Russia

Russia's transport sector remains heavily reliant on fossil fuels and private motorisation. Renewable energy, including biofuels and electricity, accounted for 7.1% of Russia's transport energy consumption, whereas the carbon intensity of its electricity remains high, at 445 gCO_2/kWh in 2023. Passenger transport activity declined by 5.6% from 2015 to 2022, while freight transport increased by 15.1%, with railways dominating both sectors. Transport emissions rose by nearly 9% from 2015 to 2023, contributing 9.94% to national GHG emissions. Beyond climate impacts, transport accounted for 5.9% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 2.85 premature deaths per 100,000 people in Russia in 2019. Road traffic injuries, on the other hand, claimed 10.6 lives per 100,000 people and accounted for 3.70% of Russia's GDP in 2021. In 2020, a significant share (80.12%) of Russia's population had convenient access to public transport, whereas no data is available on the rural population's access to all-weather roads. Russia has integrated transport into climate strategies but lacks specific mitigation targets. Urban mobility initiatives include a national framework and a sustainable urban mobility plan for one city. Rail expansion and logistics improvements are prioritised, yet electrification and renewable energy adoption remain limited.

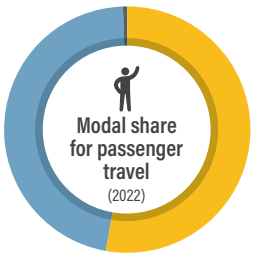
Income group: Middle-income		
Human Development Index (2023): 0.83		
Population size (2023): 145.53 million	**+0.41%** (2015 - 2023)	
Urban population share (2023): 74.05%	**+1.25%** (2015 - 2023)	
GDP per capita (2023): 10 465.19 USD	**+11.36%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**10.8%**	
Share of women employed in transport and storage (2023)	**24.1%**	

Transport Demand Trends

Passenger transport activity

233 630 million passenger-km in 2022

-5.6% (2015 to 2022)



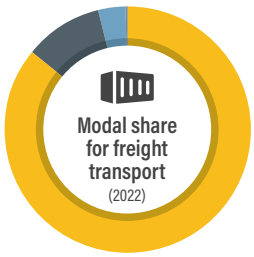
53.1%	Railways
0.3%	Waterways
46.7%	Bus

SDG 9.1

Freight transport activity

3 067 800 million ton-km in 2022

+15.1% (2015 to 2022)



86.0%	Railways
10.2%	Roads
3.7%	Waterways
0.1%	Aviation

SDG 9.1

Transport energy consumption (2022)

4 306 933 TJ

+9.6% (2015 to 2022)

Oil products

66.4% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

1 134.2 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

8.27 Lge/km

Road traffic fatalities (2021), WHO estimates SDG 3.6

10.6 deaths per 100,000 people — 5.8 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

3.7%

Premature deaths linked to transport air pollution (2019) SDG 11.6

2.9 deaths per 100,000 people — 4.1 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

5.9%

Transport Emission Trends

Transport GHG emissions (2023)

265.7 million tonnes of CO_2 equivalent

+9.0% (2015 to 2023)

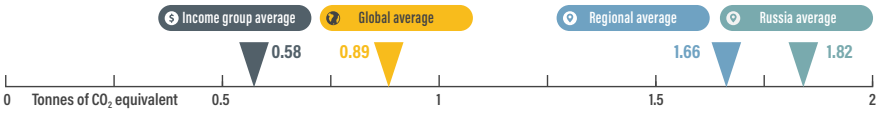
+1.4% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.82 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the fifth-largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st and Updated NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2020 VNR with transport linkages to SDG 2, SDG 3, SDG 7, SDG 9, SDG 19, SDG 11 and SDG 12

Transport actions in VNRs

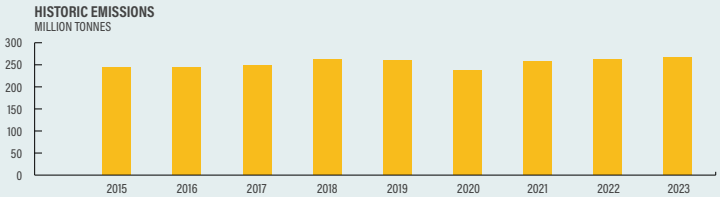
- Road safety improvements
- Infrastructure development for better logistics and passenger transport

Transport actions in NDC

Mitigation

Adaptation

Transport GHG emissions from 2015 to 2023



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2024)	1 city (Pskov)
Low emission zones (2024)	1 city (Moscow)

Adaptation and Resilience

ND-GAIN Index (2022)	58.85
Vulnerability score for infrastructure (2022)	0.08

Walking

Walkability Score (2024)	0.81
National walking strategies (2024)	✗

Cycling

Cycling infrastructure in capital (2024)	850 km
Percent near protected bikeways (2024)	4%
Bike sharing systems (2024)	7
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	Over 1 129 km in 8 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	80.12%

Intercity Rail

Rail network (2021)	85 544 km
Rail travel activity (2021)	103 447 million passenger-km
Rail freight activity (2021)	2 638 562 million ton-km
High-speed rail	–
High-speed rail travel activity (2020)	4 606.6 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- To increase freight shipments by 500–800 million tonnes by 2030
- To prioritise 'green' technologies and ensure a 50% reduction in the environmental burden

Road Transport

Total road vehicles in use per 1,000 people (2020)	386.7
Road vehicle fleet growth (from 2015 to 2020)	10.36%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	0.62 USD per litre
Gasoline prices (2022)	0.67 USD per litre

Aviation

Air passengers carried (2021)	96.9 million people
Air freight activity (2021)	5 888.4 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	2.6
Liner shipping connectivity index (Q4 2024)	31.7
Container port traffic (2020)	4 871 919.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	445.02 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	7.1% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	7.1% of total transport energy consumption
Targeted renewable power share	19%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Very Good
Electric vehicles stock for passenger cars (2024)	10 000 vehicles
Share of electric vehicles in car sales (2024)	2.9%
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	20 vehicles
Electric vehicles stock for trucks (2024)	–

This fact sheet is part of the SLOCAT Transport, Climate and Sustainability Global Status Report – 4th Edition. The country fact sheets have been made possible thanks to financial support from the ClimateWorks Foundation. Information presented in this fact sheet is based on desk research and may not be complete or reflect the most recent status. Data has been collected to the best of our knowledge and availability. Where no information could be retrieved, the indicators are shown in grey. The content does not represent the views of the SLOCAT Partnership on Sustainable, Low Carbon Transport or the ClimateWorks Foundation. For more information, please visit **gsr4.slocat.net**.

Supported by: Drive Electric Campaign

List of acronyms

GDP	Gross-domestic product
HDV	Heavy-duty vehicle
ICE	Internal combustion engine
kWh	Kilowatt-hour
LDV	Light-duty vehicle
LRT	Light-rail transit
NDC	Nationally determined contribution
PST	Primary, secondary or tertiary roads
TEU	Twenty-foot Equivalent Unit
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure