Asian Transport Observatory

Transport-relevant Data and Tools

Supporting Decarbonization, Resilience and Sustainability Goals in Fiji

Alvin Mejia
Co-Team Lead
Asian Transport Observatory

Strengthening the Capacity of Fiji to Implement Low Carbon and Resilient Transport Action Plans

September 29-30, 2026
Islamabad

ADB ASIAN DEVELOPMENT BANK

AIIB ASIAN INFRASTRUCTURE INVESTMENT BANK



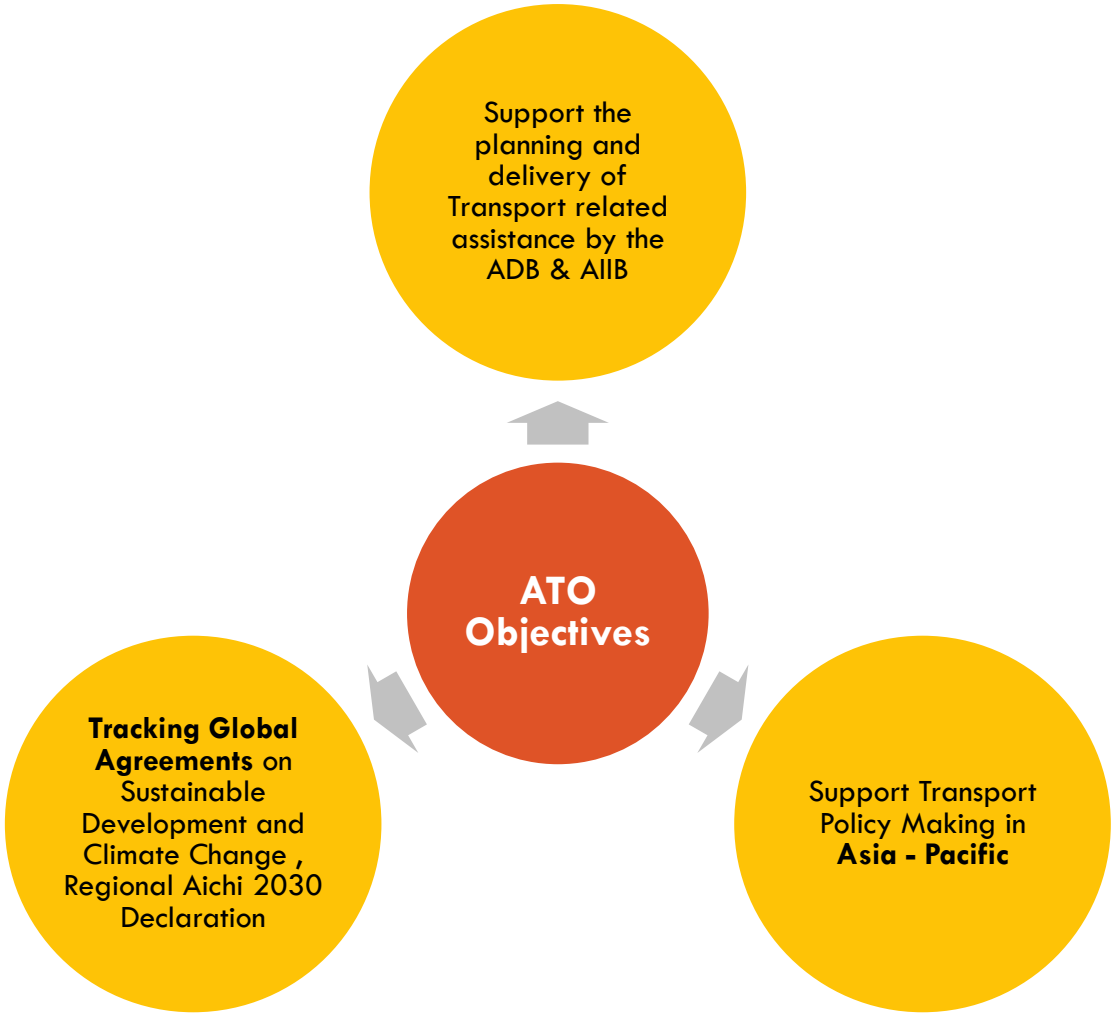
asiantransportobservatory.org



52 Economies (ADB Members + Iran and Russia)

460 Urban Centers (412 Asia-Pacific, 48 Others)

50 Urban Centers with a detailed review



Asian Transport Observatory

Dimensions Covered

- Access & Connectivity
- Infrastructure
- Safety
- Climate & Environment
- Resilience
- Finance & Economics
- Inclusion & Gender
- Governance & Policy

Data Foundations

Structured and comparable transport evidence

- National Data
- Urban Data
- Policy Database
- Cost Database

Knowledge Products

- Country Profiles
- Urban Profiles
- Regional Outlooks
- Thematic Reports
- Thematic Profiles
- Working Papers

Tools & Insights

- Dashboards
- Data Explorers
- Interactive Maps
- Benchmarking
- Visual Analytics
- Decision Support Insights

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ASIF Framework

Avoid

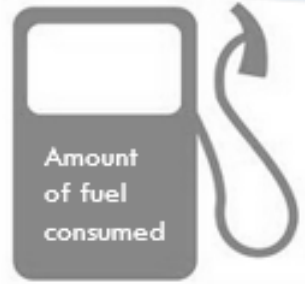
Activity
(Passenger & freight activity, vehicle activity)

Shift

Structure
(Mode share, loading and occupancies)

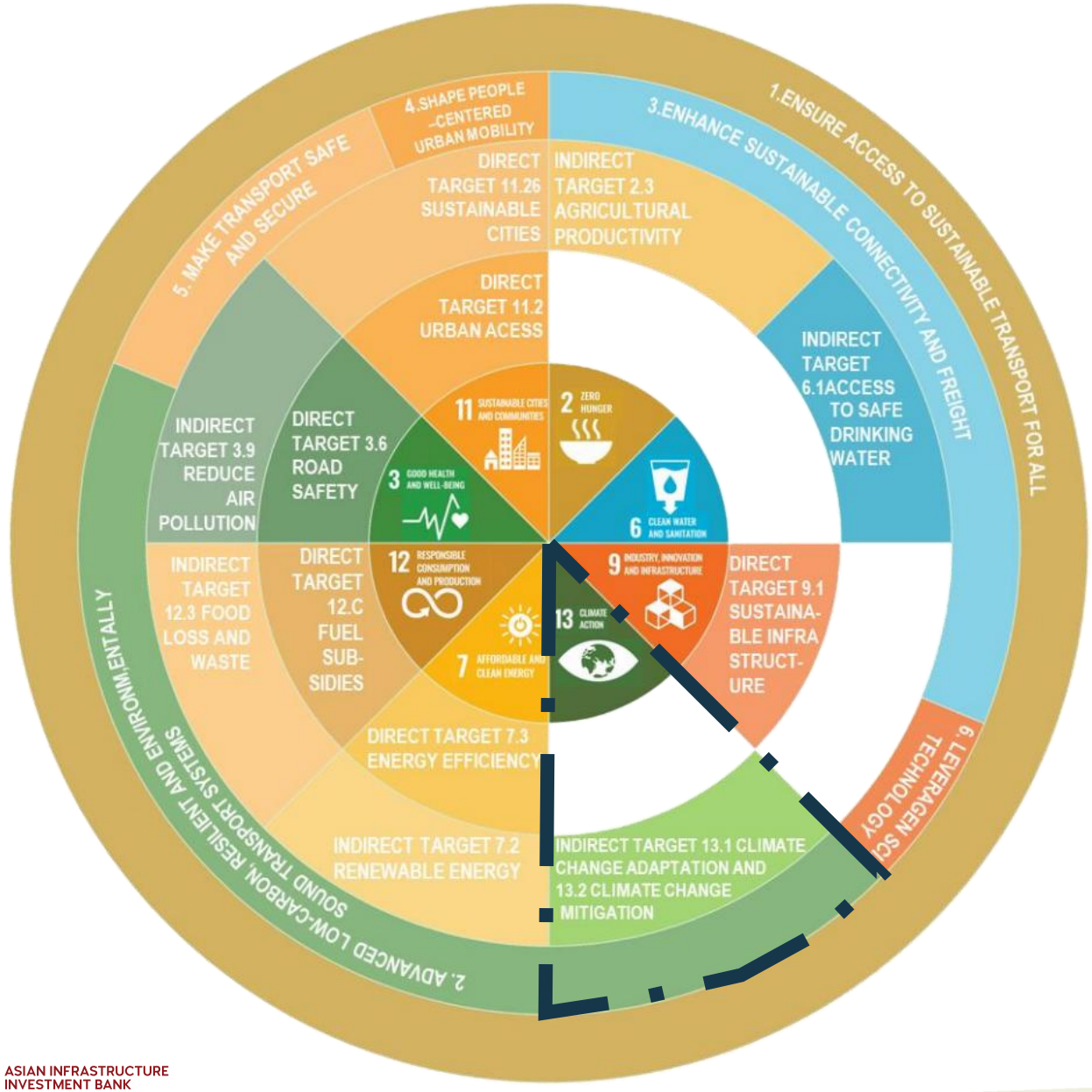
Improve

Intensity (energy)
(vehicle efficiencies ← vehicle and operational characteristics / energy efficiencies of vehicles)



Total Emissions
(kgCO2)

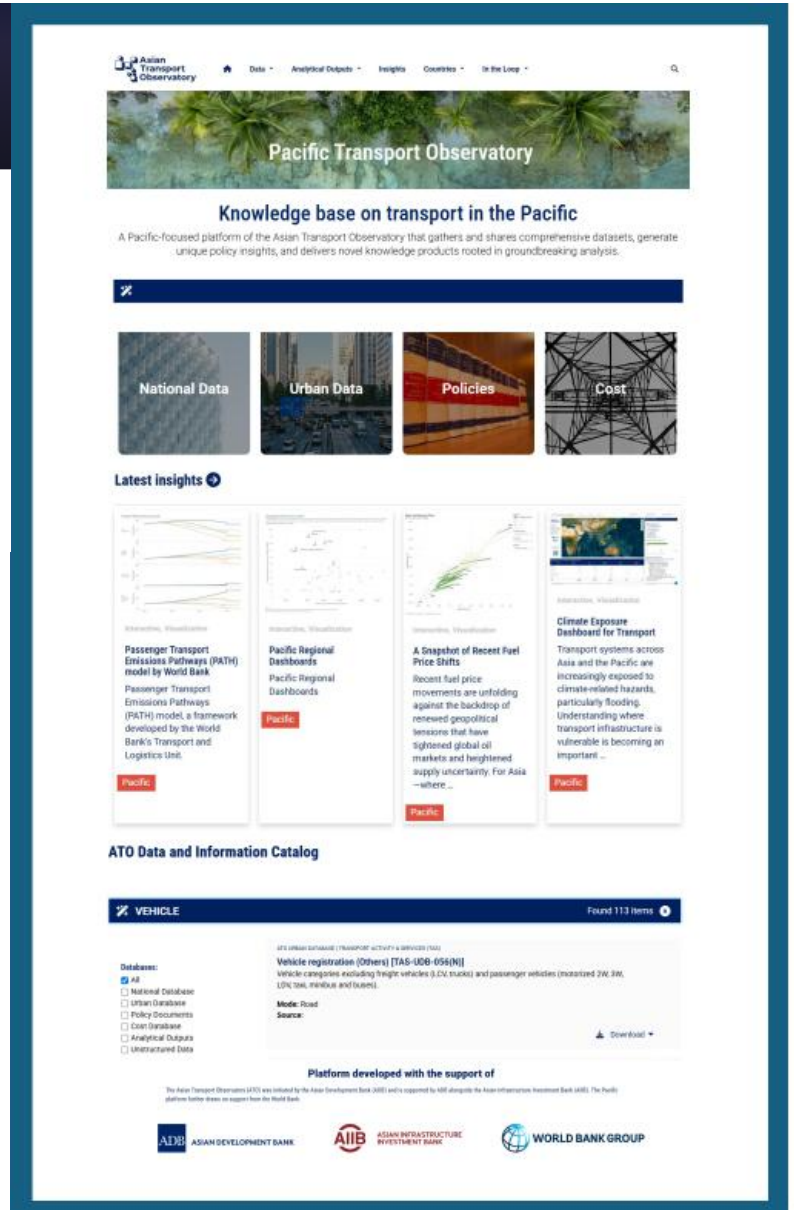
Factor of Emissions
(fuel EF; grid EF ← energy content; CO2 content of fuels)


1.ENSURE ACCESS TO SUSTAINABLE TRANSPORT FOR ALL
2. ADVANCED LOW-CARBON, RESILIENT AND ENVIRONMENTALLY SOUND TRANSPORT SYSTEMS
3.ENHANCE SUSTAINABLE CONNECTIVITY AND FREIGHT
4.SHAPE PEOPLE -CENTERED URBAN MOBILITY
5. MAKE TRANSPORT SAFE AND SECURE
6. LEVERAGEN SC TECHNOLOGY
DIRECT TARGET 11.26 SUSTAINABLE CITIES
INDIRECT TARGET 2.3 AGRICULTURAL PRODUCTIVITY
DIRECT TARGET 11.2 URBAN ACESS
INDIRECT TARGET 6.1ACCESS TO SAFE DRINKING WATER
INDIRECT TARGET 3.9 REDUCE AIR POLLUTION
DIRECT TARGET 3.6 ROAD SAFETY
INDIRECT TARGET 12.3 FOOD LOSS AND WASTE
DIRECT TARGET 12.C FUEL SUB-SIDIES
DIRECT TARGET 9.1 SUSTAINA-BLE INFRA STRUCT-URE
DIRECT TARGET 7.3 ENERGY EFFICIENCY
INDIRECT TARGET 7.2 RENEWABLE ENERGY
INDIRECT TARGET 13.1 CLIMATE CHANGE ADAPTATION AND 13.2 CLIMATE CHANGE MITIGATION
11 SUSTAINABLE CITIES AND COMMUNITIES
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
6 CLEAN WATER AND SANITATION
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
7 AFFORDABLE AND CLEAN ENERGY
13 CLIMATE ACTION

Transport and Climate Change Profiles



Pacific Sub-observatory



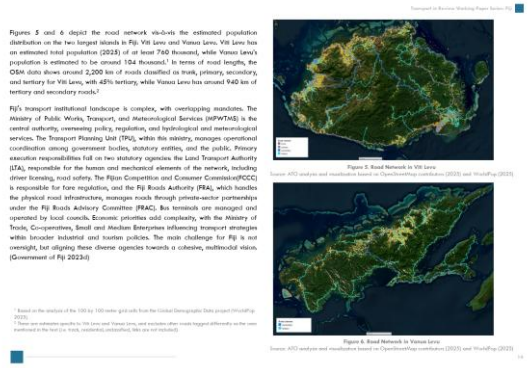
UN Decade Country Dashboards



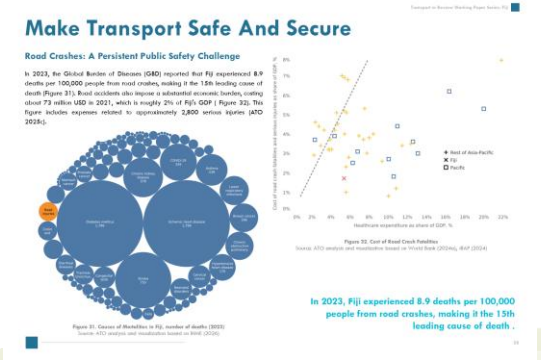
Asian Transport Observatory

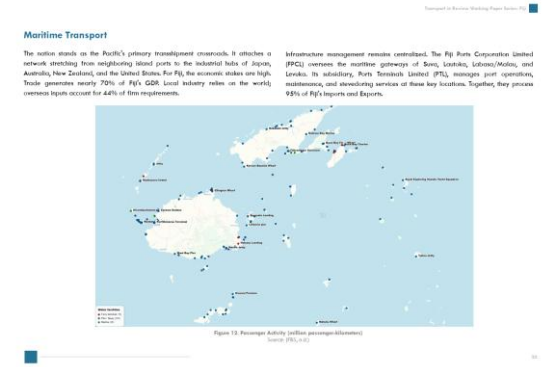
Transport in Review

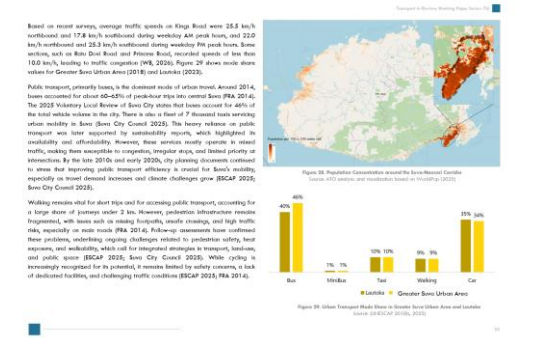


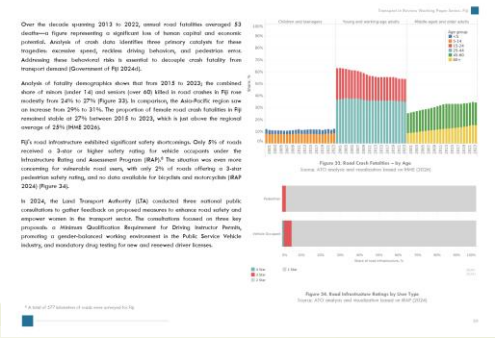












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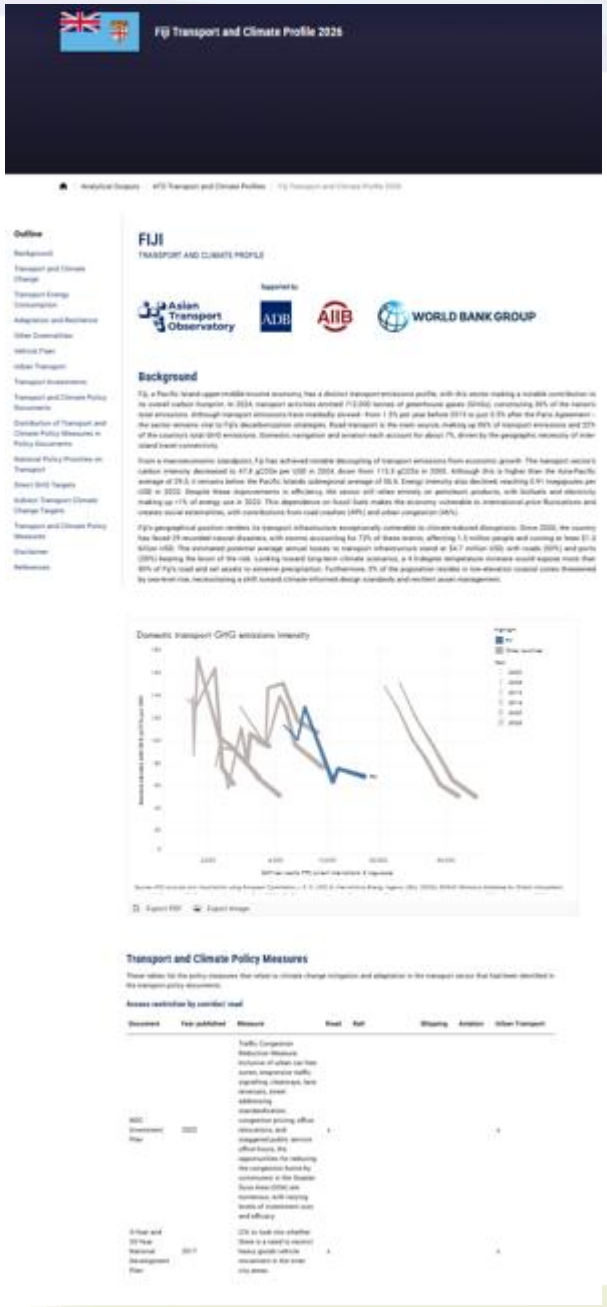
Pacific Sub-Observatory

- **Easy access to available data and references:** Bring together available transport, energy, emissions, access, and resilience indicators to establish Fiji's starting point.
- **Benchmarking :** Compare with other Pacific countries to identify common challenges, relevant policy approaches, and opportunities for regional cooperation.



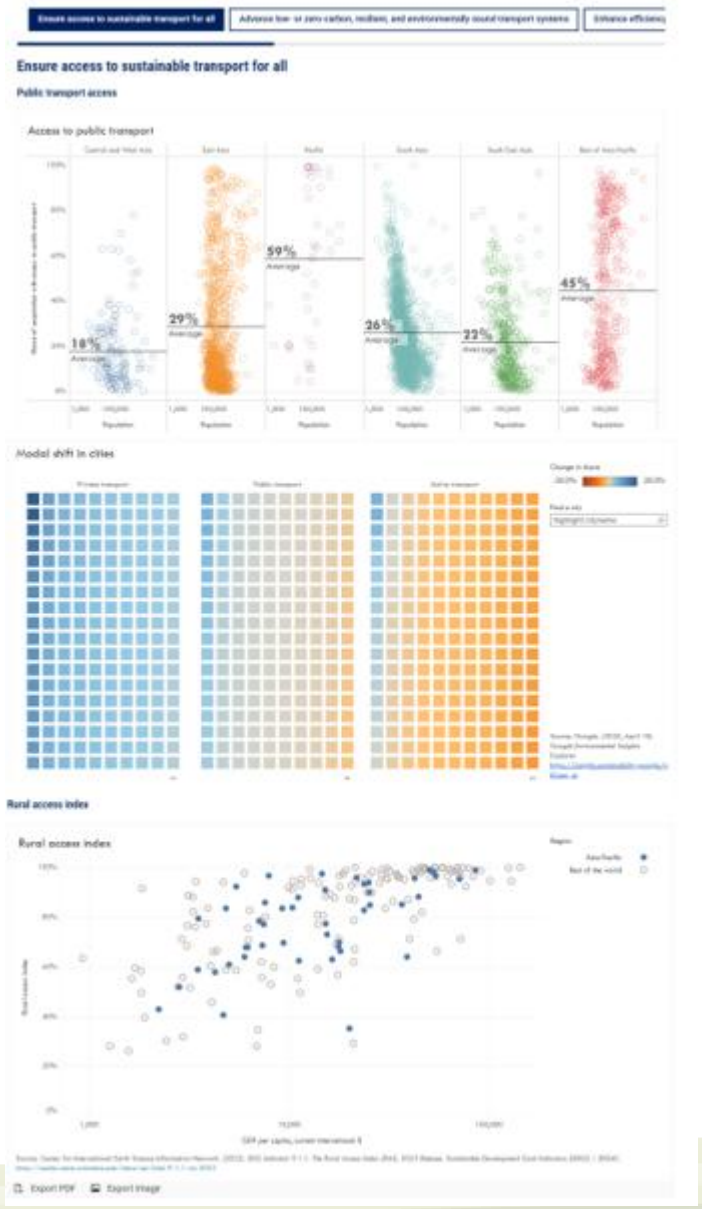
Transport and Climate Change Profiles

- **Quick access on priority indicators on climate change and transport:** Activity-structure-emissions intensities - emissions
- **Inform holistic mitigation and adaptation assessments:** Use various dimensions to feed into policy and investment planning and decisions
- **Provision of organized policy information:** existing commitments and measures

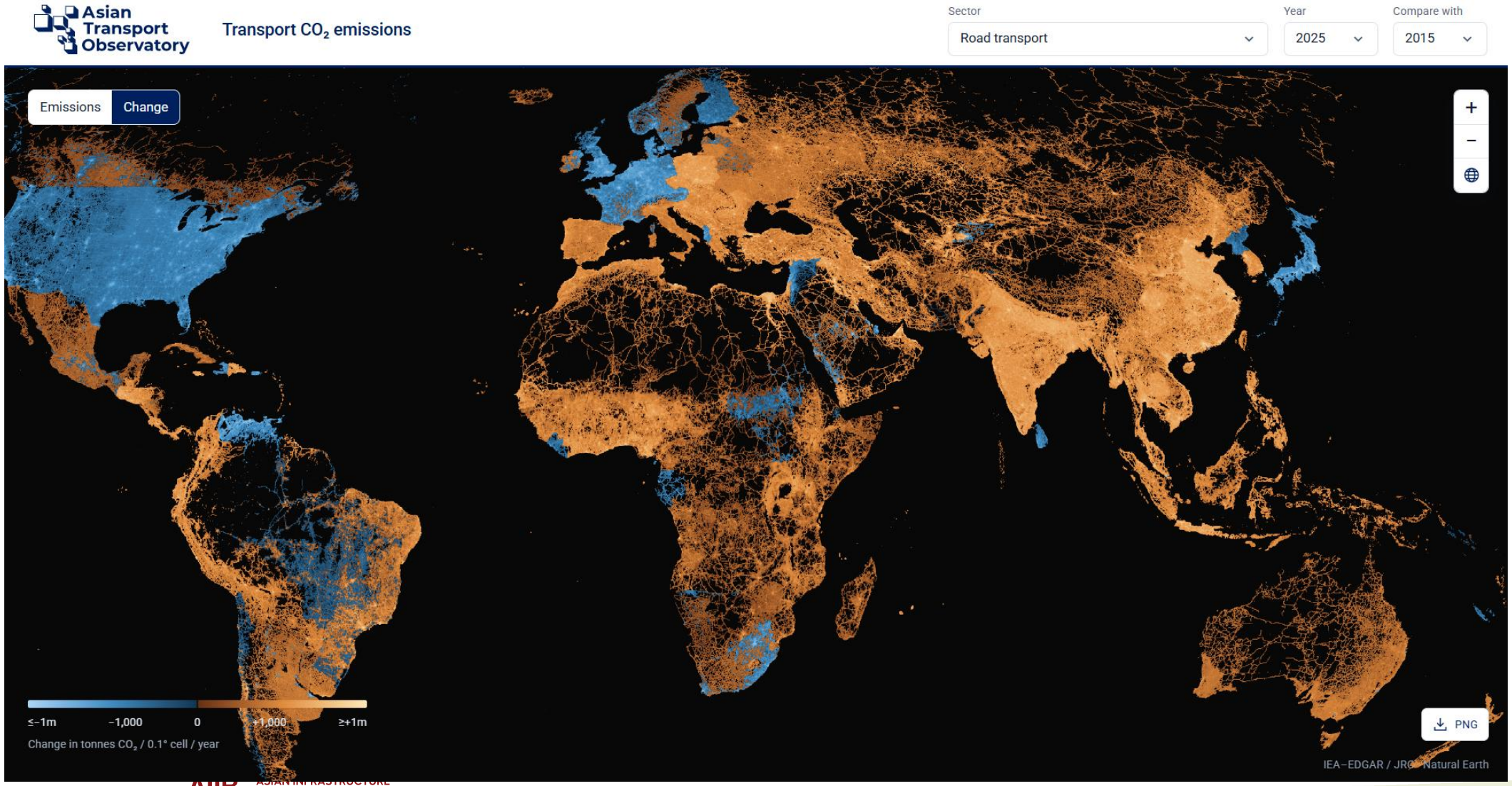


UN Decade of Sustainable Transport – Country Profiles

- **Connect different development objectives** in line with the focus areas of the UN Decade.
  - *Access to sustainable transport for all*
  - *Low carbon, resilient, environmentally-sound transport systems*
  - *Enhance efficiency, sustainable connectivity and logistics*
  - *Shape people-centered urban mobility and livable cities*
  - *Safe and secure transport*
  - *Leveraging on science, technology and innovation*



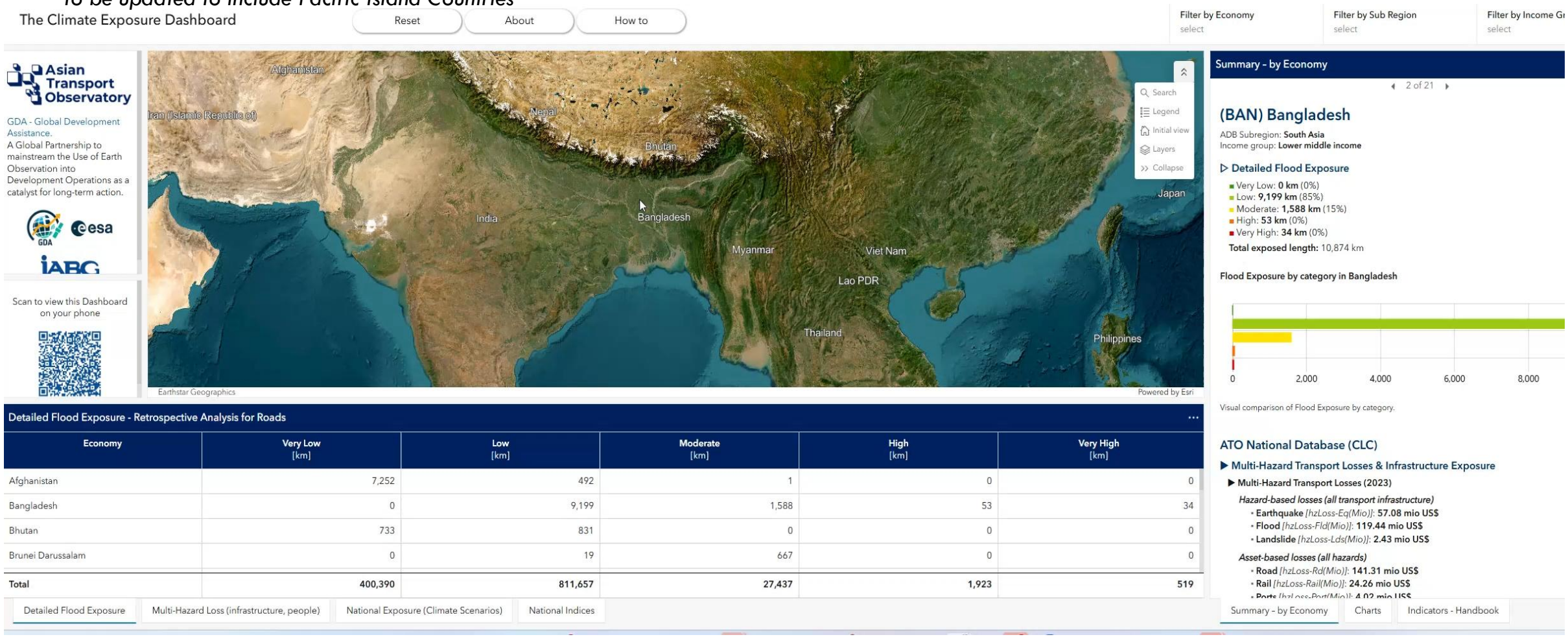
Upcoming – GHG interactive visualization (based on IEA/EDGAR Data)



