

Kyrgyz Republic

Green Roads Profile

General

Road length (2022)
49,076 kilometers

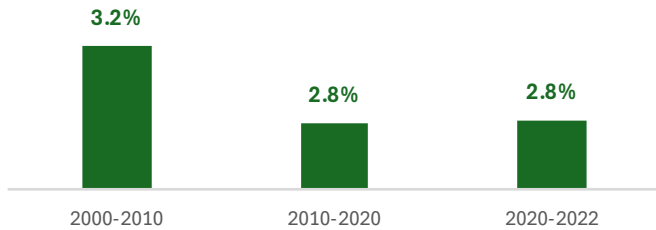
Subregion
(1) **Central and West Asia**

Income class
Low and lower middle income

Average annual growth rate of road length

Population (2024)
(1) **6.8 million**

Land area
192 thousand sqkm (2,3)



Urban population
38% (2)

Rural population
62% (2)

Gross domestic product (GDP PPP, 2022)
41.77 billion USD (3)

GDP per capita (PPP, 2022)
6,300 USD (2,3)

Kyrgyz Republic's road network is comprised of 9.7% motorways, highways, and primary roads and 90.3% secondary roads, local roads, and other roads

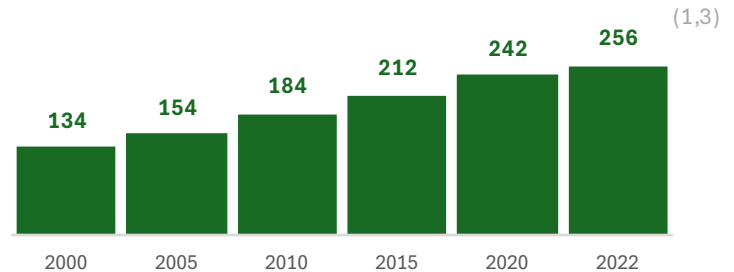
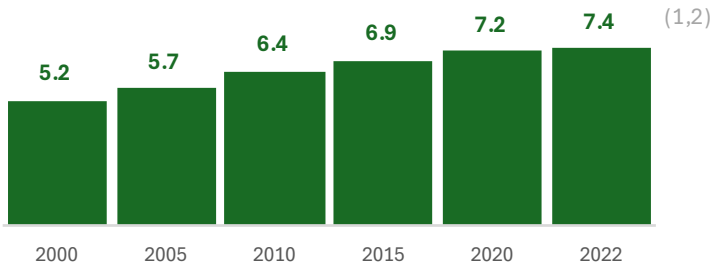
Further information on road length, pavement, and quality by road class is available in Appendix A

Road infrastructure availability (2022)
7.4 kilometers per thousand population

Road infrastructure density (2022)
(1,2) **256 meters per square kilometer** (1,3)

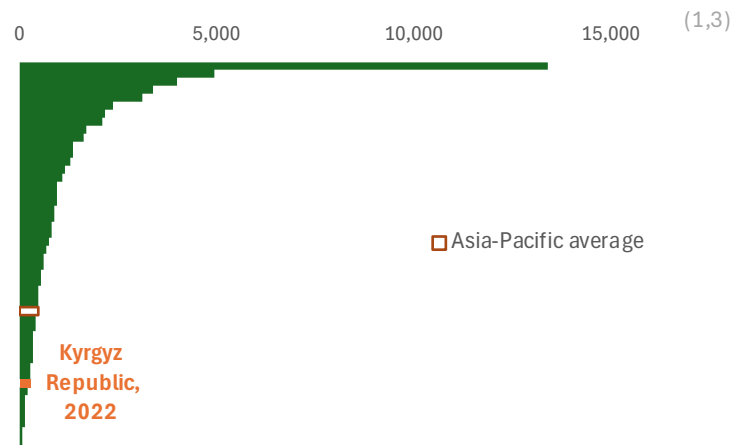
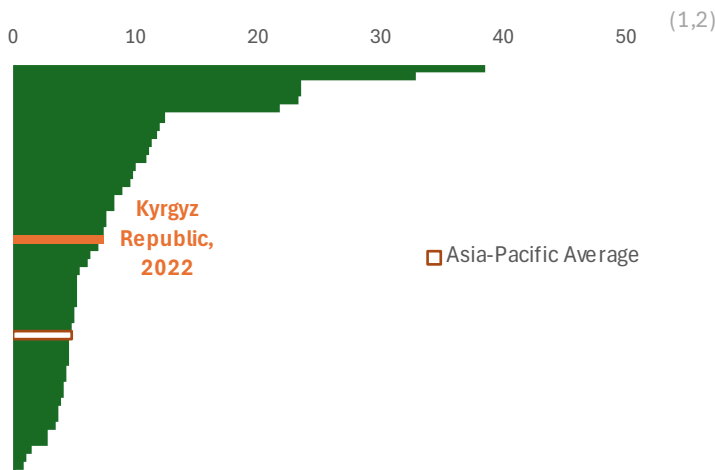
Road infrastructure availability trend, kilometers per thousand population

