

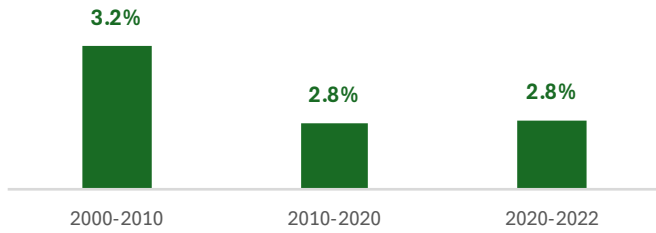
Tajikistan

Green Roads Profile

General

Road length (2022)
42,222 kilometers

Average annual growth rate of road length



Tajikistan's road network is comprised of 8.8% motorways, highways, and primary roads and 91.2% secondary roads, local roads, and other roads

Subregion
(1) **Central and West Asia**

Population (2024)
(1) **10.3 million**

Urban population
29%

Gross domestic product (GDP PPP, 2022)
48.64 billion USD

Income class
Low and lower middle income

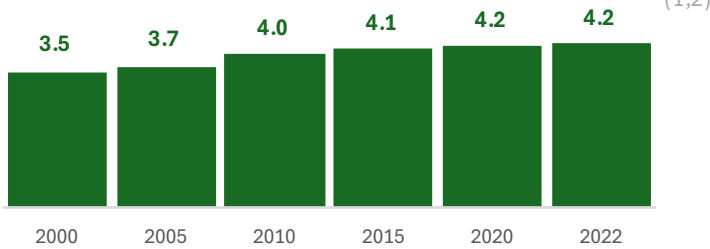
Land area
139 thousand sqkm (2,3)

Rural population
71% (2)

GDP per capita (PPP, 2022)
4,887 USD (2,3)
(3)

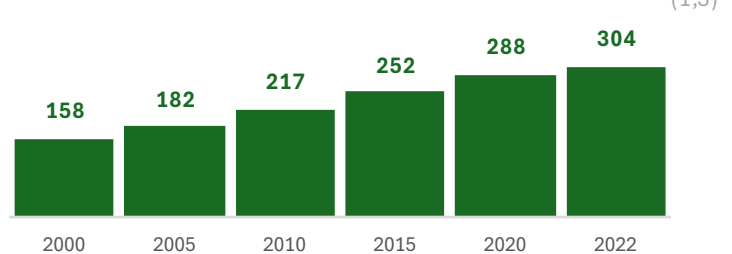
Road infrastructure availability (2022)
4.2 kilometers per thousand population

