Algeria

Algeria's transport sector is a significant contributor to emissions, accounting for 18.5% of national GHG emissions. Transport is the second-largest GHG-emitting sector in Algeria, and it recorded a 4.7% increase in transport emissions between 2022 and 2023. Rail transport has expanded, with passenger and freight activity growing by 24.7% and 10.9%, respectively from 2015 to 2023. Fossil fuels dominated transport energy consumption commensurate with high fossil fuel subsidies (707.07 USD per capita in 2022). Transport contributed 17.7% to air pollution in 2019. Although almost half the population has convenient access to public transport (45.9%), the country lost 18.3 people per 100,000 people to road crashes (2021), and 8.84 people per 100,000 prematurely to air pollution related causes. In 2021, Algeria incurred almost 6% loss of GDP due to road traffic fatality.

Algeria has a very good regulatory environment policy ranking on imported used vehicles. Its NDC highlights transport for GHG mitigation, albeit without specific transport emission reduction targets nor detailed decarbonisation actions. There are few national policies and frameworks in support of sustainable, low-carbon transport policies.

Income group: Middle-income	
Human Development Index (2023): 0.76	
Population size (2023): 40.43 million	**+15.71%** (2015 - 2023)
Urban population share (2023): 74.20%	**+20.38%** (2015 - 2023)
GDP per capita (2023): 4 694.25 USD	**-0.83%** (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	**6.7%**
Share of women employed in transport and storage (2023)	**3.8%**

Transport Demand Trends

Passenger transport activity

1 583 million passenger-km of rail transport in 2023

+24.7% (2015 to 2023)

Modal share for passenger travel

SDG 9.1

Freight transport activity

1 121 million ton-km of rail transport in 2023

+10.9% (2015 to 2023)

Modal share for freight transport

SDG 9.1

Transport energy consumption (2022)

644 837 TJ

- 0.4% (2015 to 2022)

Oil products

94% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

707.0 USD per capita

Fuel quality standards (2022)

500-2000 ppm

Average light duty vehicle fuel consumption (2022)

No data

Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

18.3 deaths per 100,000 people — 18.7 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.90%

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

8.8 deaths per 100,000 people — 1.0 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

17.7%

Transport Emission Trends

Transport GHG emissions (2023)

47.4 million tonnes of CO_2 equivalent

+0.1% (2015 to 2023)

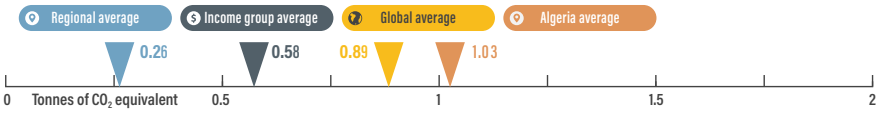
+4.7% (2022 to 2023)

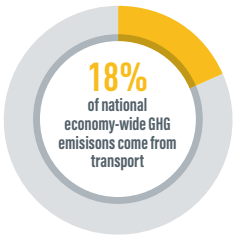
2015 — 2023

Per capita transport GHG emissions (2023)

1.03 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



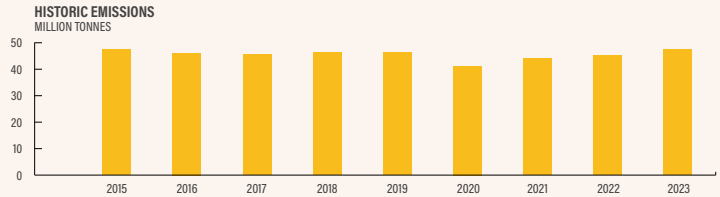


Transport is the second-largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✗
NDC submitted:	Only 1st NDC in 2016
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2019 VNR with transport linkages to SDG 1, SDG 7, SDG 11 and SDG 13.

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Infrastructure development
- CNG
- Efficiency improvements
- Public transport and cycling promotion

Transport actions in NDC

Mitigation

- LPG/CNG/LNG

Adaptation

- Transport laws, regulations and programmes

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✕
Sustainable urban mobility plans (2024)	✕
Number of sustainable urban mobility plans (2022)	0 cities
Low emission zones (2022)	✕

Adaptation and Resilience

ND-GAIN Index (2022)	48.67
Vulnerability score for infrastructure (2022)	0.13

Walking

Walkability Score (2024)	0.72
National walking strategies (2024)	✕

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	1
National cycling strategies (2024)	✕

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	116.7 km in 7 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	45.86%

Intercity Rail

Rail network (2021)	4 000.5 km
Rail travel activity (2023)	1 583 million passenger-km
Rail freight activity (2023)	1 121 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To develop high-speed rail and electrify railways
- Double passenger volume by 2025

Road Transport

Total road vehicles in use per 1,000 people (2020)	142.8
Road vehicle fleet growth (from 2015 to 2020)	16.2%
Rural Access Index (2019) SDG 9.1	86.6 RAI PST
Diesel prices (2022)	–
Gasoline prices (2022)	–

Aviation

Air passengers carried (2021)	1.9 million people
Air freight activity (2021)	12.7 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	2.5
Liner shipping connectivity index (Q4 2024)	12.2
Container port traffic (2020)	724 991.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	633.65 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	1.1% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	1.1% of total transport energy consumption
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO_2 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 (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✕
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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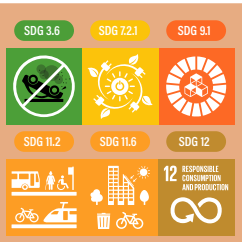
List of acronyms

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



Egypt

Egypt's transport sector recorded a 5.7% decline in emissions since 2015. However, transport is still a key contributor to national emissions, accounting for 15.8% of total GHG emissions in 2023. The per capita transport GHG emissions in 2023 (0.47 tonnes per capita) were almost twice as high as the regional average. Rail freight and passenger transport activity have seen reductions, and energy consumption is heavily reliant on fossil fuels. Although only about one third of the population has convenient access to public transport (29.5%), 95.5% have access to an all-weather primary, secondary or tertiary road within 2 kilometres. However, fuel quality standards remained low, and in 2021, the country suffered 4.4% GDP loss in form of road traffic fatality. The country has outlined transport mitigation in its NDC, with a specific target to reduce transport CO_2 emissions by 7%. Although electricity still accounts for a very low percentage of total transport energy consumption (0.2%), and electric vehicle adoption is limited, Egypt's updated NDC aims to have renewables accounting for 42% of installed power capacity by 2030. The 2021 VNR highlights development of infrastructure, green bonds for transport, and an integrated national financing framework. Sustainable urban mobility planning is ongoing, and the country has banned importation of used light duty vehicles.

Income group: Middle-income	
Human Development Index (2023): 0.75	
Population size (2023): 100.61 million	**+15.13%** (2015 - 2023)
Urban population share (2023): 41.06%	**+16.14%** (2015 - 2023)
GDP per capita (2023): 4149.03 USD	**+24.18%** (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	**10.2%**
Share of women employed in transport and storage (2023)	**2.7%**

Transport Demand Trends

Passenger transport activity

39 027 million passenger-km of rail transport in 2022

-4.4% (2015 to 2023)

Modal share for passenger travel

SDG 9.1

Freight transport activity

1 333 million ton-km of rail transport in 2022

-16.3% (2015 to 2023)

Modal share for freight transport

SDG 9.1

Transport energy consumption (2022)

790 390 TJ

+3.0% (2015 to 2023)

Oil products

97.1% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

No data USD per capita

Fuel quality standards (2022)

>5000 ppm

Average light duty vehicle fuel consumption (2022)

7.25 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

9.4 deaths per 100,000 people — 18.7 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

4.4%

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

5.8 deaths per 100,000 people — 1.0 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

6.3%

Transport Emission Trends

Transport GHG emissions (2023)

53.1 million tonnes of CO_2 equivalent

-5.7% (2015 to 2023)

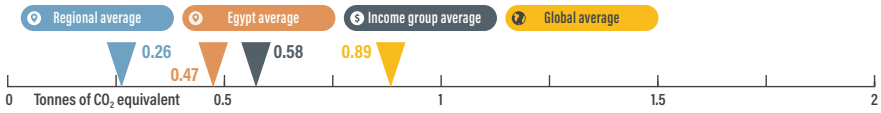
-1.6% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

0.47 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

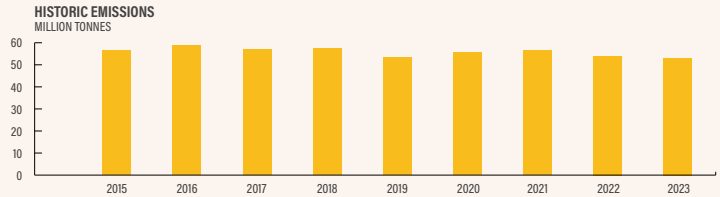


Transport is the third-largest GHG-emitting sector in the country in 2023.

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	Reduce transport CO_2 emissions by 7% transport sector, BAU GHG emissions by 2030 = 124,360 Gg CO_2eq, mitigation target by 2030 = 8,960 Gg CO_2eq, GHG reduction % compared to BAU in 2030 = 7%
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2021 VNR with transport linkages to SDG 5, SDG 7, SDG 8, SDG 9 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Integrated national financing framework
- Infrastructure development
- Green bonds for transport

Transport actions in NDC

Mitigation

- Airport CO_2 certification | General infrastructure improvements
- BRT | General innovations and digitalization
- Cycling measures | Jet fuel policies
- Expansion of infrastructure | LPG/CNG/LNG
- Financial instruments to support decarbonisation | Public transit integration and expansion
- General active mobility | Use of renewable energy
- General e-mobility | Vehicle efficiency standards

Adaptation

- Adaptation and resilience of transport systems
- Risk assessment

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	Ongoing
Sustainable urban mobility plans (2024)	Ongoing
Number of sustainable urban mobility plans (2022)	1 city
Low emission zones (2022)	✓

Adaptation and Resilience

ND-GAIN Index (2022)	47.59
Vulnerability score for infrastructure (2022)	0.30

Walking

Walkability Score (2024)	0.20
National walking strategies (2024)	Outdated

Target

Cycling

Cycling infrastructure in capital (2022)	17 km
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	3
National cycling strategies (2024)	In progress

Target

▶ In progress

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	131 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	29.45%

Intercity Rail

Rail network (2016)	5 153 km
Rail travel activity (2022)	39 027 million passenger-km
Rail freight activity (2022)	1 333 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

▶ To maximise rail transport contribution to the country's socioeconomic development and effectively support Vision-2030, whose goal is to achieve a sustainable and all-inclusive economy by 2030.

Road Transport

Total road vehicles in use per 1,000 people (2020)	63.8
Road vehicle fleet growth (from 2015 to 2020)	20.66%
Rural Access Index (2019) SDG 9.1	95.5 RAI PST
Diesel prices (2022)	0.30 USD per litre
Gasoline prices (2022)	0.53 USD per litre

Aviation

Air passengers carried (2021)	5.6 million people
Air freight activity (2021)	589.5 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	66.7
Container port traffic (2020)	5 928 454.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	574.04 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.2% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.2% of total transport energy consumption
Targeted renewable power share	42%

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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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

Ghana

Ghana's transport sector is experiencing rapid urbanisation and increasing demand, with urban populations growing by nearly 30% since 2015, and by 1.2% since the last edition of the country's factsheet. Together with economic growth, transport emissions rose by 14.5% from 2015 to 2023, making it the country's second-largest GHG-emitting sector. Fossil fuels remain the dominant energy source. There is still limited data on freight and passenger transport activity, 24.4% of Ghana's population has convenient access to public transport. In 2021, Ghana recorded a high number of road traffic fatalities (25.9 deaths per 100,000 people), which cost the country 6.80% of their GDP. Efforts toward decarbonisation include expanding rail infrastructure and integrating transport into national policies. Among these, Ghana is ranked to have a 'Good' regulatory environment for used vehicles. However, with minimal renewable energy use in transport (0.03%), Ghana faces challenges in transitioning to a low-carbon, resilient transport system, especially with sustainable urban transport planning still in early stages.

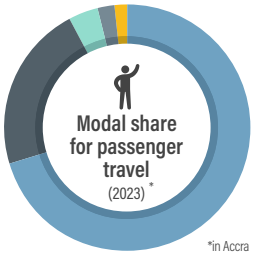
Income group: Middle-incomex		
Human Development Index (2023): 0.63		
Population size (2023): 29.02 million	**+17.97%** (2015 - 2023)	
Urban population share (2023): 57.82%	**+29.71%** (2015 - 2023)	
GDP per capita (2023): 2106.79 USD	**+20.97%** (2015 - 2023)	
Share of women employed in transport and storage (2023)	**3.5%**	
Share of transport and storage jobs in workforce (2023)	**4.3%**	

Transport Demand Trends

Passenger transport activity

20 million passenger-km of rail transport in 2013

+12.1% (2015 to 2023)



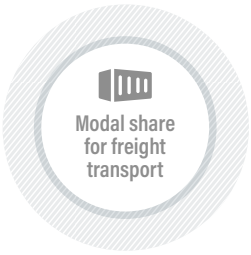
70.5%	Automobile
21.7%	Walk
4.0%	Motorcycle
2.3%	Bus
1.4%	Cycling

SDG 9.1

Freight transport activity

178.1 million ton-km of rail transport in 2013

+83.8% (2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

139 103 TJ

+28.5% (2015 to 2023)

Oil products

100% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

93.6 USD per capita

Fuel quality standards (2022)

15-50 ppm

Average light duty vehicle fuel consumption (2022)

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

25.9 deaths per 100,000 people — 18.7 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

6.8%

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

1.1 deaths per 100,000 people — 1.0 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

3.1%

Transport Emission Trends

Transport GHG emissions (2023)

9.2 million tonnes of CO_2 equivalent

+14.5% (2015 to 2023)

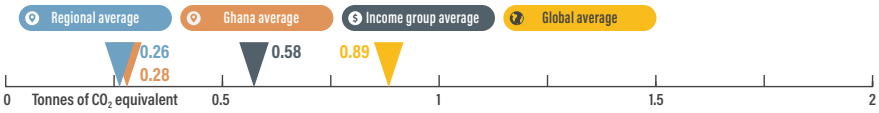
-3.1% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

0.28 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the second-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	✓ 2022 VNR with transport linkages to SDG 1, SDG 9 and SDG 13

Transport actions in VNRs

- Not available but references to transport actions in NDCs made

Transport actions in NDC

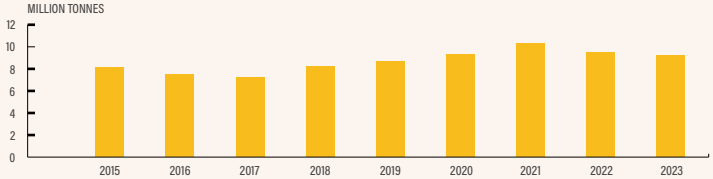
Mitigation

- Expansion of infrastructure

Adaptation

- Transport Planning

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 (2022)	1 city
Low emission zones (2022)	None

Adaptation and Resilience

ND-GAIN Index (2022)	45.18
Vulnerability score for infrastructure (2022)	0.18

Walking

Walkability Score (2024)	0.42
National walking strategies (2024)	✓

Target

▶ In progress

Cycling

Cycling infrastructure in capital (2022)	51.92 km
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	0%
National cycling strategies (2024)	✓

Target

▶ In progress

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	–
Proportion of population that has convenient access to public transport (2020) SDG 11.2	24.39%

Intercity Rail

Rail network (2006)	953 km
Rail travel activity (2013)	20 million passenger-km
Rail freight activity (2013)	178.1 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

▶ 3800 km of track to be built between 2020 and 2035

Road Transport

Total road vehicles in use per 1,000 people (2020)	0.0
Road vehicle fleet growth (from 2015 to 2020)	–
Rural Access Index (2019) SDG 9.1	93.9 RAI PST
Diesel prices (2022)	1.25 USD per litre
Gasoline prices (2022)	0.96USD per litre

Aviation

Air passengers carried (2021)	0.6 million people
Air freight activity (2021)	–
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	2.5
Liner shipping connectivity index (Q4 2024)	37.2
Container port traffic (2020)	1 050 696.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	452.86 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.03% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.03% of total transport energy consumption
Targeted renewable power share	10%

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)	Good
Electric vehicles stock for passenger cars (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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WLTP	Worldwide harmonised light vehicles test procedure

Libya

In **Libya**, data on passenger and freight transport activity is very limited. However data on the modal split for Tripoli indicates heavy reliance on private road transport, with automobiles making up 87.4% of passenger travel. This vehicle dominance is accompanied by a high number of road traffic fatalities (34 deaths per 100,000 people) which cost the country 9.8% of GDP in 2021. Libya's transport GHG emissions reduced by 0.54% between 2022 and 2023, but the sector still represents the third-largest source of national GHG emissions, contributing 19.68% of total emissions in 2023, and the value of per capita emissions is 10 times the regional average, and almost three times the global average.

Transport contributed 3.5% to Libya's air pollution in 2019, and the country had the second highest carbon intensity among the electricity grids in Africa. Information on the countries transport decarbonisation strategies and specific climate mitigation targets is also very limited. Libya's 2024 VNR highlights transport, but without any transport linkages to the SDGs. The regulatory environment ranking on used vehicles is 'Very Weak', and there are minimal investments in sustainable transport infrastructure, including public transport and cycling. Convenient access to public transport is very limited (7.24%).