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.

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

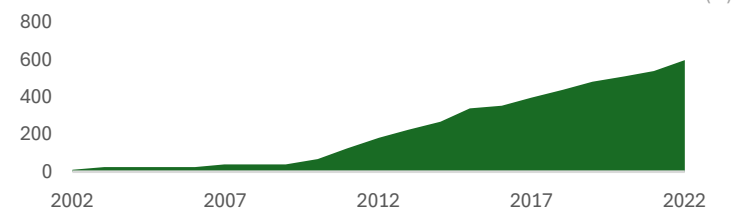
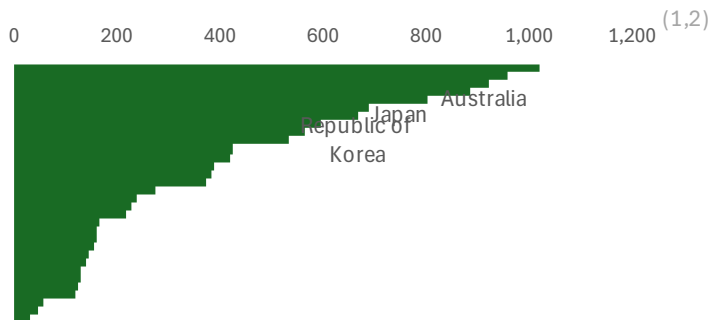
Share of vehicles by type

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



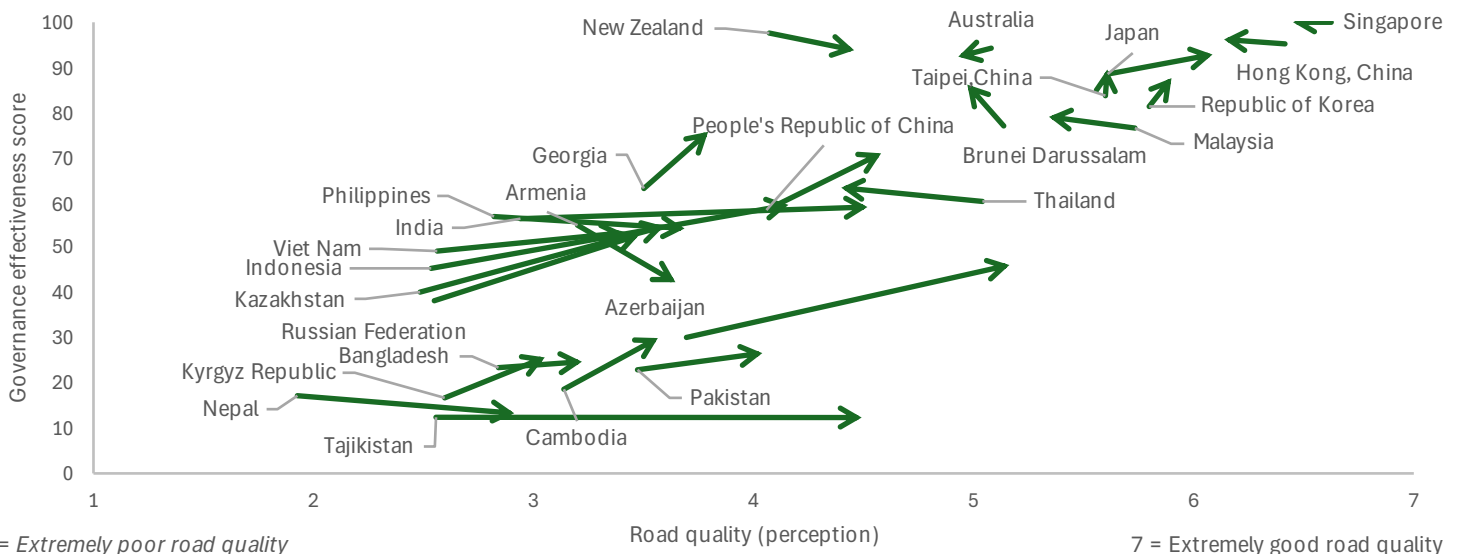
Share of road in total official development assistance