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Hazards Exposure

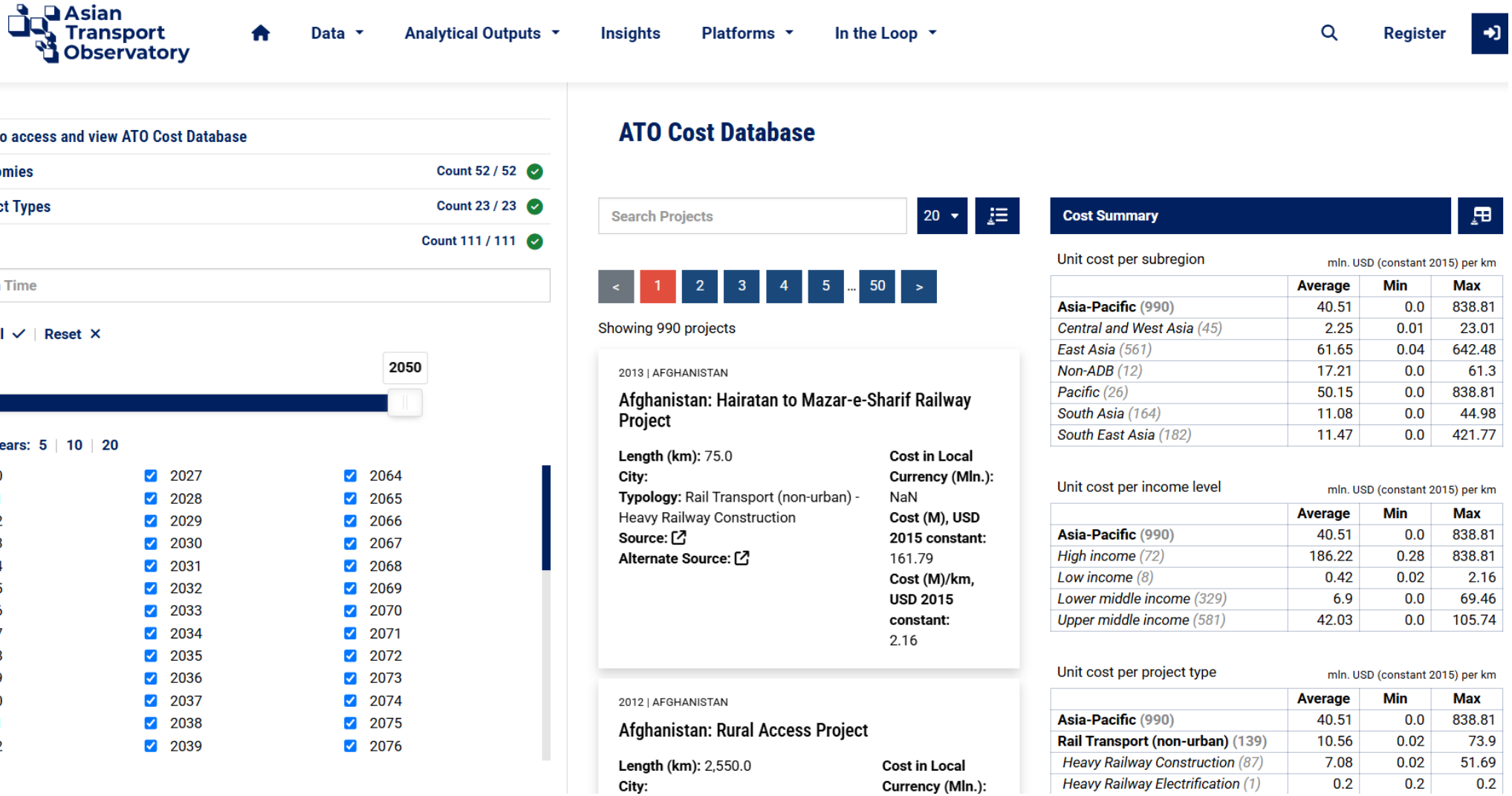
** To be updated to include Pacific Island Countries*



https://asiantransportobservatory.org/insights/climate-exposure-dashboard-for-transport/

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Project Cost Database



Unit cost per subregion — mln. USD (constant 2015) per km

	Average	Min	Max
Asia-Pacific (990)	40.51	0.0	838.81
Central and West Asia (45)	2.25	0.01	23.01
East Asia (561)	61.65	0.04	642.48
Non-ADB (12)	17.21	0.0	61.3
Pacific (26)	50.15	0.0	838.81
South Asia (164)	11.08	0.0	44.98
South East Asia (182)	11.47	0.0	421.77

Unit cost per income level — mln. USD (constant 2015) per km

	Average	Min	Max
Asia-Pacific (990)	40.51	0.0	838.81
High income (72)	186.22	0.28	838.81
Low income (8)	0.42	0.02	2.16
Lower middle income (329)	6.9	0.0	69.46
Upper middle income (581)	42.03	0.0	105.74

Unit cost per project type — mln. USD (constant 2015) per km

	Average	Min	Max
Asia-Pacific (990)	40.51	0.0	838.81
Rail Transport (non-urban) (139)	10.56	0.02	73.9
Heavy Railway Construction (87)	7.08	0.02	51.69
Heavy Railway Electrification (1)	0.2	0.2	0.2

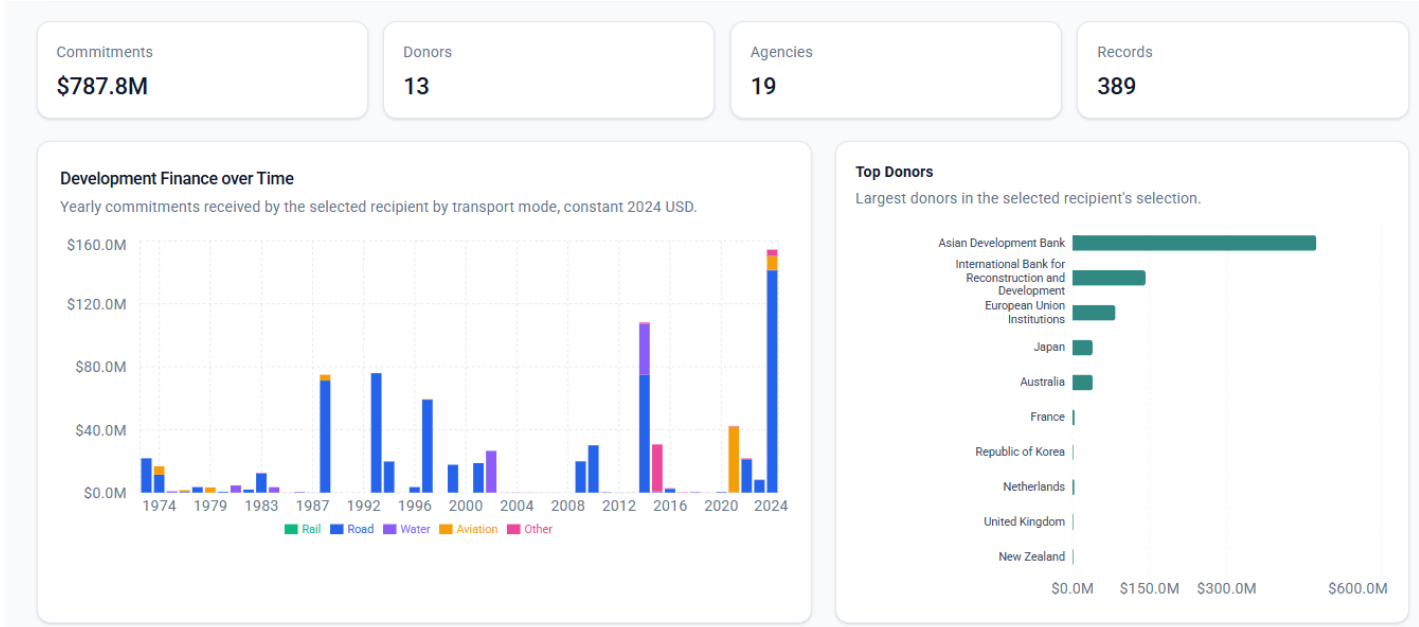
ADB ASIAN DEVELOPMENT BANK AIIB ASIAN INFRASTRUCTURE INVESTMENT BANK

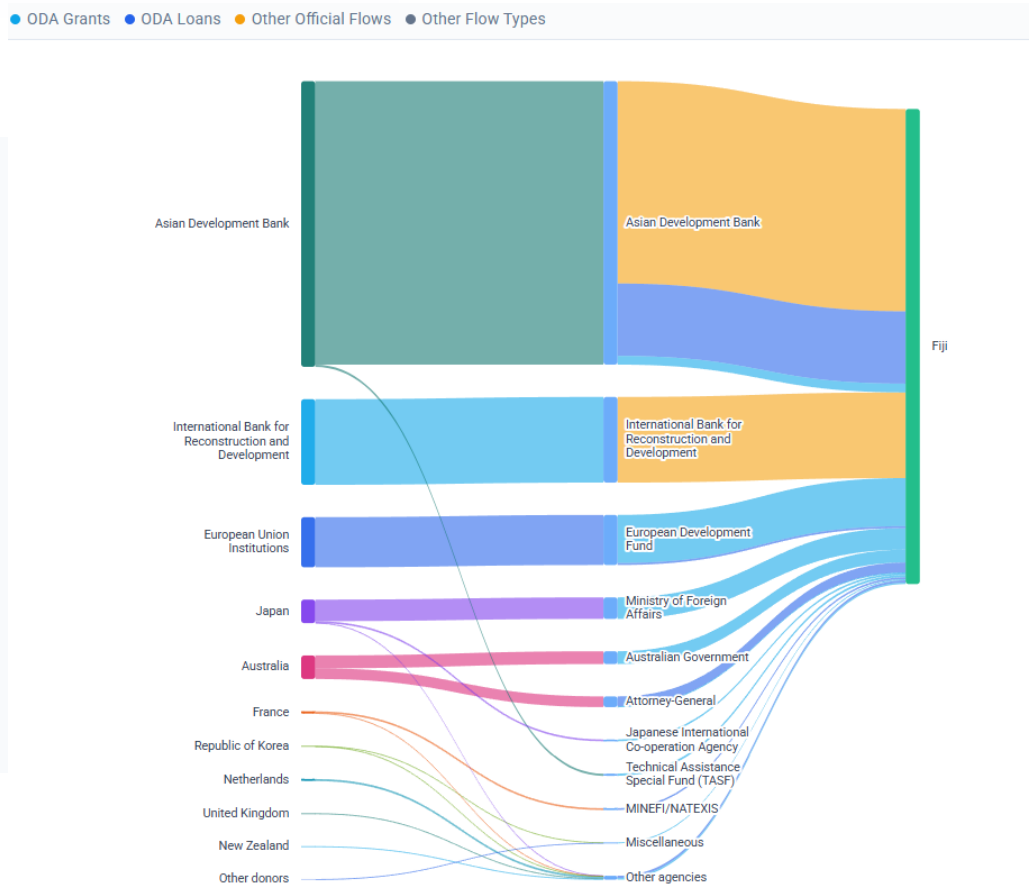
** To be expanded to capture e-mobility costs*

Finance

Asia and the Pacific Transport Development Finance Explorer

Tracking finance for low-carbon, resilient, safe, and inclusive transport





Source: ATO's Transport Development Finance Explorer

Developed with the support of

ADB ASIAN DEVELOPMENT BANK

Foreign, Commonwealth & Development Office

Mode-focused Profiles

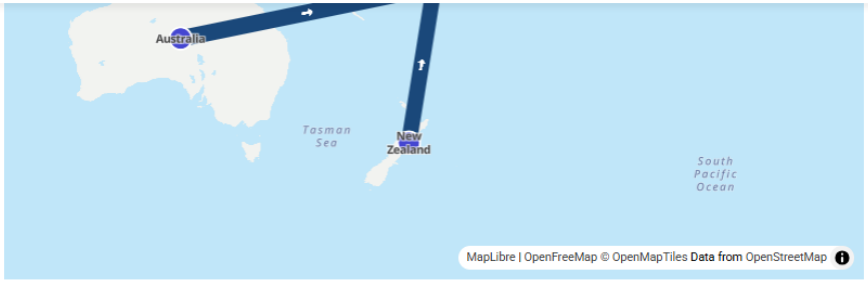
Maritime Transport Profiles

Asian Transport Observatory

Data | Analytical Outputs | Insights | Platforms | In the Loop

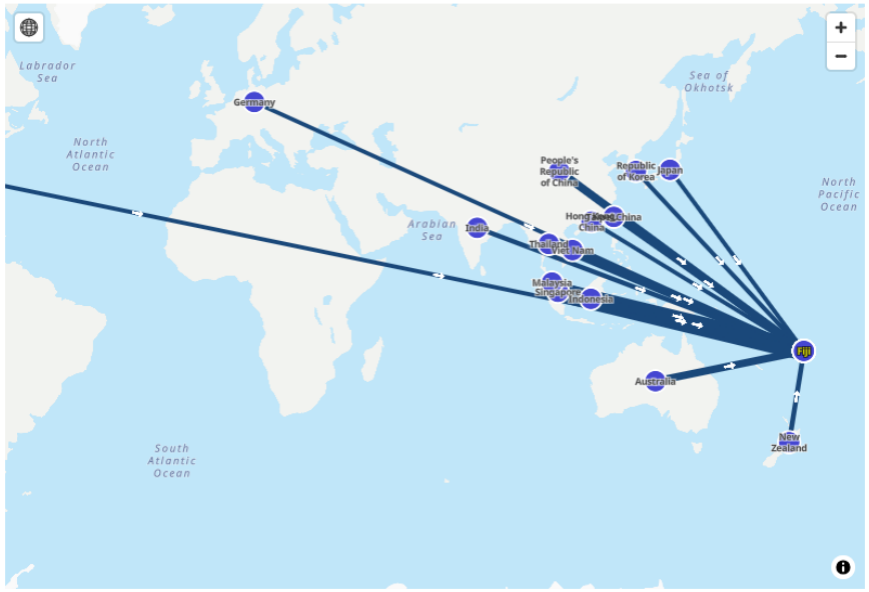
Outline

- Maritime assets
  - Port area in 2025
  - Ships built by country of building, annual
  - Merchant fleet by country of beneficial ownership, annual
  - Ship recycling
  - Trade - Navigation total
  - Water transport employment
- Activity
  - Container port throughput
  - Port call and performance statistics
  - Trade mode share
  - Port Activity
  - Trade openness index
  - Seafarer supply
  - **Top 10 Freight Transport Expenditure in USD (Import)**
  - Top 10 Freight transport work in thousand ton-km (Import)
  - Top 10 Freight Transport Expenditure in USD (Export)
  - Top 10 Freight transport work in thousand ton-km (Export)
- Connectivity and performance



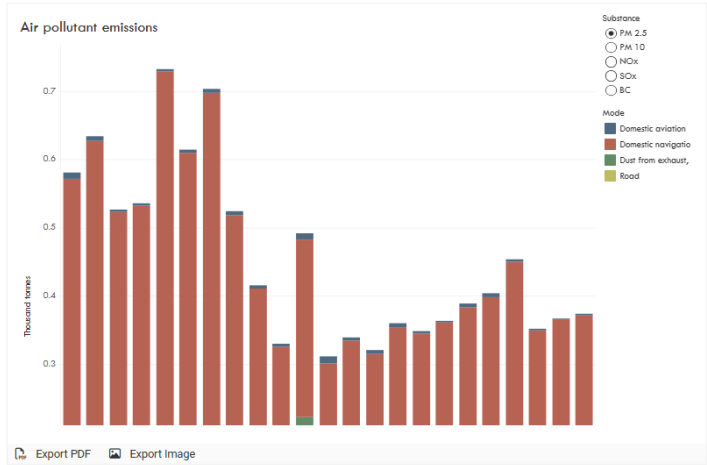
Source: UNCTAD & World Bank. (n.d.). TransportCosts. UN Trade & Development Data Hub - Trade-and-Transport Dataset, Annual, 2016 Onward. Retrieved May 1, 2025, from https://unctadstat.unctad.org/datacentre/dataviewer/US.TransportCosts

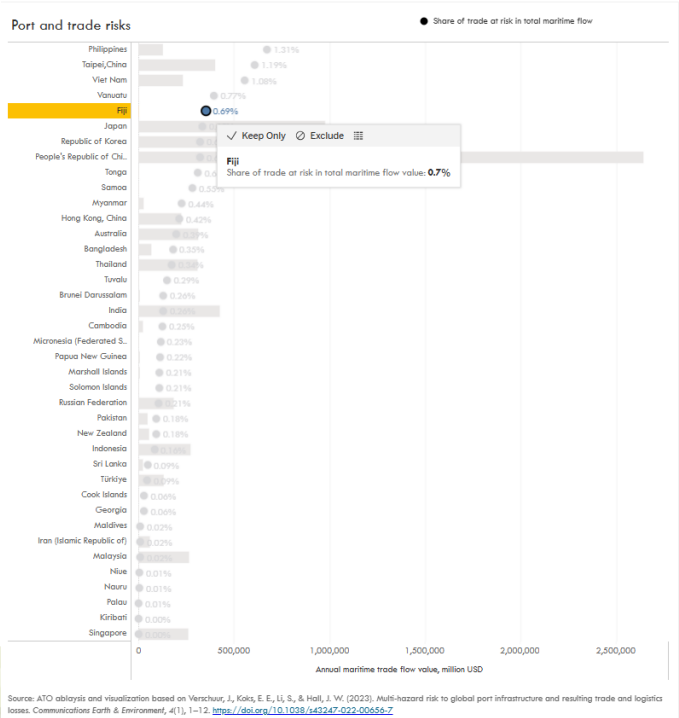
Top 10 Freight transport work in thousand ton-km (Import)



Source: UNCTAD & World Bank. (n.d.). TransportCosts. UN Trade & Development Data Hub - Trade-and-Transport Dataset, Annual, 2016 Onward. Retrieved May 1, 2025, from

EDGAR AP 8.1

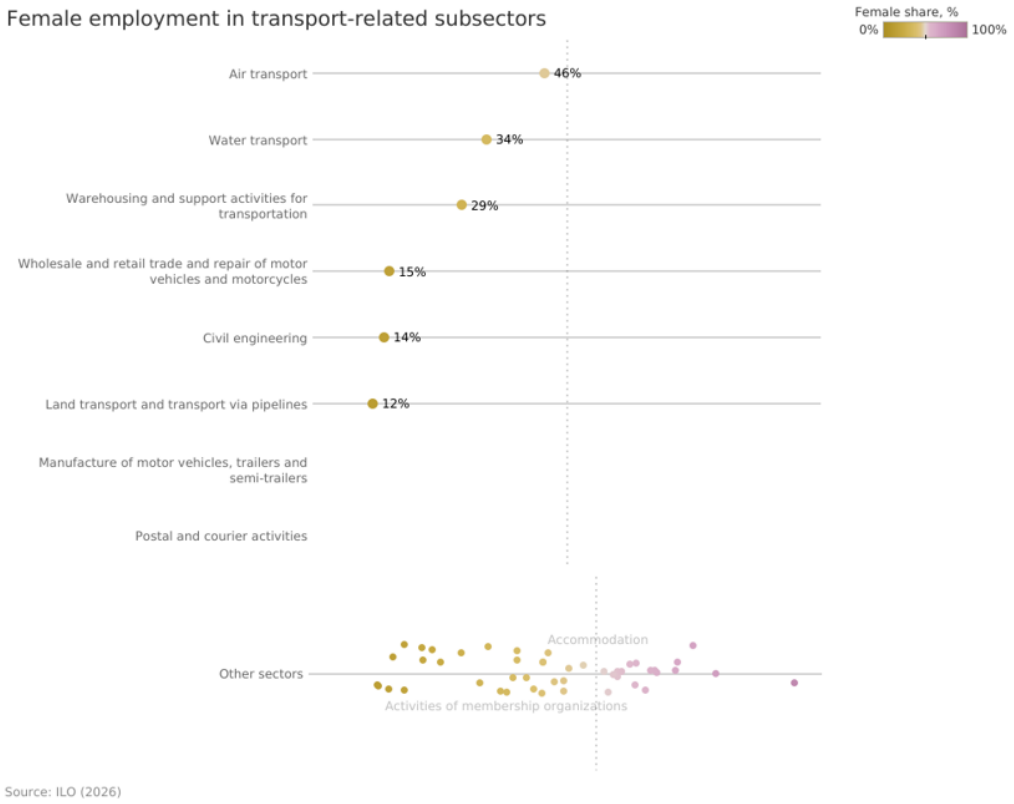


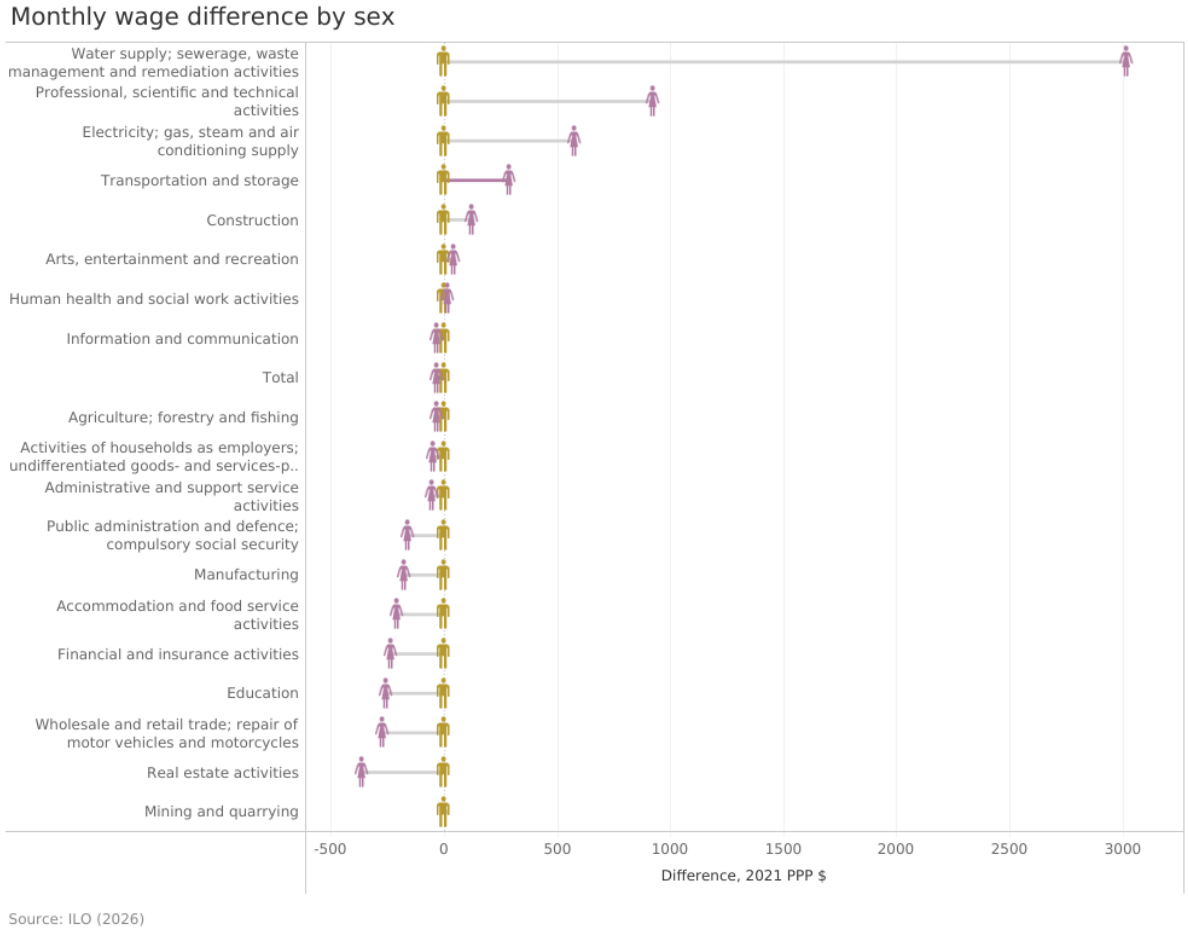


Source: ATO ablaysis and visualization based on Verschuur, J., Koks, E. E., Li, S., & Hall, J. W. (2023). Multi-hazard risk to global port infrastructure and resulting trade and logistics losses. *Communications Earth & Environment*, *4*(1), 1–12. https://doi.org/10.1038/s43247-022-00656-7

Thematic Profiles

Gender in Transport Profiles

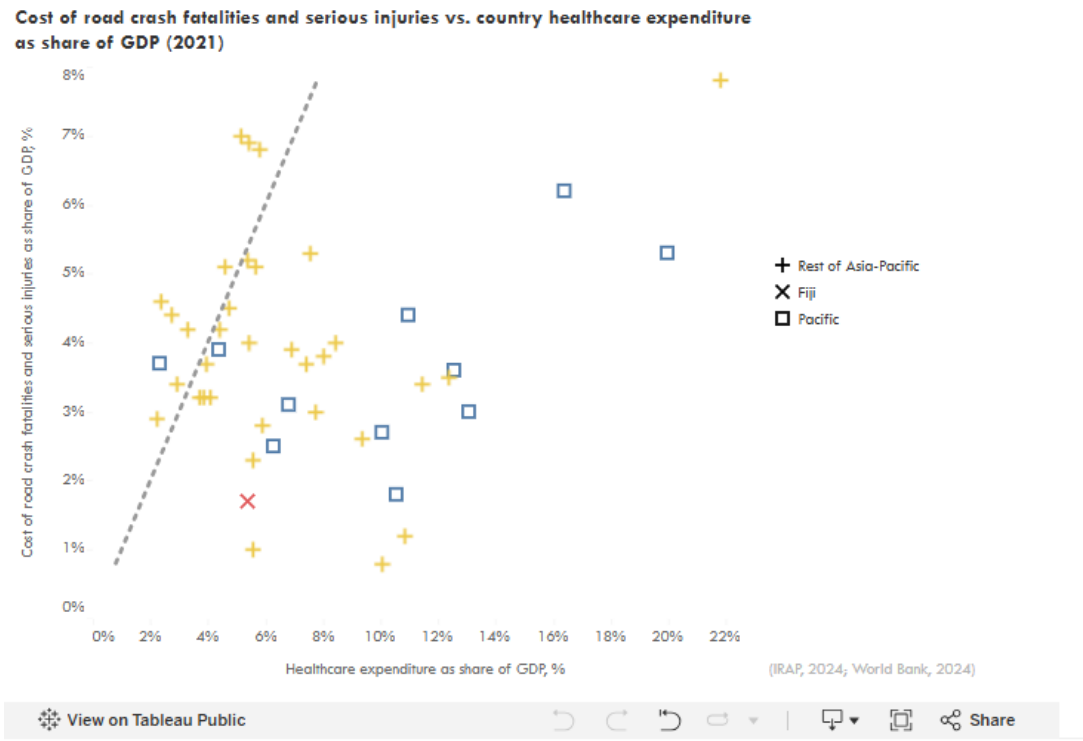


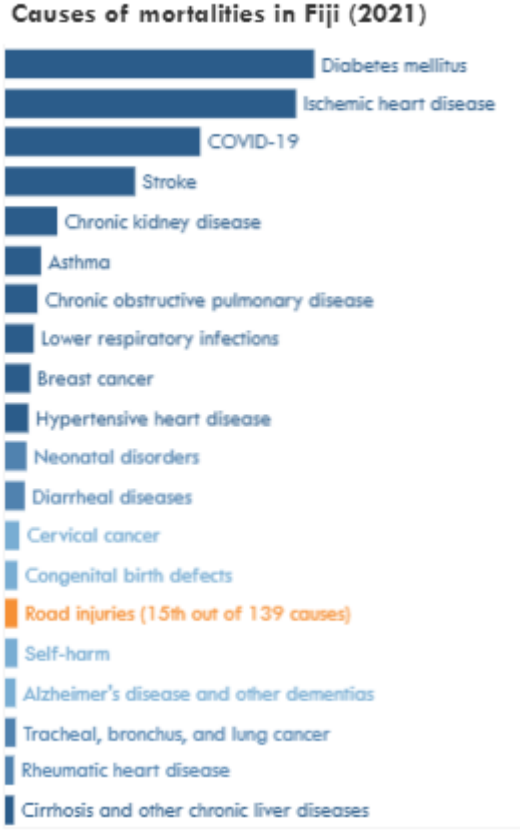


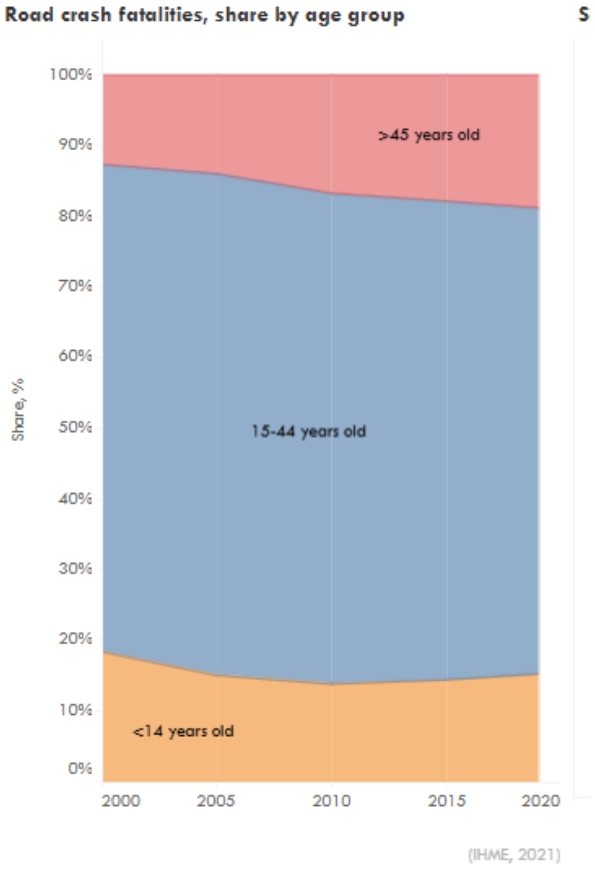
Source: https://asiantransportobservatory.org/analytical-outputs/genderprofiles/fiji-gender-profile-2026/

Thematic Profiles

Road safety profiles

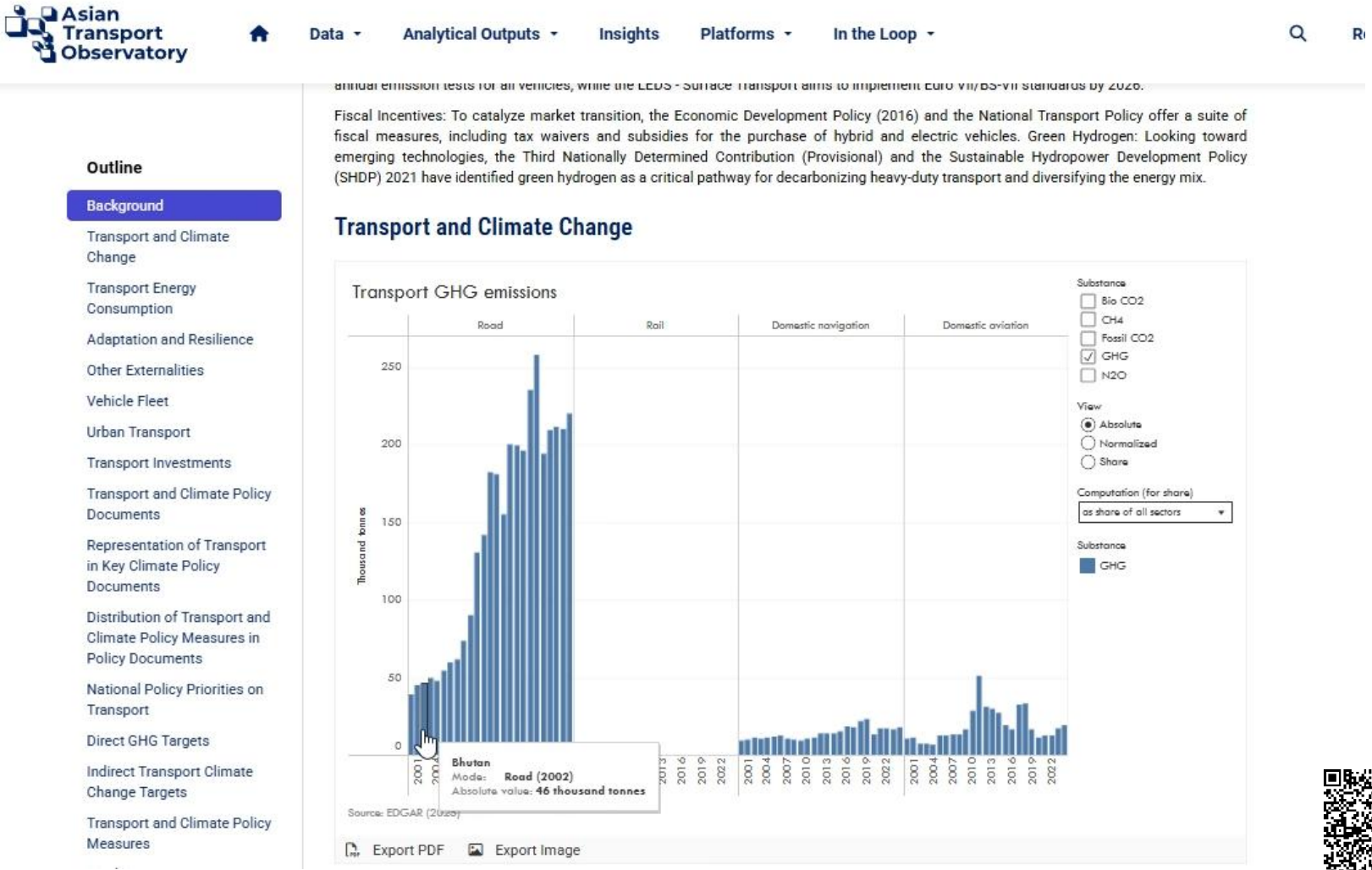


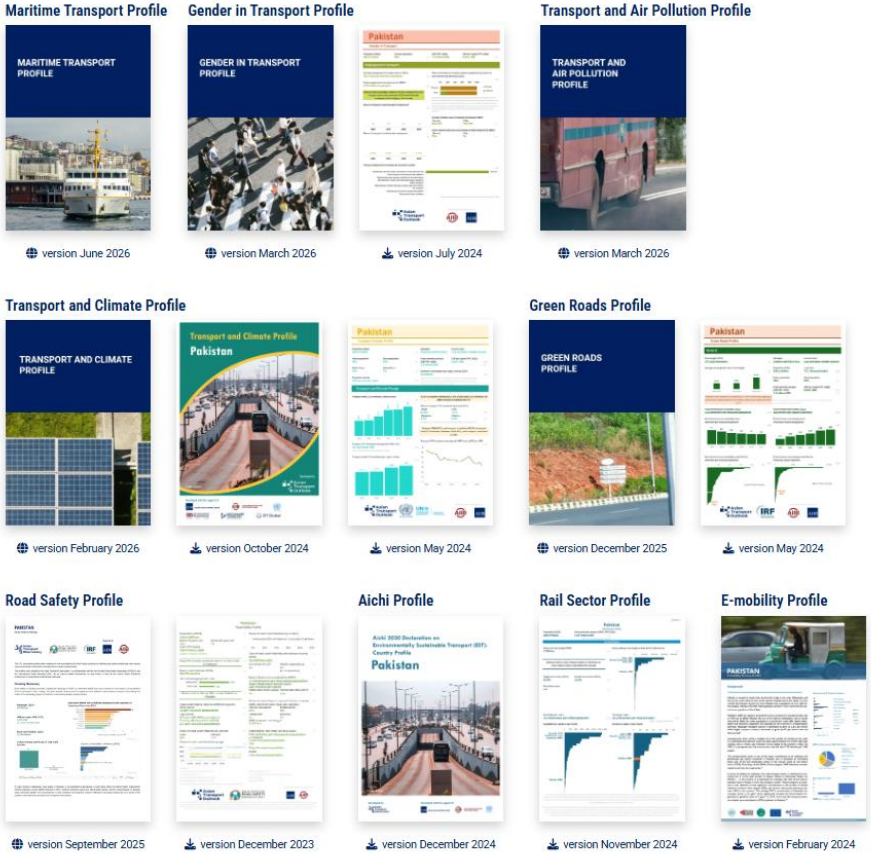




Source: https://asiantransportobservatory.org/analytical-outputs/roadsafetyprofiles/fiji-road-safety-profile-2026/

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"ATO translates data into insights, policies, and investments"

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Linkedin: bit.ly/ATOlinkedin

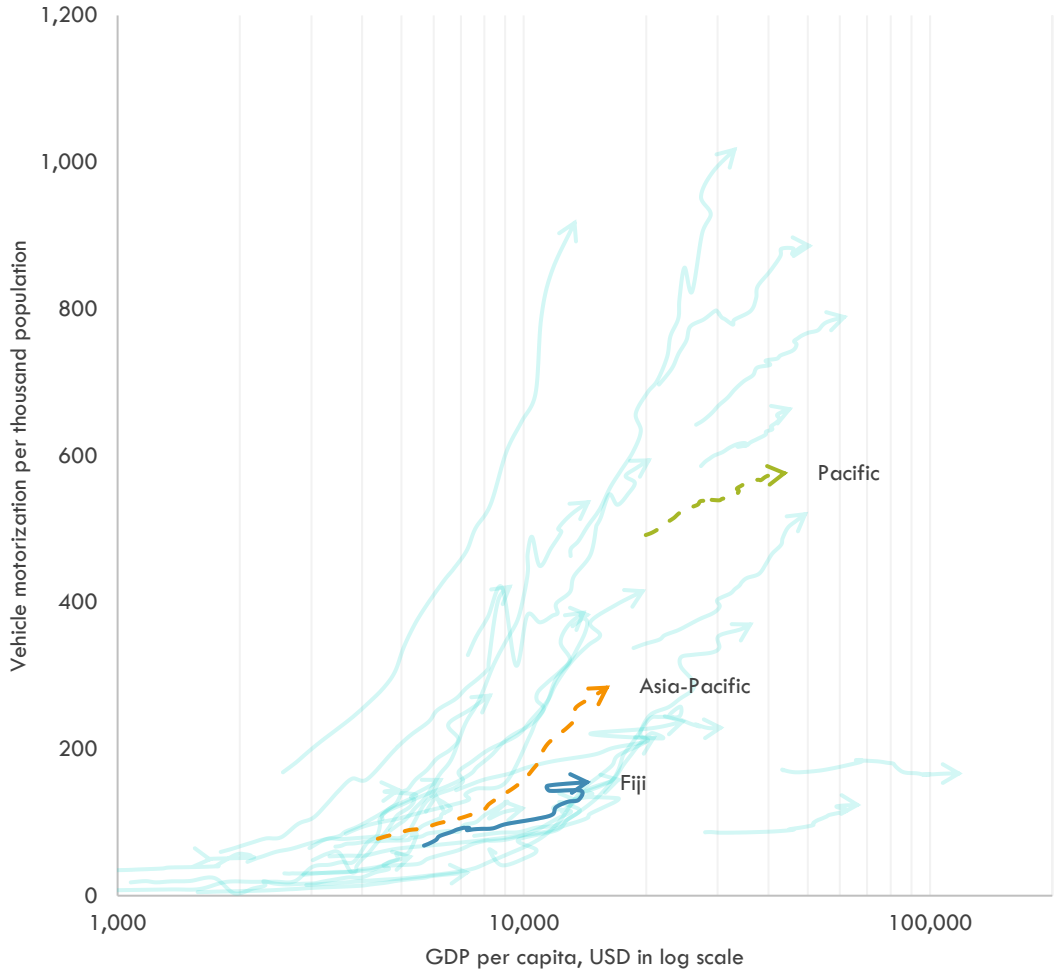
Other slides

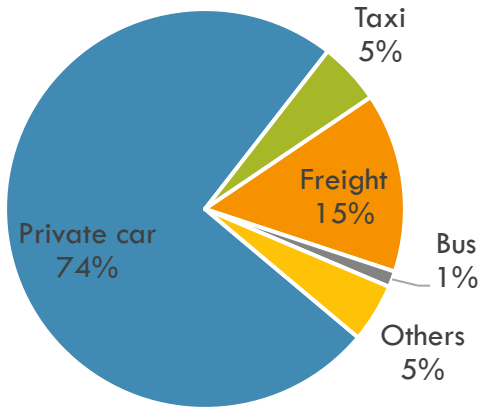
	FJI	PNG	SLB	KIR	WSM	FSM	MHL	NRU	PLW	TON	TUV	VUT
All Modes												
Fossil Total CH4 emissions												
Fossil Transport CH4 emissions												
Fossil Transport CO2 emissions												
Fossil Transport share in Territorial emissions												
Multihazard average annual loss for transport infrastructure												
Total Transport CO2 emissions												
Total Transport Energy Consumption by mode												
Total Transport Energy Consumption by source												
Transport CO2 Emissions - Mode share												
Transport CO2 Emissions by GDP												
Transport CO2 Emissions per Capita												
Transport Energy Consumption Mode share												
Road												
Diesel Road												
Gasoline Road												
National Road Vulnerability Index (NRVI)												
Road Energy Consumption												
Road in Transport CO2 Emissions												
Road Transport CH4 Emissions												
Multi-hazard expected annual damages to transport infrastructure												
Aviation												
Domestic Aviation Energy Consumption												
Domestic Aviation Transport CH4 Emissions												
Domestic Aviation Transport CO2 Emissions												
Shipping/Waterways/Navigation												
Domestic Navigation Energy Consumption												
Multi-hazard risk to global port infrastructure and resulting trade and logistics losses												
Shipping/Inland Waterways Transport CH4 Emissions												
Shipping/Inland Waterways Transport CO2 Emissions												

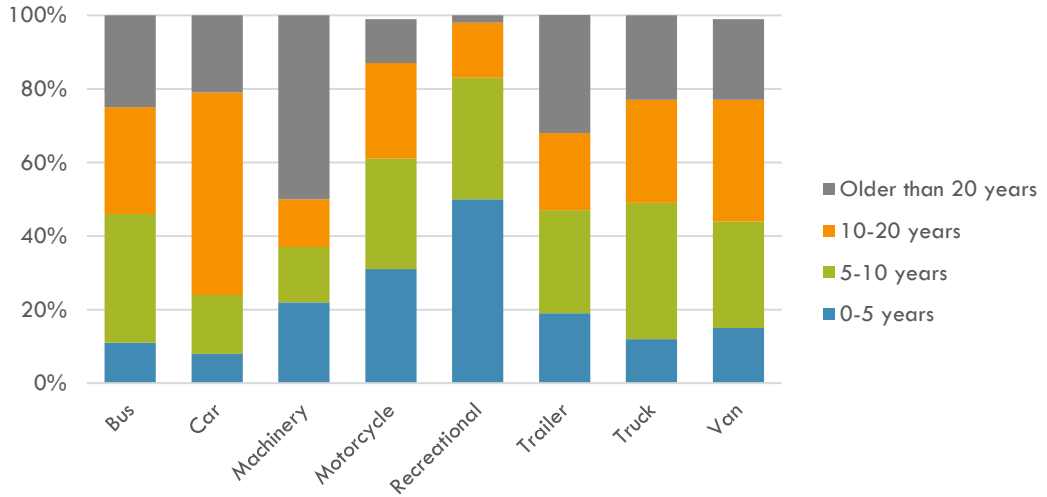
Regional Sources of Data and Information

- Asian Transport Observatory
  - Pacific Subportal
- Pacific Data Hub
- Pacific Environment Data Portal
- Pacific Regional Data Repository for SE4ALL
- PDH.stat: Development Indicator Database

Activity







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Source: Transport in Review – Fiji Report of ATO https://asiantransportobservatory.org/analytical-outputs/transport-in-review/fiji-2026/

Structure of Transport

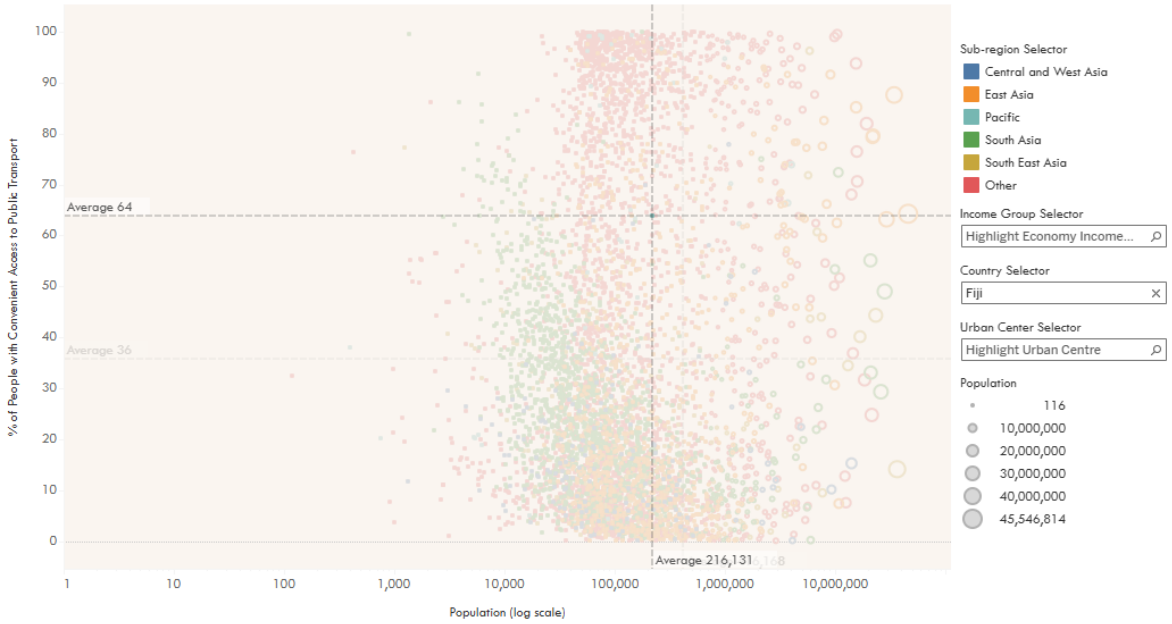
Urban Transport Mode Share Shifts

2018-2023



Surveys conducted in 2025 suggest that buses still account for a large share of travel along the main corridors of the Greater Suva Area—including Kings Road, Queens Road, and Princess Road—making up about 66.5 percent of all trips

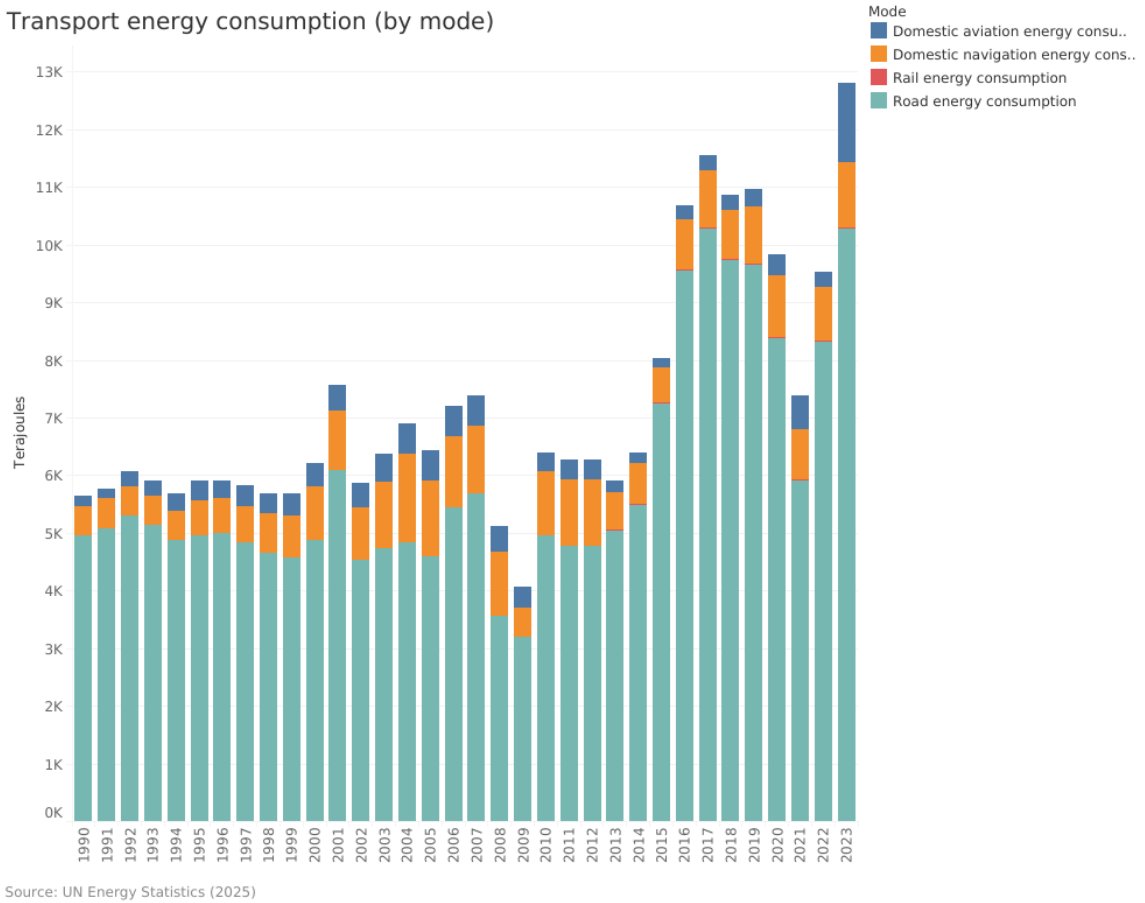
Urban Access to Public Transport Visualization

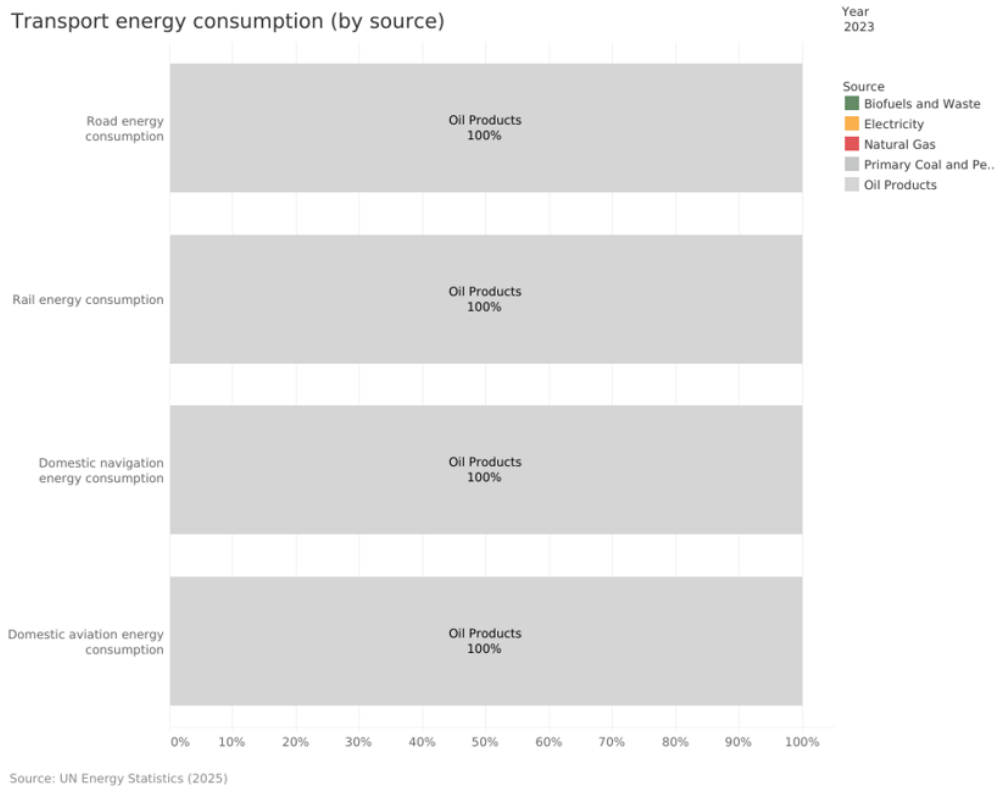


ATO visualisation based on Center for International Earth Science Information Network - CIESIN - Columbia University. 2023. SDG Indicator 11.2.1: Urban Access to Public Transport, 2023 Release. Palisades, New York: NASA Socioeconomic Data and Applications Center (SEDAC). https://doi.org/10.7927/1a5z-3h71.

ATO's Pakistan Country Profile 2026 ; Based on data from Google

Energy Intensity and Factor of Emissions





Source: ATO's Pakistan Climate Change and Transport Profile ; ATO Pakistan Maritime Profile (data from LPI 2)

Transport Energy Intensity (with GDP)

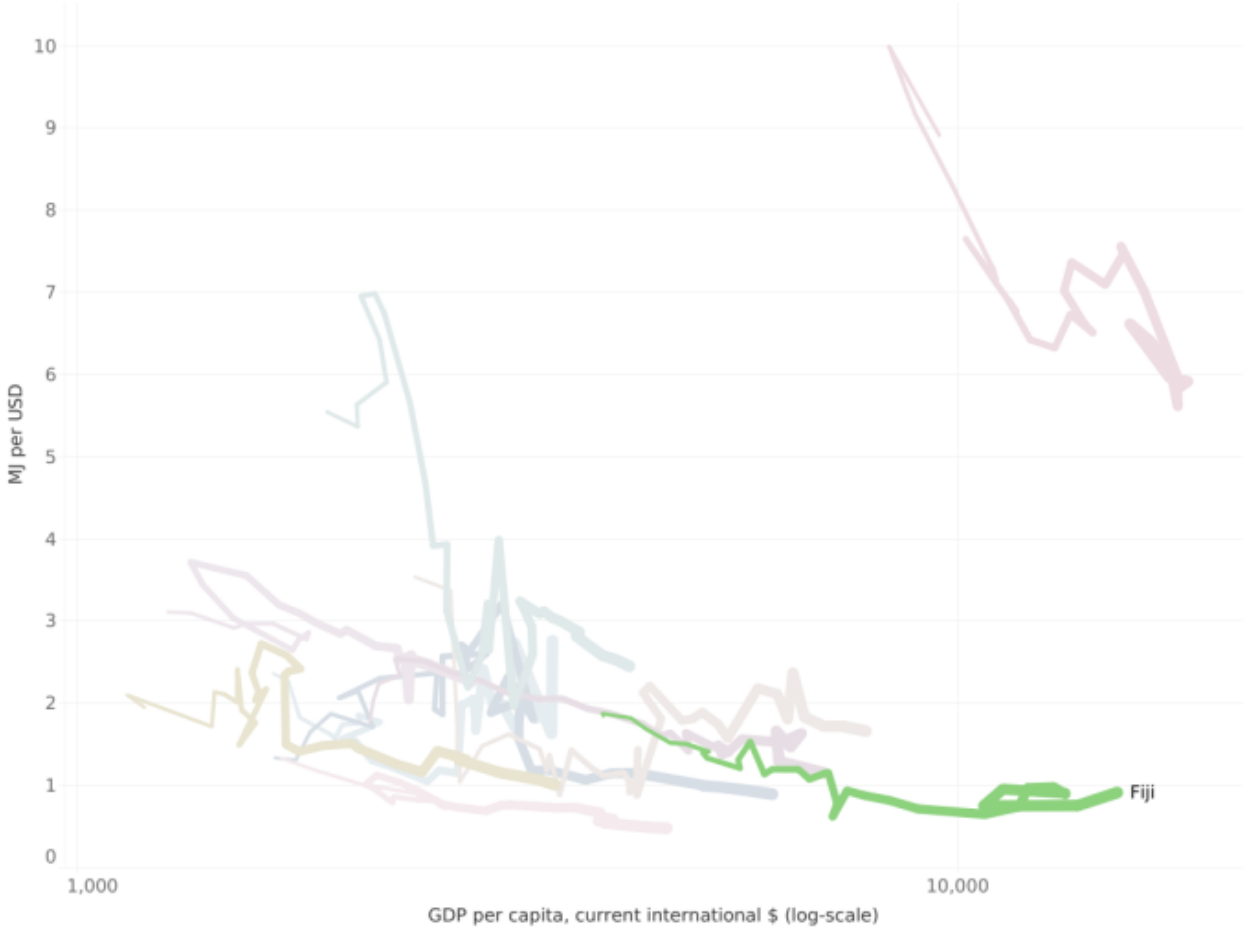
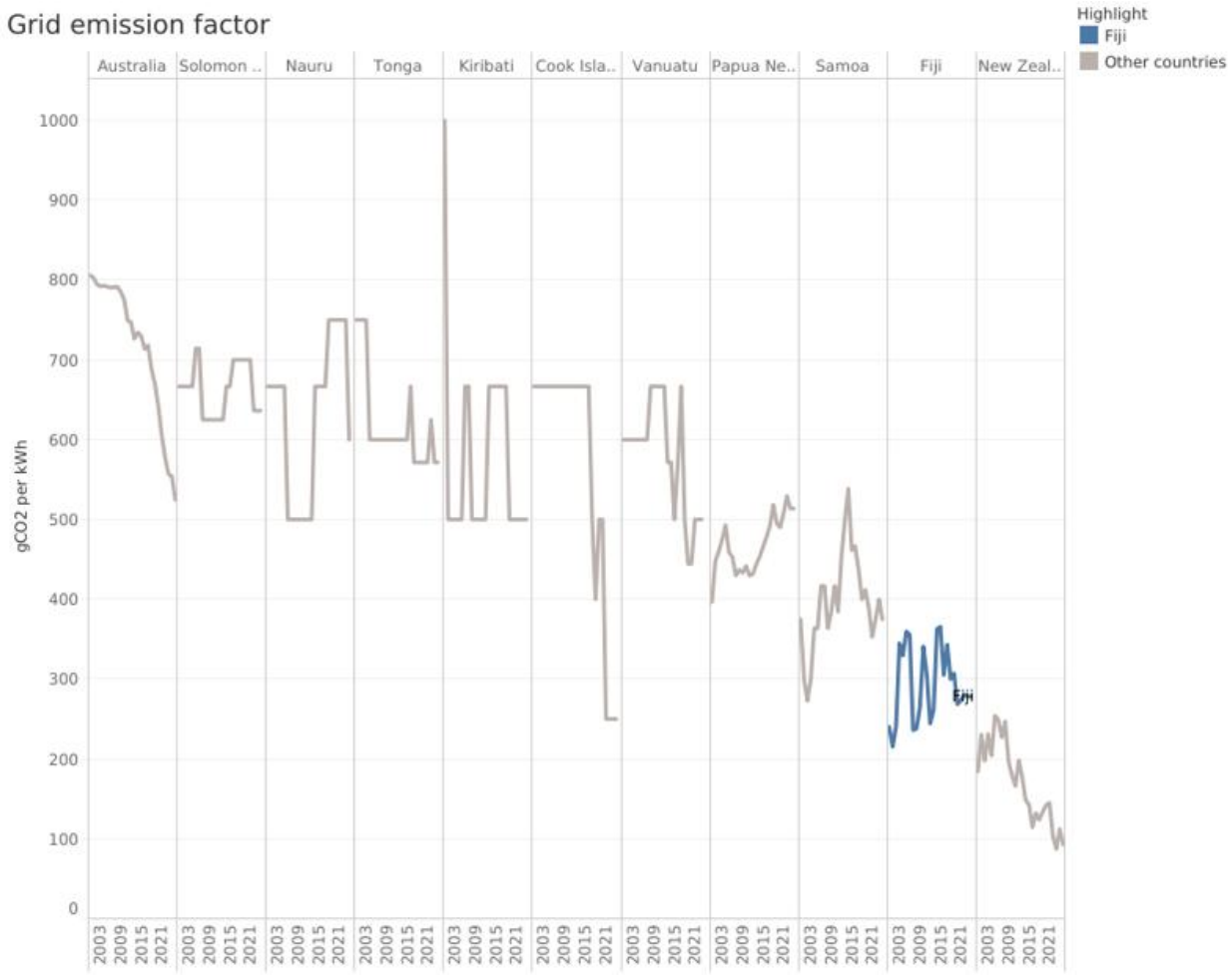
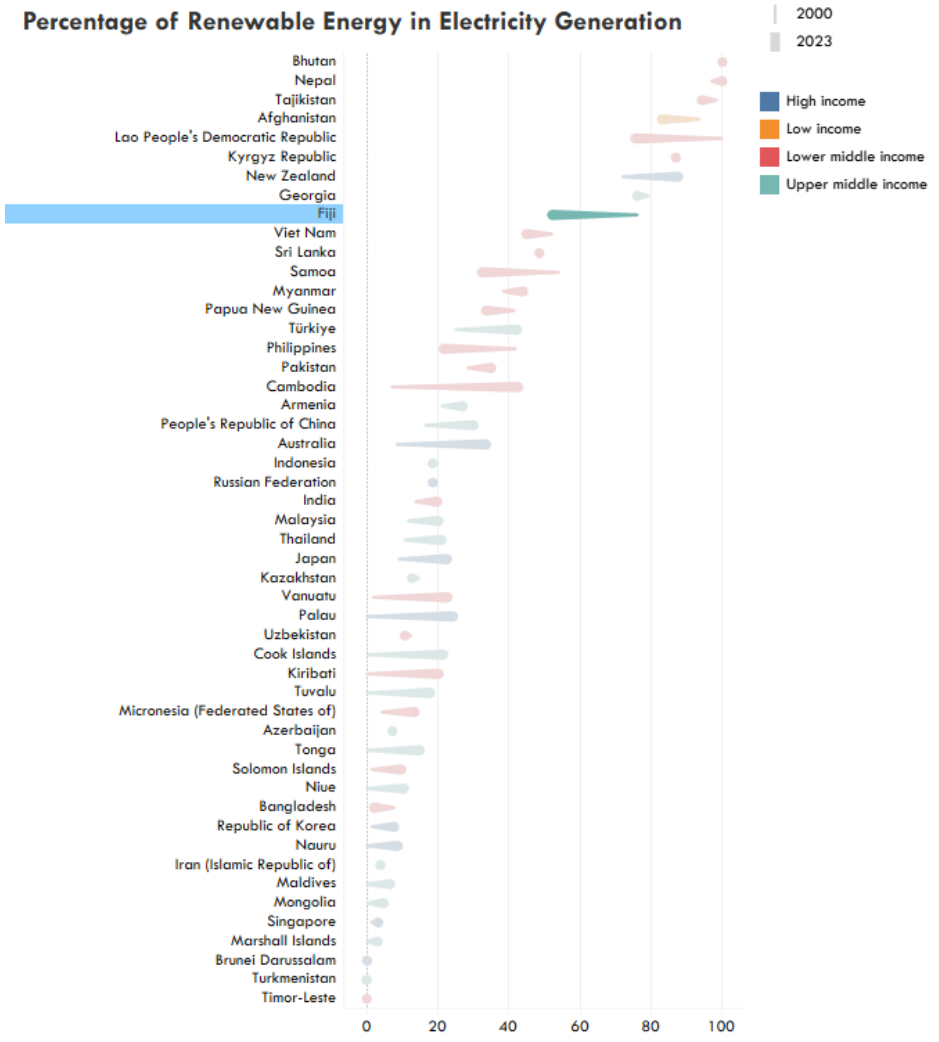