Income group: Middle-income	
Human Development Index (2023): 0.72	
Population size (2023): 6.58 million	**+12.14%** (2015 - 2023)
Urban population share (2023): 77.41%	**+13.84%** (2015 - 2023)
GDP per capita (2023): 9 345.00 USD	**+24.33%** (2015 - 2023)
Share of women employed in transport and storage (2023)	**12.3%**
Share of transport and storage jobs in workforce (2023)	**6%**

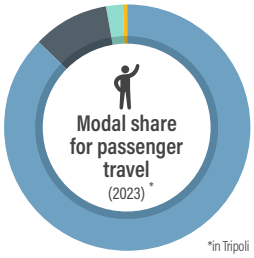
Transport Demand Trends

Passenger transport activity

No data

million passenger-km of rail transport in 2023

– (2015 to 2023)



87.4%	Automobile
10.1%	Walking
2.0%	Motorcycle
0.5%	Cycling

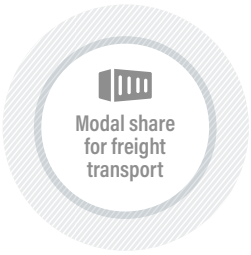
SDG 9.1

Freight transport activity

No data

million ton-km of rail transport

– (2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

250 274 TJ

+0.2% (2015 to 2022)

Oil products

100% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

731.6 USD per capita

Fuel quality standards (2022)

500-2000 ppm

Average light duty vehicle fuel consumption (2022)

No data

Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

34 deaths per 100,000 people | 18.7 Regional | 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

9.8%

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

1.7 deaths per 100,000 people | 1.0 Regional | 2.3 Global

Contribution of transport to air pollution (2019)

3.5%

Transport Emission Trends

Transport GHG emissions (2023)

18.9 million tonnes of CO_2 equivalent

+21.4% (2015 to 2023)

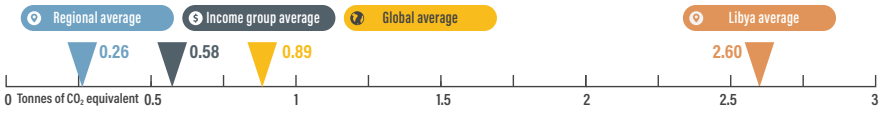
-0.5% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

2.60 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the third-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:	✗
NDC highlights transport for GHG mitigation	✗
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	–
VNR highlights transport	✓ 2024 VNR with no transport linkages

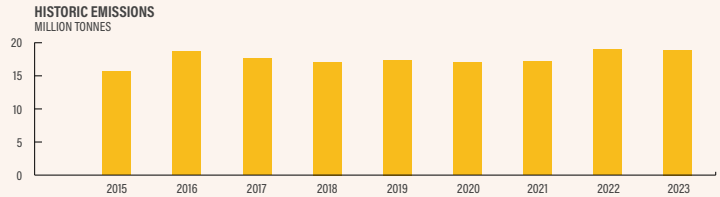
Transport actions in VNRs

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 (2022)	✕
Low emission zones (2022)	✕

Adaptation and Resilience

ND-GAIN Index (2022)	43.03
Vulnerability score for infrastructure (2022)	0.19

Walking

Walkability Score (2024)	0.57
National walking strategies (2024)	–

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	0
National cycling strategies (2024)	Not available, only subnational Tripoli Green Belt Mobility Master Plan

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	–
Proportion of population that has convenient access to public transport (2020) SDG 11.2	7.24%

Intercity Rail

Rail network (2021)	–
Rail travel activity (2020)	–
Rail freight activity (2019)	–
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	–

Target

- No operational rail network, but individual projects envisioned (e.g. rail link between Egypt and Libya)

Road Transport

Total road vehicles in use per 1,000 people (2020)	465.7
Road vehicle fleet growth (from 2015 to 2020)	23.95%
Rural Access Index (2019) SDG 9.1	57.6 RAI PST
Diesel prices (2022)	0.29 USD per litre
Gasoline prices (2022)	0.25 USD per litre

Aviation

Air passengers carried (2021)	1.0 million people
Air freight activity (2021)	13.6 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	1.9
Liner shipping connectivity index (Q4 2024)	12.4
Container port traffic (2020)	–

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	830.53 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.0% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	–
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Very Weak
Electric vehicles stock for passenger cars (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✕
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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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

Morocco

In **Morocco**, the transport sector is the third-largest contributor to GHG emissions, accounting for 16.59% of national emissions in 2023. Transport emissions have grown by 6.2% from 2015 to 2023. Freight transport activity showed decreasing trends between 2015 and 2023, as the main focus was on passenger rail transport. Road transport remains dominant in urban transport, with private cars comprising 56.1% of passenger travel in Marrakesh. This is reflected in the high number of road traffic fatalities (18.6 deaths per 100,000 people) which cost the country 5.8% of GDP in 2021. Additionally, transport contributed 5.7% to air pollution in 2019.

Morocco has made some progress on sustainable, low-carbon transport through initiatives such as promoting rail and public transport, as well as establishing energy efficiency standards. However, the country faces challenges in adopting renewable energy in transport and lacks specific transport mitigation targets in their Updated NDC.

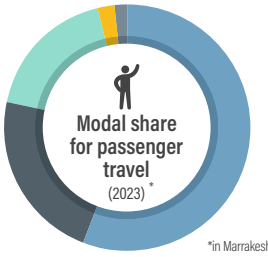
- **Income group:** Middle-income
- **Human Development Index (2023):** 0.71
- **Population size (2023):** 34.81 million — **+9.05%** (2015 - 2023)
- **Urban population share (2023):** 66.50% — **+17.91%** (2015 - 2023)
- **GDP per capita (2023):** 3 452.01 USD — **+7.58%** (2015 - 2023)
- **Share of women employed in transport and storage (2023)** — **4.7%**
- **Share of transport and storage jobs in workforce (2023)** — **3%**

Transport Demand Trends

Passenger transport activity

6 879 million passenger-km of rail transport in 2023

+24.9% (2015 to 2023)

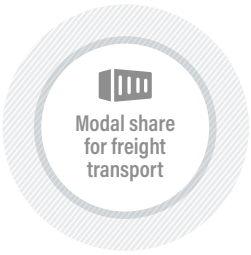


SDG 9.1

Freight transport activity

2 239 million ton-km of rail transport in 2023

-52.9% (2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

240 157 TJ

+7.2% (2015 to 2022)

Oil products

99.5% of total transport energy consumption

Per capita fossil fuel subsidies (2022)

SDG 12

148.0 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

No data

Lge/km

Road traffic fatalities (2021), WHO estimates

SDG 3.6

18.6 deaths per 100,000 people

18.7 Regional

15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.8%

Premature deaths linked to transport air pollution (2019)

SDG 11.6

4.3 deaths per 100,000 people

1.0 Regional

2.3 Global

Contribution of transport to air pollution (2019)

5.7%

Transport Emission Trends

Transport GHG emissions (2023)

17.7 million tonnes of CO_2 equivalent

+6.2% (2015 to 2023)

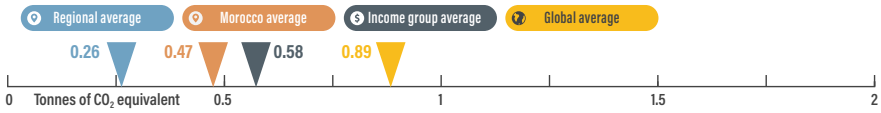
-0.8% (2022 to 2023)

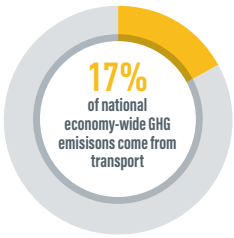
2015 — 2023

Per capita transport GHG emissions (2023)

0.47 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



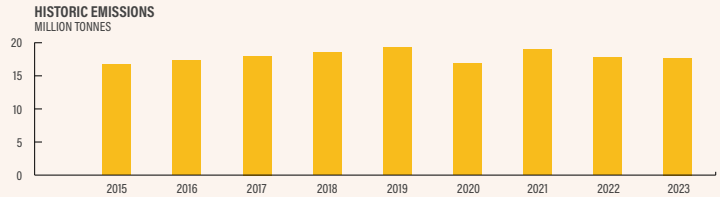


Transport is the third-largest GHG-emitting sector in the country in 2023.

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 3, SDG 4, SDG 7, SDG 9, SDG 11 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Urban infrastructure development
- Public transport promotion
- Rural roads development
- Infrastructure development programs
- Energy efficiency improvements
- Rail network planning

Transport actions in NDC

Mitigation

- Ecodriving | Use of renewable energy
- Freight transport shifting to rail or inland waterways | Vehicle air pollution emission standards
- General economic instruments | Vehicle efficiency standards
- General freight efficiency improvements | Vehicle scrappage scheme
- General vehicle improvements | Vehicle taxes
- Public transit integration and expansion

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2022)	3 cities
Low emission zones (2022)	✗

Adaptation and Resilience

ND-GAIN Index (2022)	53.38
Vulnerability score for infrastructure (2022)	0.29

Walking

Walkability Score (2024)	0.73
National walking strategies (2024)	–

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0.5%
Bike sharing systems (2024)	0
National cycling strategies (2024)	–

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	101 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	51.50%

Intercity Rail

Rail network (2021)	2 295 km
Rail travel activity (2022)	6 879 million passenger-km
Rail freight activity (2023)	2 239 million ton-km
High-speed rail (2023)	186 km
High-speed rail travel activity (2023)	1 214 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- To create a 1500-km high-speed rail network, alongside a standard network of 2700 km by 2030
- To increase the number of cities served by conventional, high-speed rail links from 23 to 43

Road Transport

Total road vehicles in use per 1,000 people (2020)	113.2
Road vehicle fleet growth (from 2015 to 2020)	19.77%
Rural Access Index (2019) SDG 9.1	80.3 RAI PST
Diesel prices (2022)	1.05 USD per litre
Gasoline prices (2022)	1.46 USD per litre

Aviation

Air passengers carried (2021)	4.7 million people
Air freight activity (2021)	58.9 million ton-km
Carbon-accredited airports (2023)	7 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	69.3
Container port traffic (2020)	6 980 958.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	616.82 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.5% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.5% of total transport energy consumption
Targeted renewable power share	–

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 (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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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

Nigeria

In **Nigeria**, transport demand is dominated by road-based travel, with private cars and motorcycles accounting for the largest share of passenger transport. The country's transport sector is the third-largest contributor to national GHG emissions, contributing 15.3% of national GHG emissions in 2023, and transport emissions have increased by almost one third from 2015 to 2023 (29.5%). Nigeria also has a very low level of access to public transport, with only 13.8% of the population having convenient access.

Efforts to address emissions include the promotion of Bus Rapid Transit (BRT) systems and cleaner vehicle technologies, such as CNG adoption. However, there is limited progress in renewable energy integration for transport. Nigeria's Nationally Determined Contributions (NDC) set targets for public transport expansion and improved vehicle emission standards. Nigeria is also in the process of developing a national walking and cycling strategy, and has plans to expand and modernise the railway transport network.

- **Income group:** Middle-income
- **Human Development Index (2023):** 0.56
- **Population size (2023):** 193.03 million — **+19.74%** (2015 - 2023)
- **Urban population share (2023):** 53.53% — **+39.26%** (2015 - 2023)
- **GDP per capita (2023):** 2 441.95 USD — **-6.73%** (2015 - 2023)
- **Share of transport and storage jobs in workforce (2023)** — **4.7%**
- **Share of women employed in transport and storage (2023)** — **2.5%**

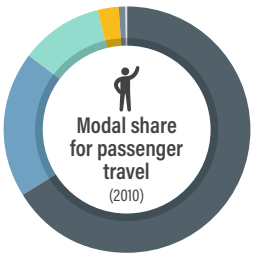
Transport Demand Trends

Passenger transport activity

405 300

million passenger-km in 2010

— (2015 to 2023)



10.7%	Motorcycles
66.3%	Private cars
19.2%	Taxis
0.6%	Light buses
3.0%	Coaches
0.2%	Rail

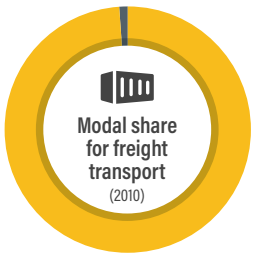
SDG 9.1

Freight transport activity

68 000

million ton-km in 2010

— (2015 to 2023)



99.0%	Trucks
1.0%	Rail

SDG 9.1

Transport energy consumption (2022)

864 836 TJ

+0.4% (2015 to 2023)

Oil products

100% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

96.8 USD per capita

Fuel quality standards (2022)

15-50 ppm

Average light duty vehicle fuel consumption (2022)

No data

Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6 — **17.2** deaths per 100,000 people (18.7 Regional, 15.0 Global)

Road traffic fatality cost as percentage of GDP (2021) — **4.4%**

Premature deaths linked to transport air pollution (2019) SDG 11.6 — **0.6** deaths per 100,000 people (1.0 Regional, 2.3 Global)

Contribution of transport to air pollution (2019) — **2.6%**

Transport Emission Trends

Transport GHG emissions (2023)

59.0

million tonnes of CO_2 equivalent

+29.5% (2015 to 2023)

-3.1% (2022 to 2023)

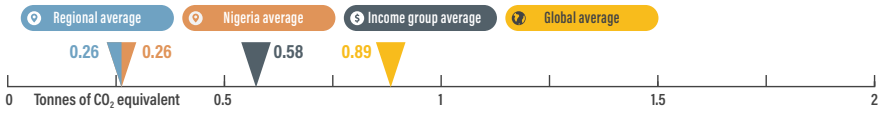
2015 — 2023

Per capita transport GHG emissions (2023)

0.26

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

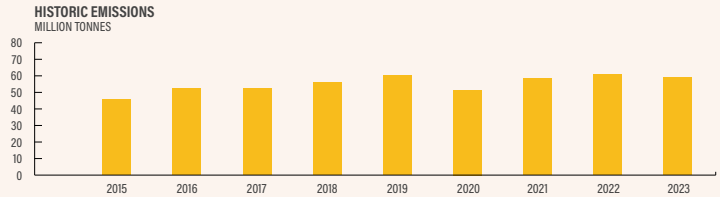


Transport is the third-largest GHG-emitting sector in the country in 2023.

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	100,000 extra buses to be introduced by 2030 Bus Rapid Transport will account for 22.1% of passenger-km by 2035 25 % of trucks and buses using CNG by 2030
VNR highlights transport	✓ 2020 VNR with transport linkages to SDG 2, SDG 4 and SDG 9

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Improve access to schools
- Rural road development

Transport actions in NDC

Mitigation

- Bus Rapid Transport
- LPG/CNG/LNG
- Vehicle air pollution emission standards

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✕
Sustainable urban mobility plans (2024)	✕
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Adaptation and Resilience

ND-GAIN Index (2022)	39.41
Vulnerability score for infrastructure (2022)	0.21

Walking

Walkability Score (2024)	0.06
National walking strategies (2024)	✓

Target

- In progress

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	2
National cycling strategies (2024)	✓

Target

- In progress

Public Transport

Bus rapid transit (2024)	22 km of total length in 1 city
Bus rapid transit daily passenger volume (2024)	200 000 passengers per day
Urban rail (LRT, metro, tram) (2024)	66.7 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	13.38

Intercity Rail

Rail network (2015)	3 528 km
Rail travel activity (2005)	173.632 million passenger-km
Rail freight activity (2005)	76.926 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To boost intra-African trade as envisaged by the African Continental Free Trade Area (AfCTA)
- The second phase of the 1,315-kilometre Nigeria Railway Expansion and Modernisation Plan envisages linking Lagos to Abuja and then Kano through Minna and Kaduna.

Road Transport

Total road vehicles in use per 1,000 people (2020)	54.8
Road vehicle fleet growth (from 2015 to 2020)	2763%
Rural Access Index (2019) SDG 9.1	85 RAI PST
Diesel prices (2022)	0.70 USD per litre
Gasoline prices (2022)	0.66 USD per litre

Aviation

Air passengers carried (2021)	4.5 million people
Air freight activity (2021)	1.6 million ton-km
Carbon-accredited airports (2023)	1
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	2.6
Liner shipping connectivity index (Q4 2024)	20.8
Container port traffic (2020)	1528 520.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	20.0%
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	508.82 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.0% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	–
Targeted renewable power share	–

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)	Good
Electric vehicles stock for passenger cars (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✕
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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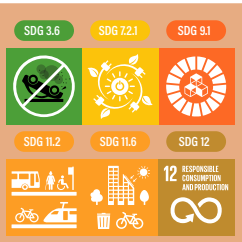
Supported by: Drive Electric CAMPAIGN

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



South Africa

In **South Africa**, transport demand is primarily road-based, with cars and taxis making up the largest share of passenger travel. Passenger travel data indicates high percentage of informal transport and walking modes. Despite a slight reduction in transport emissions since 2015 (7.7%), the transport sector is the third-largest emitter of GHGs, accounting for 9.6% of national emissions in 2023. South Africa has a relatively high number of road traffic fatalities, which cost the country 7% of GDP in 2021. South Africa has the fourth-highest carbon intense electricity grid in Africa, and very low renewable energy consumption in transport.

Policies focus on e-mobility, cleaner fuels, and public transport improvements, including Bus Rapid Transit (BRT) and rail expansion. However, renewable energy accounts for only 1.1% of transport energy consumption. While electric vehicle adoption is growing, the lack of clear emission performance targets and ICE phase-out plans poses challenges for decarbonisation.

