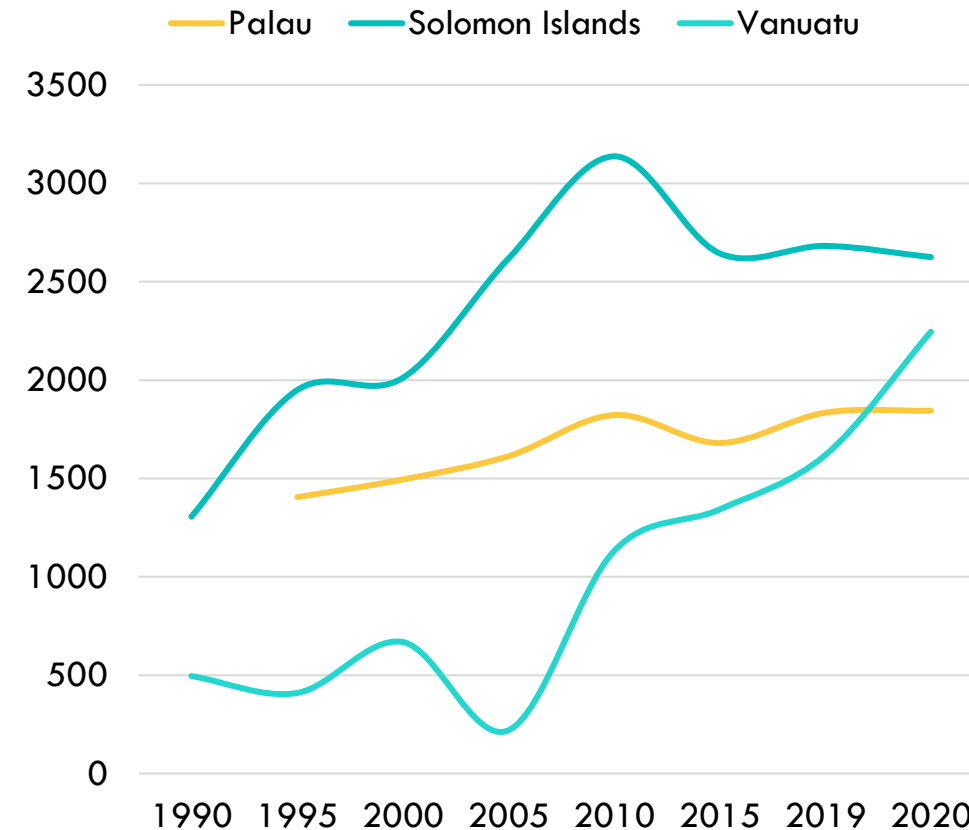
TOTAL TRANSPORT ENERGY CONSUMPTION

Total Transport energy consumption vs. GDP/ capita



- Palau demonstrates highest total transport energy consumption per capita among the Pacific SIDS.

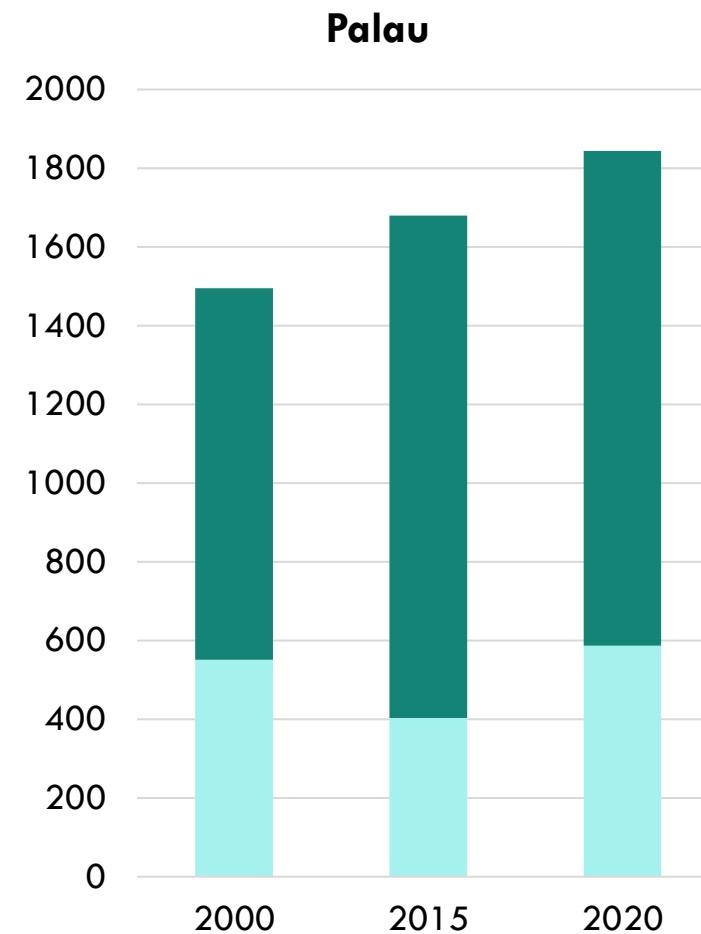
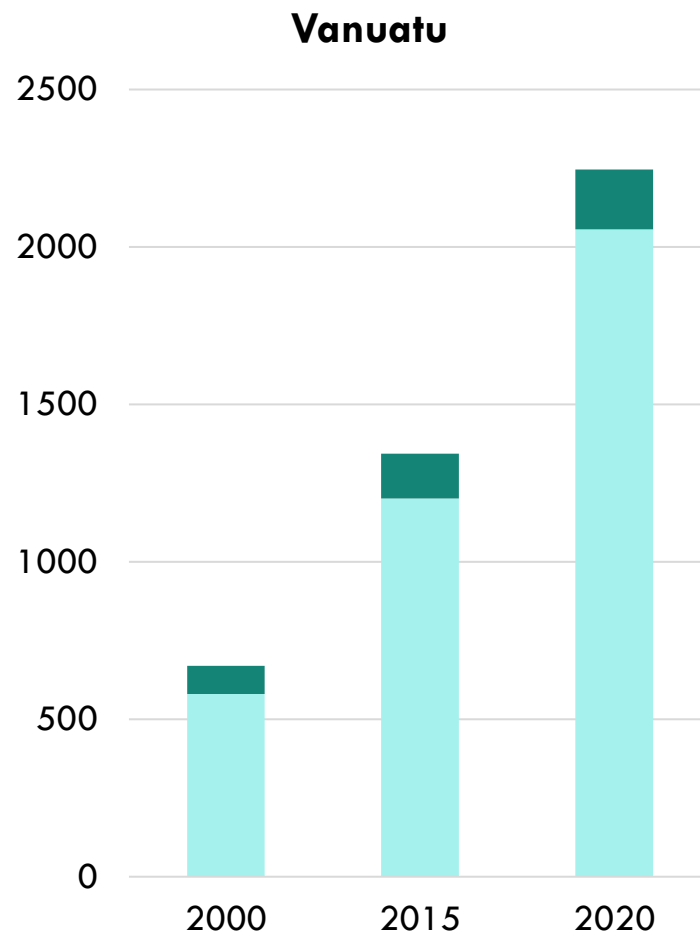
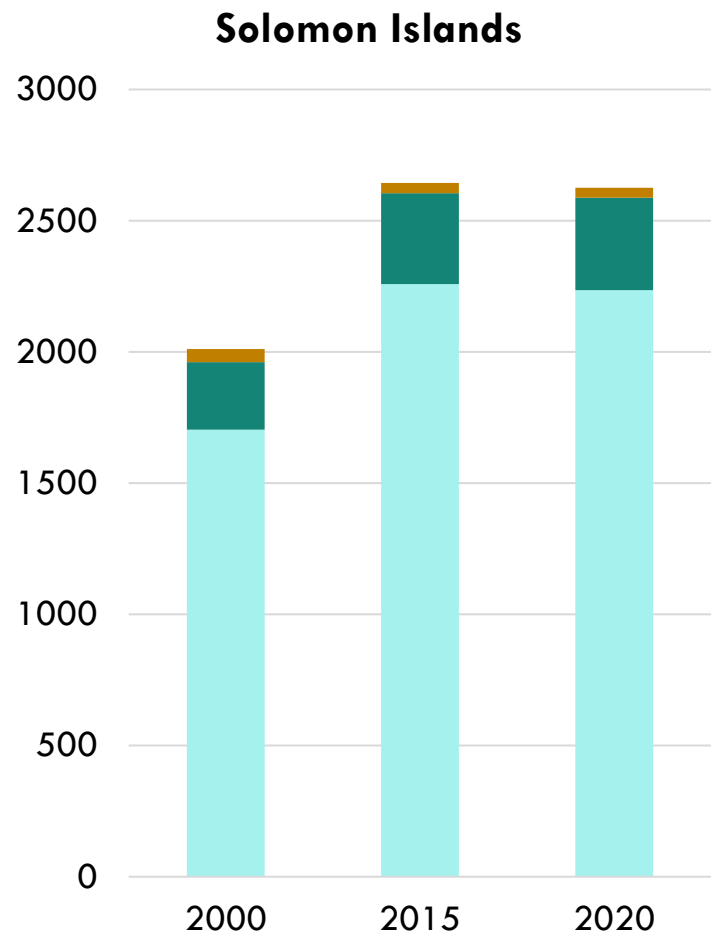
Total Transport Energy Consumption (TJ)



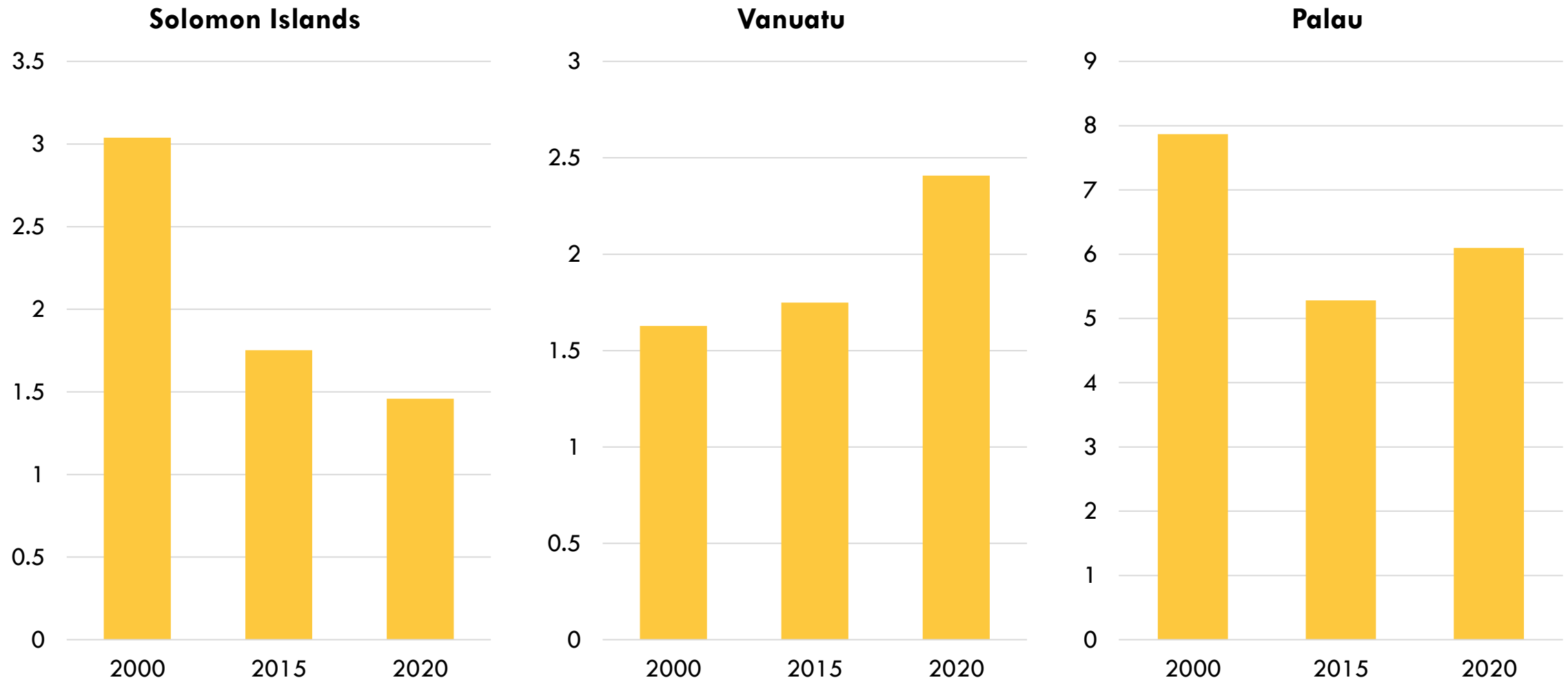
- Vanuatu exhibits rapid acceleration of the total transport energy consumption trends. Palau can be seen to be roughly stagnating.

FINAL ENERGY CONSUMPTION IN TRANSPORT BY MODE (TJ)

■ Road
 ■ Domestic navigation
 ■ Domestic aviation

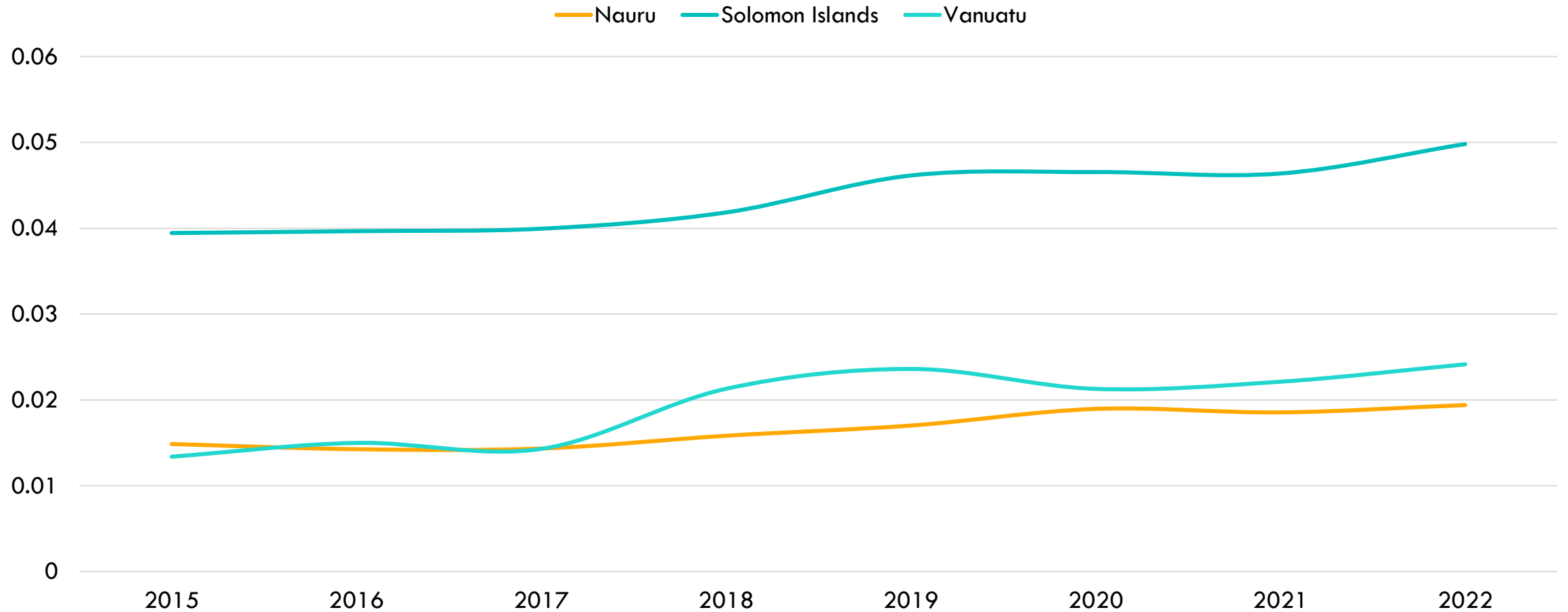


TRANSPORT ENERGY INTENSITY (MJ PER USD)



FOSSIL FUEL SUBSIDIES FOR PETROLEUM

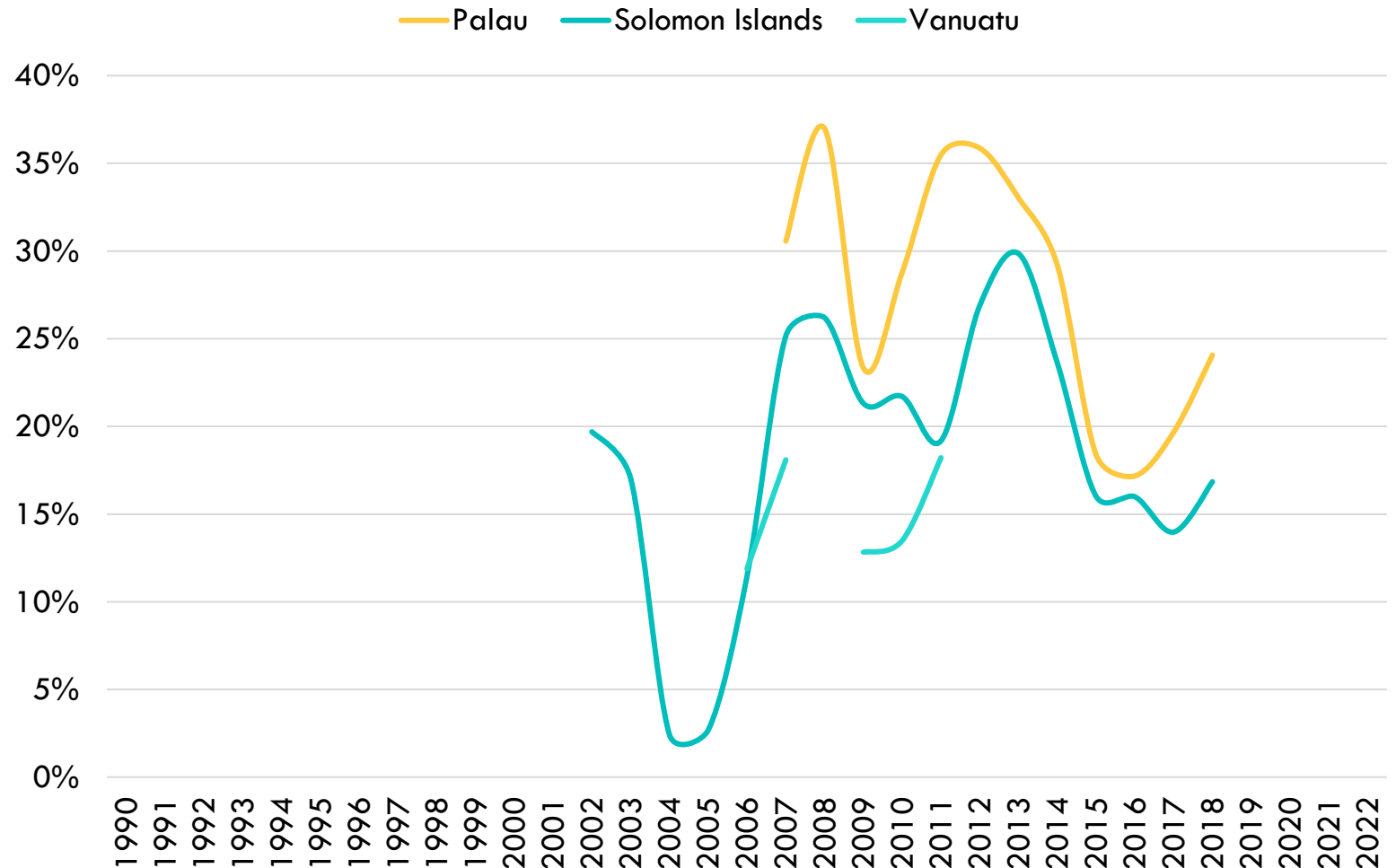
Implicit fossil fuel subsidies (Billion USD (constant 2021))



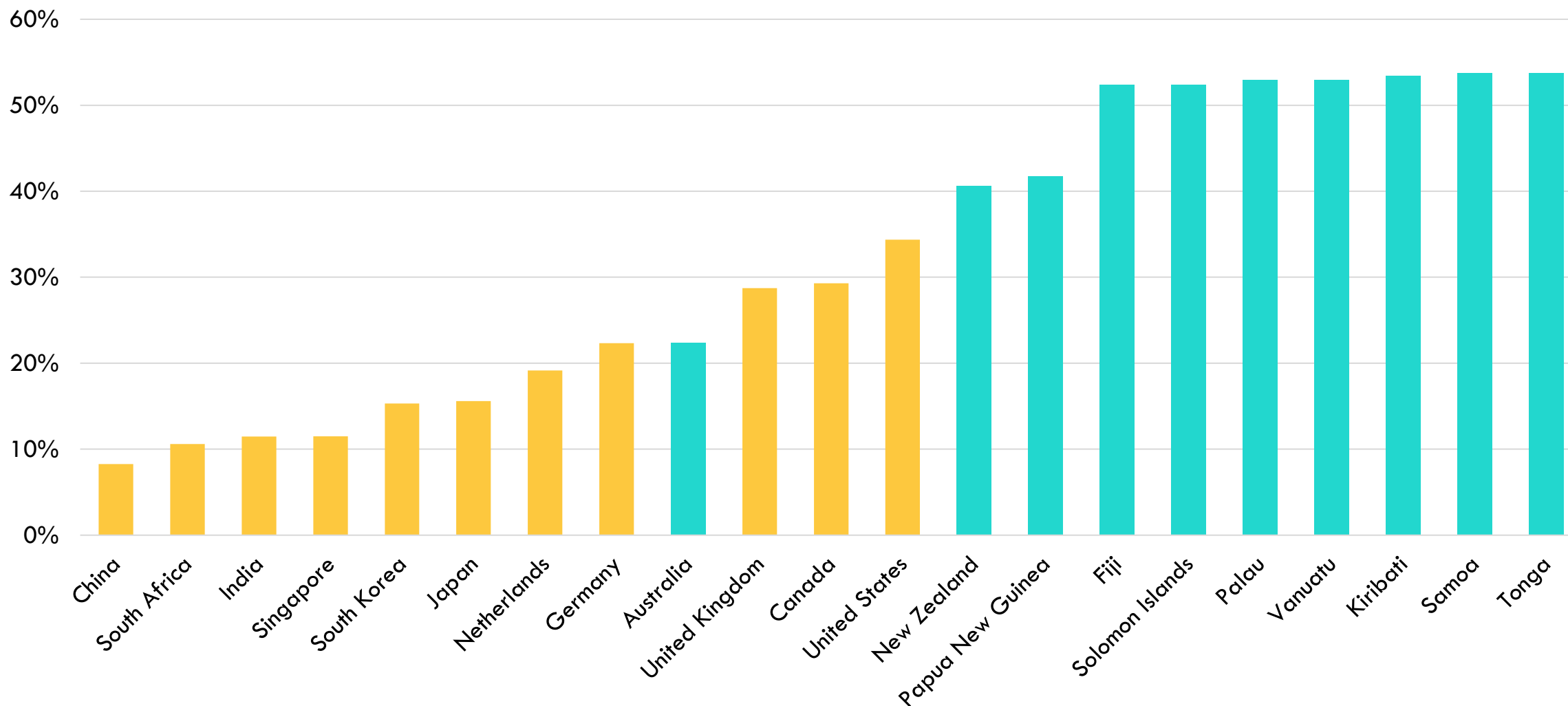
FUEL IMPORTS

- Fuels comprise the commodities in SITC section 3 (mineral fuels, lubricants and related materials). The indicator provides fuel import as a share of total merchandise imports.
- The share has dropped roughly between 2013 to 2017 for Palau and the Solomon Islands, but is showing an increasing trend since then.

Fuel imports (% of merchandise imports)

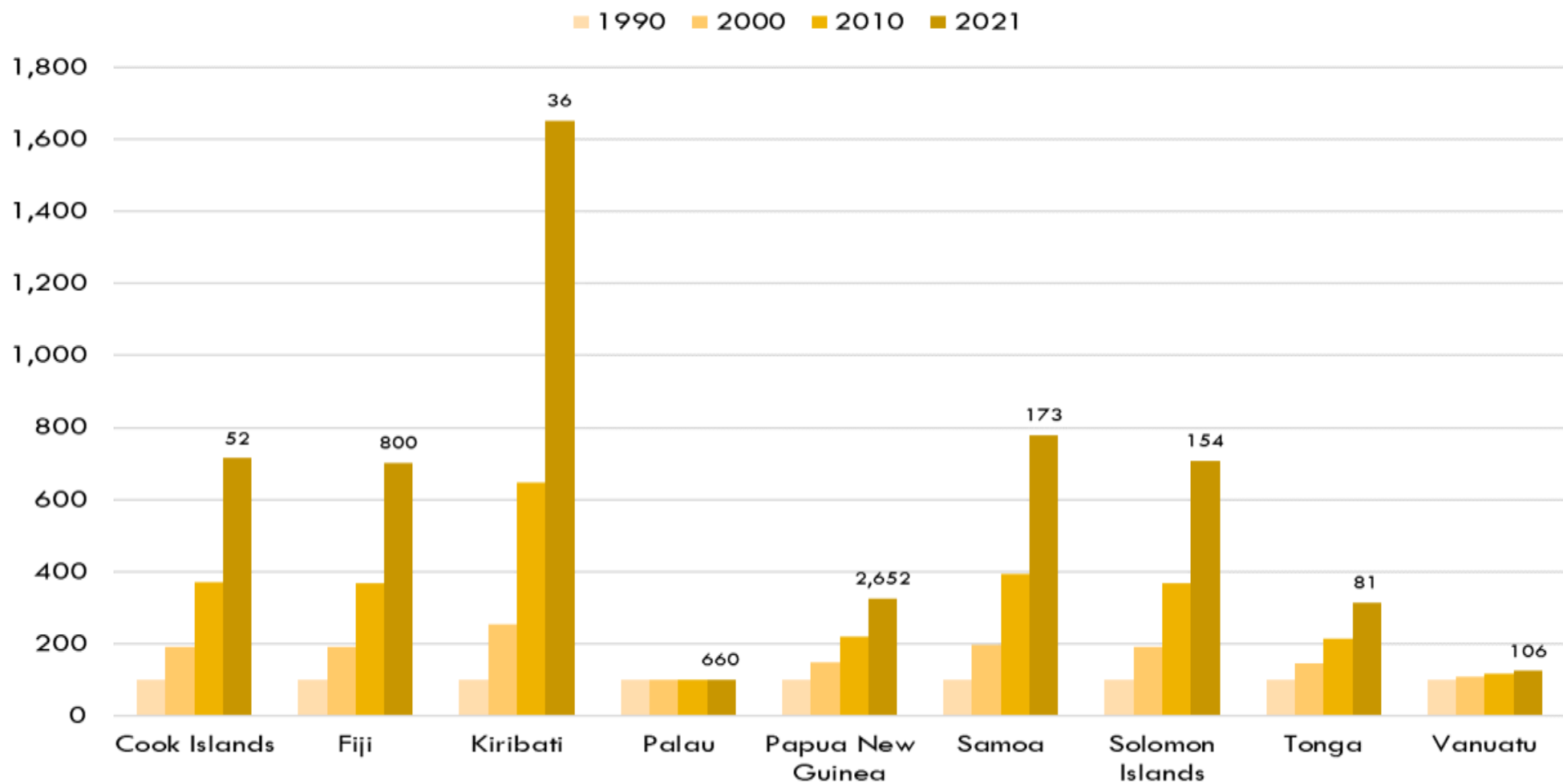


SHARE OF FOSSIL TRANSPORT CO2 EMISSIONS IN TOTAL CO2 EMISSIONS



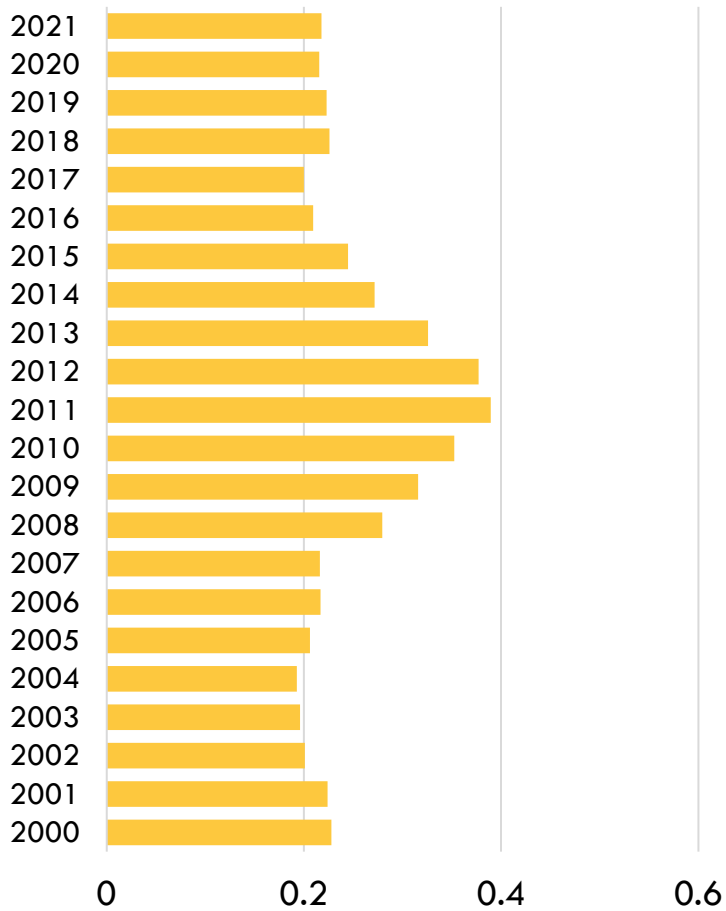
FOSSIL TRANSPORT CO2 EMISSIONS

Fossil Transport CO2 emissions (1990 = 100) (Data labels are values in thousand tonnes)