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

Road 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

Developed with the support of:



Quality of Life and Fostering Inclusive Growth

Rural access index (2023)
69%

(6)

Based on 2015 estimates, only 52% of the population could reach the nearest city in 30 minutes, another 10% could reach in 1 hour, and another 23% could reach only after 3 hours.

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

(2,6)

Logistics performance index score (2023)

2.3/5

(10)

| Infrastructure score

2.4/5

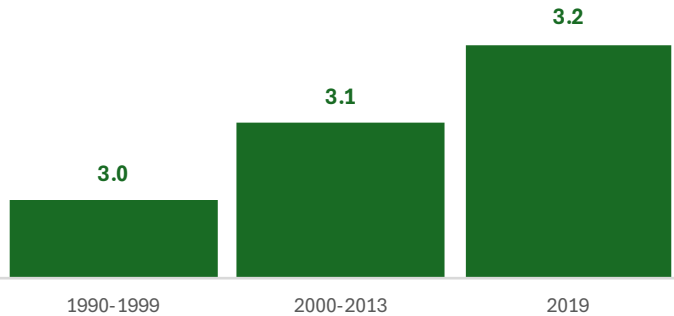
(10)

National street network disconnectedness index

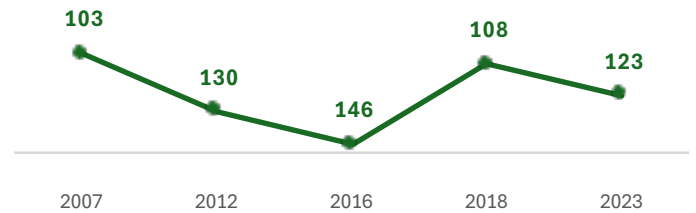
(7)

Logistics performance index ranking trend

(10)



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



Road crash fatalities (2019)
813 deaths

(8)

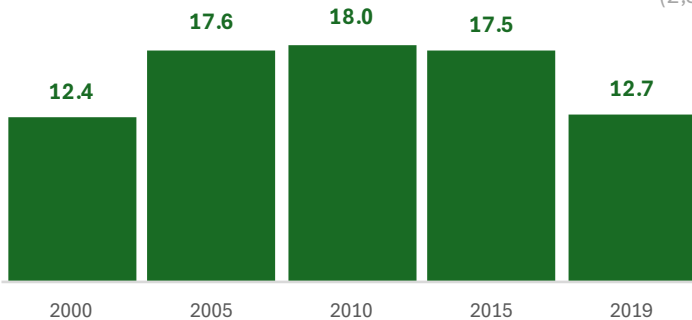
Road crash fatality rate per 100 thousand population

(2,8)

Percent of firms choosing transportation as their biggest obstacle - Manufacturing (2013)

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)

66.7%

(11)

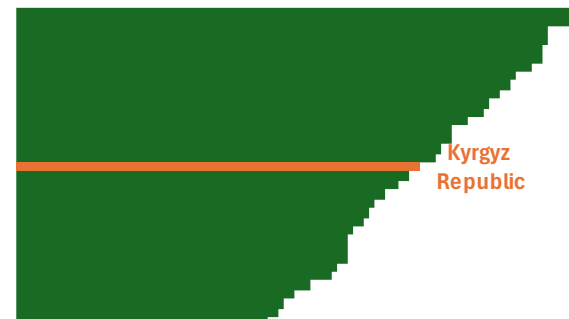
Level of fees and charges for less than full truck loads are considered