Income group: Middle-income		
Human Development Index (2023): 0.74		
Population size (2023): 57.38 million	**+12.00%** (2015 - 2023)	
Urban population share (2023): 66.42%	**+16.37%** (2015 - 2023)	
GDP per capita (2023): 5778.58 USD	**-6.55%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**8.8%**	
Share of women employed in transport and storage (2023)	**20.7%**	

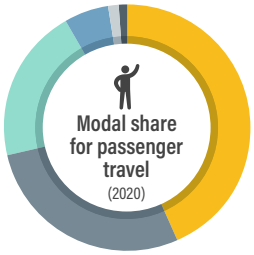
Transport Demand Trends

Passenger transport activity

3 502

million passenger-km of rail transport in 2020

(2015 to 2023)



1.1%	Train
5.8%	Bus
28.1%	Taxi
43.5%	Car/truck
20.3%	Walking
1.2%	Other

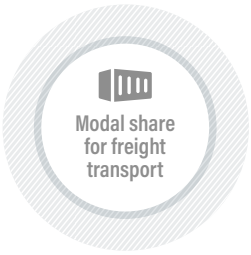
SDG 9.1

Freight transport activity

103 868

million ton-km of rail transport in 2023

(2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

670 826 TJ

-11.7% (2015 to 2022)

Oil products

98.9% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

143.4 USD per capita

Fuel quality standards (2022)

50-500 ppm

Average light duty vehicle fuel consumption (2022)

7.62 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

24.5 deaths per 100,000 people — 18.7 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

7.0%

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

2.8 deaths per 100,000 people — 1.0 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

6.5%

Transport Emission Trends

Transport GHG emissions (2023)

50.4

million tonnes of CO_2 equivalent

-7.8% (2015 to 2023)

+2.7% (2022 to 2023)

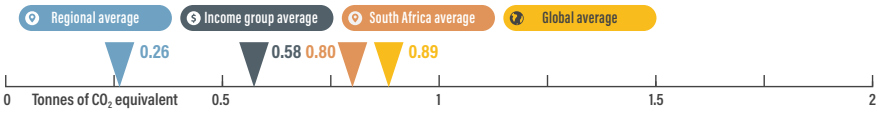
2015 — 2023

Per capita transport GHG emissions (2023)

0.80

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

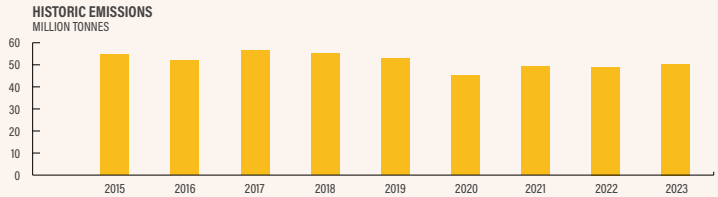


Transport is the third-largest GHG-emitting sector in the country in 2023.

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	✓ 2019 VNR with transport linkages to SDG 7, SDG 8, SDG 9, SDG 11 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- E-mobility
- Cleaner fuels
- Energy efficiency
- Active mobility
- BRT and public transport improvements
- CNG

Transport actions in NDC

Mitigation

- General e-mobility
- General public transport improvement

Adaptation

- Adaptation and resilience of transport systems
- Design Standards and updates
- Transport Planning

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✕
Sustainable urban mobility plans (2024)	✕
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Adaptation and Resilience

ND-GAIN Index (2022)	48.57
Vulnerability score for infrastructure (2022)	0.19

Walking

Walkability Score (2024)	0.22
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	415 km (in Cape Town)
Percent near protected bikeways (2024)	0.7%
Bike sharing systems (2024)	1
National cycling strategies (2024)	✓

Public Transport

Bus rapid transit (2024)	88 km ot total length in 3 cities
Bus rapid transit daily passenger volume (2024)	111 578 passengers per day
Urban rail (LRT, metro, tram) (2024)	889 km in 4 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	32.56%

Intercity Rail

Rail network (2021)	20 953 km
Rail travel activity (2020)	3 501.96 million passenger-km
Rail freight activity (2008)	103 868 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Development of the Transnet Road-to-Rail Strategy
- To rebalance the road freight-rail freight split in an attempt to create a more appropriate market share
- To reduce the number of heavy trucks on the roads and decrease overloading on the road network

Road Transport

Total road vehicles in use per 1,000 people (2020)	172.1
Road vehicle fleet growth (from 2015 to 2020)	7.69%
Rural Access Index (2019) SDG 9.1	72.2 RAI PST
Diesel prices (2022)	1.10 USD per litre
Gasoline prices (2022)	1.13 USD per litre

Aviation

Air passengers carried (2021)	9.3 million people
Air freight activity (2021)	15.1 million ton-km
Carbon-accredited airports (2023)	5
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	39.1
Container port traffic (2020)	4 029 000.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	5.0%
Biofuel blend ethanol mandate (2023)	2.0%
Carbon intensity of electricity (2023)	709.69 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	1.1% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	1.1% of total transport energy consumption
Targeted renewable power share	13% Minimum rollout of renewable energy of 3 GW per annum, ramping up to 5 GW per annum by 2030

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2023)	3 503 vehicles
Share of electric vehicles in car sales (2023)	0.29%
ICE phase-out targets	✕
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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PST	Primary, secondary or tertiary roads
TEU	Twenty-foot Equivalent Unit
UNEP	United Nations Environment Programme
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VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure

Sudan

In **Sudan**, transport demand is largely driven by automobile use. According to the available data, automobiles account for over 90% of passenger travel. The transport sector is the second-largest source of GHG emissions, contributing 8.9% of the national total in 2023, with an increase of 12.9% in emissions since 2015. Transport contributes 2.5% to air pollution.

Transport policies focus on improving freight through rail expansion and enhancing public transport. However, the country faces significant challenges, with no national strategies for sustainable urban mobility or emission reduction targets. The reliance on oil products for 100% of transport energy consumption highlights the need for stronger efforts in decarbonisation and renewable energy integration.

Income group: Low-income		
Human Development Index (2023): 0.51		
Population size (2023): 40.63 million	**+26.94%** (2015 - 2023)	
Urban population share (2023): 33.96%	**+29.73%** (2015 - 2023)	
GDP per capita (2023): 844.80 USD	**-35.62%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	–	
Share of women employed in transport and storage (2023)	–	

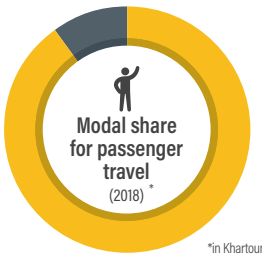
Transport Demand Trends

Passenger transport activity

81.5

million passenger-km of rail transport in 2014

– (2015 to 2023)



90.6% Automobile
9.4% Walking

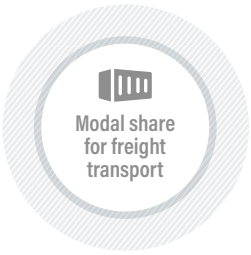
SDG 9.1

Freight transport activity

33.9

million ton-km of rail transport in 2013

– (2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

167 057 TJ

+21.8% (2015 to 2023)

Oil products

100% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

96.72 USD per capita

Fuel quality standards (2022)

50-500 ppm

Average light duty vehicle fuel consumption (2022)

Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

19.6 deaths per 100,000 people — 18.7 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.7%

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

0.9 deaths per 100,000 people — 1.0 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

2.5%

Transport Emission Trends

Transport GHG emissions (2023)

12.3

million tonnes of CO_2 equivalent

+12.9% (2015 to 2023)

+0.2% (2022 to 2023)

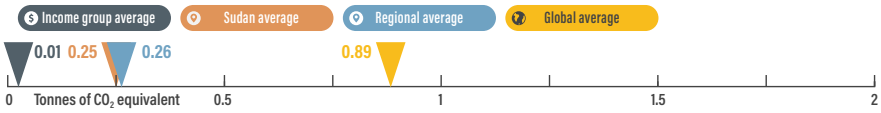
2015 — 2023

Per capita transport GHG emissions (2023)

0.25

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

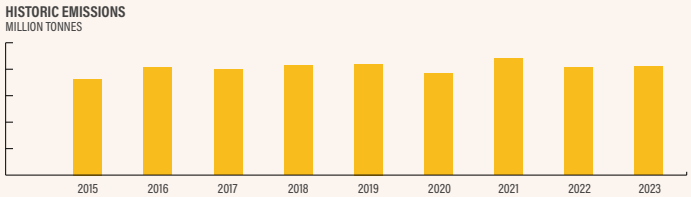


Transport is the second-largest GHG-emitting sector in the country in 2023.

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	✓ 2022 VNR with transport linkages to SDG 8 and SDG 9

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Provide road and transport equipment
- Train human resources on infrastructure development, engineering and technology
- Rehabilitating and maintaining the existing road network
- Private sector engagement in road construction and maintenance

Transport actions in NDC

Mitigation

- Biofuels
- Freight transport shifting to rail or inland waterways
- General public transport improvement
- General shipping improvement
- Vehicle efficiency standards

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✕
Sustainable urban mobility plans (2024)	✕
Number of sustainable urban mobility plans (2022)	✕
Low emission zones (2022)	✕

Adaptation and Resilience

ND-GAIN Index (2022)	32.72
Vulnerability score for infrastructure (2022)	0.27

Walking

Walkability Score (2024)	0.29
National walking strategies (2024)	–

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	0
National cycling strategies (2024)	–

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	–
Proportion of population that has convenient access to public transport (2020) SDG 11.2	12.97%

Intercity Rail

Rail network (2020)	2747 km
Rail travel activity (2014)	81.5 million passenger-km
Rail freight activity (2013)	33.9 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To enhance the competitive position of the railway by expanding and improving services
- To construct railway links between Sudan and the neighbouring countries

Road Transport

Total road vehicles in use per 1,000 people (2020)	0.0
Road vehicle fleet growth (from 2015 to 2020)	–
Rural Access Index (2019) SDG 9.1	24.3 RAI PST
Diesel prices (2022)	0.29 USD per litre
Gasoline prices (2022)	0.29 USD per litre

Aviation

Air passengers carried (2021)	1.4 million people
Air freight activity (2021)	25.8 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	2.4
Liner shipping connectivity index (Q4 2024)	8.4
Container port traffic (2020)	493 002.3 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	5.0%
Carbon intensity of electricity (2023)	214.33 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.0% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	–
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2023)	–
Share of electric vehicles in car sales (2023)	–
ICE phase-out targets	✕
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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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

China

China has witnessed significant growth in freight transport demand, with freight activity increasing by 38.6% from 2015 to 2023. On the other hand, passenger transport activity declined slightly by 0.75%. Rail dominates passenger transport at 49.4%, while waterways lead in freight (54%). Transport GHG emissions rose by 30.7% since 2015, but they are just contributing 7% to national emissions. China was the second-largest emitter of transport GHG emissions after the United States in 2023. Renewable energy, including biofuels and electricity, represented only 5.4% of China's total transport energy consumption. Beyond climate impacts,transport-induced air pollution caused 7.8 premature deaths per 100,000 people in China in 2019. Road traffic injury is another leading cause of death, claiming 17.4 lives per 100,000 people and accounting for 5.2% of China's GDP in 2021. In 2020, 53% of the Chinese population had convenient access to public transport. Moreover, a moderately high percentage (71.4%) of China's rural population lived within 2 kilometers of an all-season road in 2019. China has strong policies supporting electrification with 21.8 million electric cars, as of 2023, whereas the carbon intensity of its electricity remains high, at 583.61 gCO_2/kWh in 2023. Its long-term strategy and NDC reflect significant advancement on transport decarbonisation, yet adaptation measures are limited. The country upgrades their mobility through integrated, centralised urban land use planning, with cities implementing zero-emission zones and sustainable urban mobility solutions. China works extensively on high-speed rail expansion as well as rail freight transport.

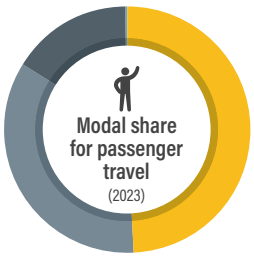
Income group: Middle-income		
Human Development Index (2023): 0.80		
Population size (2023): 1 399.81 million	**+2.28%** (2015 - 2023)	
Urban population share (2023): 65.04%	**+19.48%** (2015 - 2023)	
GDP per capita (2023): 12 058.18 USD	**+51.79%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**7.5%**	
Share of women employed in transport and storage (2023)	**20.4%**	

Transport Demand Trends

Passenger transport activity

2 983 220 million passenger-km in 2023

-0.75% (2015 to 2023)



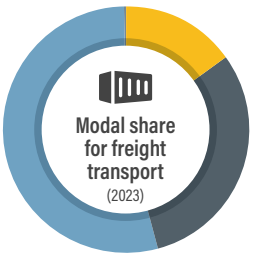
49.4%	Railways
15.9%	Highways
0.2%	Waterways
34.6%	Aviation

SDG 9.1

Freight transport activity

24 064 572 million ton-km in 2023

+38.6% (2015 to 2023)



15.2%	Railways
30.7%	Highways
54.0%	Waterways
0.12%	Aviation

SDG 9.1

Transport energy consumption (2022)

13 397 962 TJ

+10.5% (2015 to 2022)

Oil products

86.7% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

243.5 USD per capita

Fuel quality standards (2022)

<15 ppm ppm

Average light duty vehicle fuel consumption (2022)

6.38 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

18.6 deaths per 100,000 people — 15.6 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.20%

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

7.81 deaths per 100,000 people — 3.2 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

7.6%

Transport Emission Trends

Transport GHG emissions (2023)

1 110.2 million tonnes of CO_2 equivalent

+30.7% (2015 to 2023)

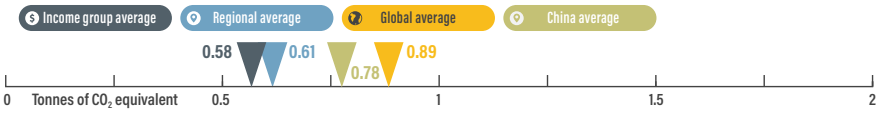
+15.8% (2022 to 2023)

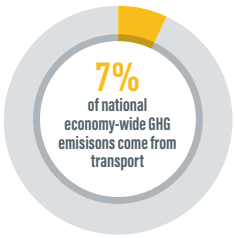
2015 — 2023

Per capita transport GHG emissions (2023)

0.78 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



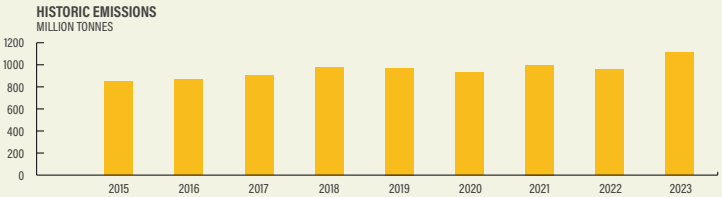


Transport is the fifth-largest GHG-emitting sector in the country in 2023.

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	✓ 2021 VNR with transport linkages to SDG 2, SDG 7, SDG 9, SDG 10, SDG 11 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Improved food supply chains
- Railway electrification
- Efficient, economical, intelligent, green, safe and reliable urban transport

Transport actions in NDC

Mitigation

- BRT | General transport labels
- EV charging infrastructure | Hydrogen
- Expansion of infrastructure | Intelligent transport systems
- Freight transport shifting to rail or inland waterways | Intermodality measures
- General active mobility | Public transit integration and expansion
- General alternative fuels | Support on-shore power and electric charging facilities in ports
- General economic instruments | Vehicle efficiency standards
- General e-mobility | Vehicle restrictions (import, age, access, sale, taxation)
- General freight efficiency improvements

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
Low emission zones (2024)	41 cities

Adaptation and Resilience

ND-GAIN Index (2022)	60.18
Vulnerability score for infrastructure (2022)	0.17

Walking

Walkability Score (2024)	0.20
National walking strategies (2024)	✓ Walking and cycling combined

Target

- Improve urban transport facilities for cyclists and pedestrians, promote cycling

Cycling

Cycling infrastructure in capital (2024)	3 200 km
Percent near protected bikeways (2024)	4%
Bike sharing systems (2024)	502
National cycling strategies (2024)	✓ Walking and cycling combined

Target

- Improve urban transport facilities for cyclists and pedestrians, promote cycling

Public Transport

Bus rapid transit (2024)	672 km of total length in 20 cities
Bus rapid transit daily passenger volume (2024)	4 375 250 passengers per day
Urban rail (LRT, metro, tram) (2024)	11,000 km in 47 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	52.96%

Intercity Rail

Rail network (2021)	109 767 km
Rail travel activity (2021)	946 499 million passenger-km
Rail freight activity (2019)	3 018 200 million ton-km
High-speed rail (2022)	42 233 km
High-speed rail travel activity (2023)	922 633 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- 165,000 km rail network by end of 2025, of which 50,000 km will be high-speed
- By 2035, the railway network will be 200,000 km with 70,000 km high-speed

Road Transport

Total road vehicles in use per 1,000 people (2020)	223.1
Road vehicle fleet growth (from 2015 to 2020)	95.30%
Rural Access Index (2019) SDG 9.1	71.4 RAI PST
Diesel prices (2022)	0.98 USD per litre
Gasoline prices (2022)	1.14 USD per litre

Aviation

Air passengers carried (2021)	440.3 million people
Air freight activity (2021)	20 961.2 million ton-km
Carbon-accredited airports (2023)	2 airports
of which carbon neutral:	1 airports

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	171.2
Container port traffic (2020)	245 103 781.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	583.61 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	5.4% of total transport energy consumption
Biofuels (2022)	0.7% of total transport energy consumption
Electricity (2022)	4.7% of total transport energy consumption
Targeted renewable power share	50%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	89 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	59 g CO_2/km by 2030
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	23 million vehicles
Share of electric vehicles in car sales (2024)	48%
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	1.1 million
Electric vehicles stock for trucks (2024)	360 000 vehicles

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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
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WLTP	Worldwide harmonised light vehicles test procedure

India

India's transport sector has experienced rapid growth, with passenger travel increasing by 58% and freight activity by 35% from 2015 to 2019. Roads dominate both passenger (96%) and freight (80%) transport. Women only represented 1.5% of the workforce in transport and storage in India in 2023. Transport emissions have risen by 32% since 2015, making it the fourth-largest emitting sector. Renewable energy, including biofuels and electricity, represented only 4.7% of India's total transport energy consumption, whereas the carbon intensity of its electricity remains very high, at 713 gCO_2/kWh in 2023. Beyond climate impacts, transport accounted for 6.7% of national air pollutant emissions in 2019. India is home to some of the world's most polluted cities, whereby transport-induced air pollution caused 4.6 premature deaths per 100,000 people in 2019. Road traffic injury is another leading cause of death, claiming 15.4 lives per 100,000 people and accounting for 4.2% of India's GDP in 2021. In 2020, only 34.18% of the Indian population had convenient access to public transport. On the other hand, a moderately high percentage (69.2%) of India's rural population lived within 2 kilometers of an all-season road in 2019. Policies focus on intercity and urban rail expansion, and electrification, with 2% of new cars being electric. Despite low per capita transport emissions (0.24 tonnes), fossil fuel subsidies (89.47 USD per capita) and high road traffic fatalities remain challenges towards achieving sustainable, low carbon transport. The country aims to enhance rail freight, expanding public transport, and increasing renewable energy use to drive sustainable mobility. Sustainability plans point towards national urban transport policies with the intention to increase access to rail-based public transport.