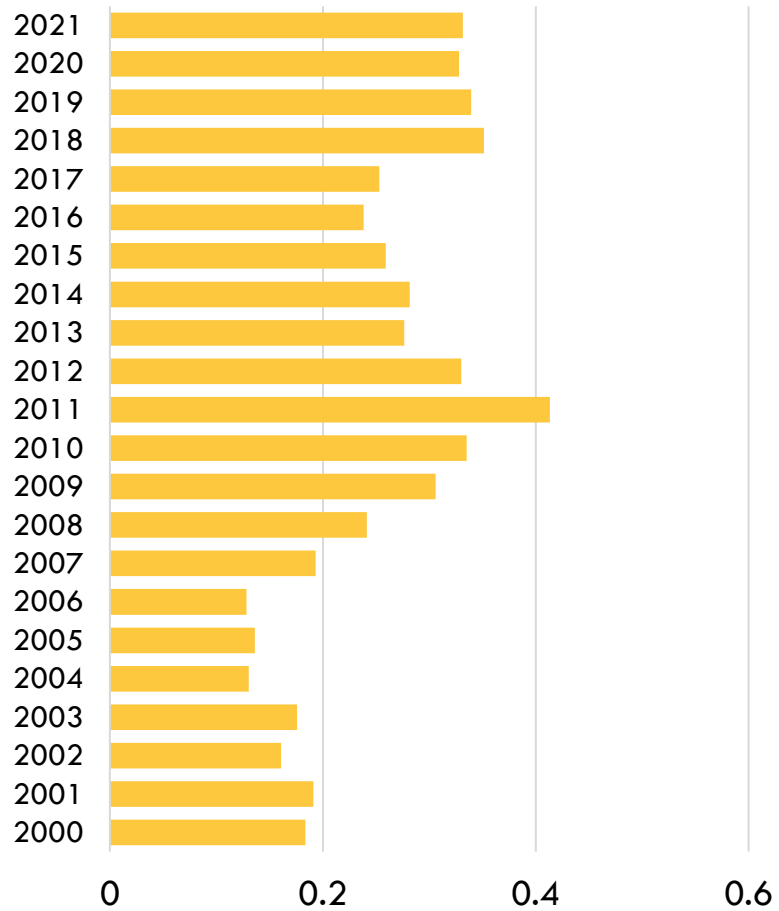


FOSSIL TRANSPORT CO2 EMISSIONS PER CAPITA (TONNES PER CAPITA)

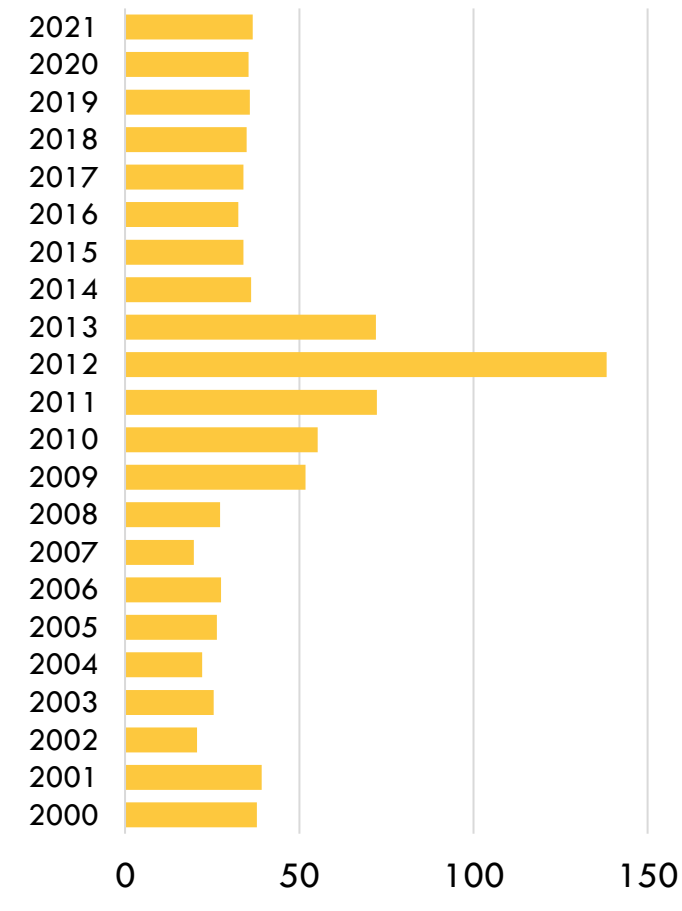
Solomon Islands



Vanuatu



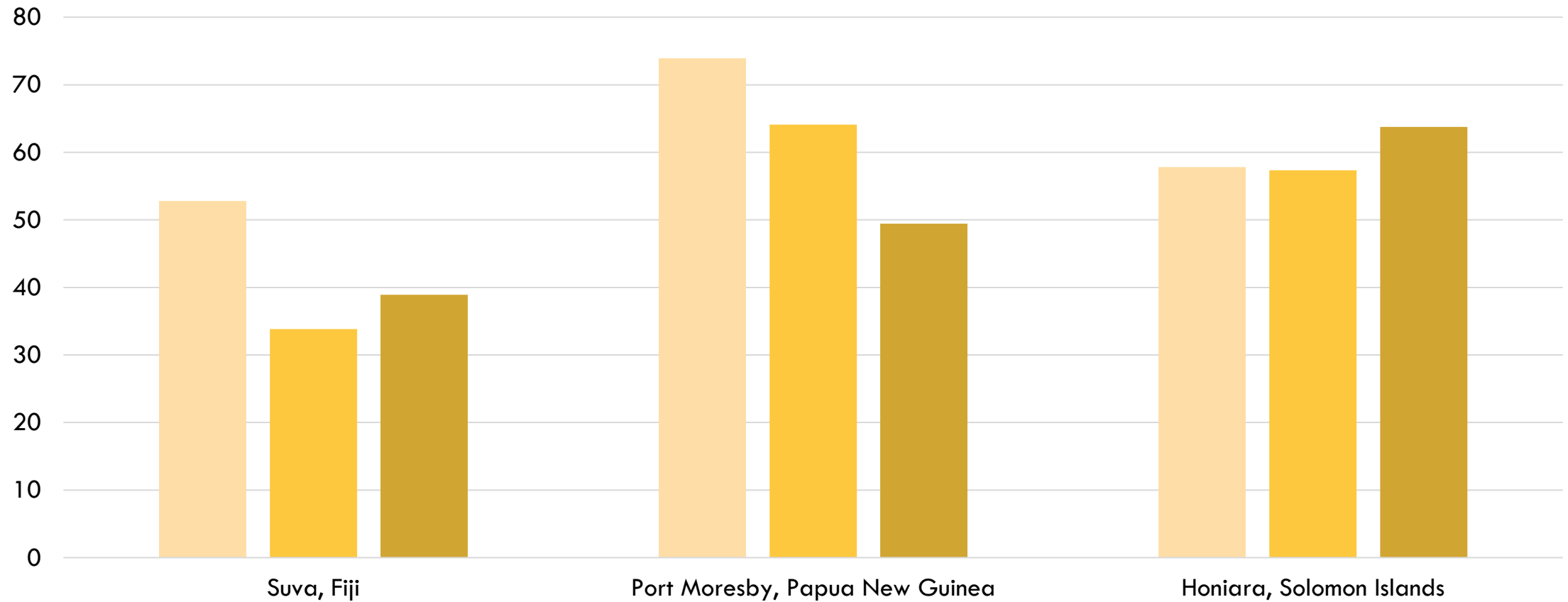
Palau



URBAN TRANSPORT EMISSIONS

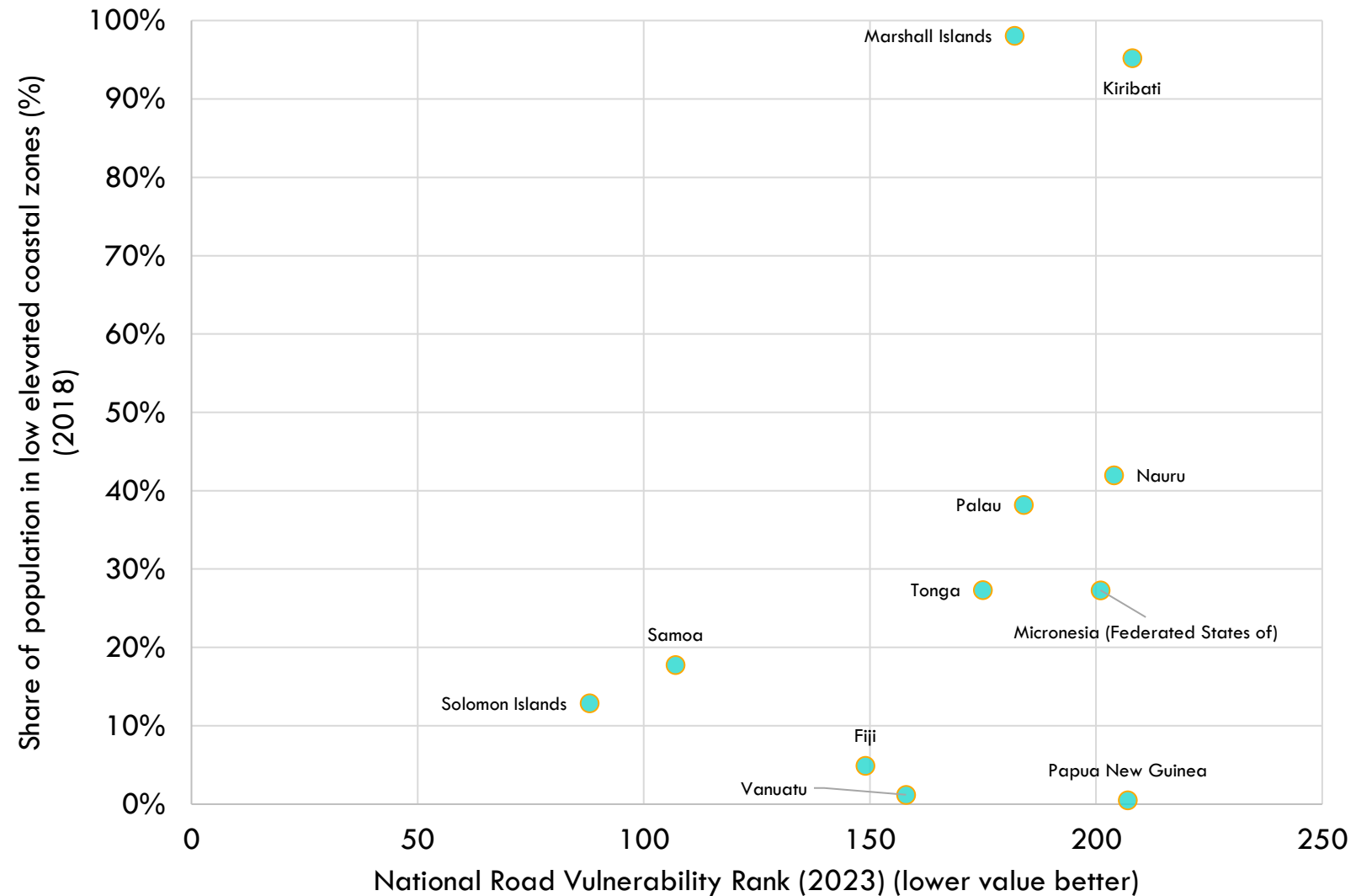
Transport CO2 emissions per capita (kg/ year/ capita)

1975 1990 2000



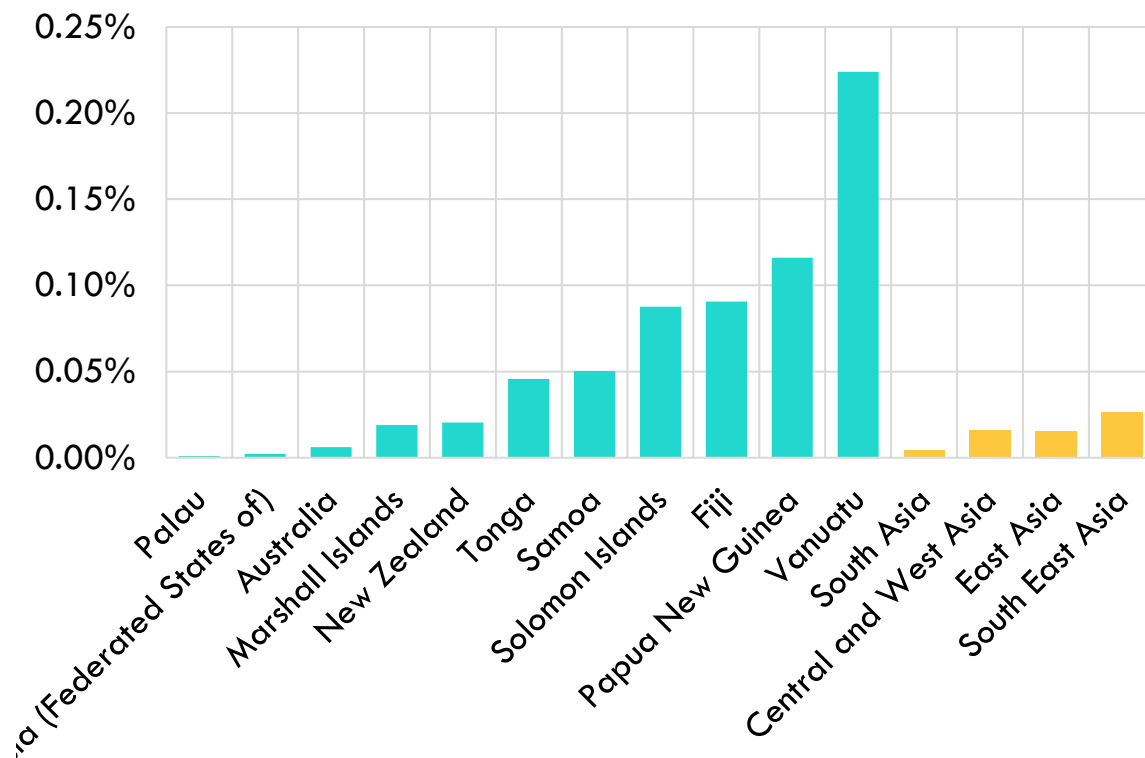
CLIMATE CHANGE VULNERABILITY

- For NRVI, natural disasters are simulated on random and cluster of country road segments. The Index indicates how much of the trips are potentially disrupted due to the missing segments.
- Marshall Islands and Kiribati stand extremely vulnerable with lower resistance of the road network and higher share of population in 5m proximity/ low elevated coastal zones.



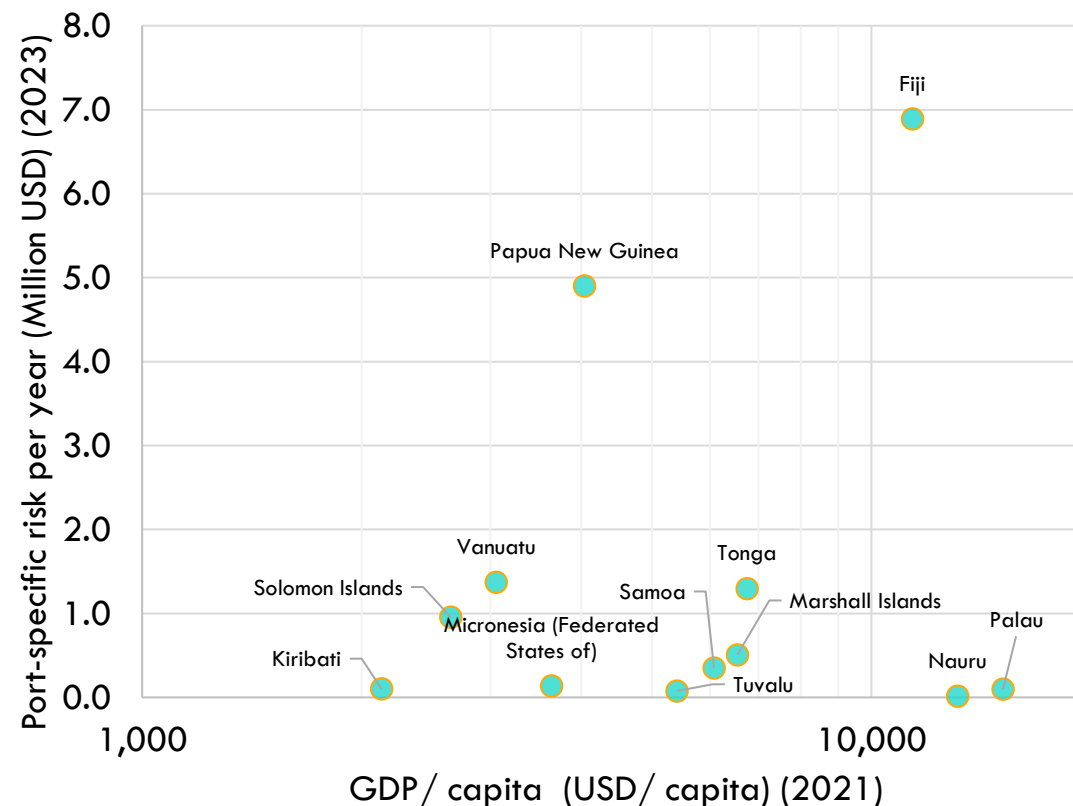
MULTI-HAZARD EXPECTED ANNUAL DAMAGES TO TRANSPORT INFRASTRUCTURE, SHARE OF GDP, 2019

Multi-hazard expected annual damages to transport infrastructure, share of GDP, 2019



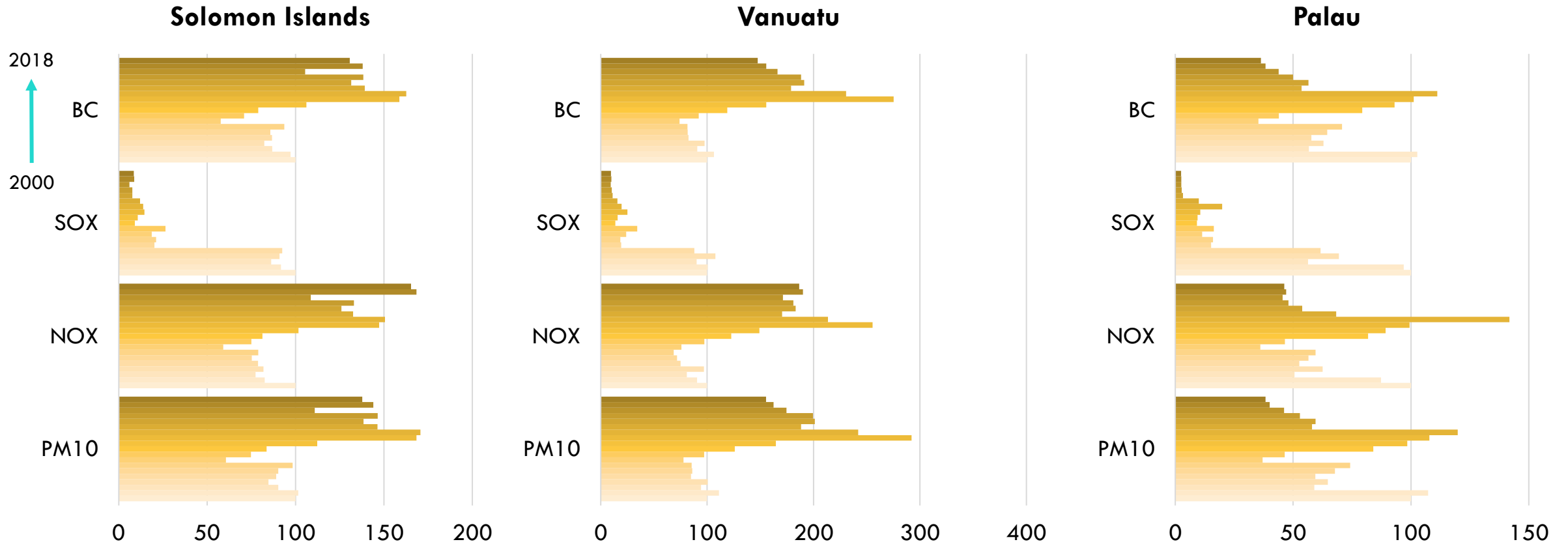
- Vanuatu possesses highest multi hazard risk of damages to the transport infrastructure as a share of GDP.

Port specific risks



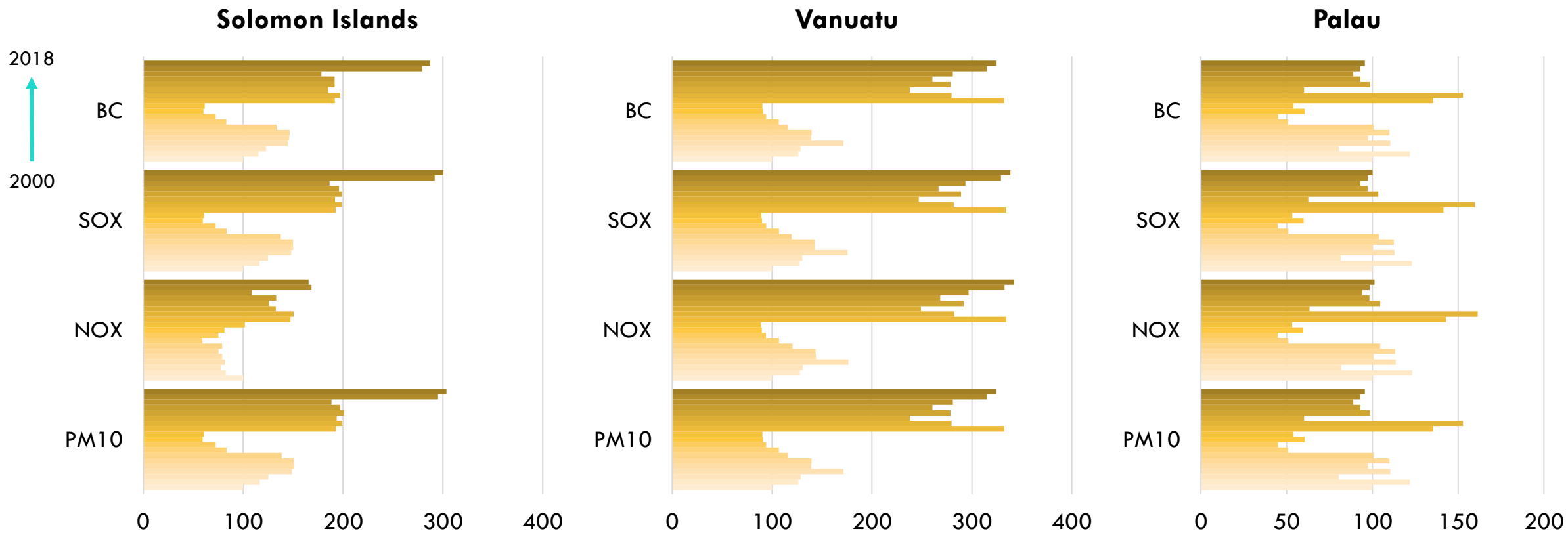
- Fiji possesses highest port specific risk of damages while PNG also does so at lower GDP/capita levels.

ROAD TRANSPORT AIR POLLUTANT EMISSIONS (2000=100)



- Broadly between the period of 2000 to 2018, all the air pollutant emissions are on the decline except for NOx in the Solomon Islands.

DOMESTIC NAVIGATION AIR POLLUTANT EMISSIONS (2000=100)

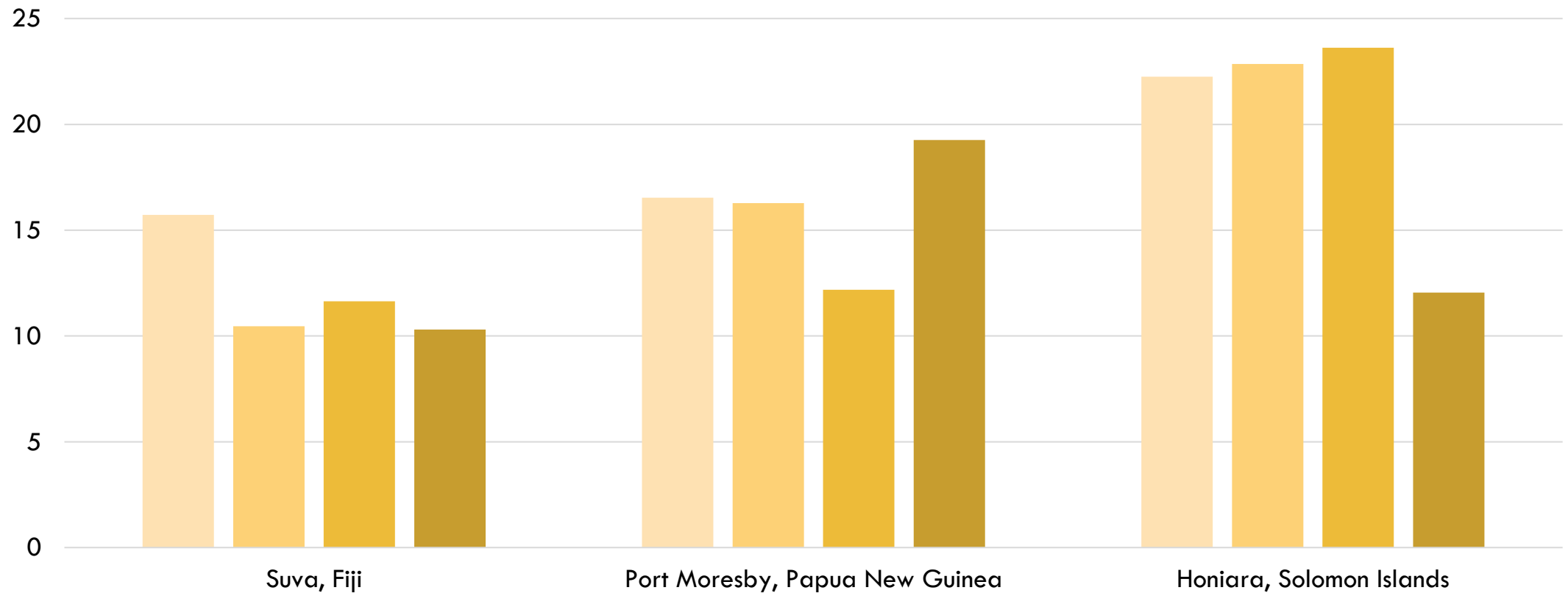


- Domestic Navigation subsector is showing slower progress compared to the road subsector.