Road infrastructure availability trend, kilometers per thousand population

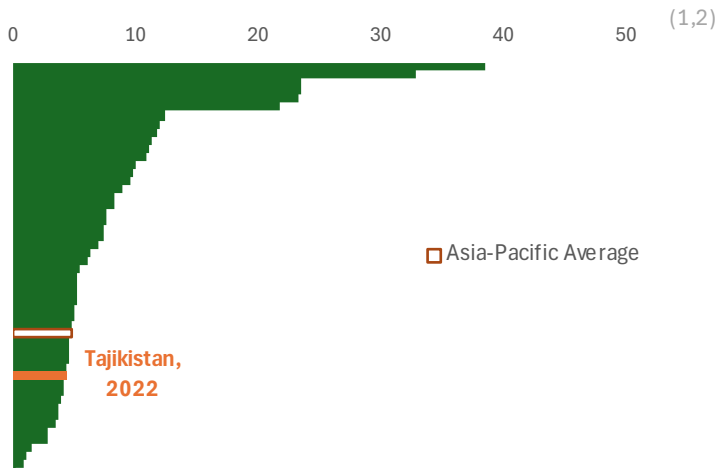


Road infrastructure density (2022)
(1,2) **304 meters per square kilometer**

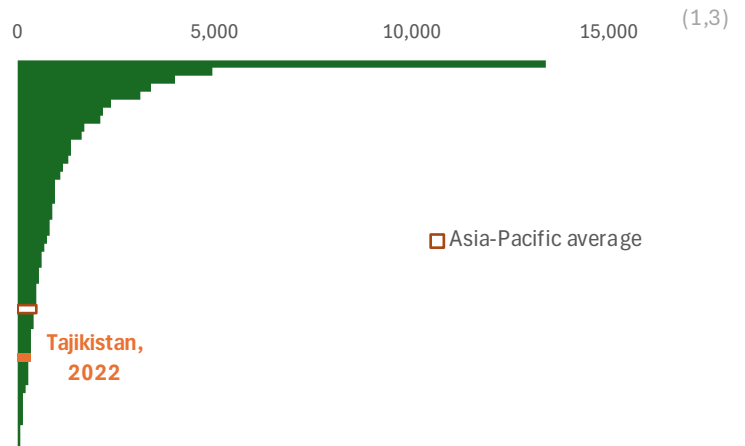
Road infrastructure density trend, meters per thousand population



Road infrastructure availability in Asia-Pacific, kilometers per thousand population



Road infrastructure density in Asia-Pacific, meters per square kilometer



Road vehicles (2023)
n.d.

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

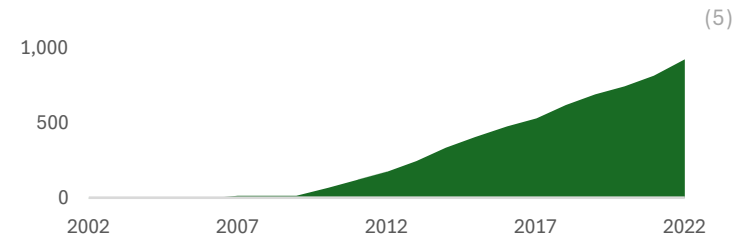
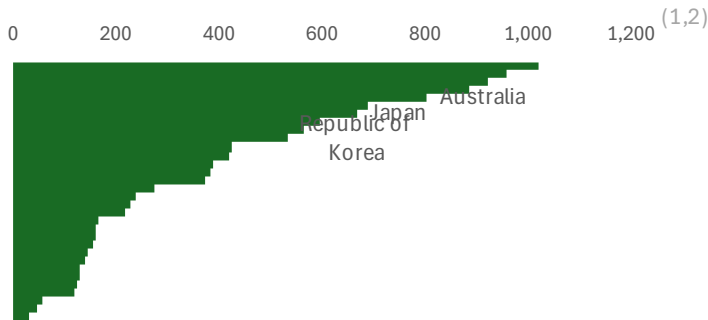
Share of vehicles by type