Income group: Middle-income		
Human Development Index (2023): 0.69		
Population size (2023): 1335.80 million	**+8.44%** (2015 - 2023)	
Urban population share (2023): 36.20%	**+20.78%** (2015 - 2023)	
GDP per capita (2023): 2234.44 USD	**+40.24%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**5.9%**	
Share of women employed in transport and storage (2023)	**5.6%**	

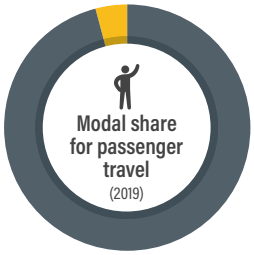
Transport Demand Trends

Passenger transport activity

26 249 738

million passenger-km in 2019

+58.4% (2015 to 2019)



96.0% Roads
4.0% Railways

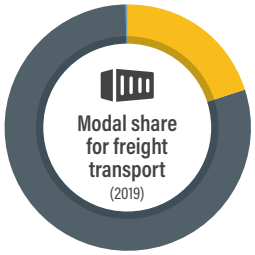
SDG 9.1

Freight transport activity

3 667 761

million ton-km in 2019

+35.3% (2015 to 2019)



20.1% Railways
79.8% Roads
0.1% Aviation

SDG 9.1

Transport energy consumption (2022)

4 738 594 TJ

+29.6% (2015 to 2023)

Oil products

91.9% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

89.47 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

6.44 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

15.4 deaths per 100,000 people

15.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

4.20%

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

4.6 deaths per 100,000 people

3.2 Regional
2.3 Global

Contribution of transport to air pollution (2019)

6.7%

Transport Emission Trends

Transport GHG emissions (2023)

349.3

million tonnes of CO_2 equivalent

+31.6% (2015 to 2023)

+5.0% (2022 to 2023)

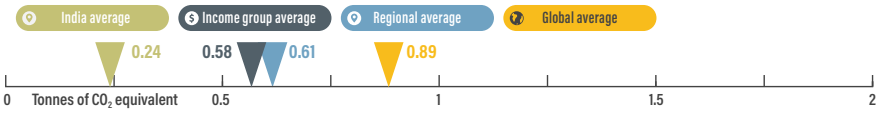
2015 — 2023

Per capita transport GHG emissions (2023)

0.24

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the fourth-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 5, SDG 11 and SDG 13

Transport actions in VNRs

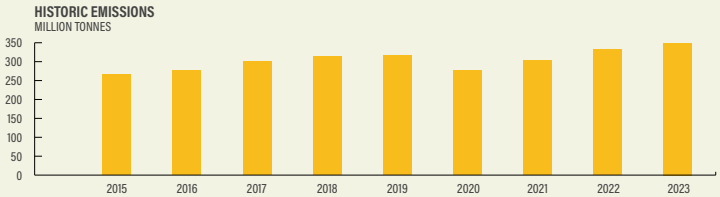
- National Urban Transport Policy
- Waterway development
- Freight development
- Urban metro development

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 (2022)	3 cities
Low emission zones (2022)	1 city

Adaptation and Resilience

ND-GAIN Index (2022)	47.06
Vulnerability score for infrastructure (2022)	0.17

Walking

Walkability Score (2024)	0.35
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	36 km
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	38
National cycling strategies (2024)	✓

Public Transport

Bus rapid transit (2024)	228 km of total length in 9 cities
Bus rapid transit daily passenger volume (2024)	497 411 passengers per day
Urban rail (LRT, metro, tram) (2024)	950 km in 16 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	34.18%

Intercity Rail

Rail network (2021)	68 102.73 km
Rail travel activity (2021)	231 126 million passenger-km
Rail freight activity (2021)	719 762 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To develop capacity, infrastructure and enhance rail freight share ahead of the demand. Develop capacity by 2030 that will cater to growing demand up to 2050

Road Transport

Total road vehicles in use per 1,000 people (2020)	32.7
Road vehicle fleet growth (from 2015 to 2020)	58.31%
Rural Access Index (2019) SDG 9.1	69.2 RAI PST
Diesel prices (2022)	0.92 USD per litre
Gasoline prices (2022)	1.22 USD per litre

Aviation

Air passengers carried (2021)	84.0 million people
Air freight activity (2021)	907.9 million ton-km
Carbon-accredited airports (2023)	30 airports
of which carbon neutral:	4 airports

Shipping

Logistics Performance Index (2023)	3.4
Liner shipping connectivity index (Q4 2024)	58.9
Container port traffic (2020)	16 285 806.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	0.1%
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	713.01 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	4.7% of total transport energy consumption
Biofuels (2022)	2.8% of total transport energy consumption
Electricity (2022)	1.9%of total transport energy consumption
Targeted renewable power share	64%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	111 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	54 g CO_2/km by 2032
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2024)	240 000 vehicles
Share of electric vehicles in car sales (2024)	2.1 %
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	13 000 vehicles
Electric vehicles stock for trucks (2023)	–

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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

Indonesia

Indonesia's transport sector has seen significant growth in demand, with passenger travel increasing by 12% (2015–2023) and freight transport by 38.5% (2015–2022). Transport-related emissions rose by 13.45% between 2015 and 2023, making the sector the fourth-largest emissions contributor to national GHG emissions. Oil products dominate energy use (87%), with biofuels and electricity at 12.9% in 2022. The carbon intensity of Indonesia's electricity remains very high, at 682.4 gCO_2/kWh in 2023. Beyond climate impacts, transport accounted for 12.4% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 4.99 premature deaths per 100,000 people in Indonesia in 2019. Road traffic injury is another leading cause of death, claiming 11.3 lives per 100,000 people and accounting for 3.2% of Indonesia's GDP in 2021. In 2020, only 30.7% of the Indonesian population had convenient access to public transport. On the other hand, a moderately high percentage (71.6%) of Indonesia's rural population lived within 2 kilometers of an all-season road in 2019. The country has set strategies for urban mobility, rail expansion, and fuel quality improvements, while the updated NDC recognises transport for mitigation, and includes both transport mitigation and adaptation actions. Despite policies promoting public transport, walking, and cycling, Indonesia faces challenges in shifting towards low-emission transport, given significant fossil fuel subsidies (303.80 USD per capita) and limited electric vehicle uptake.

Income group: Middle-income		
Human Development Index (2023): 0.73		
Population size (2023): 263.23 million	**+7.55%** (2015 - 2023)	
Urban population share (2023): 58.55%	**+19.13%** (2015 - 2023)	
GDP per capita (2023): 4 210.05 USD	**+27.33%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)		**4.8%**
Share of women employed in transport and storage (2023)		**6.9%**

Transport Demand Trends

Passenger transport activity

24 974 million passenger-km of rail transport in 2023

+12% (2015 to 2023)

Modal share for passenger travel

SDG 9.1

Freight transport activity

22 150 million ton-km of rail transport in 2022

+38.5% (2015 to 2022)

Modal share for freight transport

SDG 9.1

Transport energy consumption (2022)

2 362 942 TJ

+26% (2015 to 2022)

Oil products

87.1% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

303.8 USD per capita

Fuel quality standards (2022)

2000-5000 ppm

Average light duty vehicle fuel consumption (2022)

9.34 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

11.3 deaths per 100,000 people — 15.6 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

3.20%

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

5.0 deaths per 100,000 people — 3.2 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

12.4%

Transport Emission Trends

Transport GHG emissions (2023)

152.1 million tonnes of CO_2 equivalent

+13.4% (2015 to 2023)

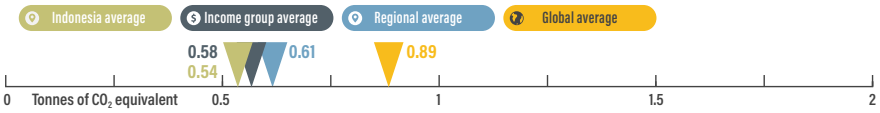
+1.4% (2022 to 2023)

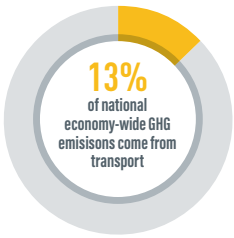
2015 — 2023

Per capita transport GHG emissions (2023)

0.54 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



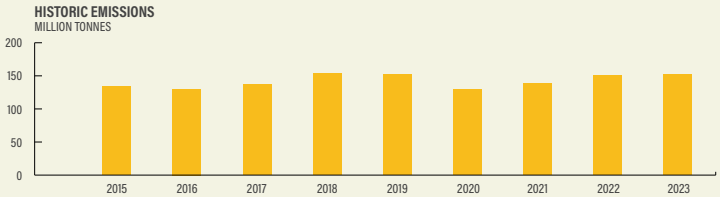


Transport is the fourth-largest GHG-emitting sector in the country in 2023.

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	✓ 2021 VNR with transport linkages to SDG 2, SDG 3, SDG 5, SDG 8, SDG 9, SDG 11 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Improving transport links
- Enhancing the maritime sector's infrastructure
- Expanding access to remote areas
- Providing alternative multi-modal transport options
- Developing urban mobility and access to public transport

Transport actions in NDC

Mitigation

- Biofuels
- Fuel quality improvements
- LPG/CNG/LNG

Adaptation

- Adaptation and resilience of transport systems
- Education and Training
- Transport Planning

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
Low emission zones (2024)	2 cities

Adaptation and Resilience

ND-GAIN Index (2022)	48.55
Vulnerability score for infrastructure (2022)	0.20

Walking

Walkability Score (2024)	0.40
National walking strategies (2024)	✓ Walking and cycling combined

Target

- Create a safe, comfortable, inclusive, and comprehensive walking and cycling space which supports public transport usage.

Cycling

Cycling infrastructure in capital (2022)	365 km of bicycle lanes
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	5
National cycling strategies (2024)	✓ Walking and cycling combined

Target

- Create a safe, comfortable, inclusive, and comprehensive walking and cycling space which supports public transport usage.

Public Transport

Bus rapid transit (2024)	251 km of total length in 1 city
Bus rapid transit daily passenger volume (2024)	46 467 passengers per day
Urban rail (LRT, metro, tram) (2024)	55 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	30.70%

Intercity Rail

Rail network (2019)	5 483 km
Rail travel activity (2019)	29 066 million passenger-km
Rail freight activity (2019)	15 573 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- 10,524 km national railways in 2030 including 3,755 km urban railways
  Railway share to increase to 7-9% for passenger and 11-13% for freight transport

Road Transport

Total road vehicles in use per 1,000 people (2020)	77.1
Road vehicle fleet growth (from 2015 to 2020)	26.84%
Rural Access Index (2019) SDG 9.1	71.6 RAI PST
Diesel prices (2022)	0.46 USD per litre
Gasoline prices (2022)	0.62 USD per litre

Aviation

Air passengers carried (2021)	33.5 million people
Air freight activity (2021)	772.9 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	3
Liner shipping connectivity index (Q4 2024)	32.7
Container port traffic (2020)	14 025 449.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	35.0%
Biofuel blend ethanol mandate (2023)	5.0%
Carbon intensity of electricity (2023)	682.43 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	12.9% of total transport energy consumption
Biofuels (2022)	12.8% of total transport energy consumption
Electricity (2022)	0.1% of total transport energy consumption
Targeted renewable power share	–

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)	Banned
Electric vehicles stock for passenger cars (2024)	78 000 vehicles
Share of electric vehicles in car sales (2024)	7.3 %
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	1 vehicle

just one truck?

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WLTP	Worldwide harmonised light vehicles test procedure

Iran

Iran's transport sector was the fourth largest GHG-emitting sector in the country in 2023. Transport emissions have remained relatively stable since 2015, contributing 14.62% of national emissions, with per capita emissions nearly double the global average. While passenger rail activity has stagnated, freight rail has seen modest growth. Iran records 20.6 road traffic fatalities per 100,000 people. Renewable energy, including biofuels and electricity, represented a mere 0.1% of Iran's total transport energy consumption, whereas the carbon intensity of its electricity remains very high, at 641.7 gCO2/kWh in 2023. Beyond climate impacts, transport accounted for 11.1% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 5.56 premature deaths per 100,000 people in Iran in 2019. Iran is also the country with the highest number of road traffic fatalities in Asia, with 20.6 deaths per 100,000 people, accounting for 6.80% of Iran's GDP in 2021. In 2020, 37.7% of Iran's population had convenient access to public transport, whereas no data is available for access to all-season roads in rural contexts. Despite having urban and intercity rail networks, policies for sustainable mobility are limited. Iran has not included transport in its NDC and lacks a national urban mobility framework. However, planned rail expansions aim to enhance freight capacity and efficiency.

Income group: Middle-income		
Human Development Index (2023): 0.80		
Population size (2023): 83.19 million	**+9.81%** (2015 - 2023)	
Urban population share (2023): 73.40%	**+13.61%** (2015 - 2023)	
GDP per capita (2023): 5 680.71 USD	**+14.19%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**11.4%**	
Share of women employed in transport and storage (2023)	**3.3%**	

Transport Demand Trends

Passenger transport activity

14 890 million passenger-km of rail transport in 2019

-0.3% (2015 to 2019)

Modal share for passenger travel

SDG 9.1

Freight transport activity

33 798 million ton-km of aviation and rail transport in 2019

+0.35% (2015 to 2019)

Modal share for freight transport

SDG 9.1

Transport energy consumption (2022)

2 067 645 TJ

+3.7% (2015 to 2023)

Oil products

84.0% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

No data USD per capita

Fuel quality standards (2022)

No data ppm

Average light duty vehicle fuel consumption (2022)

No data Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

20.6 deaths per 100,000 people — 15.6 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

6.8%

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

5.6 deaths per 100,000 people — 3.2 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

11.1%

Transport Emission Trends

Transport GHG emissions (2023)

145.7 million tonnes of CO_2 equivalent

+0.4% (2015 to 2023)

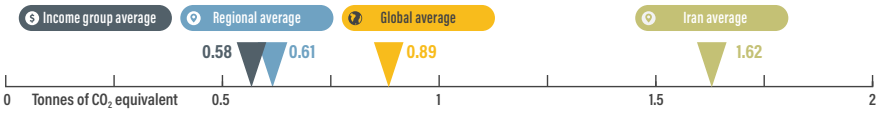
-1.1% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.62 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the fourth-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:	✗
NDC highlights transport for GHG mitigation	✗
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✗ No submission

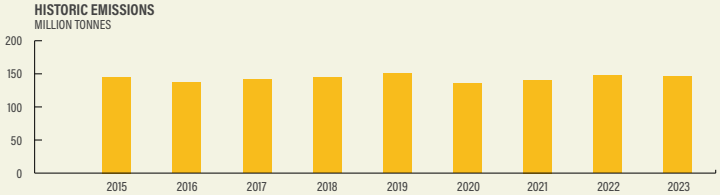
Transport actions in VNRs

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 (2022)	–
Low emission zones (2022)	–

Adaptation and Resilience

ND-GAIN Index (2022)	50.56
Vulnerability score for infrastructure (2022)	0.12

Walking

Walkability Score (2024)	0.57
National walking strategies (2024)	–

Cycling

Cycling infrastructure in capital (2022)	24km, 550 km of separated bikelanes planned to be constructed by 2024
Percent near protected bikeways (2024)	1%
Bike sharing systems (2024)	2
National cycling strategies (2024)	–

Public Transport

Bus rapid transit (2024)	214 km of total length in 3 cities
Bus rapid transit daily passenger volume (2024)	848 696 passengers per day
Urban rail (LRT, metro, tram) (2024)	335 km in 6 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	37.70%

Intercity Rail

Rail network (2021)	9 455 km
Rail travel activity (2019)	14 890 million passenger-km
Rail freight activity (2019)	33 646 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- 34 rail projects with 3,200 km in construction and 6,000 km in planning increase freight capacity to 60 million tons annually

Road Transport

Total road vehicles in use per 1,000 people (2020)	182.5
Road vehicle fleet growth (from 2015 to 2020)	12.97%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	0.07 USD per litre
Gasoline prices (2022)	0.34 USD per litre

Aviation

Air passengers carried (2021)	13.7 million people
Air freight activity (2021)	273.6 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	31.1
Container port traffic (2020)	1 853 000.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	641.73 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.1% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.1% of total transport energy consumption
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
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)	–
Share of electric vehicles in car sales (2024)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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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

Japan

Japan's transport sector has seen a decline in both passenger (-9.95%) and freight (-6.44%) transport activity from 2015 to 2023. Passenger cars dominate travel (66.16%), while road freight remains the primary mode (92.66%) for freight transport. Transport emissions have decreased by 15.02% since 2015, yet per capita emissions (1.46 tonnes) remain above global and regional averages. Renewable energy, including biofuels and electricity, represented only 2.9% of Japan's total transport energy consumption, whereas the carbon intensity of its electricity remains high, at 493.6 gCO_2/kWh in 2023. Beyond climate impacts, transport accounted for 9.7% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 3.1 premature deaths per 100,000 people in Japan in 2019. Road traffic injuries, on the other hand, are responsible for 2.7 deaths per 100,000 people and accounted for 1.2% of Japan's GDP in 2021. In 2020, an impressive 74.18% of Japan's population had convenient access to public transport, whereas no data is available on rural populations' access to all-weather roads. Policies support rail expansion and public transport, with urban rail spanning over 1,000 km. Frameworks on sustainable urban mobility planes, national walking and cycling strategies were not identified. The share of electric vehicle is still low with 3.6% of total car sales, lagging behind other high-income countries.