URBAN TRANSPORT EMISSIONS

Transport pm2.5 emissions per capita (grams/ year/ capita)

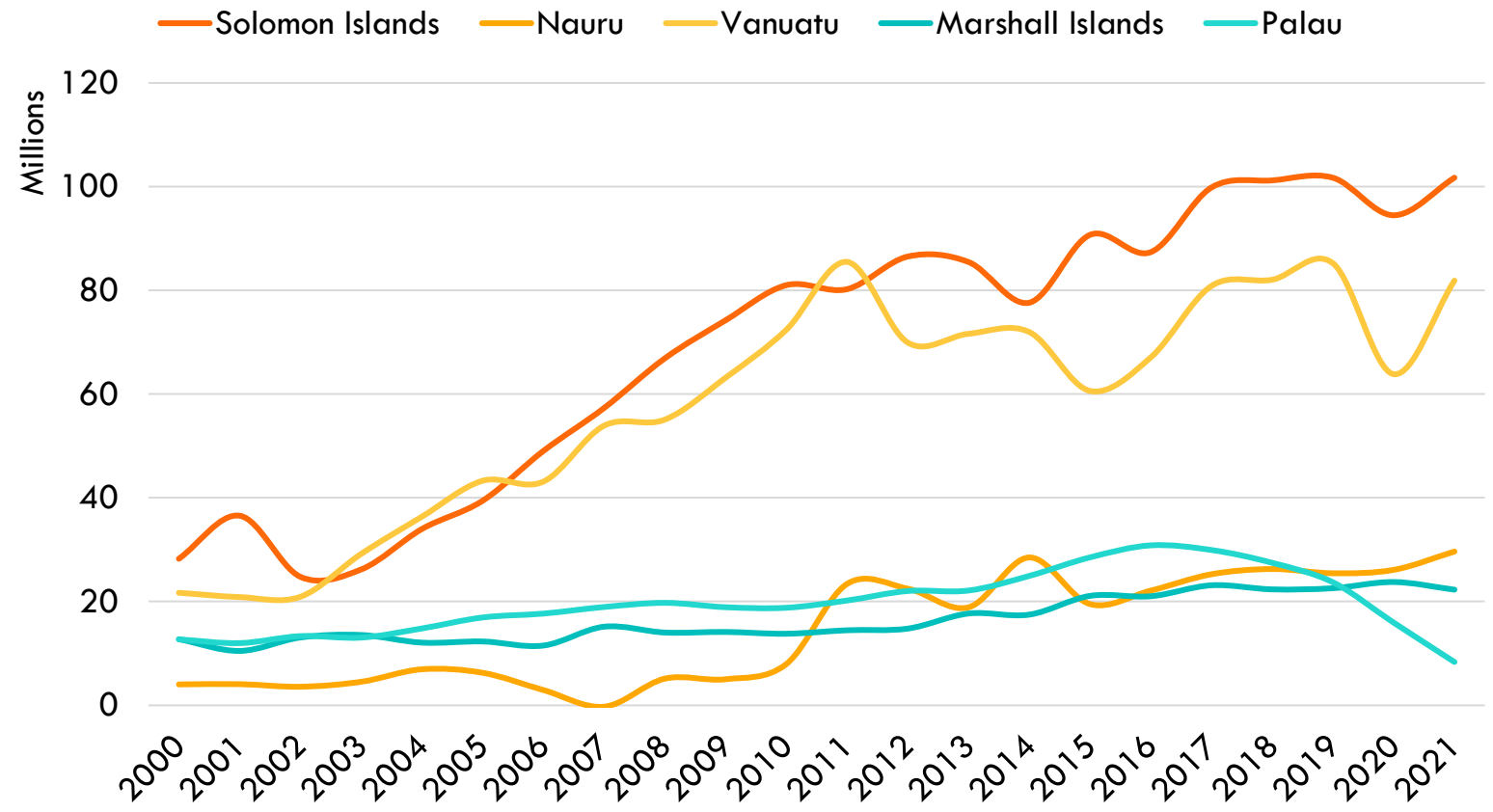
1975 1990 2000 2015



GROSS VALUE ADDED

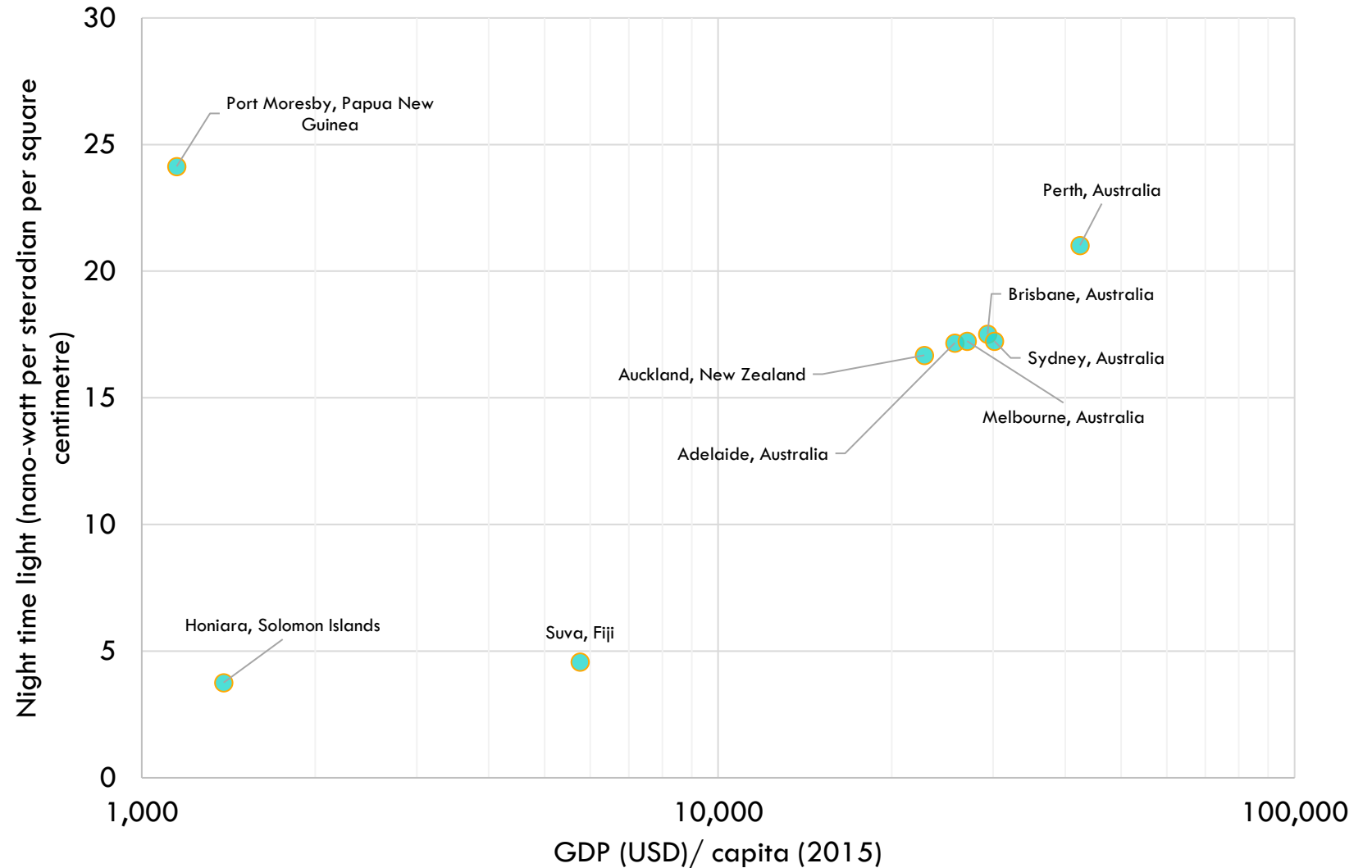
- The Gross Value Added by the transport sector refers to the economic contribution made by the transportation industry to the Gross Domestic Product (GDP) of a country. This includes the value added by activities such as the movement of goods and passengers by road, rail, air, and sea, as well as related services like logistics and transportation infrastructure.
- The GVA by the transport sector steeply increased for the Solomon Islands and Vanuatu between the period 2003 and 2011.
- For Palau it is recently dropping.
- Nauru and the Marshall Islands are stagnating.

**Gross value added by transport, storage, and communication
(USD, current)**



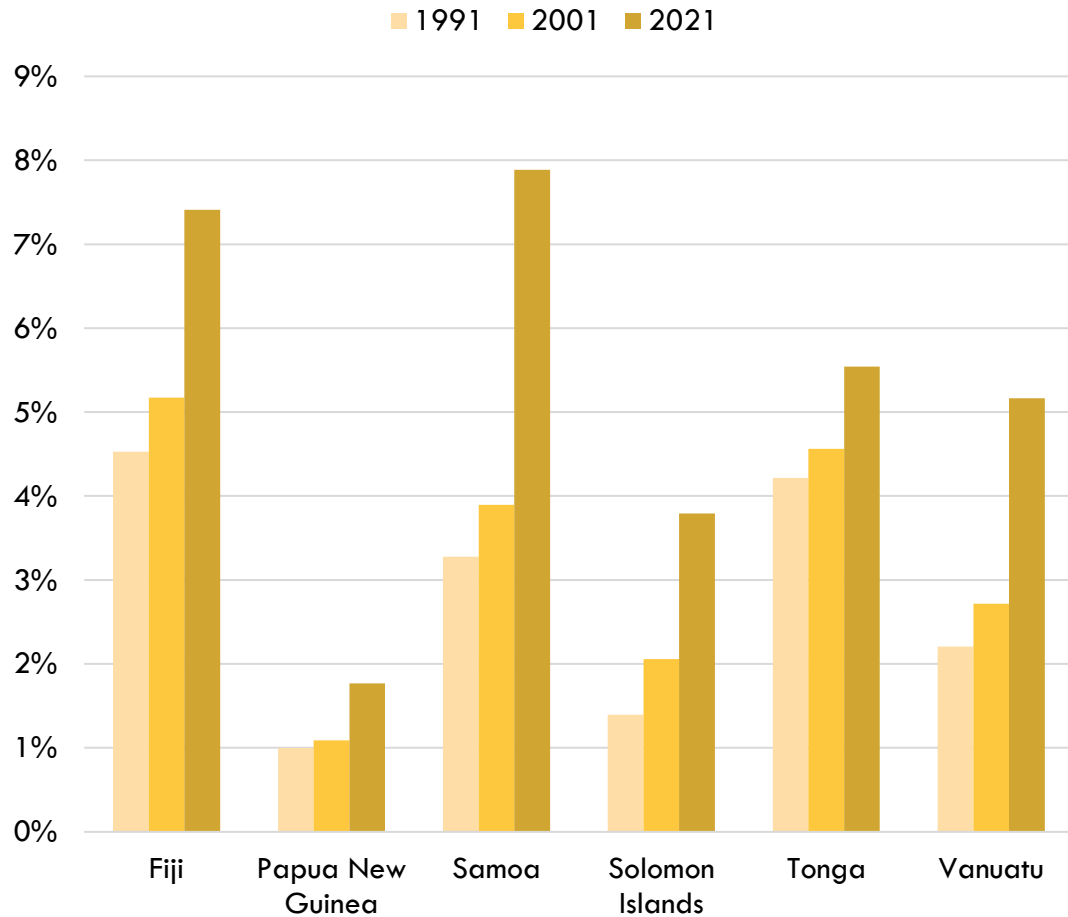
NIGHT TIME LIGHT ANALYSIS

- Nighttime light analysis is a technique that involves studying satellite imagery of Earth at night to analyze the patterns and intensity of artificial lights.
- It reflects the urbanization trends, potentials of transport hubs, traffic and movement patterns etc.
- The city of Port Moresby in PNG compares to the cities in the Australia and New Zealand at much lower GDP/ capita levels.