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

Motorization rate in Asia-Pacific, vehicles per thousand population

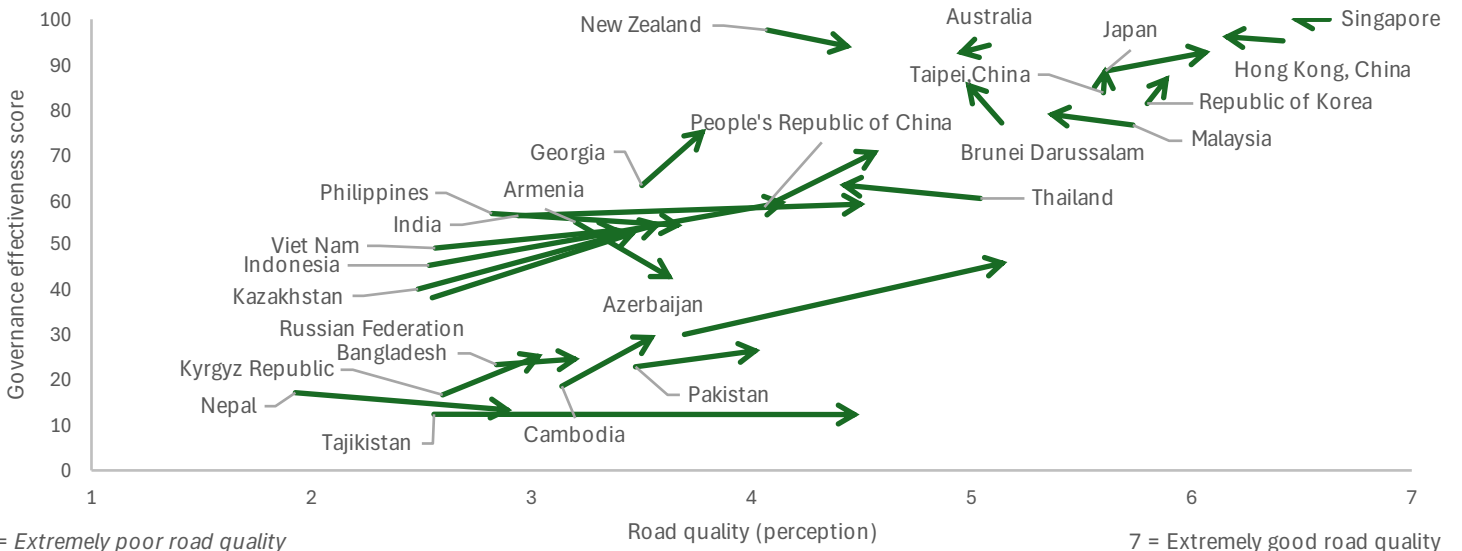


Share of road in total official development assistance



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

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



1 = Extremely poor road quality

7 = Extremely good road quality

Developed with the support of:



Quality of Life and Fostering Inclusive Growth

Rural access index (2023)
61%

(6)

Based on 2015 estimates, only 59% of the population could reach the nearest city in 30 minutes, another 11% could reach in 1 hour, and another 16% could reach only after 3 hours.

Rural population without access to all-season roads (2023)
2.76 million

(2,6)

Logistics performance index score (2023)

2.5/5

(10)

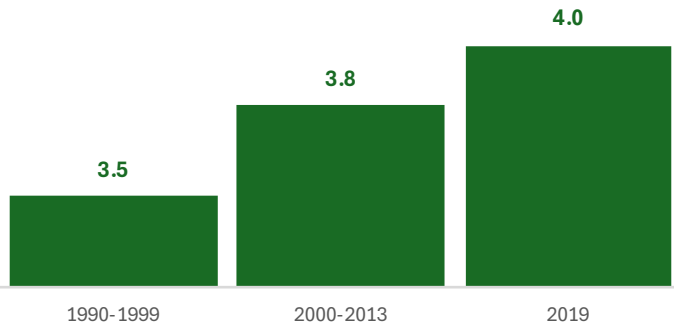
| Infrastructure score

2.5/5

(10)

National street network disconnectedness index

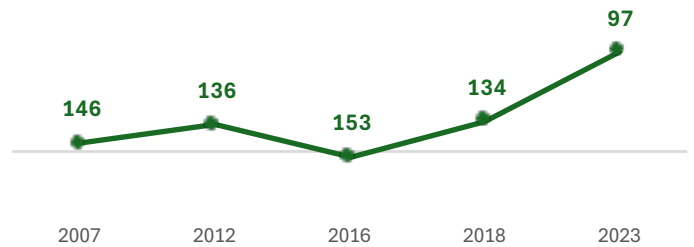
(7)



This indicator is a summary scalar measure for street-network sprawl describing connectivity of local street networks across the world

Logistics performance index ranking trend

(10)



Road crash fatalities (2019)
1.5 thousand deaths

(8)

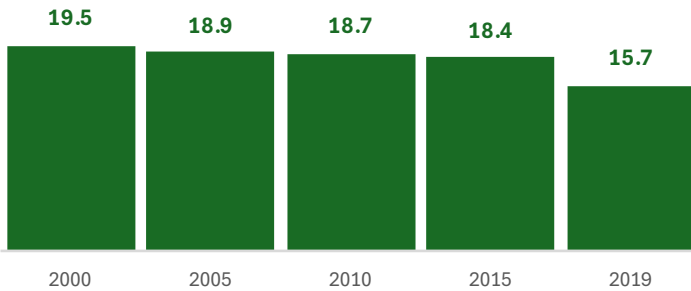
Road crash fatality rate per 100 thousand population

(2,8)

Percent of firms choosing transportation as their biggest obstacle - Manufacturing (2019)

1.7%

(11)