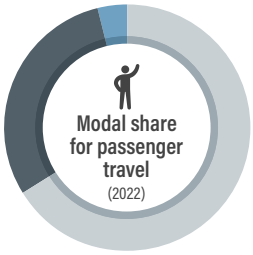
Income group: High-income	
Human Development Index (2023): 0.93	
Population size (2023): 12719 million	**-2.11%** (2015 - 2023)
Urban population share (2023): 92.48%	**-1.41%** (2015 - 2023)
GDP per capita (2023): 37 033.29 USD	**+6.11%** (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	**10.7%**
Share of women employed in transport and storage (2023)	**26%**

Transport Demand Trends

Passenger transport activity

1 173 337 million passenger-km in 2022

-10% (2015 to 2022)



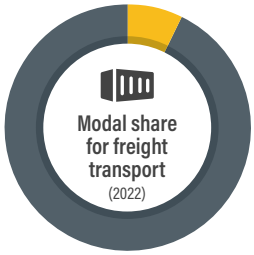
30.1%	Rail
66.2%	Pasenger cars
3.8%	Bus

SDG 9.1

Freight transport activity

244 870 million ton-km in 2022

-6.4% (2015 to 2022)



7.34%	Railways
92.66%	Road

SDG 9.1

Transport energy consumption (2022)

2 691 554 TJ

-0.1% (2015 to 2022)

Oil products

97.1% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

1 629.7 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

5.8 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

2.7 deaths per 100,000 people

15.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

1.2%

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

3.1 deaths per 100,000 people

3.2 Regional
2.3 Global

Contribution of transport to air pollution (2019)

9.7%

Transport Emission Trends

Transport GHG emissions (2023)

182.0 million tonnes of CO_2 equivalent

-15.0% (2015 to 2023)

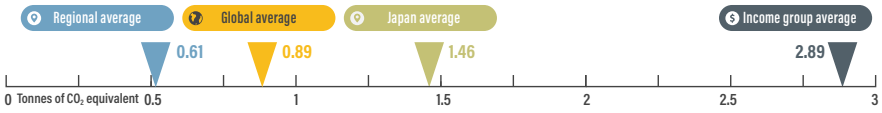
-3.7% (2022 to 2023)

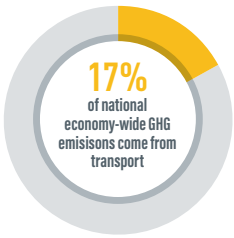
2015 — 2023

Per capita transport GHG emissions (2023)

1.46 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON





Transport is the second-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, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2021 VNR with transport linkages to SDG 2, SDG 3, SDG 5, SDG 8, SDG 9, SDG 11, SDG 13, SDG 16 and SDG 17

Transport actions in VNRs

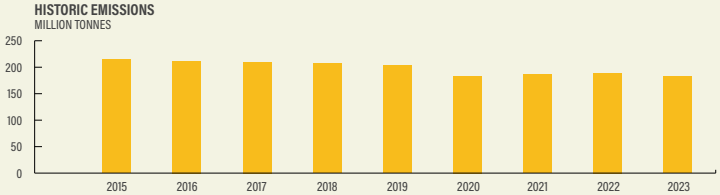
- Promotion of public transport
- Construction of a safe, smart, and sustainable road transportation system
- On-demand transportation and other digitalisation options

Transport actions in NDC

Mitigation
- No sectoral actions

Adaptation
- No sectoral actions

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)	✗ but Low Carbon City Act
Number of sustainable urban mobility plans (2022)	✗
Low emission zones (2022)	4 cities

Adaptation and Resilience

ND-GAIN Index (2022)	66.53
Vulnerability score for infrastructure (2022)	0.41

Walking

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

Cycling

Cycling infrastructure in capital (2024)	300 km (13 kilometres of protected facilities in 2019)
Percent near protected bikeways (2024)	4%
Bike sharing systems (2024)	98
National cycling strategies (2024)	✓

Public Transport

Bus rapid transit (2024)	29 km of total length in 2 cities
Bus rapid transit daily passenger volume (2024)	9 100 passengers per day
Urban rail (LRT, metro, tram) (2024)	Over 1,000 km in 24 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	74.18%

Intercity Rail

Rail network (2011)	20 087.4 km
Rail travel activity (2020)	263 211 million passenger-km
Rail freight activity (2020)	18 340 million ton-km
High-speed rail (2023)	1 747 km
High-speed rail travel activity (2023)	74 221 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- To promote a modal shift, raise rail freight transport volume from 19.34 billion ton-kilometres (in 2013) to 25.64 billion ton-kilometres (by 2030), resulting in 1.466 million tonnes less CO_2 emissions

Road Transport

Total road vehicles in use per 1,000 people (2020)	606.0
Road vehicle fleet growth (from 2015 to 2020)	-0.91%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	0.94 USD per litre
Gasoline prices (2022)	1.13 USD per litre

Aviation

Air passengers carried (2021)	45.4 million people
Air freight activity (2021)	10 947.0 million ton-km
Carbon-accredited airports (2023)	5 airports
of which carbon neutral:	5 airports

Shipping

Logistics Performance Index (2023)	3.9
Liner shipping connectivity index (Q4 2024)	69.7
Container port traffic (2020)	21 385 632.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	493.59 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	2.9% of total transport energy consumption
Biofuels (2022)	0.7% of total transport energy consumption
Electricity (2022)	2.2% of total transport energy consumption
Targeted renewable power share	38%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	115 g CO_2/km in 2018
Targeted CO_2 emissions performance (2024)	83 g CO_2/km by 2030
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	340 000 vehicles
Share of electric vehicles in car sales (2024)	2.8%
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	20 000 vehicles
Electric vehicles stock for trucks (2024)	410 vehicles

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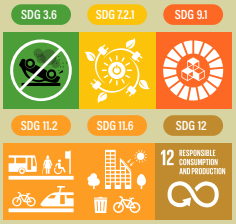
NDC	Nationally determined contribution
PST	Primary, secondary or tertiary roads
TEU	Twenty-foot Equivalent Unit
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised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



Saudi Arabia

Saudi Arabia's transport sector is highly dependent on fossil fuels, with 100% of its transport energy coming from petroleum products. Thus, the carbon intensity of the country's electricity remains very high, at 696.3 gCO_2/kWh in 2023. Passenger travel is dominated by private vehicles, accounting for 87.8% of trips in Riyadh. Transport emissions have slightly declined since 2015 (-0.9%) but remain high at 4.49 tonnes per capita, far exceeding global and regional averages. Regarding air pollution, transport contributed 5.2% to the national air pollutant emissions in 2019, causing 2.62 premature deaths per 100,000 people in Saudi Arabia. Saudi Arabia was the country with the second-highest number of road traffic fatalities in Asia, with 18.5 deaths per 100,000 people. Road traffic fatalities accounted for a high share of 9.3% of Saudi Arabia's GDP in 2021. In 2020, only 29.81% of Saudi Arabia's population had convenient access to public transport. The country is prioritising rail expansion and smart transport solutions, while policies supporting public transport and vehicle electrification remain limited. Overarching frameworks towards sustainable, low-carbon transport were not identified for Saudi Arabia.

Income group: High-income		
Human Development Index (2023): 0.90		
Population size (2023): 30.46 million	**+11.47%** (2015 - 2023)	
Urban population share (2023): 93.85%	**+17.51%** (2015 - 2023)	
GDP per capita (2023): 23 613.55 USD	**+4%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**3.7%**	
Share of women employed in transport and storage (2023)	**5.6%**	

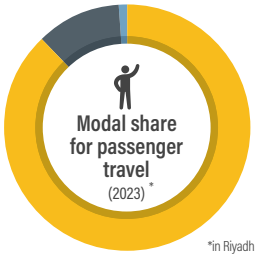
Transport Demand Trends

Passenger transport activity

134.65

million passenger-km of rail transport in 2018

-54.7% (2010 to 2018)



87.8%	Cars
11.3%	Walking
0.9%	Motorcycles

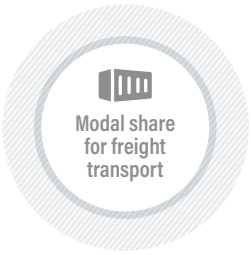
SDG 9.1

Freight transport activity

1 852.47

million ton-km of rail transport in 2010

+55.4% (2005 to 2010)



SDG 9.1

Transport energy consumption (2022)

1 924 557 TJ

-6.3% (2015 to 2022)

Oil products

100% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

2 875.1 USD per capita

Fuel quality standards (2022)

15-50 ppm

Average light duty vehicle fuel consumption (2022)

7.53 Lge/km

Road traffic fatalities (2021), WHO estimates SDG 3.6

18.5 deaths per 100,000 people

15.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

9.3%

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

2.6 deaths per 100,000 people

3.2 Regional
2.3 Global

Contribution of transport to air pollution (2019)

5.2%

Transport Emission Trends

Transport GHG emissions (2023)

147.6

million tonnes of CO_2 equivalent

-0.9% (2015 to 2023)

+4.6% (2022 to 2023)

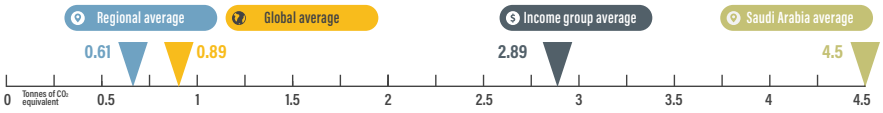
2015 — 2023

Per capita transport GHG emissions (2023)

4.5

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

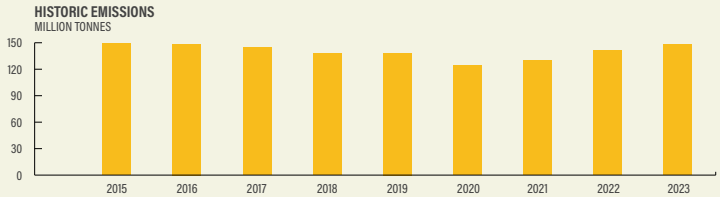


Transport is the second-largest GHG-emitting sector in the country in 2023.

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	✓ 2023 VNR with transport linkages to SDG 7, SDG 9, SDG 10, SDG 11, SDG 13 and SDG 17

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Hydrogen in transport
- Public transport improvements and expansion
- Women empowerment in transport
- Bike lanes
- Smart transport
- Climate-adaptive transportation strategies

Transport actions in NDC

Mitigation

- Public transport integration and expansion
- Vehicle efficiency standards

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	–
Number of sustainable urban mobility plans (2022)	–
Low emission zones (2022)	–

Adaptation and Resilience

ND-GAIN Index (2022)	57.56
Vulnerability score for infrastructure (2022)	0.27

Walking

Walkability Score (2024)	0.14
National walking strategies (2024)	✗

Cycling

Cycling infrastructure in capital (2022)	220 km of cycle lanes in planning
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	4
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	194 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	29.81%

Intercity Rail

Rail network (2018)	2 939 km
Rail travel activity (2018)	134.65 million passenger-km
Rail freight activity (2010)	1 852.472 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Grow rail network to 8,000 km
- Increase local content in rail operations to 60% by 2025
- Create over 3,000 jobs in the local market

Road Transport

Total road vehicles in use per 1,000 people (2020)	–
Road vehicle fleet growth (from 2015 to 2020)	–
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	0.14 USD per litre
Gasoline prices (2022)	0.53 USD per litre

Aviation

Air passengers carried (2021)	29.4 million people
Air freight activity (2021)	678.6 million ton-km
Carbon-accredited airports (2023)	3 airports
of which carbon neutral:	1 airport

Shipping

Logistics Performance Index (2023)	3.4
Liner shipping connectivity index (Q4 2024)	69.5
Container port traffic (2020)	9 394 100.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	696.31 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.0% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	–
Targeted renewable power share	50%

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Good
Electric vehicles stock for passenger cars (2024)	–
Share of electric vehicles in car sales (2024)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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WLTP	Worldwide harmonised light vehicles test procedure

Viet Nam

Viet Nam's transport sector is dominated by road travel, accounting for nearly 98% of passenger mobility and over 71% of freight movement. Despite economic growth, data indicates that passenger travel activity declined by 29% from 2015 to 2021, while freight transport increased. Transport emissions rose by 18.4% since 2015, contributing 7.6% of national GHG emissions in 2023. Renewable energy, including biofuels and electricity, accounted for a mere 0.4% of the country's transport energy consumption, whereas the carbon intensity of its electricity remained high, at 472.5 gCO_2/kWh in 2023. Concerning sustainability aspects, transport accounted for 6.2% of national air pollution in 2019. Transport-induced caused 2.42 premature deaths per 100,000 people in Viet Nam in the same year. Road traffic injuries are significant contributor to overall deaths, claiming 17.7 lives per 100,000 people and accounted for 5.10% of Viet Nam's GDP in 2021. In 2020, 52.51% of Viet Nam's population had convenient access to public transport, whereas an impressive 88.5% of the rural population had access to all-weather roads. Viet Nam's policies support public transport expansion, vehicle efficiency improvements and alternative fuels. Planned investments in rail and low-emission zones signal steps towards sustainability. However, high reliance on oil (99.5%), dominance of road transport and above-average road traffic fatalities pose ongoing challenges for sustainable, low-carbon transport.

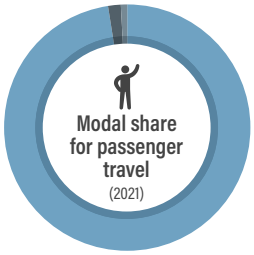
Income group: Middle-income		
Human Development Index (2023): 0.77		
Population size (2023): 93.39 million	**+8.43%** (2015 - 2023)	
Urban population share (2023): 39.90%	**+26.15%** (2015 - 2023)	
GDP per capita (2023): 3772.54 USD	**+45.46%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**4.1%**	
Share of women employed in transport and storage (2023)	**13.7%**	

Transport Demand Trends

Passenger transport activity

79 873 million passenger-km in 2021

-29.1% (2015 to 2021)



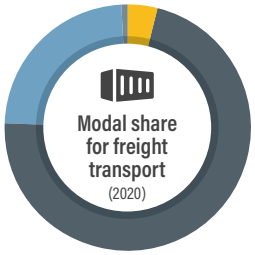
0.8%	Railways
1.5%	Waterways
97.7%	Roads

SDG 9.1

Freight transport activity

104 819 million ton-km in 2021

+7% (2015 to 2021)



3.9%	Railways
71.8%	Roads
23.6%	Waterways
0.6%	Aviation

SDG 9.1

Transport energy consumption (2022)

615 060 TJ

+32.8% (2015 to 2023)

Oil products

99.5% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

293.3 USD per capita

Fuel quality standards (2022)

15-50 ppm

Average light duty vehicle fuel consumption (2022)

8.61 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

17.7 deaths per 100,000 people — 15.6 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.1%

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

2.4 deaths per 100,000 people — 3.2 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

6.2%

Transport Emission Trends

Transport GHG emissions (2023)

39.9 million tonnes of CO_2 equivalent

+18.4% (2015 to 2023)

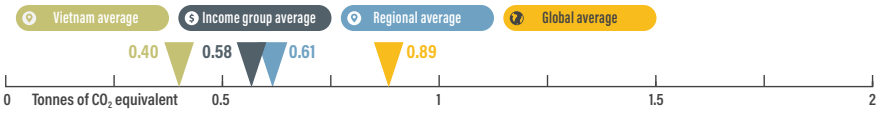
+12.2% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

0.4 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

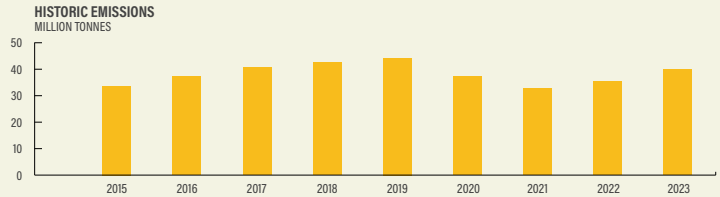


Transport is the fifth-largest GHG-emitting sector in the country in 2023.