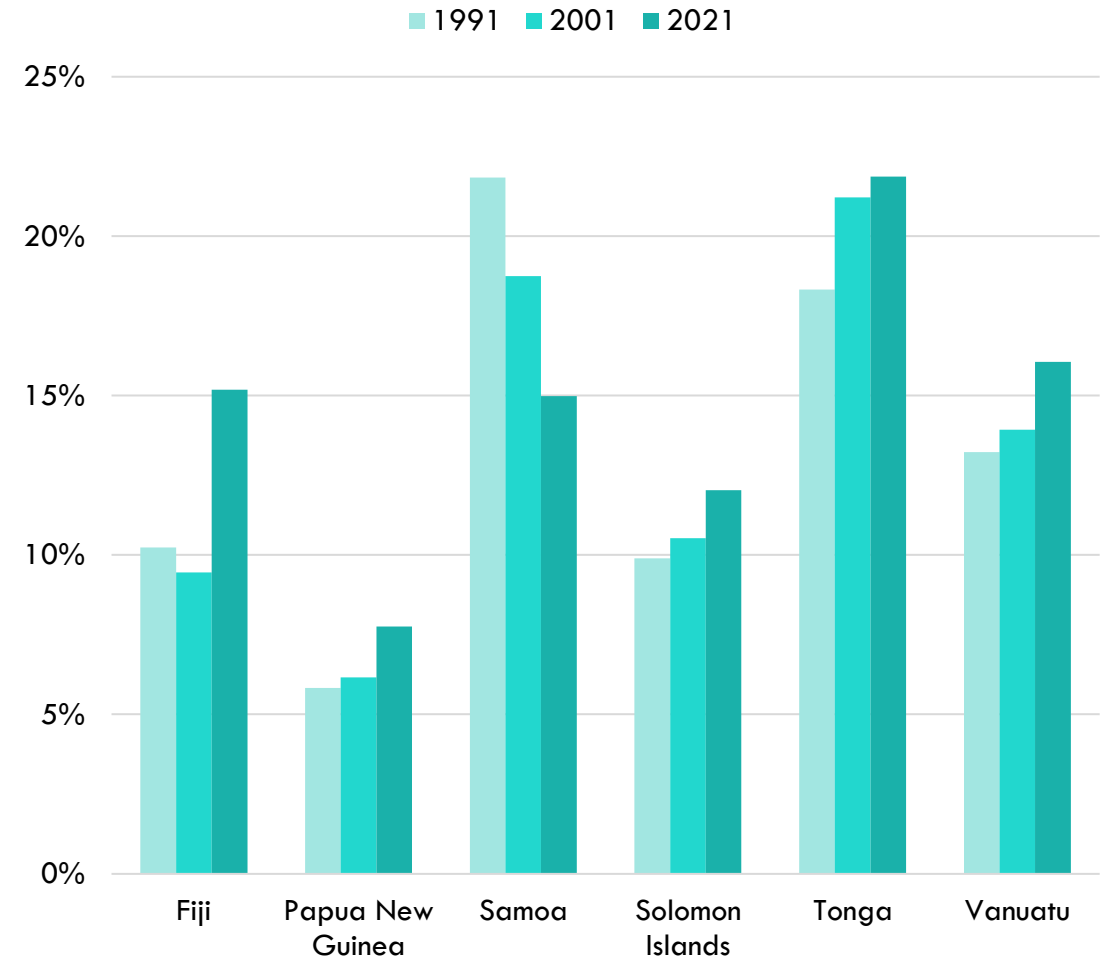


TRANSPORT EMPLOYMENT

Transport Sector Employment share in Total Employment



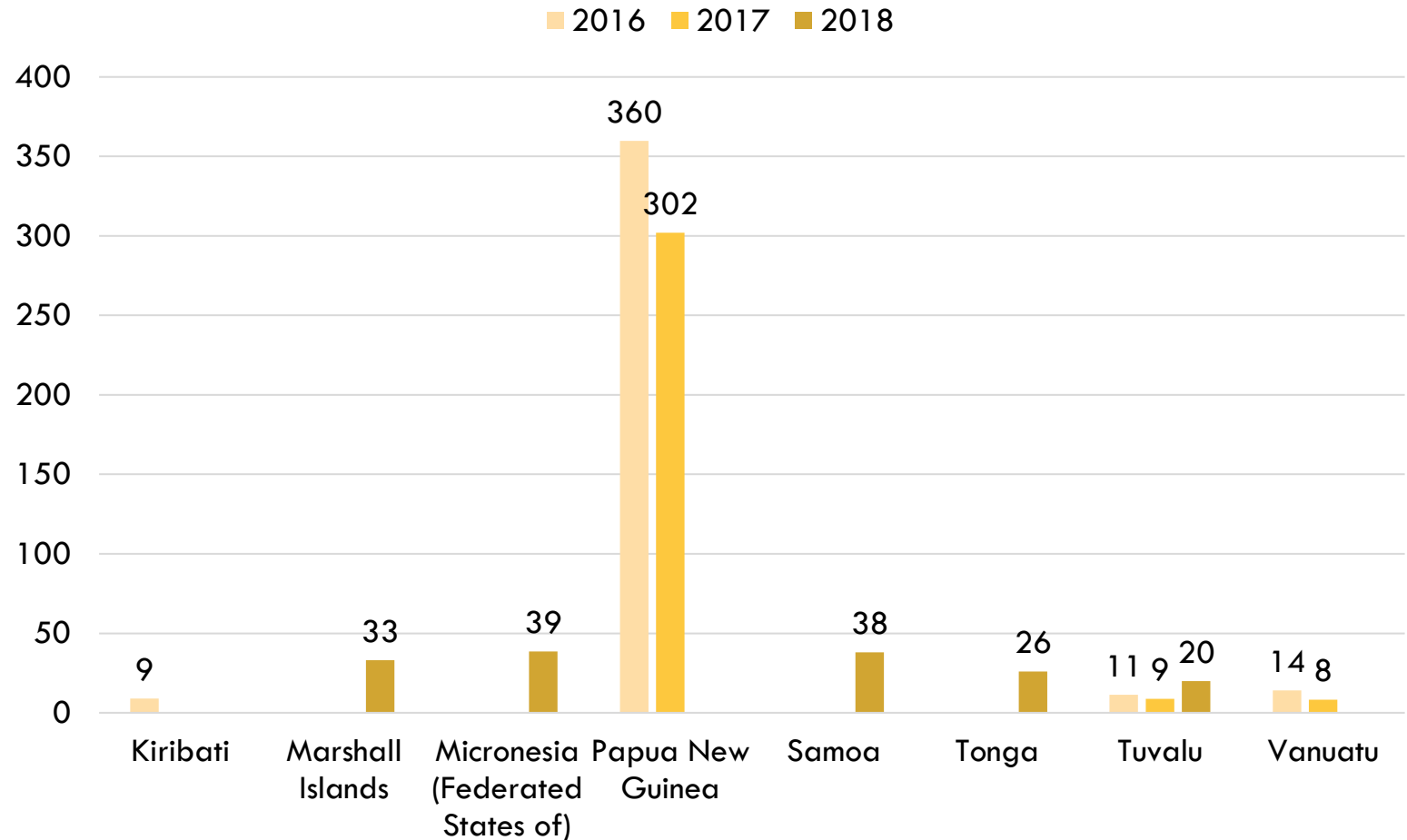
Workers in transport who are female (percentage)



MDB DEVELOPMENT ASSISTANCE FOR TRANSPORT

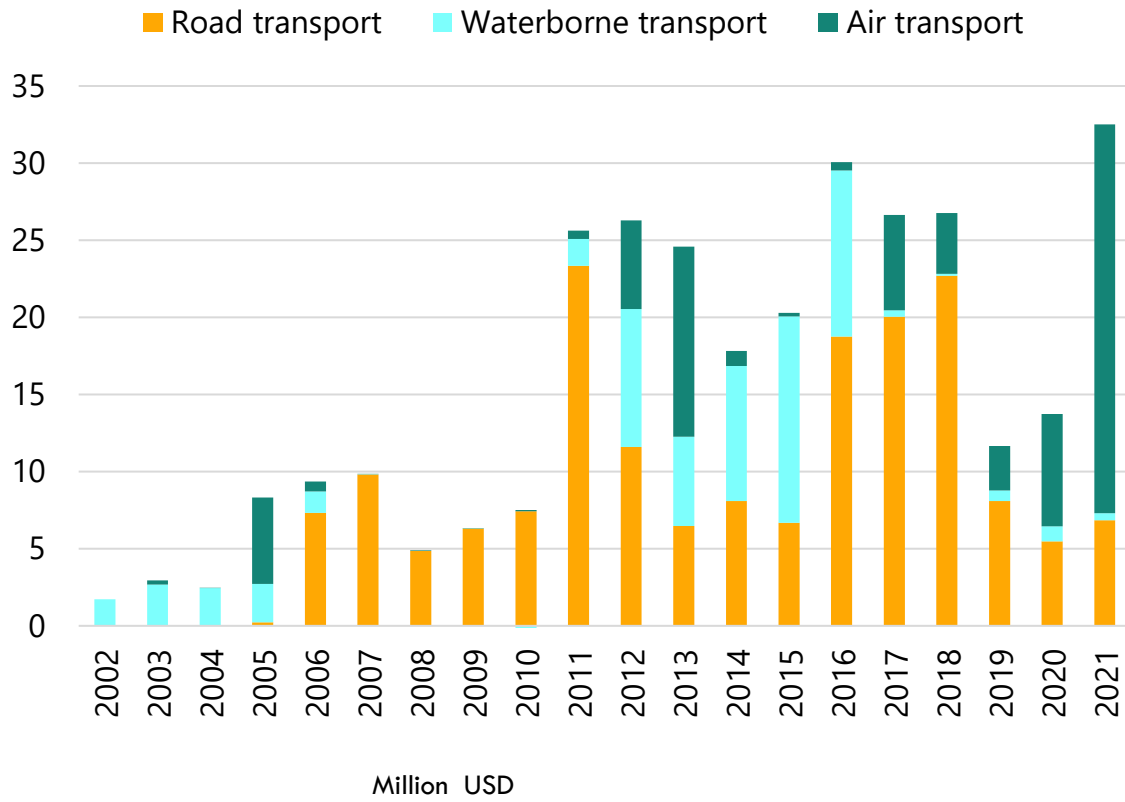
- The data includes loans and grants for transport in developing countries from African Development Bank, Asian Development Bank, CAF - Development Bank of Latin America, European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank, Islamic Development Bank, World Bank.

MDB development assistance for Transport (mln. USD)