Asia-Pacific average is 15.7 fatalities per 100 thousand population

Percent of respondents answering high/very high - Level of Fees and Charges on Road transport (2014)

100.0%

(11)

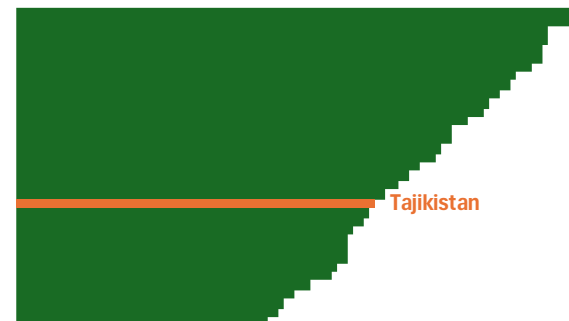
Level of fees and charges for less than full truck loads are considered

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

(9)

Mean speed (2022)
68 kilometers per hour

0 20 40 60 80 100 120



Employment in transport sector (2022)

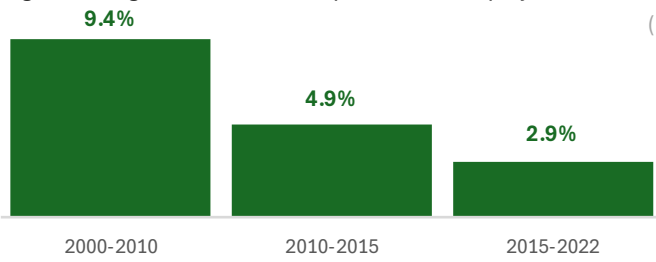
139 thousand employees

Share of transport sector in total employment (2022)

(12) **5.7%**

(12)

Average annual growth rate of transport sector employment



Share of females in total transport sector employment (2022)

(12) **8.0%**

(12)

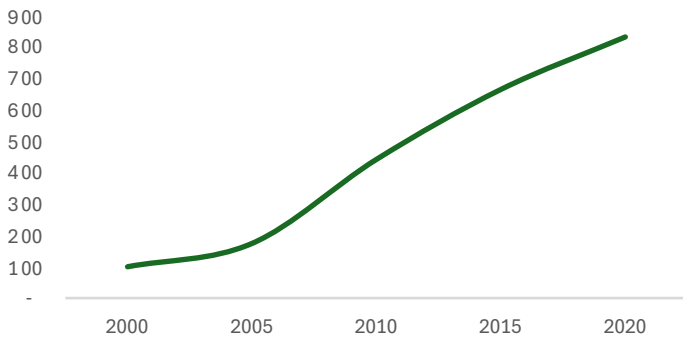
Decarbonization

Road transport energy consumption trend

Assuming 2000 value as base (100)

(13)

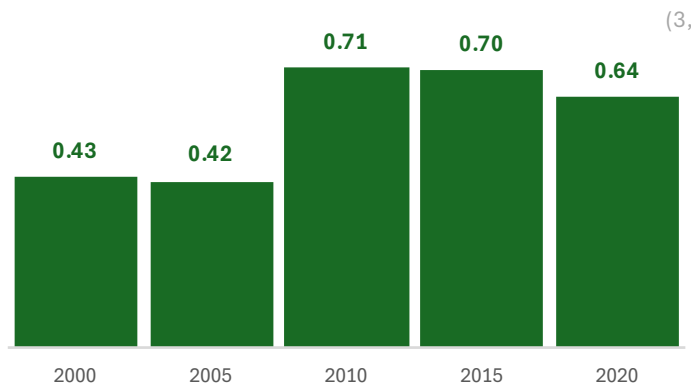
100% of Tajikistan's transport energy consumption is in the road sector.



Between 2000-2010, Tajikistan's road transport energy consumption grew 16.0% annually. Between 2010-2020, road transport energy consumption grew 6.5% annually.