Figure 35. Transport Energy Intensity with GDP (1990-2023)
Source: ATO analysis and visualization based on UNSD (2026)

Factor of Emissions

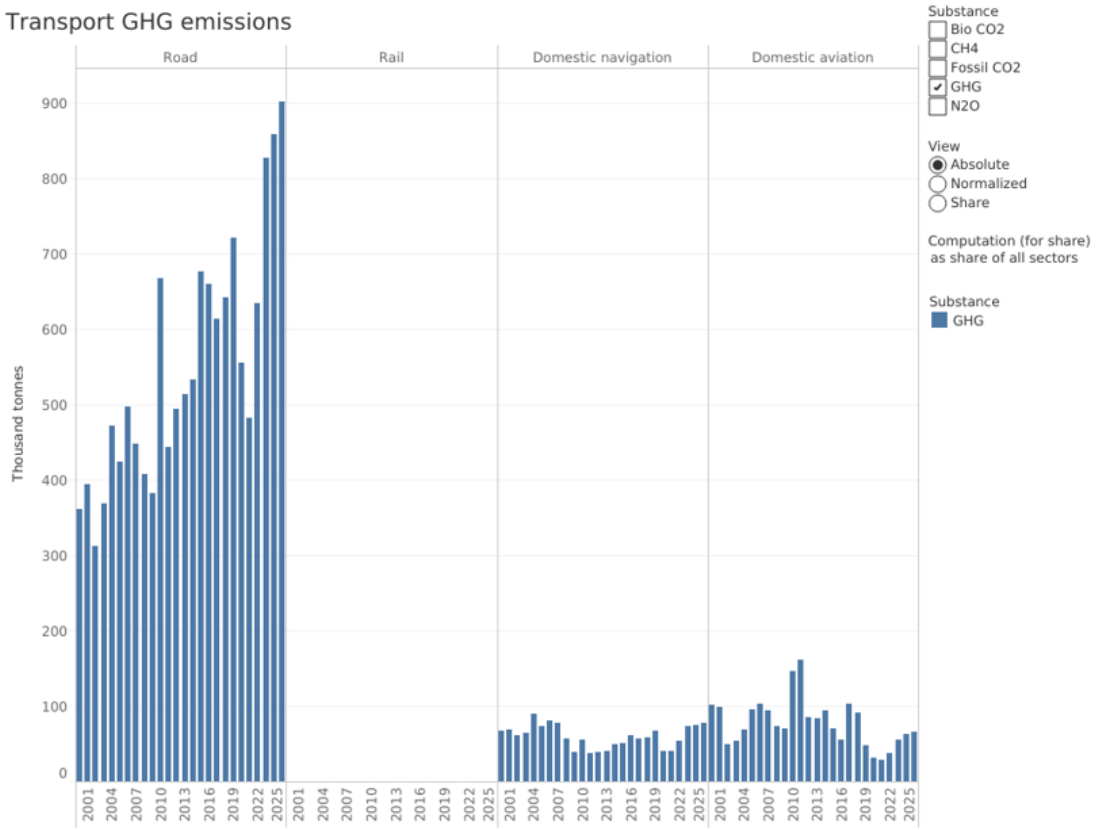




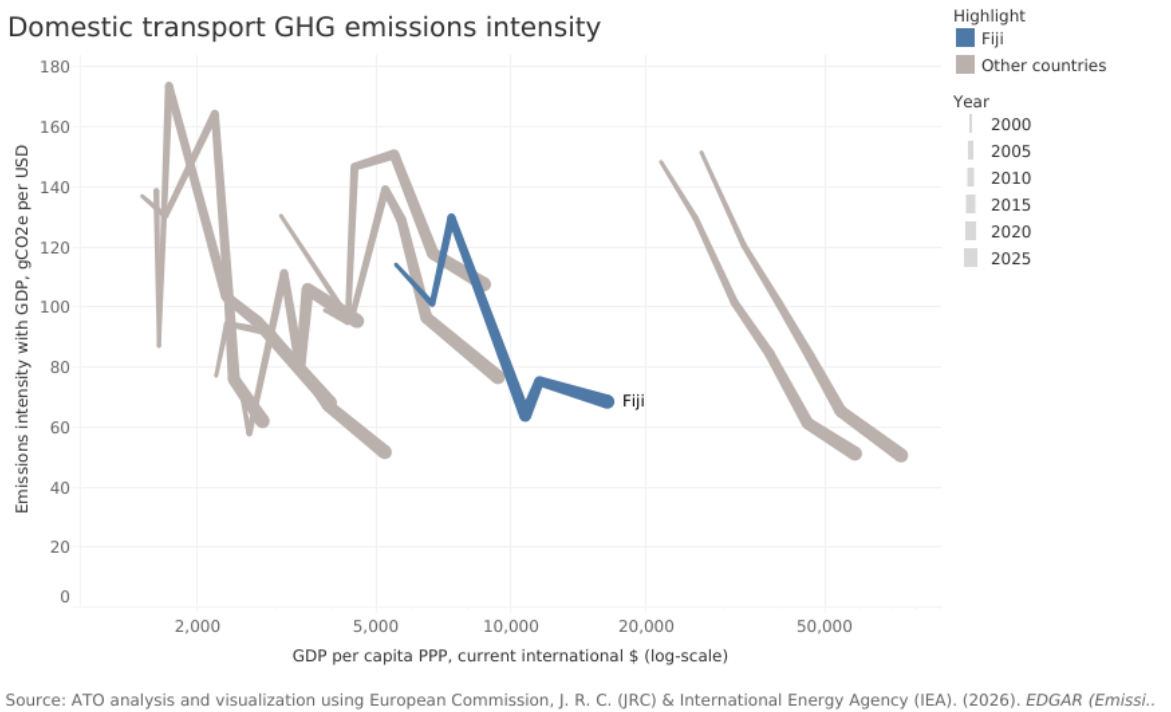
Source: Transport and Climate Change Profile

Emissions

2015 = 100



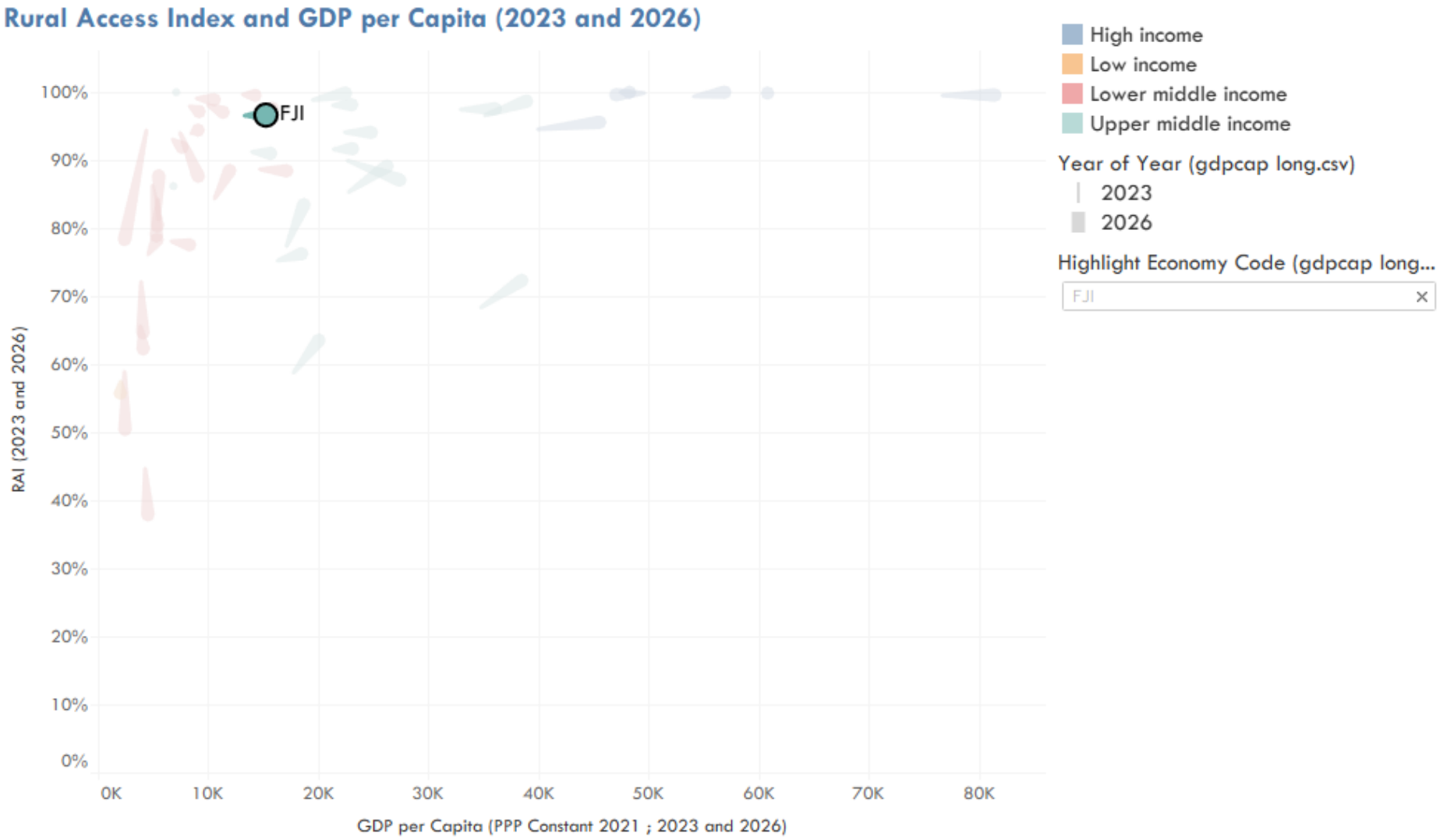
Source: ATO analysis and visualization using European Commission, J. R. C. (JRC) & International Energy Agency (IEA). (2026). *EDGAR (Emissions Database for Global Atmospheric Research) Community GHG Database* (Version EDGAR_2026_GHG) [Dataset]. European Commission, JRC. https://edgar.jrc.ec.europa.eu/rep..



