# Vanuatu

## Green Roads Profile

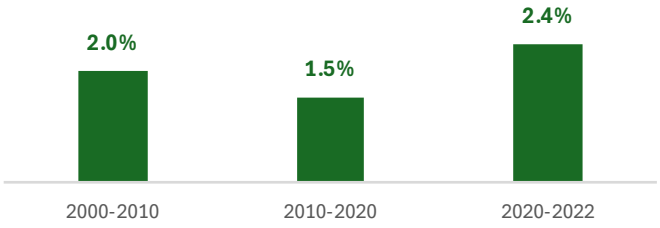
## General

Road length (2022)
**2,494 kilometers** (1)

Subregion
**Pacific**

Income class
**Low and lower middle income**

Average annual growth rate of road length (1)




Population (2024)
**342.3 thousand**

Land area
**12 thousand sqkm** (2,3)

Urban population
**26%**

Rural population
**74%** (2)

Gross domestic product (GDP PPP, 2022)
**1.08 billion USD**

GDP per capita (PPP, 2022)
**3,291 USD** (2,3) (3)

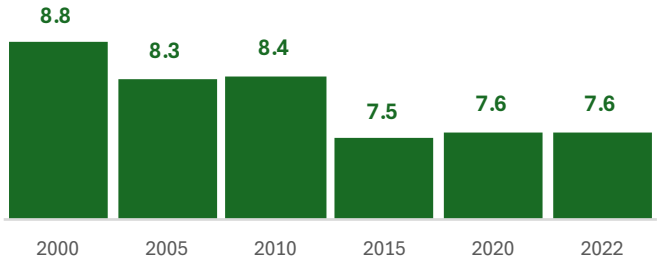
*Vanuatu's road network is comprised of 5.3% motorways, highways, and primary roads and 94.7% secondary roads, local roads, and other roads*

*Further information on road length, pavement, and quality by road class is available in Appendix A*

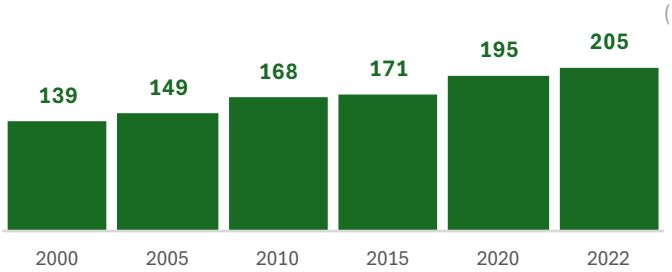
Road infrastructure availability (2022)
**7.6 kilometers per thousand population** (1,2)

Road infrastructure density (2022)
**205 meters per square kilometer** (1,3)

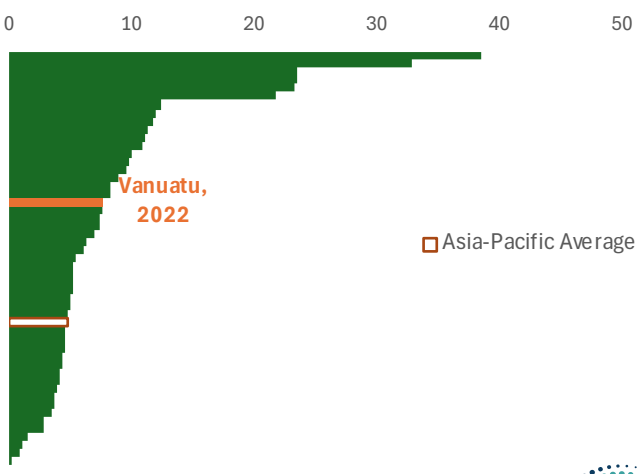
Road infrastructure availability trend, kilometers per thousand population (1,2)



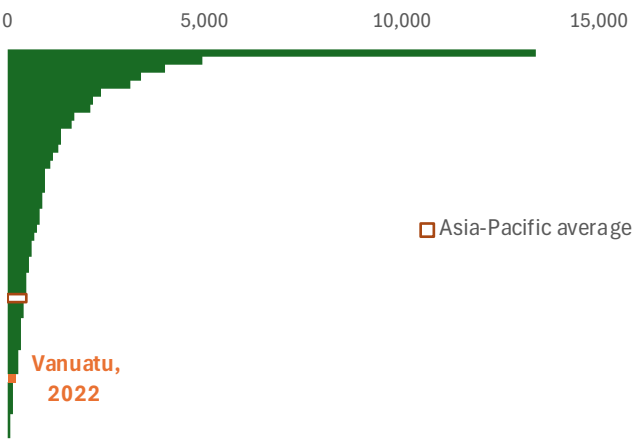

Road infrastructure density trend, meters per thousand population (1,3)