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

0 20 40 60 80 100 120 (9)

Mean speed (2022)
77 kilometers per hour

(9)



Employment in transport sector (2022)

235.3 thousand employees

(12)

Share of transport sector in total employment (2022)

8.6%

(12)

Average annual growth rate of transport sector employment

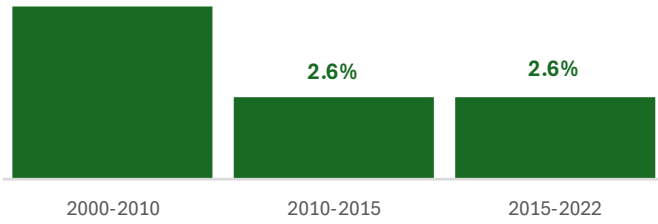
5.5%

(12)

Share of females in total transport sector employment (2022)

8.8%

(12)



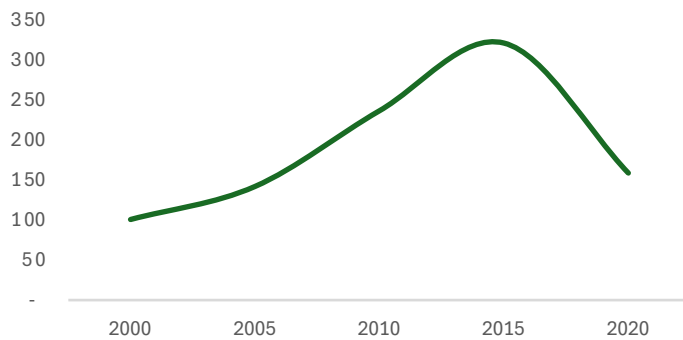
Decarbonization

Road transport energy consumption trend

Assuming 2000 value as base (100)

(13)

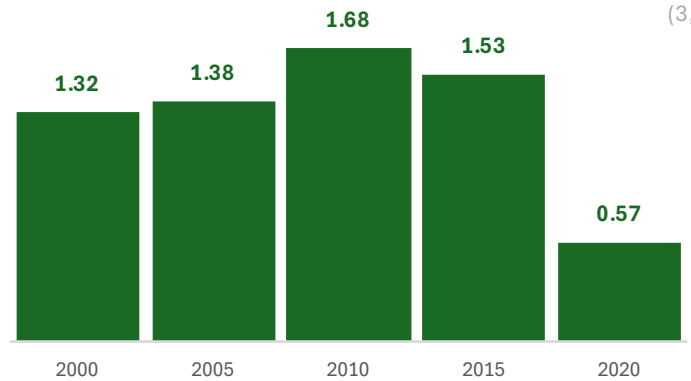
98% of Kyrgyz Republic's transport energy consumption is in the road sector.



Between 2000-2010, Kyrgyz Republic's road transport energy consumption grew 8.9% annually. Between 2010-2020, road transport energy consumption contracted -3.9% 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)

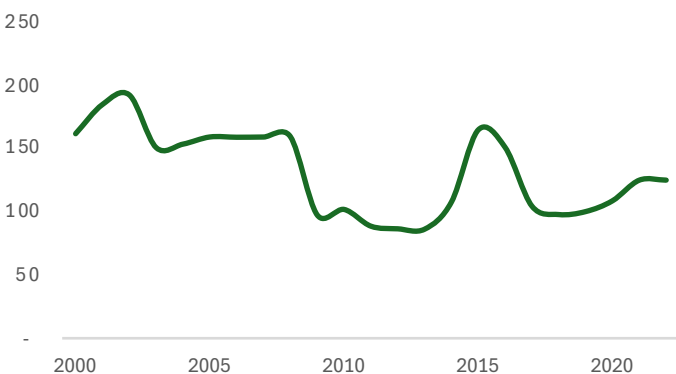
124.5 gCO2 per kWh

(14)