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	List of targets
VNR highlights transport	✓ 2023 VNR with transport linkages to SDG 9, SDG 11 and SDG 17

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Passenger and freight infrastructure investments
- Railway modernisation
- Urban railway expansion
- Public transport improvements
- Public-private partnerships

Transport actions in NDC

Mitigation

- General vehicle improvement measures
- Vehicle efficiency standards
- Transport demand management measures
- Improving load
- LPG/CNG/LNG support measures
- Biofuels support measures
- General e-mobility measures

Adaptation

- Transport System Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	–
Sustainable urban mobility plans (2024)	–
Number of sustainable urban mobility plans (2022)	–
Low emission zones (2022)	2 planned LEZs

Adaptation and Resilience

ND-GAIN Index (2022)	48.70
Vulnerability score for infrastructure (2022)	0.54

Walking

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

Cycling

Cycling infrastructure in capital (2022)	2.3 km
Percent near protected bikeways (2024)	–
Bike sharing systems (2024)	8
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	15 km of total length in 1 city
Bus rapid transit daily passenger volume (2024)	8 000 passengers per day
Urban rail (LRT, metro, tram) (2024)	41.3 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	52.51%

Intercity Rail

Rail network (2021)	3 159 km
Rail travel activity (2020)	1 516 million passenger-km
Rail freight activity (2020)	3 759 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Add nine new rail lines with 2,362 km by 2030
- To have a network of 25 lines with a length of 6,354 km by 2050

Road Transport

Total road vehicles in use per 1,000 people (2020)	49.0
Road vehicle fleet growth (from 2015 to 2020)	120.53%
Rural Access Index (2019) SDG 9.1	88.5 RAI PST
Diesel prices (2022)	0.87 USD per litre
Gasoline prices (2022)	1.05 USD per litre

Aviation

Air passengers carried (2021)	14.8 million people
Air freight activity (2021)	676.5 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	77.5
Container port traffic (2020)	12 422 588.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	5.0%
Biofuel blend ethanol mandate (2023)	5.0%
Carbon intensity of electricity (2023)	472.47 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.4% of total transport energy consumption
Biofuels (2022)	0.1% of total transport energy consumption
Electricity (2022)	0.3% of total transport energy consumption
Targeted renewable power share	39%

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)	Good
Electric vehicles stock for passenger cars (2024)	110 000 vehicles
Share of electric vehicles in car sales (2024)	17%
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
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**.

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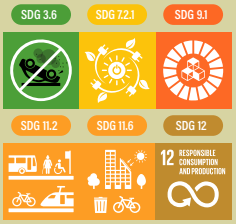
List of acronyms

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



France

France has been actively pursuing a transition towards sustainable transport by setting frameworks for rail improvements, better public transport and stronger active mobility. These efforts are urgently needed, as the transport sector was with 32% the largest contributor to national greenhouse gas emissions in 2023. Renewable energy accounted for 9.2% of the country's transport energy consumption in 2022. Moreover, France boasts a particularly low carbon intensity of electricity, at 55.3 gCO_2/kWh in 2023, thanks to its heavy reliance on low-carbon nuclear power. Despite a 4.11% decline in transport emissions from 2015 to 2023, per capita emissions remain at 1.86 tonnes, above the global average. Passenger travel is dominated by cars (83%), while freight relies on roads (84%).

Beyond climate impacts, transport accounted for 13.2% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 2.74 premature deaths per 100,000 people in France in 2019. Road traffic injuries, on the other hand, claimed 4.7 lives per 100,000 people and accounted for 1.90% of France's GDP in 2021. Walking and cycling has been strongly supported in French cities, spearheaded by the success in Paris over the past years. France promotes EU-led transport policies, such as electric vehicles, and emissions trading. It targets 100% zero-emission car sales by 2035. Sustainable mobility plans and low-emission zones are in place across multiple cities to further reduce emissions, increase road safety and ensure access.

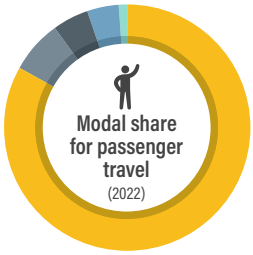
- **Income group:** High-income
- **Human Development Index (2023):** 0.92
- **Population size (2023):** 65 million — **+2.4%** (2015 - 2023)
- **Urban population share (2023):** 81.81% — **+5.8%** (2015 - 2023)
- **GDP per capita (2023):** 40 025.83 USD — **+6.4%** (2015 - 2023)
- **Share of transport and storage jobs in workforce (2023)** — **8.7%**
- **Share of women employed in transport and storage (2023)** — **28.2%**

Transport Demand Trends

Passenger transport activity

974 545 million passenger-km in 2022

+3.1% (2015 to 2022)



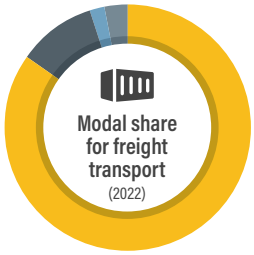
83.0%	Cars
4.8%	Buses and coaches
4.1%	Rail
7.0%	High-speed rail
1.0%	Tram and metro

SDG 9.1

Freight transport activity

343 200 million ton-km in 2022

+11.6% (2015 to 2022)



84.8%	Road
10.3%	Rail
1.9%	Inland waterways
2.9%	Oil pipeline

SDG 9.1

Transport energy consumption (2022)

1 866 557 TJ

-1.9% (2015 to 2022)

Oil products

90.1% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

459.9 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

5.1 Lge/km

Road traffic fatalities (2021), WHO estimates SDG 3.6

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

Road traffic fatality cost as percentage of GDP (2021)

1.9%

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

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

Contribution of transport to air pollution (2019)

13.2%

Transport Emission Trends

Transport GHG emissions (2023)

123.6 million tonnes of CO_2 equivalent

-4.1% (2015 to 2023)

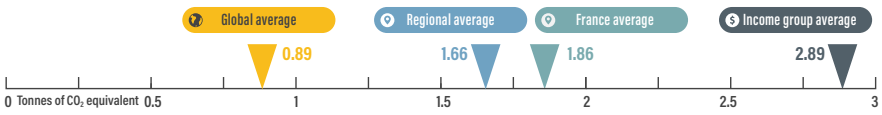
-1.0% (2022 to 2023)

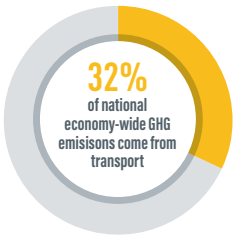
2015 — 2023

Per capita transport GHG emissions (2023)

1.86 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



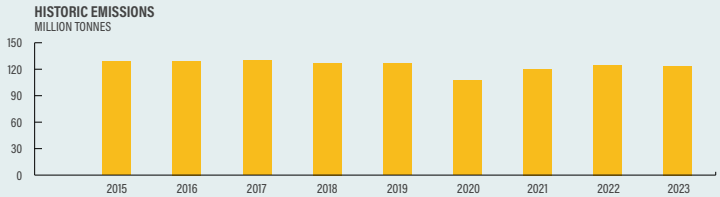


Transport is the largest GHG-emitting sector in the country in 2023.

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	✓ reduce emissions from existing EU ETS sectors and from maritime of 62% by 2030, compared to 2005 levels
Transport mitigation targets in NDC	✓
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2023 VNR with transport linkages to SDG 6, SDG 7, SDG 8, SDG 9, SDG 10, SDG 11, SDG 12, SDG 13, SDG 14 and SDG 15

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Public transport improvements
- Shift to efficient modes
- Financial measures
- E-mobility
- Jet fuel policies

Transport actions in NDC

Mitigation

- Alternative fuels measures
- Vehicle efficiency standards
- Emissions trading and carbon pricing
- Aviation and shipping improvements

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2022)	37 cities
Low emission zones (2022)	32 cities

Adaptation and Resilience

ND-GAIN Index (2022)	67.73
Vulnerability score for infrastructure (2022)	0.27

Walking

Walkability Score (2024)	0.89
National walking strategies (2024)	✓ Combined with cycling as active mobility strategy

Cycling

Cycling infrastructure in capital (2024)	1102 km
Percent near protected bikeways (2024)	44%
Bike sharing systems (2024)	79
National cycling strategies (2024)	✓ Combined with walking as active mobility strategy

Target

- To reach 80,000 km of cycling facilities by 2027 and 100,000 km by 2030.
- To have 13 million bicycles registered by 2027.
- To have 90,000 secure bicycle parking spaces by 2027.
- To produce domestically 2 million bicycles by 2030.

Public Transport

Bus rapid transit (2024)	392 km of total length in 23 cities
Bus rapid transit daily passenger volume (2024)	1757519 passengers per day
Urban rail (LRT, metro, tram) (2024)	Over 686 km in 31 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	95.3%

Intercity Rail

Rail network (2021)	27716 km
Rail travel activity (2021)	86853 million passenger-km
Rail freight activity (2021)	35751.3 million ton-km
High-speed rail (2022)	2796 km
High-speed rail travel activity (2023)	59673 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- France to invest EUR 100 billion in upgrades of rail services by 2040
- Double the share of railways in the French market from 9% (32 billion tonne-kilometers) to 18% by 2030

Road Transport

Total road vehicles in use per 1,000 people (2020)	690.1
Road vehicle fleet growth (from 2015 to 2020)	4.46%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.55 USD per litre
Gasoline prices (2022)	1.76 USD per litre

Aviation

Air passengers carried (2021)	32.0 million people
Air freight activity (2021)	4107.0 million ton-km
Carbon-accredited airports (2023)	83 airports
of which carbon neutral:	13 airports

Shipping

Logistics Performance Index (2023)	3.9
Liner shipping connectivity index (Q4 2024)	74.3
Container port traffic (2020)	5107857.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	8.4%
Biofuel blend ethanol mandate (2023)	9.2%
Carbon intensity of electricity (2023)	55.28 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	9.2% of total transport energy consumption
Biofuels (2022)	7.1% of total transport energy consumption
Electricity (2022)	2.1% of total transport energy consumption
Targeted renewable power share	40%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	89 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	0 g CO_2/km by 2035
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	1100000 vehicles
Share of electric vehicles in car sales (2024)	24%
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	110000 vehicles
Electric vehicles stock for trucks (2024)	5400 vehicles

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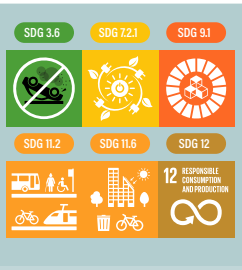
List of acronyms

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



Germany

Germany's transport sector faces challenges in decarbonisation and sustainability despite progress in rail and electric mobility. Passenger transport activity declined by 9% from 2015 to 2022, with cars remaining dominant (85% share). The rate of private cars was at 625 vehicles per 1,000 people in 2020. Freight activity grew by 7% in the same period, with road transport accounting for 71% of volumes. Transport GHG emissions dropped by 11% from 2015 to 2023, but the sector remained the second-largest emitter as of 2023. Renewable energy use in transport reached 8.1%, and electric vehicles accounted for 24% of car sales in 2023. The carbon intensity of Germany's electricity remained high, at 371.3 gCO_2/kWh in 2023. Beyond climate impacts, transport accounted for 12.2% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 3.94 premature deaths per 100,000 people in Germany in 2019. Road traffic injuries, on the other hand, claimed 3.3 lives per 100,000 people and accounted for 1.40% of Germany's GDP in 2021. In 2020, a significant share (88.83%) of France's population had convenient access to public transport, whereas no data is available on the rural population's access to all-weather roads. Policies support rail expansion, e-mobility, carbon pricing and the 2035 EU target of internal combustion engine sales phase-out.

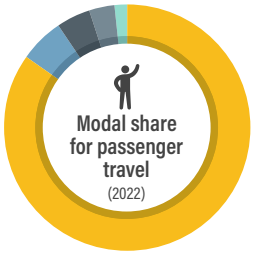
Income group: High-income	
Human Development Index (2023): 0.96	
Population size (2023): 82.57 million	**+3.45%** (2015 - 2023)
Urban population share (2023): 76.07%	**+1.78%** (2015 - 2023)
GDP per capita (2023): 42 920.15 USD	**+4.30%** (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	**8.9%**
Share of women employed in transport and storage (2023)	**27.5%**

Transport Demand Trends

Passenger transport activity

1 001 920 million passenger-km in 2022

-9.0% (2015 to 2022)



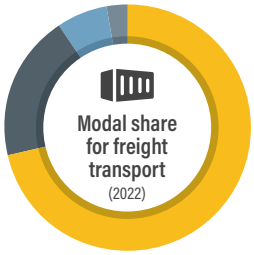
84.7%	Cars
4.6%	Buses and coaches
5.8%	Rail
3.4%	High-speed rail
1.4%	Tram and metro

SDG 9.1

Freight transport activity

666 918 million ton-km in 2023

+7.0% (2015 to 2020)



71.4%	Road
19.3%	Rail
6.6%	Inland waterways
2.7%	Oil pipeline

SDG 9.1

Transport energy consumption (2022)

2 126 670 TJ

-8.8% (2015 to 2022)

Oil products

90.5% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

645.6 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

5.3 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

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

Road traffic fatality cost as percentage of GDP (2021)

1.4%

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

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

Contribution of transport to air pollution (2019)

12.2%

Transport Emission Trends

Transport GHG emissions (2023)

141.3 million tonnes of CO_2 equivalent

-11.4% (2015 to 2023)

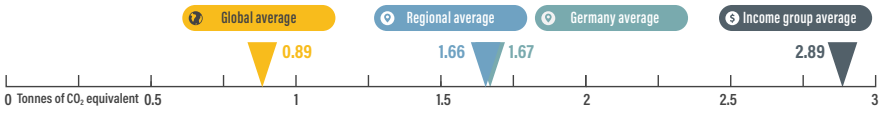
-5.4% (2015 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.67 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the second-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	✓ reduce emissions from existing EU ETS sectors and from maritime of 62% by 2030, compared to 2005 levels
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2021 VNR with transport linkages to SDG 7, SDG 8, SDG 9, SDG 11, SDG 12 and SDG 13

Transport actions in VNRs

- E-mobility
- Alternative fuels
- Digitalisation
- Carbon pricing for transport

Transport actions in NDC

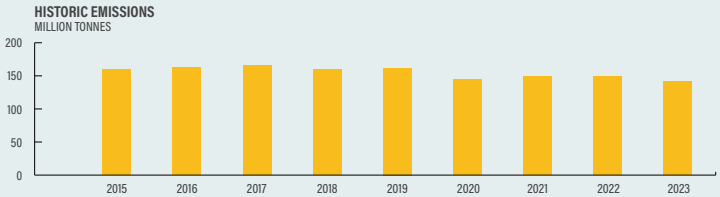
Mitigation

- Alternative fuels measures
- Vehicle efficiency standards
- Emissions trading and carbon pricing
- Aviation and shipping improvements

Adaptation

- No actions

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)	78 cities
Low emission zones (2024)	61 cities

Adaptation and Resilience

ND-GAIN Index (2022)	69.48
Vulnerability score for infrastructure (2022)	0.34

Walking

Walkability Score (2024)	0.83
National walking strategies (2024)	✓

Target

- Increase foot traffic and implement shorter distances

Cycling

Cycling infrastructure in capital (2022)	1000 km
Percent near protected bikeways (2024)	62%
Bike sharing systems (2024)	96
National cycling strategies (2024)	✓

Target

- 60% of citizens to cycle more in future
- Decrease the number of cyclists killed in traffic by 40% (compared to 2019 levels)

Public Transport

Bus rapid transit (2024)	31 km of total length in 2 cities
Bus rapid transit daily passenger volume (2024)	42 000 passengers per day
Urban rail (LRT, metro, tram) (2024)	Over 2 200 km in 62 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	88.83%

Intercity Rail

Rail network (2021)	33 401 km
Rail travel activity (2020)	58 822 million passenger-km
Rail freight activity (2021)	123 067 million ton-km
High-speed rail (2023)	2785 km
High-speed rail travel activity (2023)	37 957 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- 30% of rail freight traffic to be on rail by 2035
- 15% of passenger traffic to be on rail by 2035

Road Transport

Total road vehicles in use per 1,000 people (2020)	625.0
Road vehicle fleet growth (from 2015 to 2020)	7.95%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.70 USD per litre
Gasoline prices (2022)	1.87 USD per litre

Aviation

Air passengers carried (2021)	33.1 million people
Air freight activity (2021)	11 533.0 million ton-km
Carbon-accredited airports (2023)	10 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	4.1
Liner shipping connectivity index (Q4 2024)	85.1
Container port traffic (2020)	18 028 702.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	6.3%
Biofuel blend biodiesel mandate (2023)	4.4%
Biofuel blend ethanol mandate (2023)	2.8%
Carbon intensity of electricity (2023)	371.31 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	8.1% of total transport energy consumption
Biofuels (2022)	5.8% of total transport energy consumption
Electricity (2022)	2.2% of total transport energy consumption
Targeted renewable power share	80%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	89 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	0 g CO_2/km by 2035
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	1 900 000 vehicles
Share of electric vehicles in car sales (2024)	19%
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	96 000 vehicles
Electric vehicles stock for trucks (2024)	9 500 vehicles

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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

Italy

The key areas of sustainable, low-carbon transport in **Italy** are urban mobility improvements, high-speed rail improvements and alternative fuels. Italy's transport sector remained the country's largest source of greenhouse gas emissions, contributing 27.8% of national emissions in 2023. Renewable energy, including biofuels and electricity, accounted for 5.9% of Italy's transport energy consumption, whereas the carbon intensity of its electricity was moderate, at 323.5 gCO_2/kWh in 2023. While transport emissions declined slightly (-0.33% from 2015 to 2023), passenger travel demand fell (-11.2%) while freight activity surged (+25.7%). Road transport dominates both passenger (81% cars) and freight (83.7% road) modes. Concerning sustainability issues, transport accounted for 14.4% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 6.06 premature deaths per 100,000 people in Italy in 2019. Road traffic injuries, on the other hand, claimed 5 lives per 100,000 people and accounted for 2.20% of Italy's GDP in 2021. In 2020, 93.47% of Italy's population had convenient access to public transport. Private motorisation rates are also extremely high with 749.5 vehicles per 1,000 people in 2020. The country has strong policies for transport decarbonisation, including emissions trading, vehicle efficiency standards, and high-speed rail expansion. Italy follows the EU target of an internal combustion engine sales phase-out by 2035 and aims to expand electric vehicle adoption.