Road infrastructure availability in Asia-Pacific, kilometers per thousand population (1,2)




Road infrastructure density in Asia-Pacific, meters per square kilometer (1,3)

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Road vehicles (2023)
**n.d.**

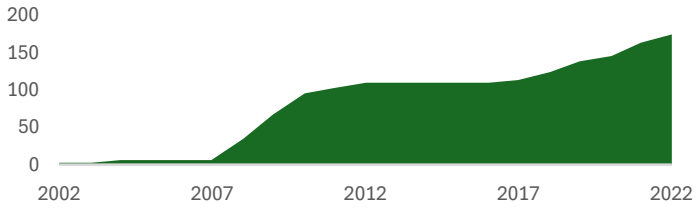
Share of vehicles by type

Public-private partnership investments in road sector, cumulative million USD (1)

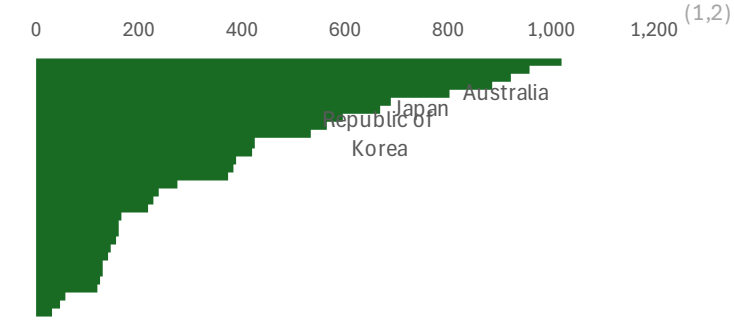
Share of road in total public-private partnership investments

Motorization rate (2023)
**n.d.** (1,2)

Official development assistance in road sector, cumulative million USD (5)




Motorization rate in Asia-Pacific, vehicles per thousand population (1,2)