Source: ATO analysis and visualization using European Commission, J. R. C. (JRC) & International Energy Agency (IEA). (2026). *EDGAR (Emissi..*

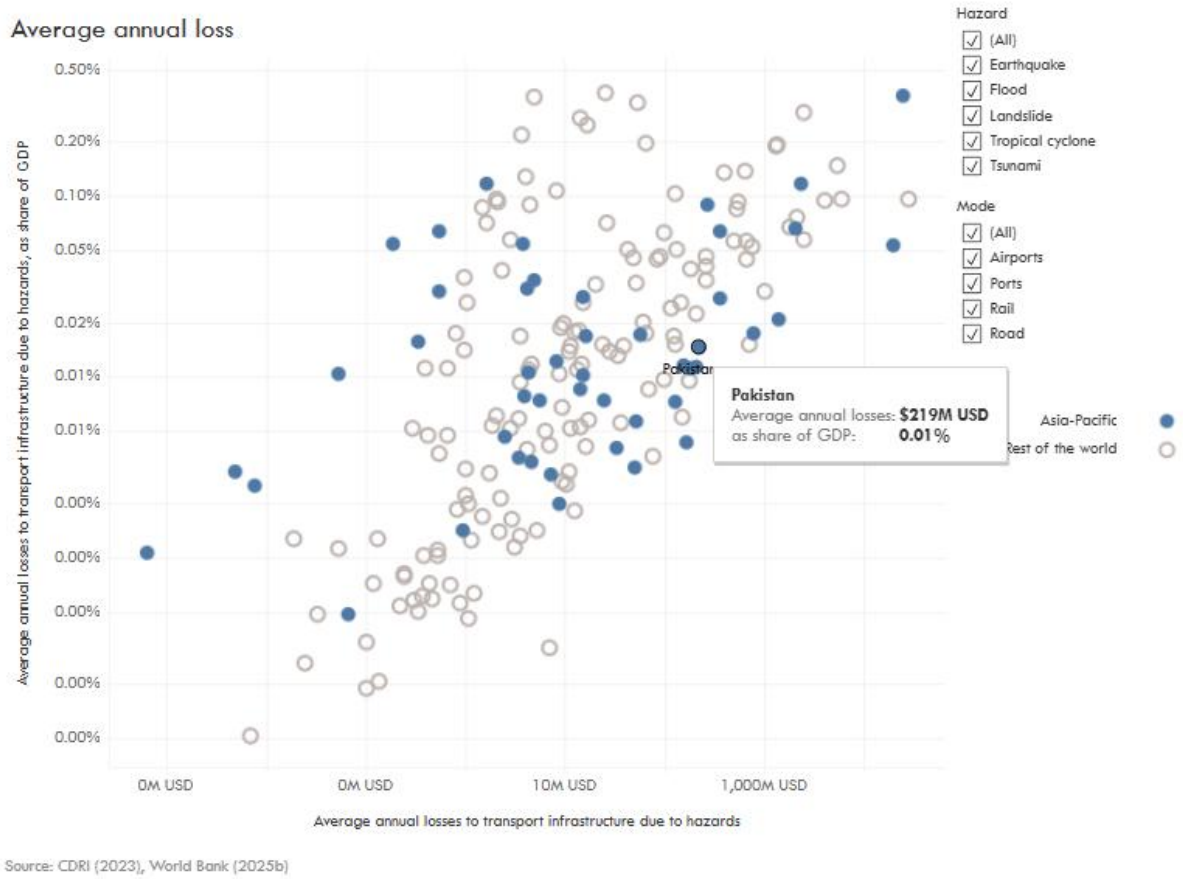
Source: ATO's Pakistan Climate Change and Transport Profile

Rural Access

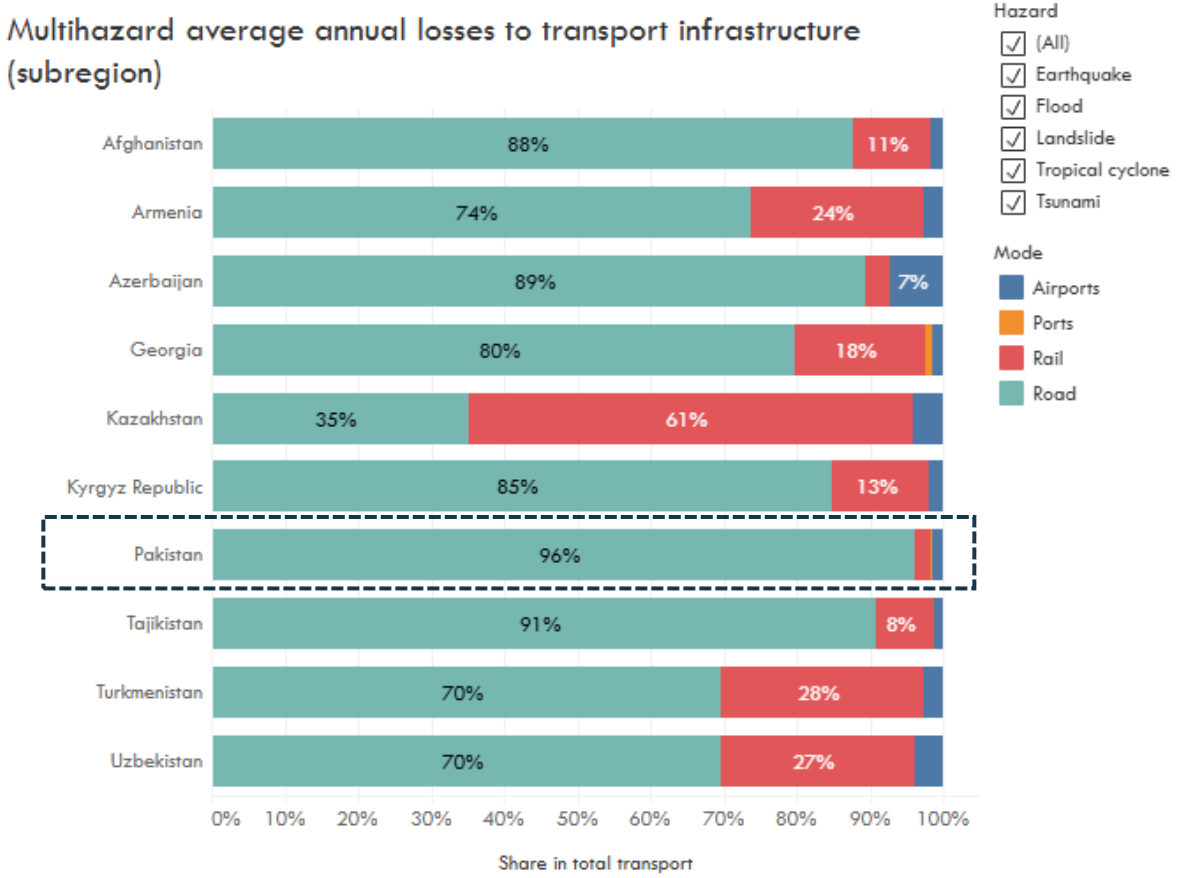


https://asiantransportobservatory.org/pacific/insights/nine-in-ten-with-a-caveat-measuring-rural-access-in-asia-and-the-pacific/

Resilience



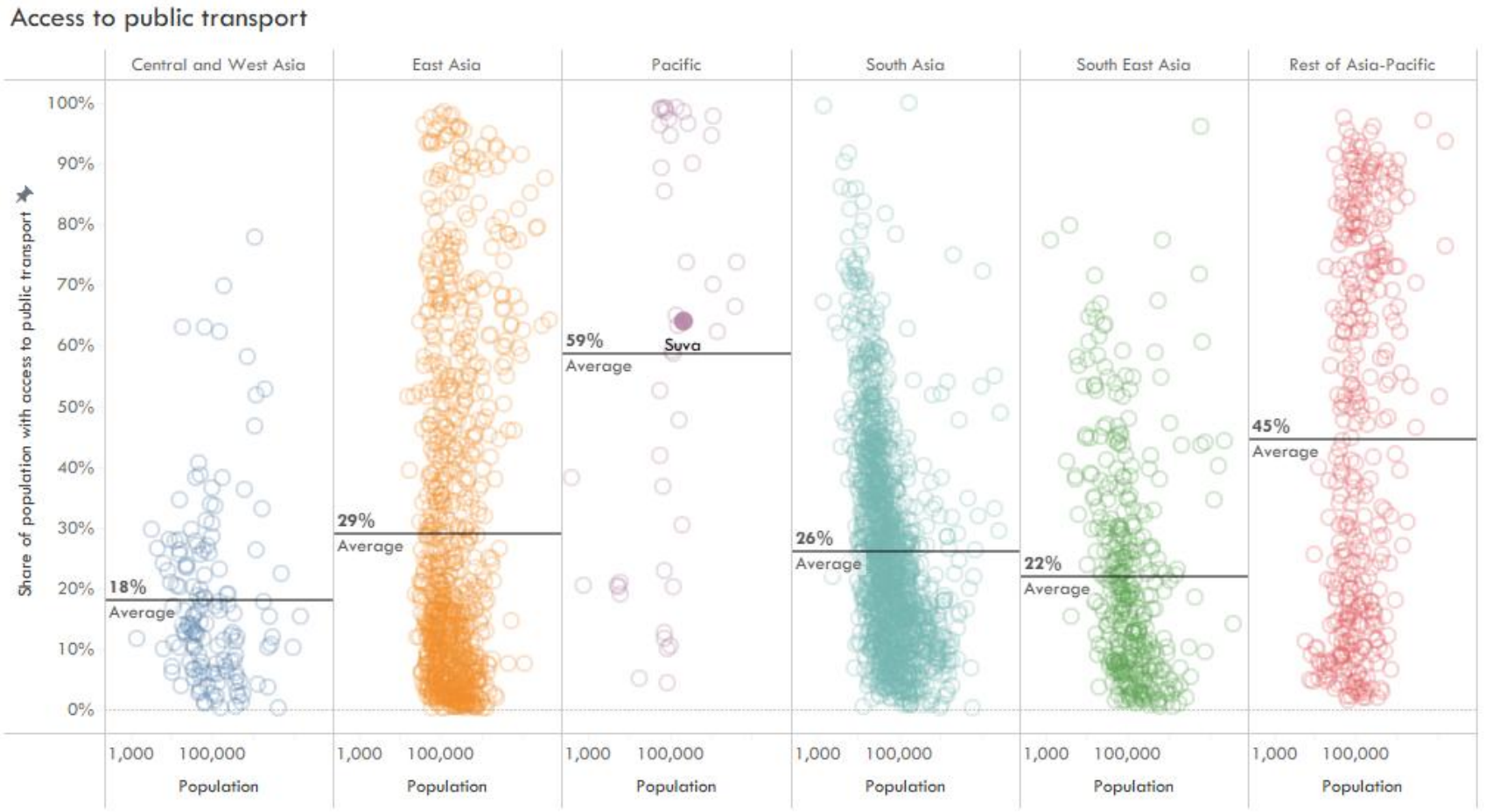
Source: CDRI (2023), World Bank (2025b)



Source: CDRI (2023)

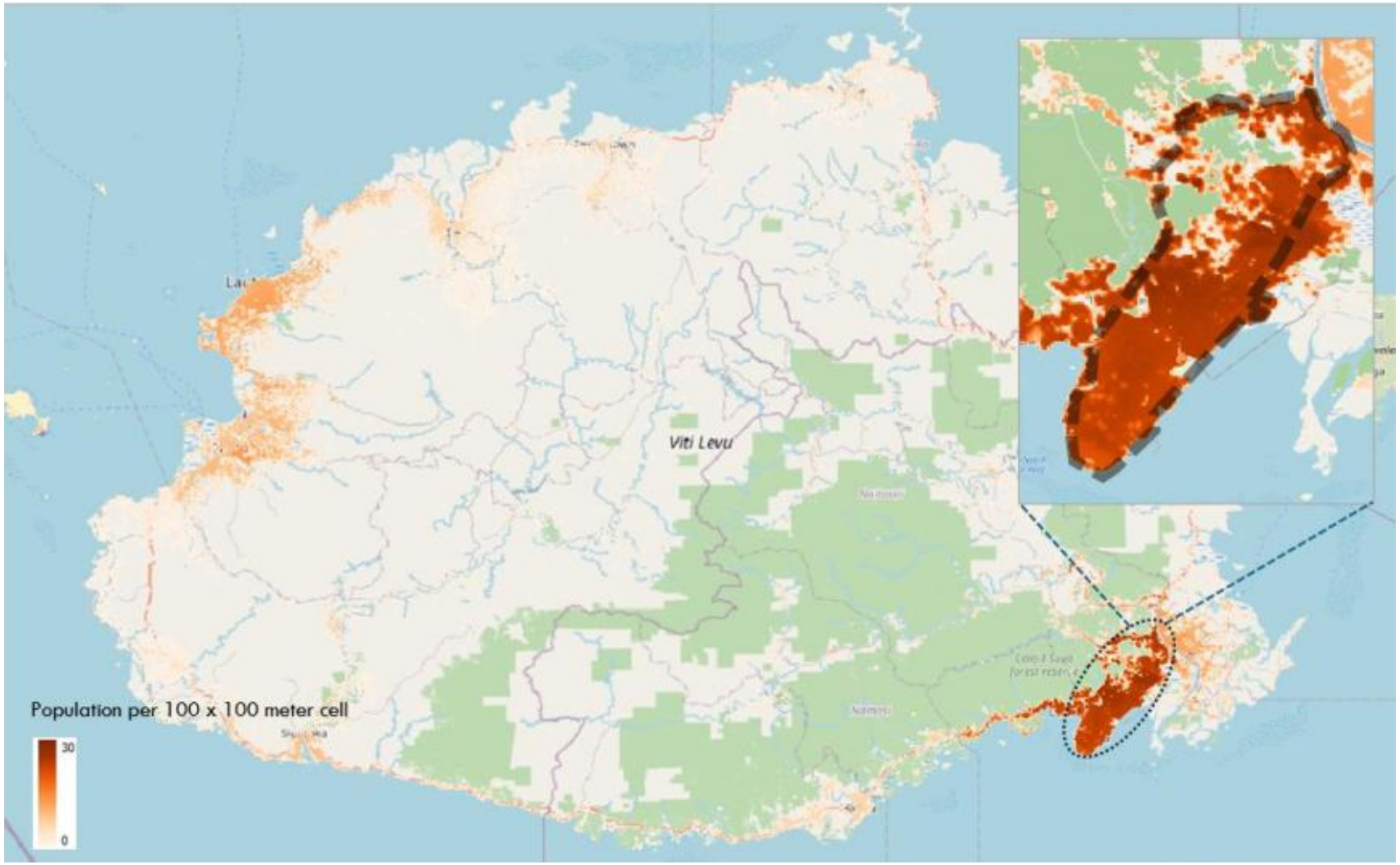
Source: ATO's Pakistan Green Roads Profile ; ATO's Pakistan Country Profile 2026

Urban Access to Public Transport



Source: CIESIN. (2023). *SDG Indicator 11.2.1: Urban Access to Public Transport, 2023 Release: Sustainable Development Goal Indicators (SDGI).*
https://sedac.ciesin.columbia.edu/data/set/sdgi-11-2-1-urban-access-public-transport-2023

Source: https://asiantransportobservatory.org/analytical-outputs/countryprofiles/profile-fiji/


Viti Levu
Population per 100 x 100 meter cell
30
0

Access to Medical Facilities