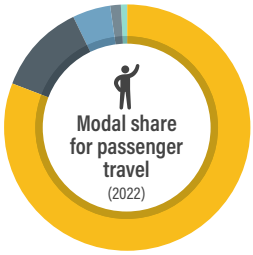
Income group: High-income		
Human Development Index (2023): 0.92		
Population size (2023): 60.51 million	**-1.77%** (2015 - 2023)	
Urban population share (2023): 71.09%	**+2.29%** (2015 - 2023)	
GDP per capita (2023): 33 318.92 USD	**+10.01%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**8.3%**	
Share of women employed in transport and storage (2023)	**24.1%**	

Transport Demand Trends

Passenger transport activity

744 436 million passenger-km in 2022

-11.2% (2015 to 2022)



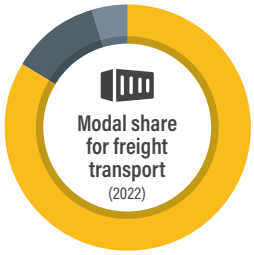
81.0%	Cars
11.9%	Buses and coaches
4.8%	Rail
1.4%	High-speed rail
0.8%	Tram and metro

SDG 9.1

Freight transport activity

206 110 million ton-km in 2022

+25.7% (2015 to 2022)



83.7%	Road
11.8%	Rail
4.5%	Oil pipeline

SDG 9.1

Transport energy consumption (2022)

1 535 917 TJ

+0.9% (2015 to 2022)

Oil products

91.2% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

538.3 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

5.4 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

5 deaths per 100,000 people

5.8 Regional

15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

2.2%

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

6.1 deaths per 100,000 people

4.1 Regional

2.3 Global

Contribution of transport to air pollution (2019)

14.4%

Transport Emission Trends

Transport GHG emissions (2023)

104.0 million tonnes of CO_2 equivalent

-0.3% (2015 to 2023)

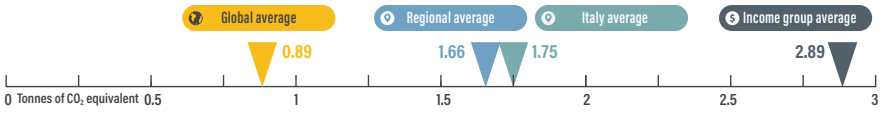
-1.2% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.75 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the 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	✓ reduce emissions from existing EU ETS sectors and from maritime of 62% by 2030, compared to 2005 levels
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2022 VNR with transport linkages to SDG 9

Transport actions in VNRs

- Public transport improvements
- Integrated public transport pricing
- Sustainable urban mobility plans

Transport actions in NDC

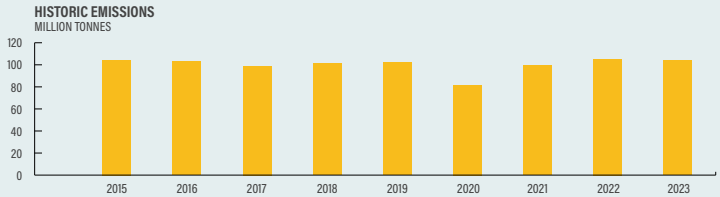
Mitigation

- Alternative fuels measures
- Vehicle efficiency standards
- Emissions trading and carbon pricing
- Aviation and shipping improvements

Adaptation

- No actions

Transport GHG emissions from 2015 to 2023



Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓ Required for every city above 100,000 population
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2024)	45 cities
Low emission zones (2024)	180 cities

Adaptation and Resilience

ND-GAIN Index (2022)	59.58
Vulnerability score for infrastructure (2022)	0.39

Walking

Walkability Score (2024)	0.74
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	254 km
Percent near protected bikeways (2024)	29%
Bike sharing systems (2024)	115
National cycling strategies (2024)	✓

Target

- To construct 565 km of cycling paths in urban areas
- To strengthen connections between railway stations and universities by June 2026

Public Transport

Bus rapid transit (2024)	–
Bus rapid transit daily passenger volume (2024)	–
Urban rail (LRT, metro, tram) (2024)	289 km in 16 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	93.47%

Intercity Rail

Rail network (2021)	17 305.2 km
Rail travel activity (2021)	27 693 million passenger-km
Rail freight activity (2021)	24 262 million ton-km
High-speed rail (2023)	1 097 km
High-speed rail travel activity (2017)	5 290 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- The accelerated implementation of a 5-year agreement between the ministry of transport and the national rail company
- The acceleration of procedures for approving rail projects, with the following planned investments
- High-speed train connections towards south Italy for freight and passengers
- High-speed train connections in the North of Italy with Europe
- Diagonal connections
- Development of European system for management of rail transport
- Improvement of metropolitan rail connections and national key hubs
- Improvement of regional railways
- Improvement, electrification, and resilience of railways in South Italy
- Improvement of rail stations in the South of Italy

Road Transport

Total road vehicles in use per 1,000 people (2020)	749.5
Road vehicle fleet growth (from 2015 to 2020)	6.53%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.47 USD per litre
Gasoline prices (2022)	1.77 USD per litre

Aviation

Air passengers carried (2021)	2.4 million people
Air freight activity (2021)	1150.7 million ton-km
Carbon-accredited airports (2023)	19 airports
of which carbon neutral:	7 airports

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	76.3
Container port traffic (2020)	9 800 000.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	10.0%
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	323.45 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	5.9% of total transport energy consumption
Biofuels (2022)	3.8% of total transport energy consumption
Electricity (2022)	2.1% of total transport energy consumption
Targeted renewable power share	7 210%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	89 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	0 g CO_2/km by 2035
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	300 000 vehicles
Share of electric vehicles in car sales (2024)	7.9%
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	25 000 vehicles
Electric vehicles stock for trucks (2024)	–

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UNEP	United Nations Environment Programme
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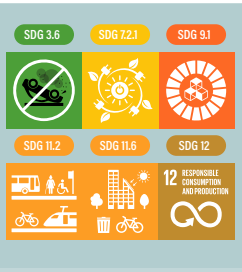
VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure



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.

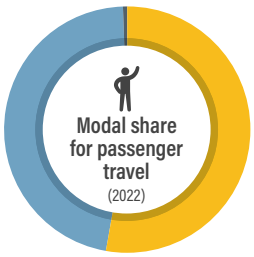
Income group: Middle-income		
Human Development Index (2023): 0.83		
Population size (2023): 145.53 million	**+0.41%** (2015 - 2023)	
Urban population share (2023): 74.05%	**+1.25%** (2015 - 2023)	
GDP per capita (2023): 10 465.19 USD	**+11.36%** (2015 - 2023)	
Share of transport and storage jobs in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



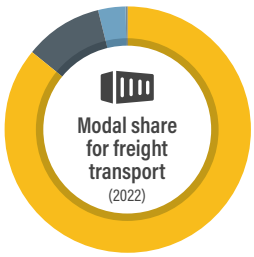
53.1%	Railways
0.3%	Waterways
46.7%	Bus

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)

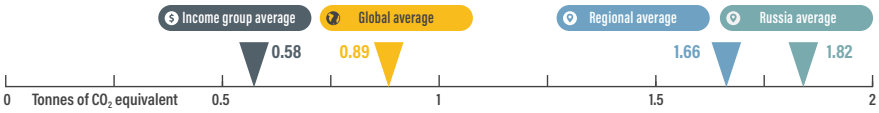
+1.4% (2022 to 2023)

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

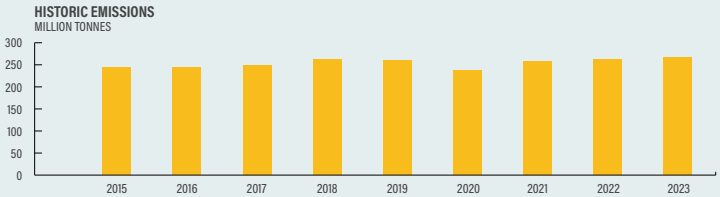
- Road safety improvements
- Infrastructure development for better logistics and passenger transport

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)	–

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United Kingdom

The **United Kingdom (UK)** has made progress towards sustainable, zero-emission transport, but challenges remain. Passenger travel activity has stagnated since 2015, while freight transport has increased. Cars dominate passenger transport, with buses and rail losing modal share. Transport remains the country's largest GHG-emitting sector, accounting for 28.93% of total emissions, despite a decline of 8.71% since 2015. Renewable energy, including biofuels and electricity, accounted for 7.6% of the UK's transport energy consumption, whereas the carbon intensity of its electricity is moderate, at 228.3 gCO_2/kWh in 2023. Beyond climate impacts, transport accounted for 10.6% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 2.48 premature deaths per 100,000 people in the UK in 2019. Road traffic crashes claimed 2.4 lives per 100,000 people and accounted for 1.10% of the country's GDP in 2021. In 2020, an impressive 95.55% of the UK population had convenient access to public transport. Policies support zero-emission vehicles, urban mobility, and rail electrification, with an ICE phase-out target set for 2035. However, reliance on oil remains high, and fossil fuel subsidies persist. Investments in public transport, walking, and cycling aim to shift travel behaviour, though uptake varies.

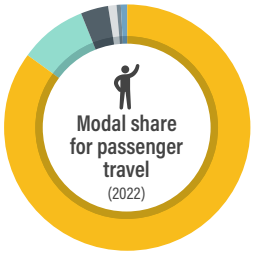
Income group: High-income		
Human Development Index (2023): 0.95		
Population size (2023): 65.64 million	**+5.10%** (2015 - 2023)	
Urban population share (2023): 84.60%	**+7.15%** (2015 - 2023)	
GDP per capita (2023): 46 941.33 USD	**+4.41%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**9.1%**	
Share of women employed in transport and storage (2023)	**23.4%**	

Transport Demand Trends

Passenger transport activity

799 460 million passenger-km in 2022

+0.2% (2015 to 2022)



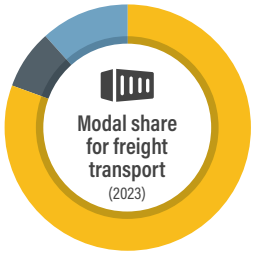
85.0%	Cars, vans and taxis
3.6%	Buses and coaches
0.6%	Motorcycles
0.7%	Pedal cycles
9.0%	Rail
1.0%	Air

SDG 9.1

Freight transport activity

207 000 million ton-km in 2023

+7.8% (2015 to 2022)



80.7%	Road
7.7%	Rail
11.6%	Water

SDG 9.1

Transport energy consumption (2022)

1 600 625 TJ

-5.6% (2015 to 2022)

Oil products

92.2% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

544.9 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

6.15 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

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

Road traffic fatality cost as percentage of GDP (2021)

1.1%

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

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

Contribution of transport to air pollution (2019)

10.6%

Transport Emission Trends

Transport GHG emissions (2023)

109.8 million tonnes of CO_2 equivalent

-8.7% (2015 to 2023)

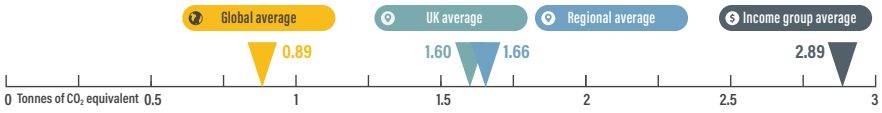
+1.4% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.6 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

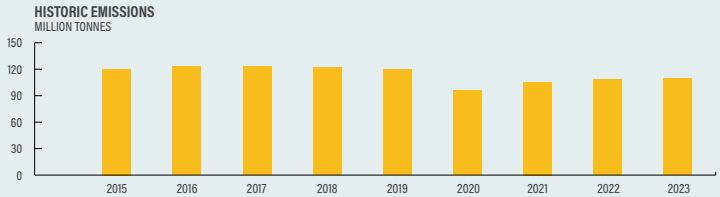


Transport is the largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✓ zero-emission vehicles to reflect 80% of car and 70% of van sales by 2030, 100% by 2035
VNR highlights transport	✓ 2019 VNR with transport linkages to SDG 3, SDG 7, SDG 8, SDG 9 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Zero-emission vehicle
- Renewable energy for transport
- Upgrading transport infrastructure
- EV charging

Transport actions in NDC

Mitigation

- Transport demand management measures
- Emissions trading and carbon pricing
- Vehicle restrictions (import, age, access, sale, taxation)
- Public transport integration and expansion
- Fossil fuel subsidy elimination
- General e-mobility measures
- ICE (gasoline and diesel) bans
- Aviation and shipping improvements

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)	–
Low emission zones (2024)	17 cities

Adaptation and Resilience

ND-GAIN Index (2022)	70.30
Vulnerability score for infrastructure (2022)	0.22

Walking

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

Target

- Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018 to 2019 to 46% in 2025
- Increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 365 stages per person per year in 2025
- Increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025

Cycling

Cycling infrastructure in capital (2022)	400 km
Percent near protected bikeways (2024)	28%
Bike sharing systems (2024)	49
National cycling strategies (2024)	✓

Target

- Double cycling from 0.8 billion stages in 2013 to 1.6 billion stages in 2025

Public Transport

Bus rapid transit (2024)	135 km of total length in 7 cities
Bus rapid transit daily passenger volume (2024)	101 559 passengers per day
Urban rail (LRT, metro, tram) (2024)	818 km in 10 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	95.55%

Intercity Rail

Rail network (2021)	16 178.56 km
Rail travel activity (2020)	24 188.47 million passenger-km
Rail freight activity (2020)	15 212.12 million ton-km
High-speed rail (2022)	113 km
High-speed rail travel activity (2022)	3 435.8 million passenger-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- To invest GBP 96 billion for rail construction and upgrades
- To electrify 75% of all rail lines, allowing to remove diesel-only trains from the network by 2040

Road Transport

Total road vehicles in use per 1,000 people (2020)	630.2
Road vehicle fleet growth (from 2015 to 2020)	10.95%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.67 USD per litre
Gasoline prices (2022)	1.88 USD per litre

Aviation

Air passengers carried (2021)	26.6 million people
Air freight activity (2021)	4 097.1 million ton-km
Carbon-accredited airports (2023)	24 airports
of which carbon neutral:	8 airports

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	90.0
Container port traffic (2020)	8 692 260.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	10.1%
Biofuel blend biodiesel mandate (2023)	7.0%
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	228.25 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	7.6% of total transport energy consumption
Biofuels (2022)	5.7% of total transport energy consumption
Electricity (2022)	1.9% of total transport energy consumption
Targeted renewable power share	100%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	90 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	22 g CO_2/km by 2030
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	1 400 000 vehicles
Share of electric vehicles in car sales (2024)	28%
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	89 000 vehicles
Electric vehicles stock for trucks (2024)	4 300 vehicles

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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

Argentina

Argentina envisions a wide array of actions to improve their transport system. Recent data on transport activity is missing, but the data from 2015 to 2017 shows that passenger travel demand increased by 11.13% between 2015 and 2017. Passenger cars represented 56.7% of the national modal share in 2017. Transport was the second-largest source of national GHG emissions, accounting for 13.2% of total emissions in 2023. While transport emissions grew by 2.4% from 2015 to 2023, they declined by 3.7% from 2022 to 2023. Concerning sustainability, transport contributes a very high share of 9.4% to national air pollutant emissions in 2019, causing 2.53 premature deaths per 100,000 people in Argentina in 2019. Road traffic fatalities accounted for 8.8 deaths per 100,000 people and it costed the country 3.3% of their GDP in 2021.

Policies in NDCs and VNRs reflect a comprehensive approach, covering many actions to mitigate emissions, raise resilience, increase road safety and support sustainability. However, challenges persisted, including a high motorisation rate of 311 vehicles per 1,000 people in 2020 and high per capita fossil fuel subsidies of USD 555.73 per capita in 2022. Renewable energy, including biofuels and electricity, accounted for 6.5% of Argentina's transport energy consumption, whereas the carbon intensity of its electricity remained relatively high for the region, at 354 gCO_2/kWh in 2023. There are no targets to reduce CO_2 emissions performance for passenger cars nor to increase the electric vehicle stock.