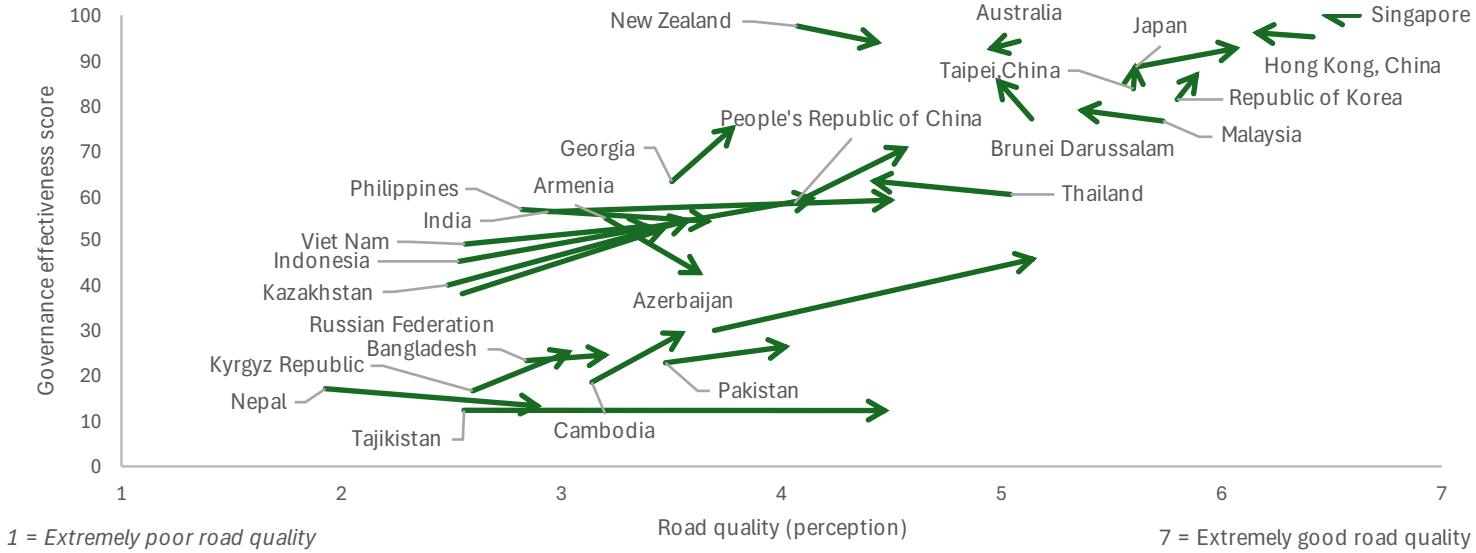



Share of road in total official development assistance (5)


*Road vehicles include 2- and 3-wheelers, LDVs, buses and other informal public transport, trucks, and other unclassified types*

*Road maintenance budget and deficit is available in Appendix B. Road user charging revenue information is available in Appendix C*

Road quality (perception) vs. governance effectiveness score (2009-2019)




*1 = Extremely poor road quality*

7 = Extremely good road quality

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## Quality of Life and Fostering Inclusive Growth

Rural access index (2023)
**59%** (6)

*Based on 2015 estimates, only 0% of the population could reach the nearest city in 30 minutes, another 0% could reach in 1 hour, and another 0% could reach only after 3 hours.*

Rural population without access to all-season roads (2023)
**0.09 million** (2,6)

National street network disconnectedness index
(7)

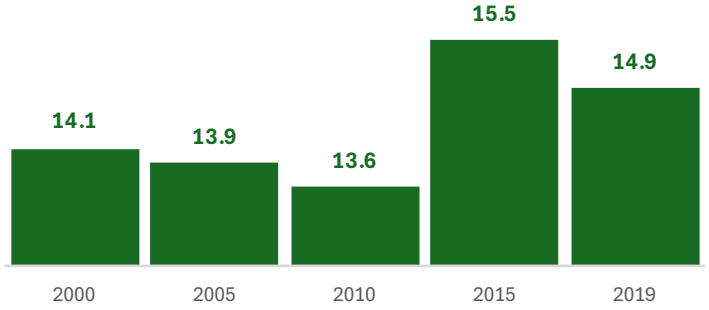
Logistics performance index score (2023)
**n.d.** (10)

| Infrastructure score
**n.d.** (10)

Logistics performance index ranking trend

Road crash fatalities (2019)
**45 deaths** (8)

Road crash fatality rate per 100 thousand population (2,8)




*Asia-Pacific average is 15.7 fatalities per 100 thousand population*

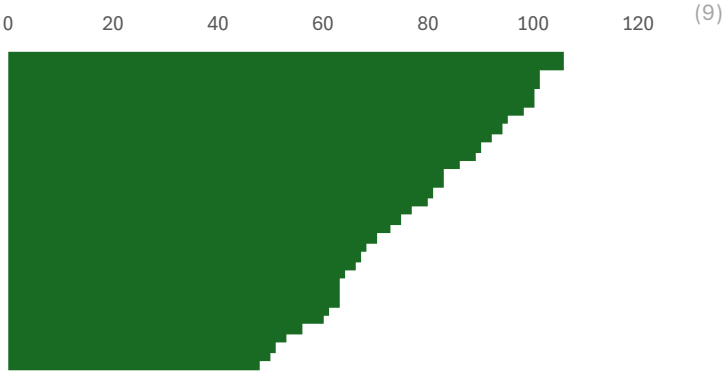
Mean speed (2022)
**n.d.** (9)

Percent of firms choosing transportation as their biggest obstacle - Manufacturing (2009)
**6.9%** (11)

Percent of respondents answering high/very high - Level of Fees and Charges on Road transport
**n.d.** (11)

*Level of fees and charges for less than full truck loads are considered*

Mean speed in Asia-Pacific, kilometers per hour (2022) (9)

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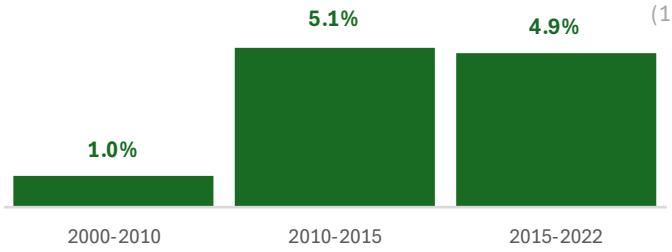
Employment in transport sector (2022)
**6 thousand employees** (12)

Share of transport sector in total employment (2022)
**4.6%** (12)

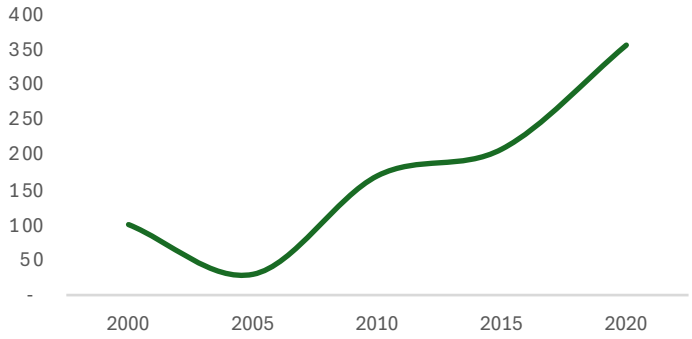
Average annual growth rate of transport sector employment (12)




Share of females in total transport sector employment (2022)
**11.4%** (12)

## Decarbonization

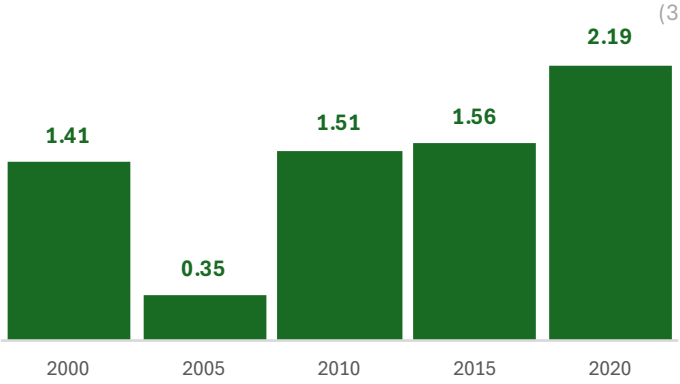
Road transport energy consumption trend
*Assuming 2000 value as base (100)* (13)




*Between 2000-2010, Vanuatu's road transport energy consumption grew 5.4% annually. Between 2010-2020, road transport energy consumption grew 7.7% annually.*

*92% of Vanuatu's transport energy consumption is in the road sector.*

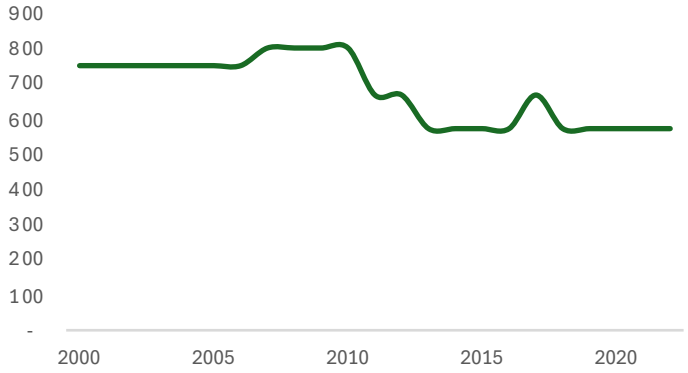
Road transport energy intensity with GDP, TJ per USD (PPP) (3,13)



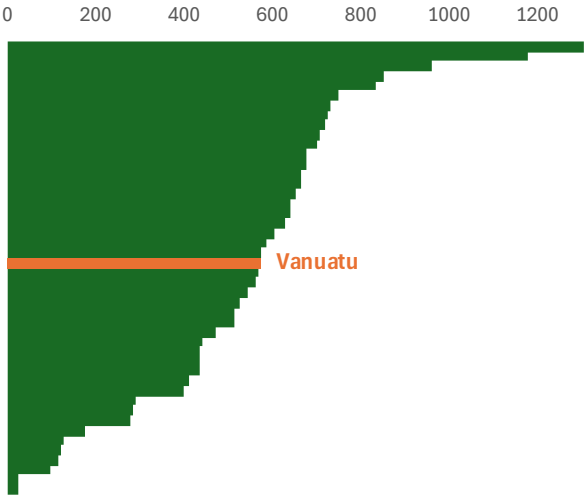

*Asia-Pacific average is 0.4 MJ per USD in 2020*

Grid emission factor (2022)
**571.4 gCO2 per kWh** (14)