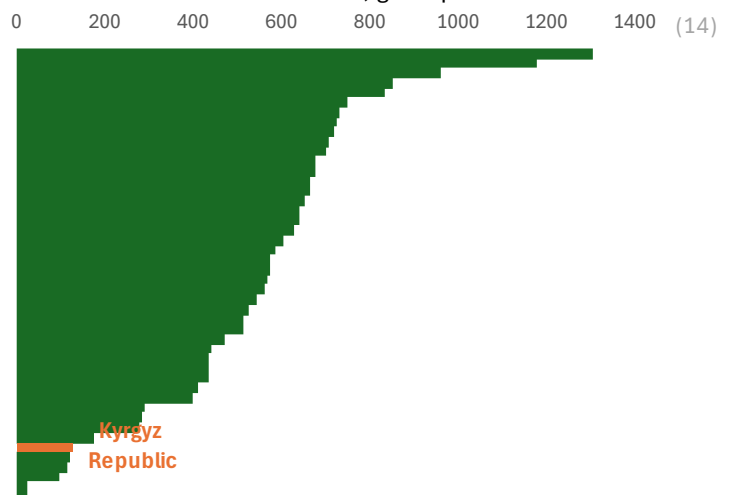
Grid emission factors in Asia-Pacific, gCO2 per kWh

(14)

Grid emission factor trend, gCO2 per kWh

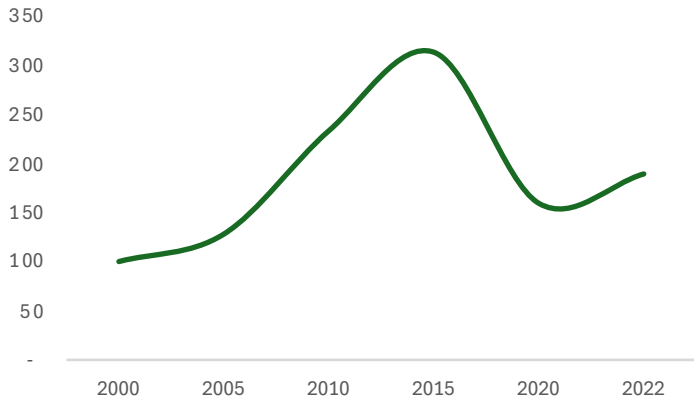


(14)

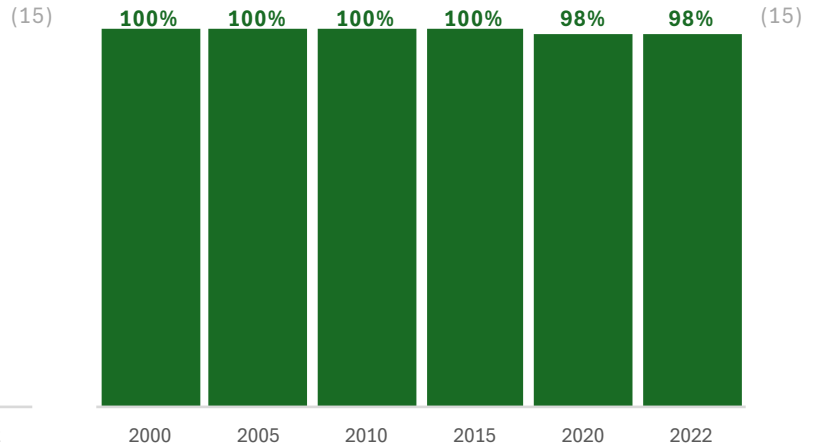


Road transport CO2 emissions trend

Assuming 2000 value as base (100)