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)

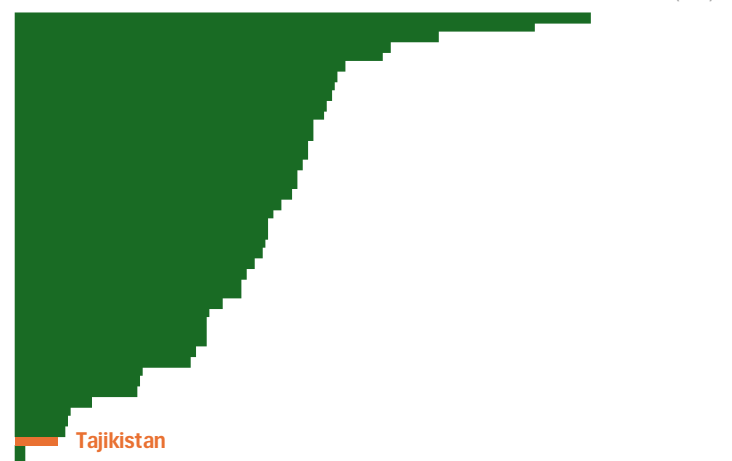
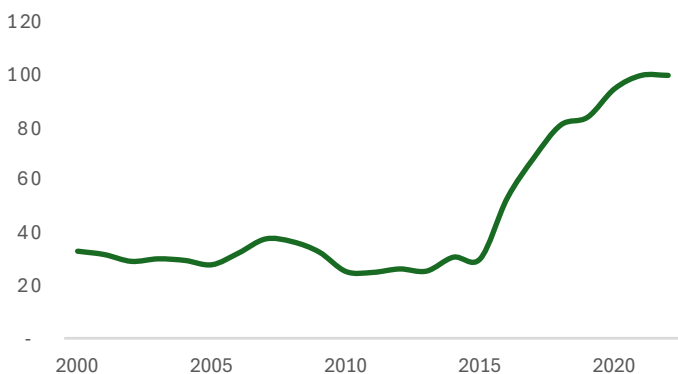
99.3 gCO₂ per kWh

(14)

Grid emission factors in Asia-Pacific, gCO₂ per kWh

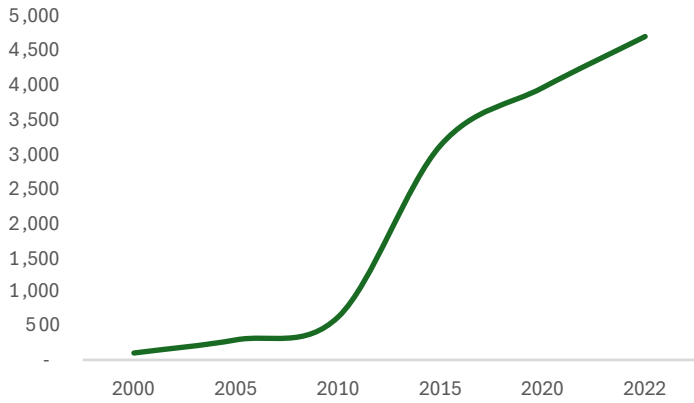
(14)

Grid emission factor trend, gCO₂ per kWh

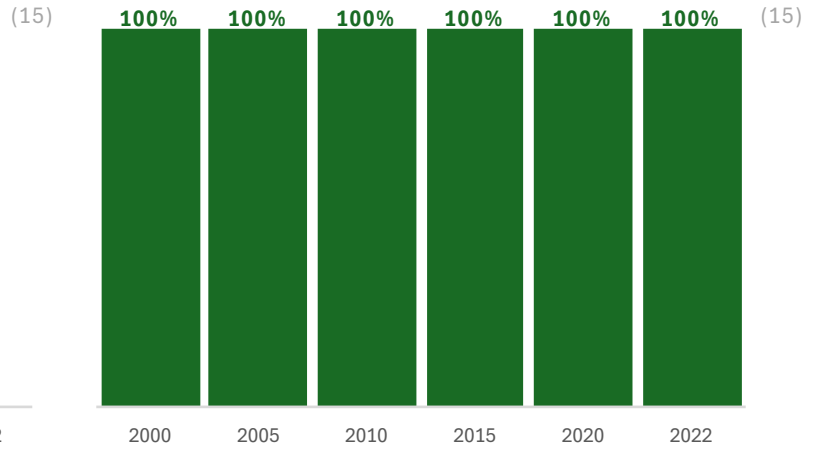


Road transport CO2 emissions trend

Assuming 2000 value as base (100)