Grid emission factor trend, gCO2 per kWh (14)




Grid emission factors in Asia-Pacific, gCO2 per kWh (14)

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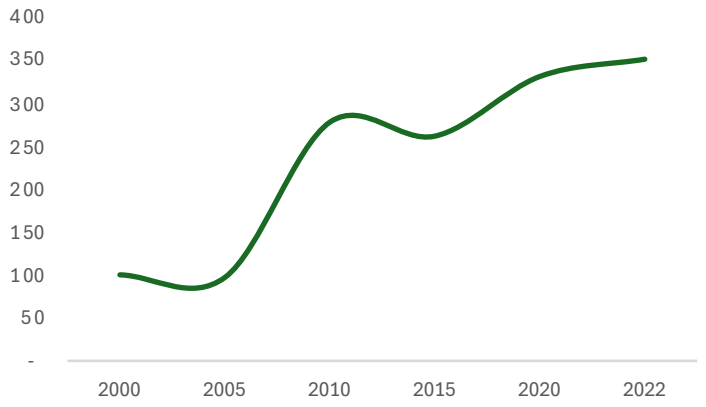
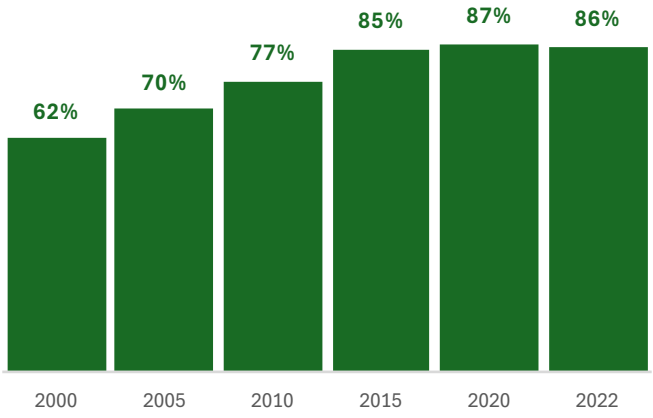
Road transport CO2 emissions trend

*Assuming 2000 value as base (100)* (15)




Share of road transport in total transport CO2 emissions (15)




*Between 2010-2019, Vanuatu's road transport fossil CO2 emissions was growing 4.9% annually. After the COVID-19 pandemic, road transport CO2 emissions was growing 3.0% annually.*

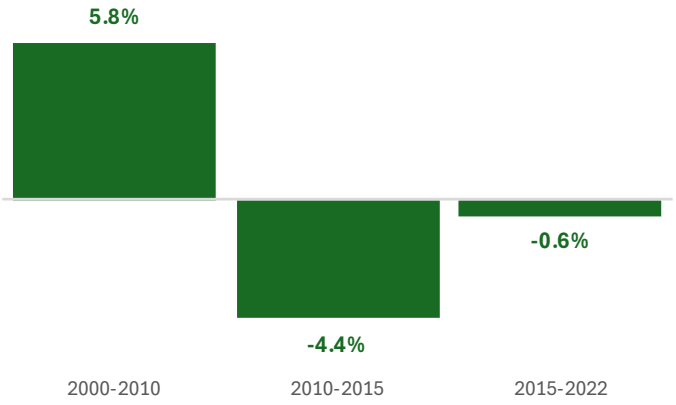
Transport fossil fuel subsidies, cumulative from 2010 to 2022 (16)

**None**

*0.0% of Asia-Pacific total*

Implicit fossil fuel subsidies due to externalities

Road transport CO2 emissions intensity with GDP trend (3,15)

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## Climate Resilience and Disaster Preparedness

Expected annual damages to road and rail infrastructure due to hazards (2019)
**2.18 million USD** (18)

Share of road in total transport infrastructure in multihazard average annual loss to transport infrastructure (2023)
**88.5%** (19)