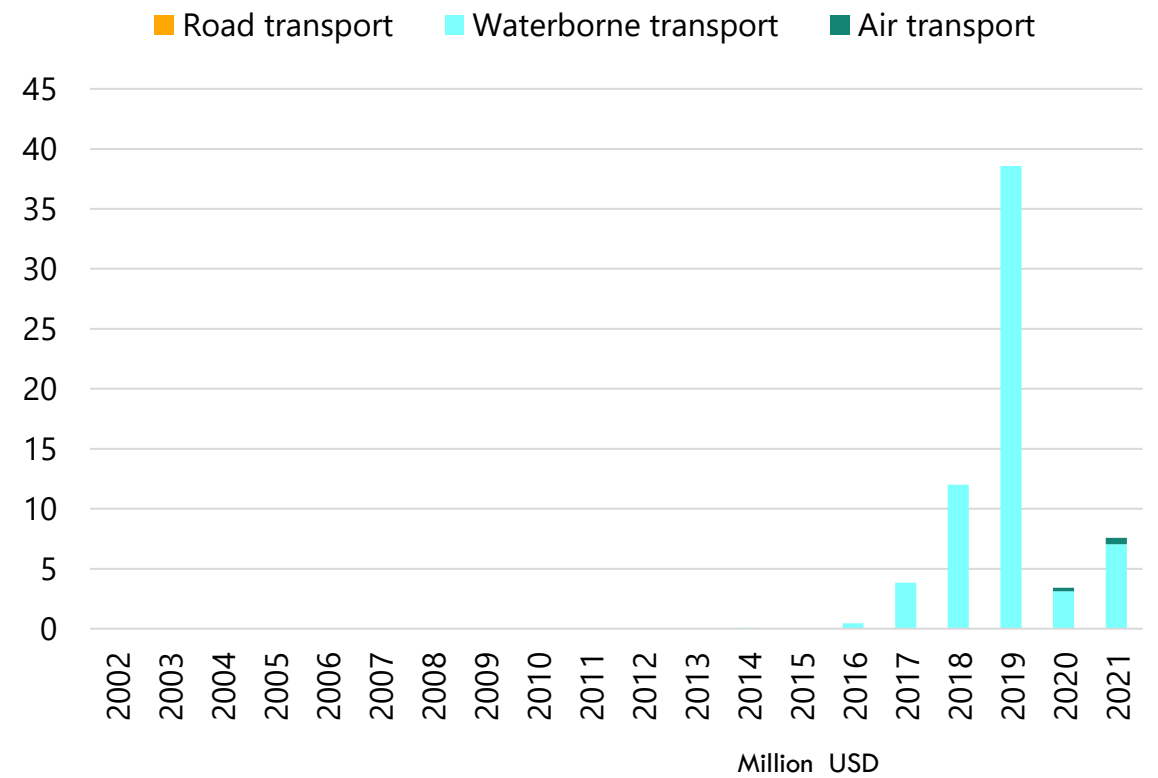


OFFICIAL DEVELOPMENT ASSISTANCE

Solomon Islands

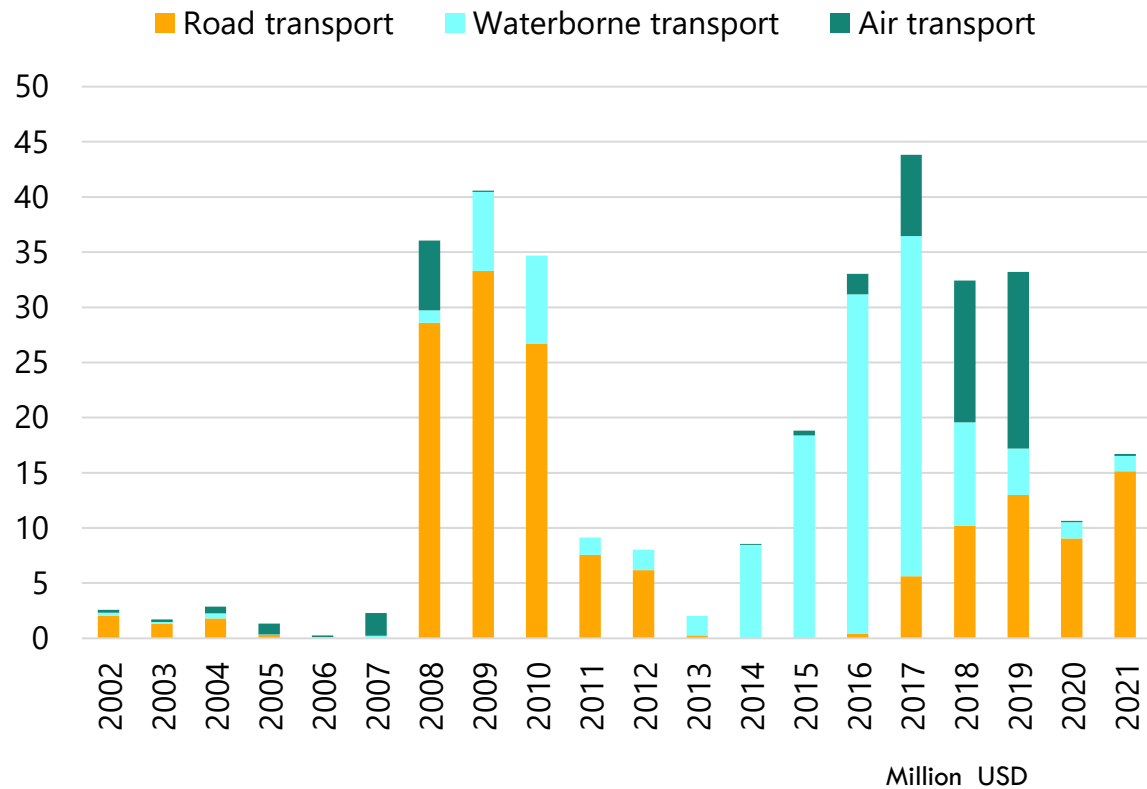


Nauru

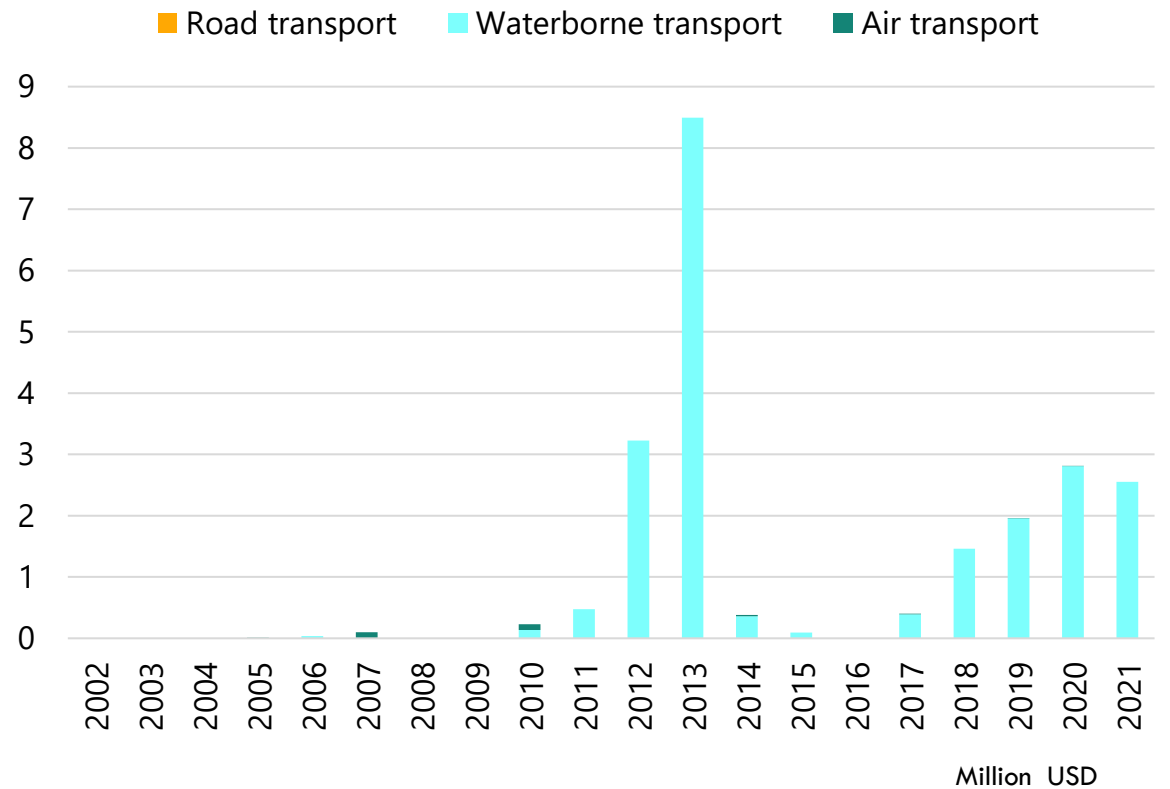


OFFICIAL DEVELOPMENT ASSISTANCE

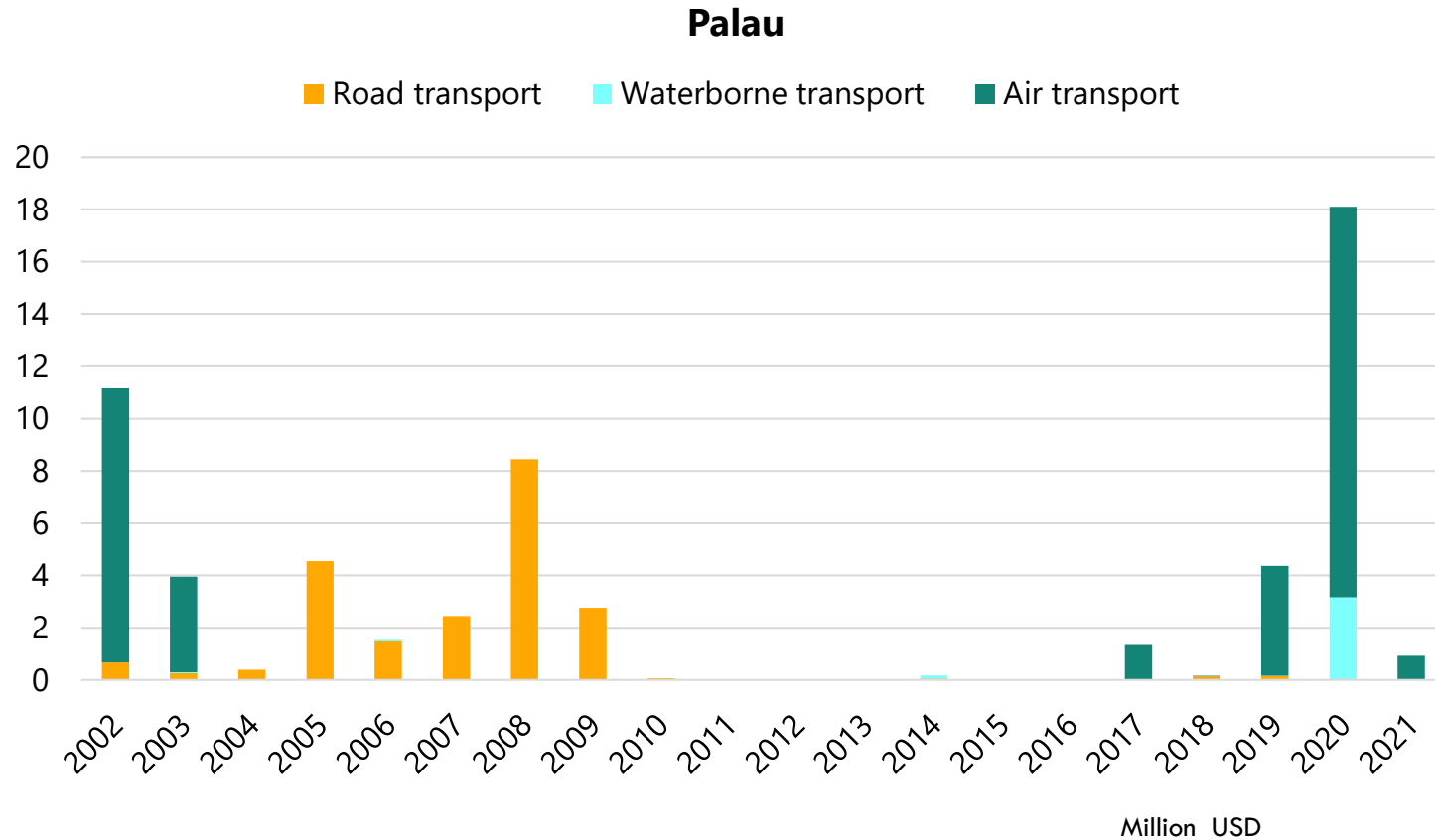
Vanuatu



Marshall Islands



OFFICIAL DEVELOPMENT ASSISTANCE



POLICY INSIGHTS

TRANSPORT RELATED POLICY DOCUMENTS/ LEGISLATIONS

A record of **13** Transport related documents/ legislations



Updated Nationally Determined Contributions, 2022

[Weblink](#)

Latest NDC Overview:

Are there any transport relevant mitigation targets mentioned? Yes

Are there any transport relevant adaptation targets mentioned? No

Are there any transport relevant mitigation measures mentioned? Yes

Are there any transport relevant adaptation measures mentioned? No

Document Name	Year Published	Document Type	Road	Shipping	Aviation
Actions For Palau's Future - Medium-Term Development Strategy 2009-2014	2009	National Development Policy	X		X
Climate Change Policy	2015	Transport Laws/ Regulations	X	X	
Energy Act (RPPL No. 9-56)	2014	Transport Laws/ Regulations	X	X	
Energy Efficiency Action Plan (EEAP)	2008	Other Transport-related Policy	X	X	
National Disaster Risk Management Framework 2010	2010	Other Transport-related Policy	X		
National Energy Policy	2010	Other Transport-related Policy	X	X	
Palau Energy Act (Public Law No. 9-54 of 2014)	2014	Transport Laws/ Regulations	X	X	
Palau Energy Conservation Strategy (PECS)	2007	Other Transport-related Policy	X		
Palau National Infrastructure Investment Plan 2021-2030	2021	Other Transport-related Policy	X	X	X
Palau National Master Development Plan	1995	National Development Policy	X	X	X
Palau NDC	2015	Nationally Determined Contributions	X		
Vehicle Legislation	2017	Transport Laws/ Regulations	X		
Voluntary National Review 2019	2019	National Report to International/ Regional Processes	X	X	X

TRANSPORT RELATED TARGETS

Transport Sector Measure	Text/Remarks	Document Name	Year Published	Target year
Measures to improve rural-urban connectivity	Indicator G.9.1.1. Proportion of rural population living within 2 km of an all-season road. = 100% (2030)	Voluntary National Review 2019	2019	2030
Renewable energy	45% Renewable Energy target	Palau NDC	2015	2025
Target - Economy-wide emissions	22% energy sector emissions reductions below 2005 levels by 2025	Palau NDC	2015	2025
Target - Transport energy consumption	35% Energy Efficiency	Palau NDC	2015	2025

TRANSPORT POLICY MEASURES



Road Transport Subsector

Transport Sector Measure	Description/ Summary	Document Name	Year Published
Active transport infrastructure expansion	aspires to complete land transportation infrastructure incorporating sidewalks and public transport and a marine transportation system powered by renewable energy	Voluntary National Review 2019	2019
Biofuels	Palau is investigating a project to convert waste cooking oil to biofuel for diesel vehicles, beginning with public school buses and a potential public bus route.	Palau NDC	2015
Biofuels	Investigate viable options and for the use of biofuels, including options for converting the existing fleet of government vehicles	Climate Change Policy	2015
Define roles and accountabilities across agencies	The National Disaster Coordinator is responsible for providing information on donor assistance to Customs and Quarantine offices to facilitate the exemption process. The information includes details on type, quantity, source, and means of transportation, arrival point and estimated time of arrival.	National Disaster Risk Management Framework 2010	2010
Define roles and accountabilities across agencies	6.3.1 Strategy: Infrastructure Institutions Privatization strategies Compact road planning coordinated and maintenance funded	Palau National Master Development Plan	1995
Development of transport plan/ policy	Finalise and launch of "Complete Street Policy" to improve traffic flows, reduce congestion and support alternative transport.	Climate Change Policy	2015
Energy efficient vehicle purchase incentives	Develop and enact legislation to introduce economic instruments that encourage the import and sale of energy efficient vehicles.	Climate Change Policy	2015
Financial instruments to support decarbonisation	Establish a fund to partially offset the difference in price between four-stroke gasoline outboard or diesel marine engines and two-stroke gasoline outboard engines.	Energy Efficiency Action Plan (EEAP)	2008
Fiscal incentives for EVs and components	Develop and enact legislation to introduce economic instruments that encourage the import and sale of energy efficient vehicles.	Climate Change Policy	2015
General active mobility	creating an environment conducive to alternative transport – walking and biking (Climate Change policy)	Voluntary National Review 2019	2019
General data repositories and data collection	In order to monitor the energy profile of the transport system a database of all operational vehicles by class, make and fuel usage will be mandated.	National Energy Policy	2010
General e-mobility	Procure and operate fuel efficient vehicles	Climate Change Policy	2015
General e-mobility	transition to electric vehicles	Voluntary National Review 2019	2019
General public transport	The establishment of energy efficient public transport system for urban and rural areas with particular emphasis on reducing energy consumed commuting to the new Capitol facilities will be promoted and encouraged.	National Energy Policy	2010

TRANSPORT POLICY MEASURES



Road Transport Subsector

Transport Sector Measure	Description/ Summary	Document Name	Year Published
General public transport	aspires to complete land transportation infrastructure incorporating sidewalks and public transport and a marine transportation system powered by renewable energy development of public transportation	Voluntary National Review 2019	2019
General transport asset management	Reconstruction: Major capital works to restore transport and water reticulation systems.	National Disaster Risk Management Framework 2010	2010
General transport asset management	Melekeok to Ngardmau Road - Paving of three existing dirt road sections, including rehabilitation of existing bridges, and construction of drainage structures Capital Repairs to Compact Road, Airai to Ngarchelong Major repairs to existing road bridges Rehabilitation of Malakal port development	Palau National Infrastructure Investment Plan 2021-2030	2021
General transport demand management	travel demand management through smarter planning	National Energy Policy	2010
General transport demand management	Finalise and launch of "Complete Street Policy" to improve traffic flows, reduce congestion and support alternative transport.	Climate Change Policy	2015
General transport institutional reform	National road building and maintenance program established	Palau National Master Development Plan	1995
General vehicle improvements	Preferential purchasing of energy efficient vehicles and equipment	Palau Energy Conservation Strategy (PECS)	2007
Helmet law applies to motorcycle drivers and adult passengers	In the Republic, motorcycle operators and passengers must wear safety helmets with chin straps while on streets or highways. Additionally, operators are prohibited from allowing passengers without safety helmets on their vehicles.	Vehicle Legislation	2017
Helmet law requires helmet to be properly fastened	The legislation mandates that operators and passengers of motorcycles in the Republic must wear safety helmets with chin straps while on streets or highways. The chin straps must be fastened at all times during vehicle operation.	Vehicle Legislation	2017
Investment required for specific projects	Identify total costs of selected services including bus transport, school lunches and building maintenance	Actions For Palau's Future - Medium-Term Development Strategy 2009-2014	2009
Investment required for specific projects	efficient use and maintenance of the Government vehicle fleet and ships, including strict servicing and maintenance procedures with support for these measures with adequate budget allocations.	National Energy Policy	2010
National drink-driving law	§ 514. Persons under the influence of drugs or intoxicating liquor.	Vehicle Legislation	2017
National drug-driving law in place	§ 514. Persons under the influence of drugs or intoxicating liquor.	Vehicle Legislation	2017
National motorcycle helmet law	The law mandates that operators and passengers of motorcycles in the Republic must wear safety helmets with chin straps while on streets or highways. These chin straps are required to be fastened under the chin at all times for safety.	Vehicle Legislation	2017