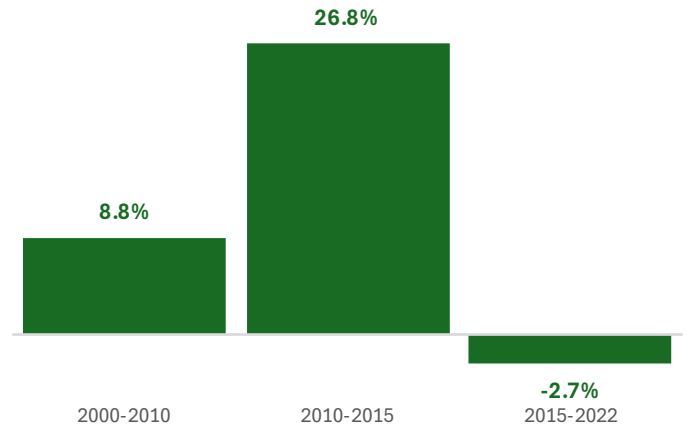
Share of road transport in total transport CO2 emissions



Between 2010-2019, Tajikistan's road transport fossil CO2 emissions was growing 19.7% annually. After the COVID-19 pandemic, road transport CO2 emissions was growing 9.0% annually.

Road transport CO2 emissions intensity with GDP trend

(3,15)



Transport fossil fuel subsidies, cumulative from 2010 to 2022

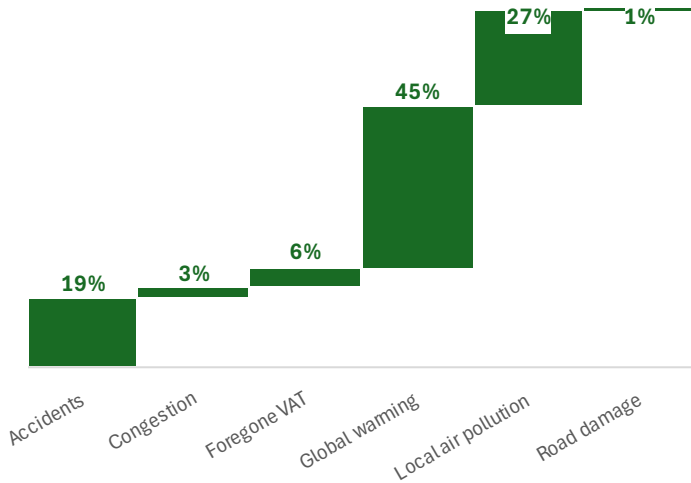
None

0.0% of Asia-Pacific total

(16)

Implicit fossil fuel subsidies due to externalities

(17)



Data includes all sectors and all fuel types

Climate Resilience and Disaster Preparedness

Expected annual damages to road and rail infrastructure due to hazards (2019)

21.95 million USD

(18)

National road vulnerability index ranking (2023)

203rd out of 208 countries

(20)

Share of road in total transport infrastructure in multihazard average annual loss to transport infrastructure (2023)

90.8%

(19)

Share of population in low elevated coastal zones (2018)

0.0%

(21)