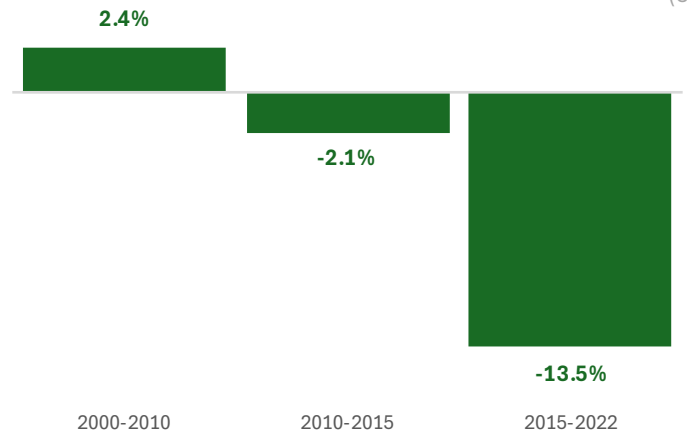
Share of road transport in total transport CO2 emissions



Between 2010-2019, Kyrgyz Republic's road transport fossil CO2 emissions was contracting -6.1% 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

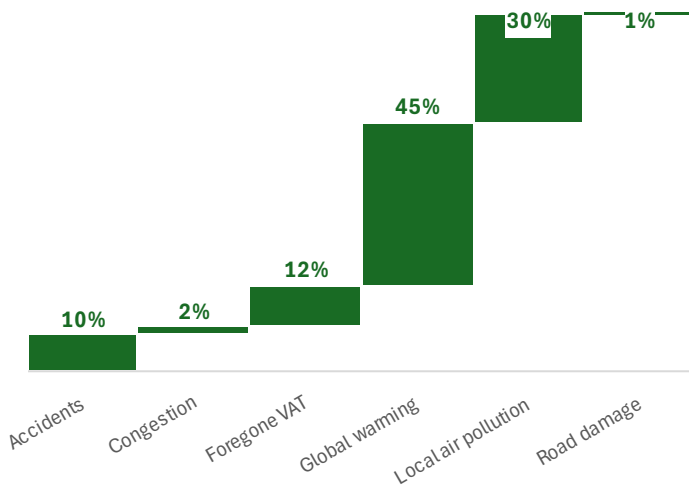
None

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)

11.6 million USD

(18)

National road vulnerability index ranking (2023)

164th out of 208 countries

(20)

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

84.7%

(19)

Share of population in low elevated coastal zones (2018)

0.0%

(21)

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

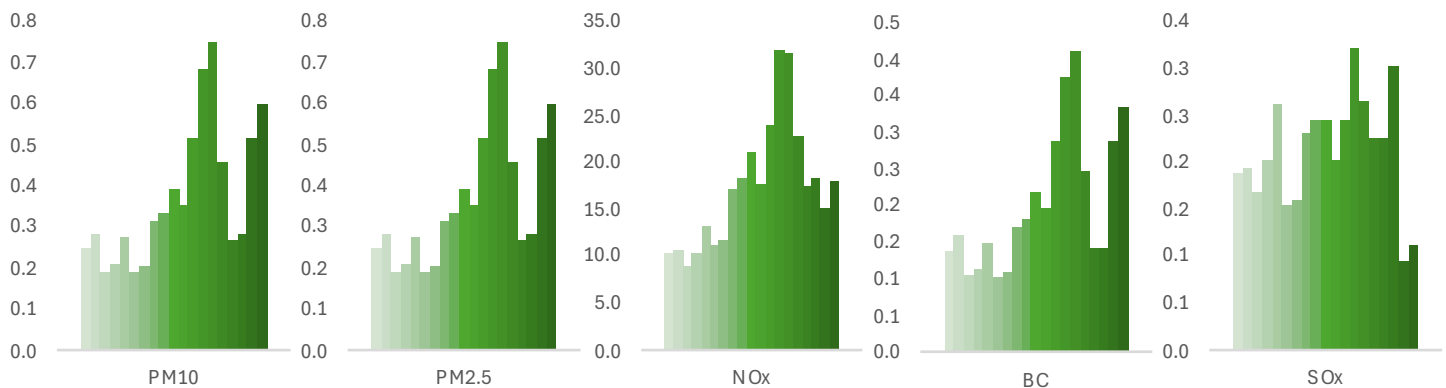
Paved roads (2023)

n.d.