TRANSPORT POLICY MEASURES



Road Transport Subsector

Transport Sector Measure	Description/ Summary	Document Name	Year Published
National speed law	Drivers must adhere to reasonable and prudent speeds on highways, considering factors like traffic, road conditions, and intersections. Exceeding speed limits specified for various locations, such as 15 mph near schools or 20 mph in business/residential districts, can result in misdemeanor charges, unless otherwise designated by the President.	Vehicle Legislation	2017
Reference to finance mechanisms within country	Reduce costs associated with school transportation -Change bus drivers from full-time to part-time status (short-term measure) -Privatize school bus services through contractual arrangements (medium-term measure).	Actions For Palau's Future - Medium-Term Development Strategy 2009-2014	2009
Renewable energy	aspires to complete land transportation infrastructure incorporating sidewalks and public transport and a marine transportation system powered by renewable energy a new fleet of vessels for domestic transport is envisioned using a combination of sail, solar, and coconut oil	Voluntary National Review 2019	2019
Road infrastructure expansion	Access roads constructed	Palau National Master Development Plan	1995
Ship efficiency improvements	Introduce efficiency standards for buses and marine vessels that are used in private tourism enterprises, and for all other vehicles and vessels in the Republic.	Energy Act (RPPL No. 9-56)	2014
Transport infrastructure resilience	Climate proofing of low lying roads and causeways and paving priority unpaved roads - Airai to Koror	Palau National Infrastructure Investment Plan 2021-2030	2021
Transport law	Vehicle Legislation	Vehicle Legislation	2017
Vehicle efficiency standards	significantly increasing vehicle efficiency	National Energy Policy	2010
Vehicle efficiency standards	Introduce efficiency standards for buses and marine vessels that are used in private tourism enterprises, and for all other vehicles and vessels in the Republic. "Government green fleet efficiency standards" means the fuel emissions standards that the Energy Administration establishes for the fleets of relevant government agencies.	Energy Act (RPPL No. 9-56)	2014
Vehicle efficiency standards	Currently there is a pending national legislation that would mandate the use and commercial sale of four-stroke outboard motor engines only to reduce emissions.	Palau NDC	2015

TRANSPORT POLICY MEASURES



Road Transport Subsector

Transport Sector Measure	Description/ Summary	Document Name	Year Published
Vehicle efficiency standards	The Palau Energy Administration will implement efficiency standards for government road and marine fleets, as well as for private tourism buses and marine vessels. Additionally, the Annual Energy Report will evaluate progress on green fleet standards and the efficiency of tourism industry marine vessels.	Palau Energy Act (Public Law No. 9-54 of 2014)	2014
Vehicle efficiency standards	Procure and operate fuel efficient vehicles	Climate Change Policy	2015
Vehicle efficiency standards	Develop and enact legislation to introduce economic instruments that encourage the import and sale of energy efficient vehicles.	Climate Change Policy	2015
Vehicle inspection and maintenance	efficient use and maintenance of the Government vehicle fleet and ships, including strict servicing and maintenance procedures with support for these measures with adequate budget allocations.	National Energy Policy	2010
Vehicle restrictions (import, age, access, sale, taxation)	An import tax scheme will be developed and introduced that provides incentives for the importation of efficient equipment and discourages the import of inefficient appliances, vehicles and machinery	National Energy Policy	2010
Vehicle restrictions (import, age, access, sale, taxation)	Develop and enact legislation to introduce economic instruments that encourage the import and sale of energy efficient vehicles.	Climate Change Policy	2015

TRANSPORT POLICY MEASURES



Domestic Navigation Subsector

Transport Sector Measure	Description/ Summary	Document Name	Year Published
Disaster monitoring and risk assessment for transport infrastructure	Undertake site-specific risk assessments and develop risk management plans for vulnerable infrastructure (private, commercial and government, particularly for ports and docks)	Climate Change Policy	2015
Financial instruments to support decarbonisation	Establish a fund to partially offset the difference in price between four-stroke gasoline outboard or diesel marine engines and two-stroke gasoline outboard engines.	Energy Efficiency Action Plan (EEAP)	2008
General public transport	aspire to complete land transportation infrastructure incorporating sidewalks and public transport and a marine transportation system powered by renewable energy development of public transportation	Voluntary National Review 2019	2019
General shipping improvement	Malakal harbor expanded Pier redeveloped Harbor repairs Navigation aids upgraded	Palau National Master Development Plan	1995
General transport asset management	Melekeok to Ngardmau Road - Paving of three existing dirt road sections, including rehabilitation of existing bridges, and construction of drainage structures Capital Repairs to Compact Road, Airai to Ngarchelong Major repairs to existing road bridges Rehabilitation of Malakal port development	Palau National Infrastructure Investment Plan 2021-2030	2021
Investment required for specific projects	efficient use and maintenance of the Government vehicle fleet and ships, including strict servicing and maintenance procedures with support for these measures with adequate budget allocations.	National Energy Policy	2010
Port infrastructure improvements	Bay facilities improved for commercial bulk port	Palau National Master Development Plan	1995
Renewable energy	aspire to complete land transportation infrastructure incorporating sidewalks and public transport and a marine transportation system powered by renewable energy a new fleet of vessels for domestic transport is envisioned using a combination of sail, solar, and coconut oil	Voluntary National Review 2019	2019
Ship efficiency improvements	Decrease use of number of two-stroke gasoline outboard marine engines	Energy Efficiency Action Plan (EEAP)	2008
Ship efficiency improvements	Introduce efficiency standards for buses and marine vessels that are used in private tourism enterprises, and for all other vehicles and vessels in the Republic.	Energy Act (RPPL No. 9-56)	2014
Ship efficiency improvements	The Palauan Energy Administration is set to establish efficiency standards for both government-owned road and marine fleets, as well as private tourism buses and vessels. Additionally, the Annual Energy Report will evaluate progress towards green fleet standards and assess the efficiency of marine vessels in the tourism sector.	Palau Energy Act (Public Law No. 9-54 of 2014)	2014

TRANSPORT POLICY MEASURES

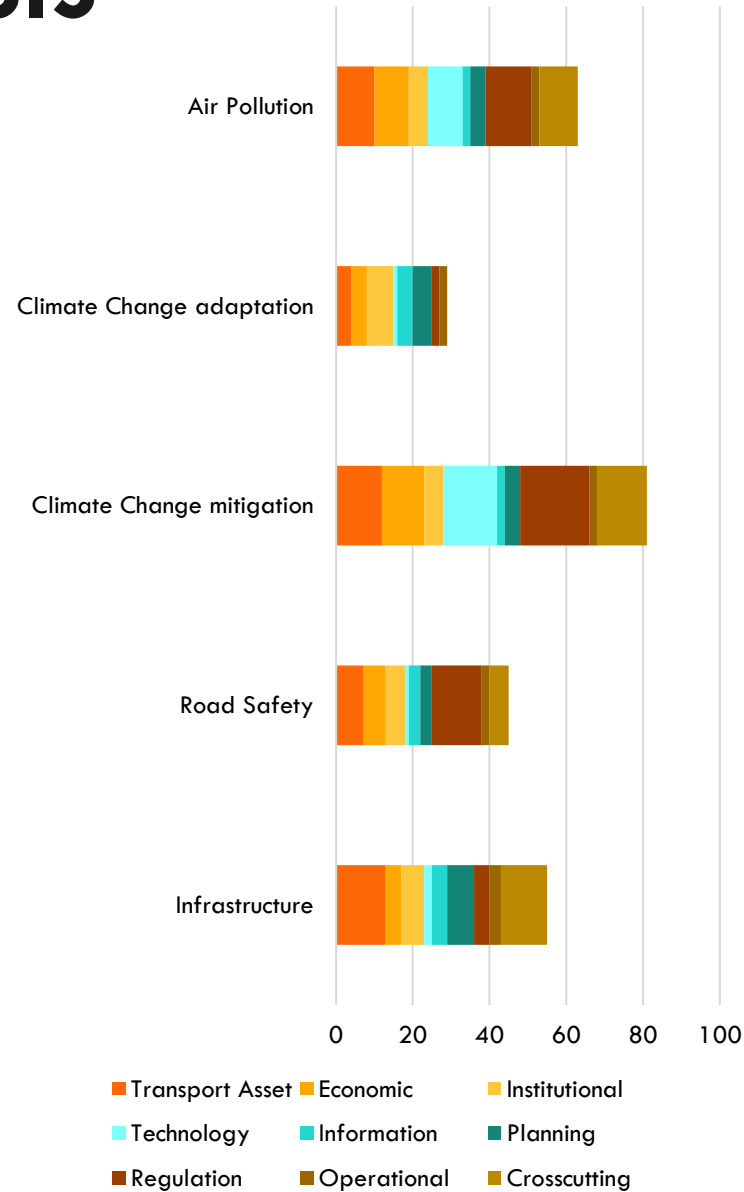


Domestic Aviation Subsector

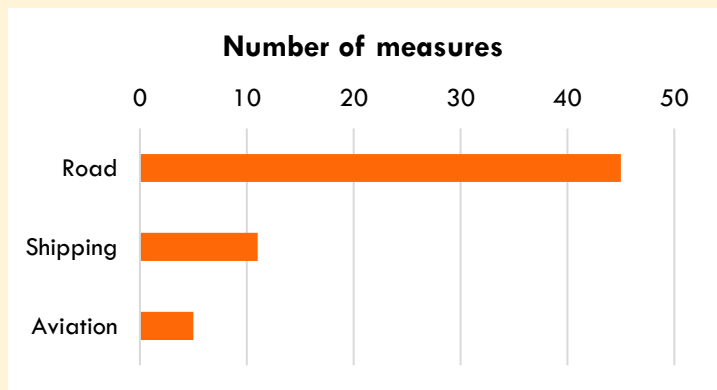
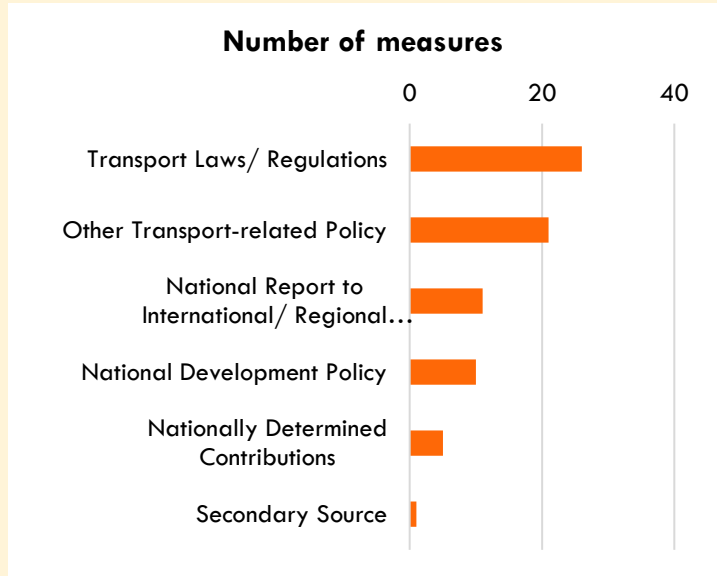
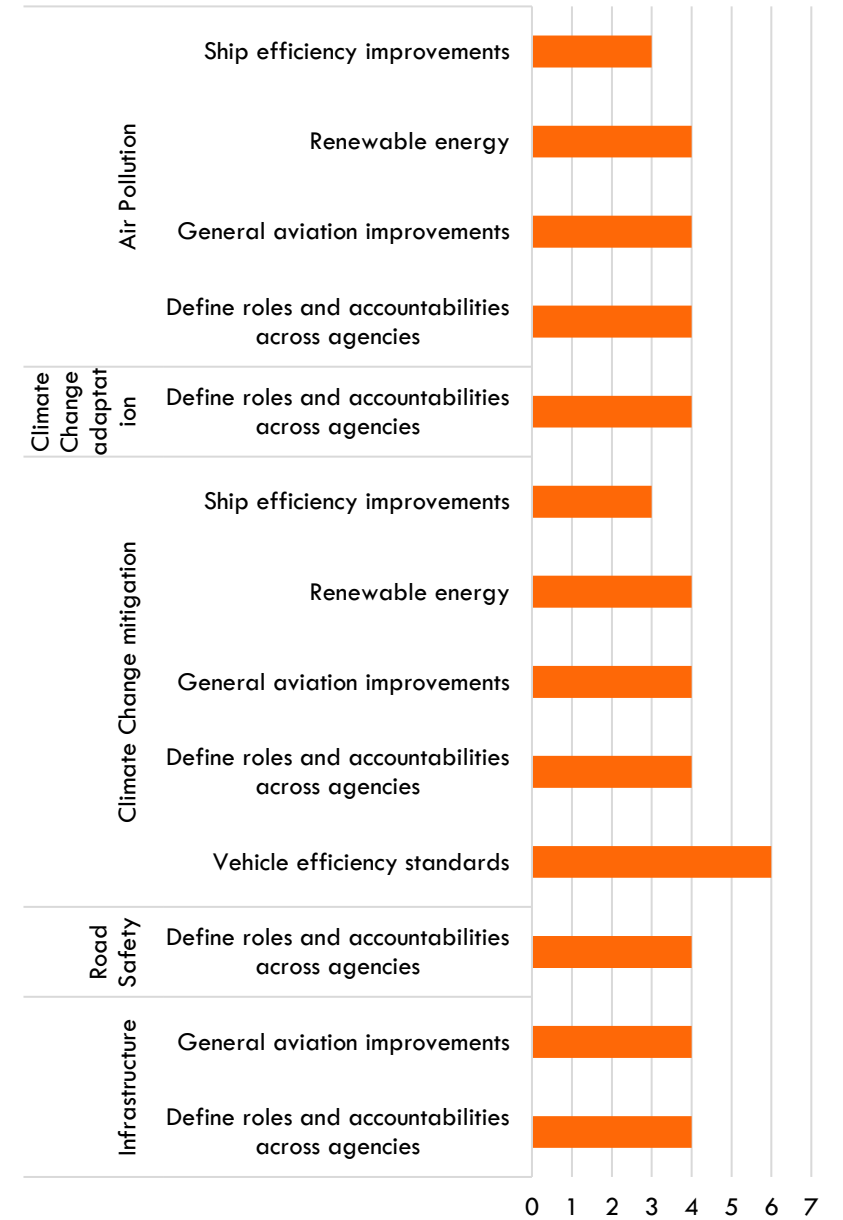
Transport Sector Measure	Description/ Summary	Document Name	Year Published
General aviation improvements	review air service agreements with view to encouraging additional carriers, increasing scheduled flights and reducing charter flights	Actions For Palau's Future - Medium-Term Development Strategy 2009-2014	2009
General aviation improvements	To slowly build air service facilities, and the safety and regulatory environment as the demand for air services increases. In addition to the above, a project involving major renovations to the international airport, including additional new gates and with estimated cost of \$40 million funded by JICA/JBIC/SMBC is currently implementation.	Palau National Infrastructure Investment Plan 2021-2030	2021
General aviation improvements	international airport upgraded domestic airport terminals constructed	Palau National Master Development Plan	1995
General aviation improvements	expansion of the international airport and domestic airports in Peleliu and Angaur	Voluntary National Review 2019	2019
Transport law	civil aviation code drafted	Palau National Master Development Plan	1995

POLICY ANALYSIS

Number of measures by dimension and framework



Top policy measures by dimensions



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