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

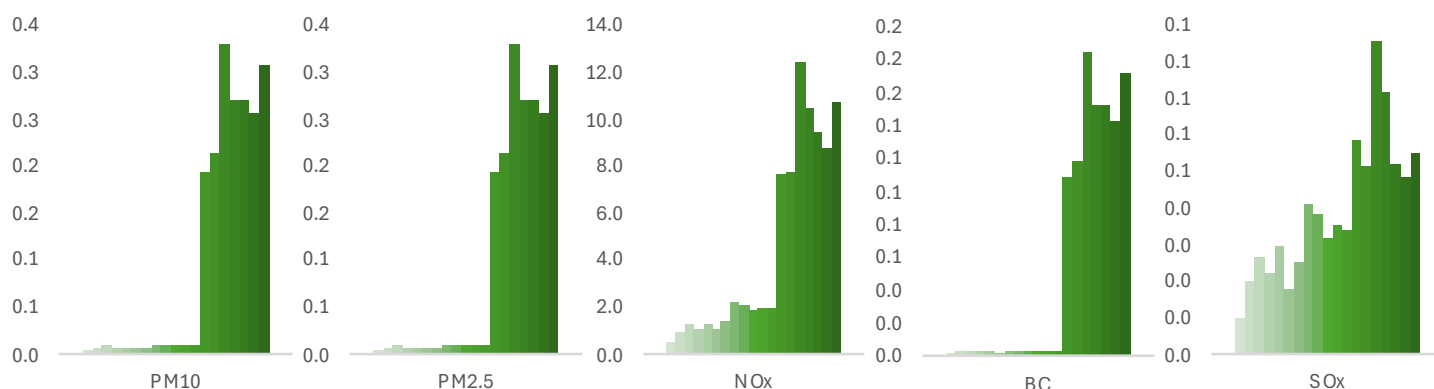
Paved roads (2023)

n.d.

(1)

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

(15)



In 2022, road transport contributed 66.1%, re-suspended dust contributed 33.9% in transport PM10 emissions. In total, road transport contributed about 3.4% in total PM10 emissions in Tajikistan.

Deaths due to occupational exposure to diesel engine exhaust

| 2000-2010

48 deaths

| 2011-2018

54 deaths

(22)

Terrestrial and marine protected areas (2022)

22.3%

(3)

(% of total territorial area)

Terrestrial protected areas

22.3%

(13)

(% of total land area)

Marine protected areas

n.d.

(3)

(% of territorial waters)

Share of biofuels in road transport energy consumption (2020)

n.d.

Domestic consumption per capita, tonnes (2024)

| Tajikistan

4.5 tonnes

| Asia-Pacific

13.8 tonnes

(23)

Forest area (2021)

3.1%

(3)

(% of land area)

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

Policy Measures

| Policy document | Year | Road-related measures |
|--|------|--|
| National Transport Development Program of the Republic of Tajikistan up to 2025 | 2011 | General infrastructure improvements, Technologies on transport asset management, General transport asset management, Investment volume for transport, Road infrastructure expansion |
| ORDER OF THE GOVERNMENT OF THE REPUBLIC OF TAJIKISTAN of April 1, 2011 No. 165 About approval of the State target development program of transport complex of the Republic of Tajikistan till 2025 | 2011 | Technologies on transport asset management, General transport asset management, Investment volume for transport, Reference to finance mechanisms within country |
| Safely Connected: A Regional Road Safety Strategy for CAREC Countries, 2017–2030 | 2017 | General infrastructure improvements, Vehicle inspection and maintenance, Technical standards for road infrastructure, Request for financial support to develop transport, National road safety strategy, Passenger and freight load limits, Audits/ star rating for existing roads for road safety, Audits/ star rating required for new road infrastructure for road safety |
| Updated Nationally Determined Contribution | 2021 | Climate-resilient design standards, Technical standards for road infrastructure, Transport infrastructure resilience, General transport asset management, Measures to improve rural-urban connectivity, Road infrastructure expansion |
| National Development Strategy of the Republic of Tajikistan up to 2030 | 2016 | General infrastructure improvements |
| International Energy Charter | 2015 | General infrastructure improvements |
| Medium terms development program of the Republic of Tajikistan | 2016 | General infrastructure improvements, Technologies on transport asset management, General transport asset management, Investment required for specific projects, Road infrastructure expansion |
| First Nationally Determined Contribution | 2015 | Transport infrastructure resilience |

Notes



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

<https://bit.ly/ATOpolicyrepository>

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- (9) Moszoro & Soto (IMF, 2022), <https://www.imf.org/en/Publications/WP/Issues/2022/05/20/Road-Quality-and-Mean-Speed-Score-518200>
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- (17) Climate Change Dashboard (IMF, 2024), <https://climatedata.imf.org/pages/access-data>
- (18) Koks, et al. (2019), <https://www.nature.com/articles/s41467-019-10442-3>
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- (22) Global Health Data Exchange (GBD, 2019), <https://vizhub.healthdata.org/gbd-results/>
- (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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