(1)

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

(15)



In 2022, road transport contributed 69.4%, re-suspended dust contributed 28.2% in transport PM10 emissions. In total, road transport contributed about 5.5% in total PM10 emissions in Kyrgyz Republic.

Deaths due to occupational exposure to diesel engine exhaust | 2000-2010

81 deaths

| 2011-2018

81 deaths

(22)

Terrestrial and marine protected areas (2022)

6.7%

(3)

(% of total territorial area)

Terrestrial protected areas

6.7%

(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)

| Kyrgyz Republic

7.4 tonnes

| Asia-Pacific

13.8 tonnes

(23)

Forest area (2021)

7.0%

(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
Global Status Report on Road Safety 2018	2018	Automated enforcement of speed limits, Design standards for sidewalks and bicycle paths, Upgrading high risk locations for road safety, National road safety strategy, National speed law, Audits/ star rating for existing roads for road safety
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
Voluntary National Review on the Implementation of the Sustainable Development Goals in the Kyrgyz Republic 2020	2020	Road infrastructure expansion
National Development Strategy of the Kyrgyz Republic for 2018-2040	2018	Routine transport asset maintenance, General transport asset management, Road infrastructure expansion
ORDER OF THE GOVERNMENT OF THE KYRGYZ REPUBLIC of September 30, 2014 No. 558 About approval of Main routes of development of rail transport of the Kyrgyz Republic for 2014-2020	2014	General transport asset management, General transport finance
International Energy Charter	2015	General infrastructure improvements
Development Programme of the Kyrgyz Republic for the period 2018-2022	2018	General transport asset management, Road infrastructure expansion
LAW OF THE KYRGYZ REPUBLIC of July 19, 2013 No. 154 About road transport	2013	Road-side vehicle technical checks, Vehicle inspection and maintenance
Road Safety Opportunities and Challenges: Low- and Middle-Income Country Profiles	2020	Vehicle inspection and maintenance, Implementation of vertical deflections on roads
ORDER OF THE GOVERNMENT OF THE KYRGYZ REPUBLIC of October 19, 2007 No. 479 About some measures for development of domestic air transportation in the Kyrgyz Republic	2007	Reference to finance mechanisms within country
ORDER OF THE GOVERNMENT OF THE KYRGYZ REPUBLIC of May 21, 2015 No. 311 About approval of Rules of the organization of goods transportation by the vehicle in the Kyrgyz Republic	2015	Road-side checks on overloading

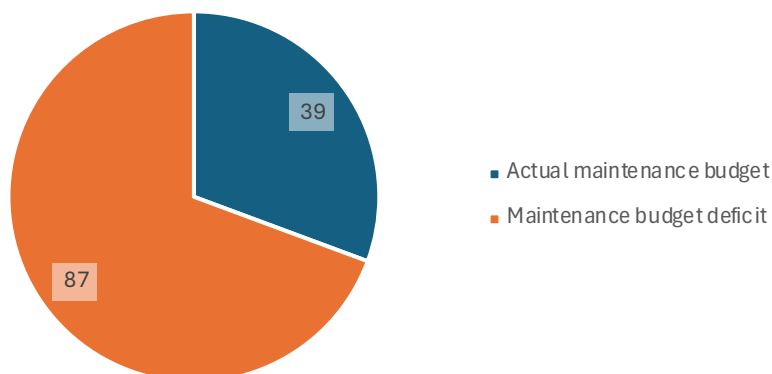
Appendix

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

Road class	Length	Paved	Quality			
			Good	Fair	Poor	Very Poor
International	4,339	84%	60%	21%	19%	
National	8,957	28%	24%	27%	47%	
Local	5,647	40%	20%	28%	51%	

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)
Fuel excise tax	72.0
Vehicle customs duty	75.0
Vehicle registration fee	7.1
Vehicle value added tax	15.5
Annual motor vehicle tax	12.6
Overloaded and oversized vehicles	1.6
Tolling	0.9

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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- (20) Koks, et al. (2023), <https://iopscience.iop.org/article/10.1088/2634-4505/acd1aa>
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- (23) Global Materials Flow Database (UNEP, 2023), <https://www.resourcepanel.org/global-material-flows-database>

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