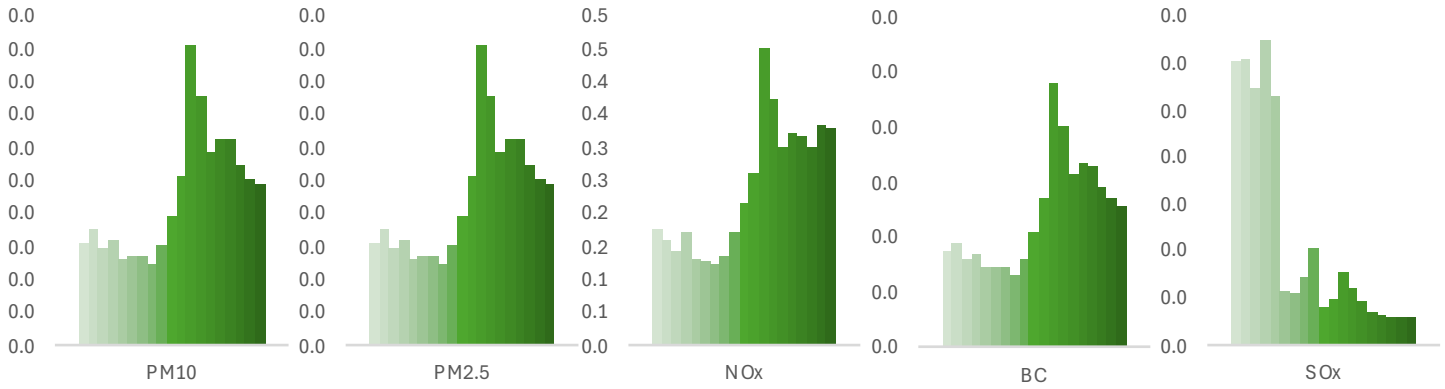
National road vulnerability index ranking (2023)
**n.d.** (20)

Share of population in low elevated coastal zones (2018)
**1.2%** (21)

## Pollution, Water and Land Management, Preserving Biodiversity, and Sustainable Materials

Paved roads (2023)
**n.d.** (1)

Road transport air pollutant emissions, thousand tonnes (2000-2018) (15)




*In 2022, road transport contributed 21.0%, re-suspended dust contributed 17.0% in transport PM10 emissions. In total, road transport contributed about 14.6% in total PM10 emissions in Vanuatu.*

Deaths due to occupational exposure to diesel engine exhaust

| 2000-2010 | 2011-2018 |
|---|---|
| **4 deaths** | **5 deaths** |

(22)

Share of biofuels in road transport energy consumption (2020)
**n.d.** (13)

Domestic consumption per capita, tonnes (2024)

| Vanuatu | Asia-Pacific |
|---|---|
| **5.9 tonnes** | **13.8 tonnes** |

(23)

*Domestic consumption is the total amount of materials directly used in the economy (used domestic extraction plus imports), minus the materials that are exported.*

Terrestrial and marine protected areas (2022)
**0.1%** (3)
*(% of total territorial area)*

| Terrestrial protected areas | Marine protected areas |
|---|---|
| **4.2%** | **0.0%** |
| *(% of total land area)* | *(% of territorial waters)* |

(3)

Forest area (2021)
**36.3%** (3)
*(% of land area)*

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## Policy Measures

| Policy document | Year | Road-related measures |
|---|---|---|
| Laws of the Republic of Vanuatu Road Traffic (Control) | 1962 | Vehicle inspection and maintenance, Passenger and freight load limits, Road-side checks on overloading |
| Global Status Report on Road Safety 2018 | 2018 | Vehicle inspection and maintenance, Design standards for sidewalks and bicycle paths, Implementation of vertical deflections on roads, Upgrading high risk locations for road safety, National road safety strategy, Audits/ star rating required for new road infrastructure for road safety |
| Updated Vanuatu National Energy Road Map 2016-2030 | 2016 | Vehicle taxes |
| Vanuatu Updated NDC | 2022 | Disaster notification/ early warning system |
| Rural Roads Access Framework | 2013 | Climate-resilient design standards, Surface treatment resurfacing, Transport infrastructure resilience, General transport asset management, Road infrastructure expansion, Upgrading high risk locations for road safety |
| Vanuatu 2030 | 2016 | Climate-resilient design standards, Transport infrastructure resilience, General transport asset management, Measures to improve rural-urban connectivity |
| Vanuatu Climate Change and Disaster Risk Reduction Policy 2016-2030 | 2016 | Disaster notification/ early warning system, Climate-resilient design standards, Disaster monitoring and risk assessment for transport infrastructure |
| Vanuatu Roads for Development Program | 2017 | Climate-resilient design standards, Technical standards for road infrastructure, Performance-based transport maintenance contracts, Routine transport asset maintenance, Technologies on transport asset management, General transport asset management, General transport finance, Reference to finance mechanisms within country, Measures to improve rural-urban connectivity, Development of transport adaptation/ emergency/ disaster plan/ policy |
| Public Roads Act No. 35 of 2013 | 2013 | Technical standards for road infrastructure |
| National Policy on Climate Change and Disaster-Induced Displacement | 2018 | Relocation from climate-risk areas, Development of transport adaptation/ emergency/ disaster plan/ policy |
| Vanuatu Transport Sector Support Program (VTSSP) | n.d. | Technical standards for road infrastructure |
| Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development | 2019 | General infrastructure improvements |
| Vanuatu Infrastructure Investment Plan | 2015 | Transport asset management funding strategy, General transport asset management, Road infrastructure expansion |
| MIPU 2020 Corporate Plan | 2020 | Reference to finance mechanisms within country |

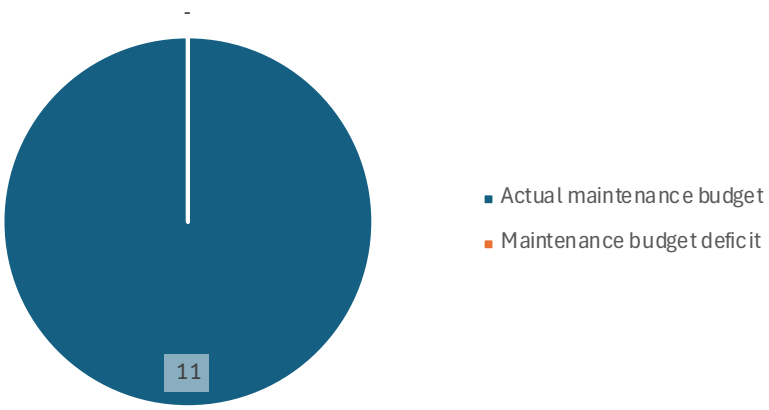
# Appendix

## A. Road length, pavement ratio, and quality by road class

| Road class | Length | Paved | Quality | | | |
|---|---|---|---|---|---|---|
| | | | Good | Fair | Poor | Very Poor |
| Arterial | 2,100 | 11% | | | | |
| Feeder and urban | 923 | | | | | |

*Definitions and sources are available in "Asian Development Bank, 2024. The Future of Road User Charging in Developing Asia and the Pacific: Road Maintenance Financing and Cost Recovery Options"*

## B. Maintenance needs and budget, million USD




## C. Road user charge revenues

| Road user charge | Revenue (million USD) |
|---|---|
| Vehicle excise revenue | 1.2 |
| Value added tax revenue from vehicles | 1.5 |
| Vehicle registration | 0.6 |
| Road tax | 0.3 |
| Fuel value added tax | 0.8 |

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## Notes

(*) Policy measures and targets were extracted from policy documents as listed in the ATO National Transport Policies Database

*https://bit.ly/ATOpolicyrepository*

## References

(1) Country Official Statistics

(2) UN Population Database (2022), https://population.un.org/wpp/

(3) World Bank (2022), https://data.worldbank.org/

(4) PPI Database (World Bank, 2023), https://ppi.worldbank.org/en/ppi

(5) Organisation for Economic Co-operation and Development (OECD) (2022), https://stats.oecd.org/Index.aspx?DataSetCode=CRS1#

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(23) Global Materials Flow Database (UNEP, 2023), https://www.resourcepanel.org/global-material-flows-database

## Disclaimer

This profile was developed by Asian Transport Outlook in support of TA-6756 Improving Infrastructure Sustainability Through Better Asset Management – Developing a Green Roads Toolkit and Guidance for ADB Projects. The ATO is an initiative developed under TA-6763 REG: Accelerating Innovation in Transport - Asian Transport Outlook: Phase 3 (55119-001) of the Asian Development Bank (ADB) and is also being supported by the Asian Infrastructure Investment Bank (AIIB) through Purchase Order No. CW39446 AIIB Support: Asian Transport Outlook Phase 3.



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