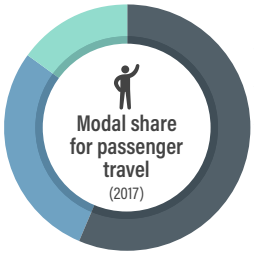
Income group: Middle-income		
Human Development Index (2023): 0.87		
Population size (2023): 43.7 million	**+5.1%** (2015 - 2023)	
Urban population share (2023): 95%	**+8.7%** (2015 - 2023)	
GDP per capita (2023): 12 957.52 USD	**-5.8%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**6.8%**	
Share of women employed in transport and storage (2023)	**17.1%**	

Transport Demand Trends

Passenger transport activity

57 145 million passenger-km in 2017

+11.1% (2015 to 2017)



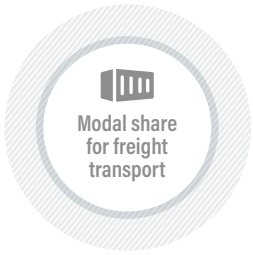
14.6%	Rail
56.7%	Road, passenger cars
28.7%	Road, buses

SDG 9.1

Freight transport activity

8 377 million ton-km of rail transport in 2017

+1.2% (2015 to 2017)



SDG 9.1

Transport energy consumption (2022)

785 402 TJ

+7.5% (2015 to 2022)

Oil products

78.8% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

555.7 USD per capita

Fuel quality standards (2022)

500-2000 ppm

Average light duty vehicle fuel consumption (2022)

8.3 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6	**8.8**	deaths per 100,000 people	14.6 Regional, 15.0 Global
Road traffic fatality cost as percentage of GDP (2021)	**3.3%**		
Premature deaths linked to transport air pollution (2019) SDG 11.6	**2.5**	deaths per 100,000 people	1.7 Regional, 2.3 Global
Contribution of transport to air pollution (2019)	**9.4%**		

Transport Emission Trends

Transport GHG emissions (2023)

48.3 million tonnes of CO_2 equivalent

+2.4% (2015 to 2023)

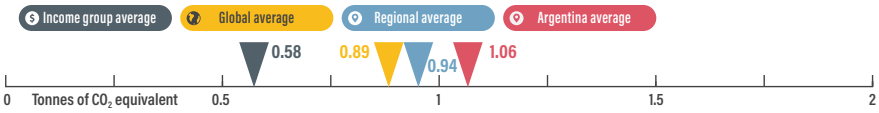
-3.7% (2022 to 2023)

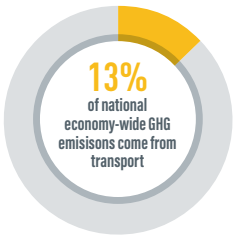
2015 — 2023

Per capita transport GHG emissions (2023)

1.06 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



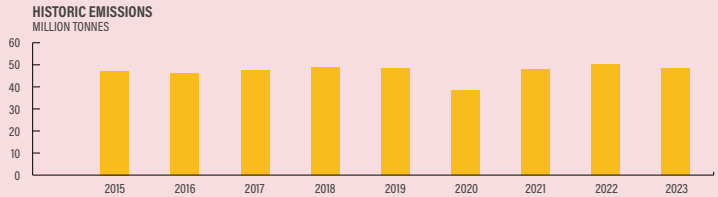


Transport is the second-largest GHG-emitting sector in the country in 2023.

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	✓ 2022 VNR with transport linkages to SDG 3, SDG 5, SDG 7, SDG 8, SDG 9, SDG 11 and SDG 17

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Road safety measures
- Hydrogen
- Transport energy efficency
- Renewal of road and rail infrastructure for better logistics and cross-border activities
- Promotion of vehicles adapted for people with disabilities and reduced mobility
- Intelligent Transportation Program

Transport actions in NDC

Mitigation

- Biofuels
- Freight transport shifting to rail or inland waterways
- General active mobility
- General alternative fuels
- General e-mobility
- General transport planning
- Hydrogen
- Improving load
- Intelligent transport systems
- LPG/CNG/LNG
- Sustainable transport capacity building
- Vehicle air pollution emission standards
- Vehicle labelling
- Vehicle scrappage scheme

Adaptation

- Adaptation and resilience of transport systems
- Education and Training
- Design Standards and updates
- Repair & Maintenance
- Risk assessment

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)	2 cities
Low emission zones (2022)	–

Adaptation and Resilience

ND-GAIN Index (2022)	50.21
Vulnerability score for infrastructure (2022)	0.14

Walking

Walkability Score (2024)	0.77
National walking strategies (2024)	✓ (Outdated)

Cycling

Cycling infrastructure in capital (2022)	300 km
Percent near protected bikeways (2024)	13%
Bike sharing systems (2024)	15
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	122 km of total length in 5 cities
Bus rapid transit daily passenger volume (2024)	1 563 000 passengers per day
Urban rail (LRT, metro, tram) (2024)	74.5 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	57.16%

Intercity Rail

Rail network (2019)	17 866 km
Rail travel activity (2017)	8 360.782 million passenger-km
Rail freight activity (2017)	8 377 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Modernise and expand the rail network (including rail lines, stations and new rolling stock), reactivate former rail lines

Road Transport

Total road vehicles in use per 1,000 people (2020)	310.9
Road vehicle fleet growth (from 2015 to 2020)	2.10%
Rural Access Index (2019) SDG 9.1	73.1 RAI PST
Diesel prices (2022)	0.76 USD per litre
Gasoline prices (2022)	0.93 USD per litre

Aviation

Air passengers carried (2021)	6.7 million people
Air freight activity (2021)	88.3 million ton-km
Carbon-accredited airports (2023)	12 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	2.8
Liner shipping connectivity index (Q4 2024)	36.0
Container port traffic (2020)	1 990 008.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	7.5%
Biofuel blend ethanol mandate (2023)	12.0%
Carbon intensity of electricity (2023)	353.96 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	6.5% of total transport energy consumption
Biofuels (2022)	6.4% of total transport energy consumption
Electricity (2022)	0.1% of total transport energy consumption
Targeted renewable power share	26%

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)	Banned
Electric vehicles stock for passenger cars (2024)	–
Share of electric vehicles in car sales (2024)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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kWh	Kilowatt-hour
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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

Brazil

Brazil put strong efforts in advancing sustainable, zero-emission transport through prioritising urban transport improvements and low-carbon fuels. However, transport sector was the second-largest contributor to Brazil's emissions, accounting for 17% of national GHG emissions in 2023. Transport GHG emissions grew by nearly 8% from 2015 to 2023. There is scarce data on passenger transport activity, but freight transport activity data indicated dominance of road freight in 2019. Brazil leads in biofuel use (21.3% of total transport energy consumption in 2022), with ethanol and biodiesel mandates at 27% and 10%, respectively. Beyond climate impacts, transport accounted for 6.5% of national air pollutant emissions in 2019, causing 1.31 premature deaths per 100,000 people in Brazil in 2019. Road traffic fatalities are at high levels with 15.7 deaths per 100,000 people and accounted with 5.2% a significant share of the country's GDP in 2021.
Brazil's third NDC sets out both transport mitigation and adaptation measures. Especially on adaptation and resilience, efforts are needed because assessments show a high vulnerabilityand a low adaptability of infrastructure to the negative impacts of climate change. Nearly 400 cities have sustainable urban mobility plans as of 2024. Activities to enhance sustainability and access to public transport, walking and cycling are in progress. Already 74% of the urban population has conveninent access to public transport. National policies support rail expansion with the target to double the modal share of rail.

Income group: Middle-income		
Human Development Index (2023): 0.79		
Population size (2023): 202.46 million	**+4.9%** (2015 - 2023)	
Urban population share (2023): 90.8%	**+8.3%** (2015 - 2023)	
GDP per capita (2023): 9 277.11 USD	**+3.4%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**7.3%**	
Share of women employed in transport and storage (2023)	**15.2%**	

Transport Demand Trends

Passenger transport activity

16 486

million passenger-km of rail transport in 2019

+3.9% (2015 to 2019)

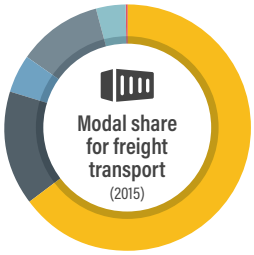
SDG 9.1

Freight transport activity

2.4

trillion ton-km in 2015

— (2015 to 2023)



65%	Road
15%	Railway
5%	Inland waterway
11%	Cabotage
4%	Pipeline
0.04%	Air

SDG 9.1

Transport energy consumption (2022)

3 782 557 TJ

+6.2% (2015 to 2022)

Oil products

75.3% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

245.1 USD per capita

Fuel quality standards (2022)

50-500 ppm

Average light duty vehicle fuel consumption (2022)

7.46 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6	**15.7**	deaths per 100,000 people	14.6 Regional, 15.0 Global
Road traffic fatality cost as percentage of GDP (2021)	**5.2%**		
Premature deaths linked to transport air pollution (2019) SDG 11.6	**1.3**	deaths per 100,000 people	1.7 Regional, 2.3 Global
Contribution of transport to air pollution (2019)	**6.5%**		

Transport Emission Trends

Transport GHG emissions (2023)

221.1

million tonnes of CO_2 equivalent

+7.9% (2015 to 2023)

+2.0% (2022 to 2023)

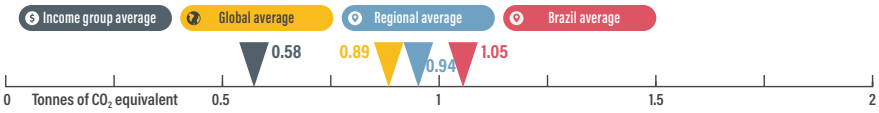
2015 — 2023

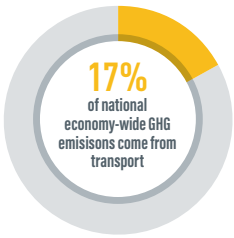
Per capita transport GHG emissions (2023)

1.05

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



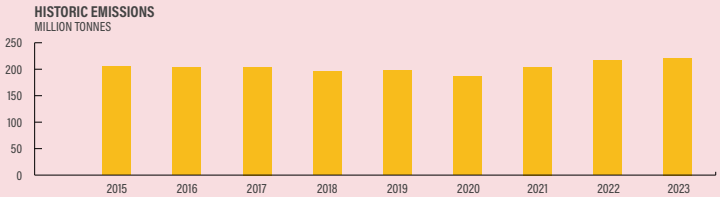


Transport is the second-largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✗
NDC submitted:	1st, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	Increase the share of biofuels by 50% until 2033
VNR highlights transport	✓ 2024 VNR with transport linkages to SDG 9, SDG 10 and SDG 11

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Logistic improvements
- Transport infrastructure expansion
- Public transport expansion

Transport actions in NDC

Mitigation

- Transport demand management measures
- Transport and land use planning
- Infrastructure improvements
- Public transport improvement
- Active mobility
- Financial instruments to support decarbonisation
- Ecodriving
- E-mobility measures
- Alternative fuels measures
- Biofuels support measures
- Hydrogen support measures

Adaptation

- Transport System Adaptation
- Transport Planning
- Education and Training

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2022)	396 cities
Low emission zones (2022)	✓ (First LEZ approved in 2022 for Rio de Janeiro)

Adaptation and Resilience

ND-GAIN Index (2022)	49.52
Vulnerability score for infrastructure (2022)	0.12

Walking

Walkability Score (2024)	0.61
National walking strategies (2024)	✓ (In progress)

Cycling

Cycling infrastructure in capital (2022)	636 km
Percent near protected bikeways (2024)	6%
Bike sharing systems (2024)	30
National cycling strategies (2024)	✓ (In progress)

Target

- To make cycling an efficient and healthy means of transport.
- Support local governments in the deployment of bicycle lanes, public bicycles and user support equipment.
- To promote the integration of the bicycle and public transport.

Public Transport

Bus rapid transit (2024)	922 km ot total length in 27 cities
Bus rapid transit daily passenger volume (2024)	8 824 386 passengers per day
Urban rail (LRT, metro, tram) (2024)	733 km in 9 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	74.16%

Intercity Rail

Rail network (2007)	32 622 km
Rail travel activity (2019)	16 486.36 million passenger-km
Rail freight activity (2007)	9 393.5 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To increase rail's modal share from the current 17.7% to 34.6%

Road Transport

Total road vehicles in use per 1,000 people (2020)	219.7
Road vehicle fleet growth (from 2015 to 2020)	6.97%
Rural Access Index (2019) SDG 9.1	65.5 RAI PST
Diesel prices (2022)	1.07 USD per litre
Gasoline prices (2022)	1.11 USD per litre

Aviation

Air passengers carried (2021)	61.9 million people
Air freight activity (2021)	1294.5 million ton-km
Carbon-accredited airports (2023)	8 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	3.2
Liner shipping connectivity index (Q4 2024)	39.7
Container port traffic (2020)	10 376 571.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	10.0%
Biofuel blend ethanol mandate (2023)	27.0%
Carbon intensity of electricity (2023)	96.40 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	21.6% of total transport energy consumption
Biofuels (2022)	21.3% of total transport energy consumption
Electricity (2022)	0.3% of total transport energy consumption
Targeted renewable power share	23%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	138 g CO_2/km in 2017
Targeted CO_2 emissions performance (2024)	122 g CO_2/km by 2022
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2024)	94 000 vehicles
Share of electric vehicles in car sales (2024)	6.4 %
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	3 800 vehicles
Electric vehicles stock for trucks (2024)	–

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Chile

Chile's transport sector had put in place the necessary frameworks to support sustainable, low-carbon transport. However, Chile has very high private motorisation levels with 245.7 vehicles per 1,000 people in 2020. Transport was the largest contributor to national greenhouse gas emissions, accounting for 26.7% of the country's total emissions in 2023. Transport emissions increased significantly by 26.5% from 2015 to 2023, and the per capita transport emissions (1.7 tonnes CO_2) are nearly double the global average. Beyond climate impacts, transport accounted for 5.9% of national air pollutant emissions in 2019. The high dependence on private motorisation resulted in high levels of road traffic fatalities, which was at 10.3 deaths per 100,000 people and accounted for 3% of the country's GDP in 2021.

Chile has a very high urban population share (84.67%), and urban transport is dominated by private transport (36%), and public transport accounts for 33% of passenger travel. The country has ambitious transport policies, including a national urban mobility framework, low-emission zones, and rail mode-spcific plans to triple rail passenger numbers by 2027 and transporting an additional 6 billion tonnes of goods. Chile has also set an ICE phase-out target for 2035. However, renewable energy use in transport remains low at 1.2%, the carbon intensity of electricity was high at 301.9 gCO_2/kWh in 2023 and electric vehicles compromised just 0.3% of the vehicle sales in 2023.

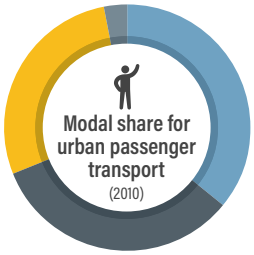
Income group: High-income	
Human Development Index (2023): 0.88	
Population size (2023): 18.14 million	+9.2% (2015 - 2023)
Urban population share (2023): 84.67%	+7.0% (2015 - 2023)
GDP per capita (2023): 14 266.87 USD	+5.7% (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	8.4%
Share of women employed in transport and storage (2023)	20.8%

Transport Demand Trends

Passenger transport activity

738 million passenger-km of rail transport in 2021

(2015 to 2023)



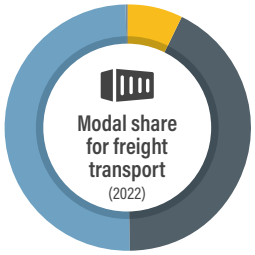
3%	Cycling
33%	Public transort
36%	Private transport
28%	Walking

SDG 9.1

Freight transport activity

3 585 million ton-km of rail transport in 2020

(2015 to 2023)



7.3%	Railways
42.6%	Maritime
50.0%	Road
0.1%	Aviation

SDG 9.1

Transport energy consumption (2022)

438 408 TJ

+23.8% (2015 to 2023)

Oil products

98.7% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

938.4 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

7.95 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

10.3 deaths per 100,000 people

14.6 Regional

15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

3.0%

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

1.9 deaths per 100,000 people

1.7 Regional

2.3 Global

Contribution of transport to air pollution (2019)

5.9%

Transport Emission Trends

Transport GHG emissions (2023)

32.5 million tonnes of CO_2 equivalent

+26.6% (2015 to 2023)

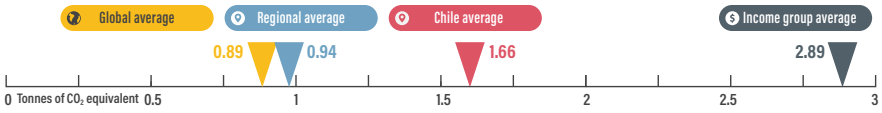
+2.4% (2022 to 2023)

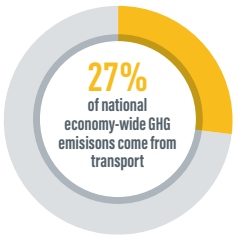
2015 — 2023

Per capita transport GHG emissions (2023)

1.66 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON





Transport is the 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	✓ 2023 VNR with transport linkages to SDG 1, SDG 3, SDG 4, SDG 9, SDG 11, SDG 12, SDG 13 and SDG 17

Transport actions in VNRs

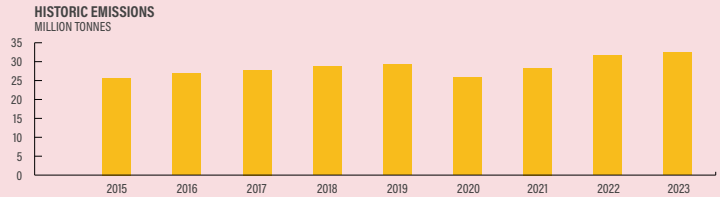
- E-mobility
- Vehicle performance standards
- Fuel quality standards
- Public transport improvements
- Transport resilience and adaptation
- Transport safety
- Accessibility improvements

Transport actions in NDC

Mitigation

- Cycling measures
- General e-mobility
- General public transport improvement
- Hydrogen
- Use of renewable energy

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 (2022)	57 cities
Low emission zones (2022)	✓

Adaptation and Resilience

ND-GAIN Index (2022)	60.12
Vulnerability score for infrastructure (2022)	0.23

Walking

Walkability Score (2024)	0.80
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	36 km
Percent near protected bikeways (2024)	24%
Bike sharing systems (2024)	1
National cycling strategies (2024)	✓

Public Transport

Bus rapid transit (2024)	105 km of total length in 2 cities
Bus rapid transit daily passenger volume (2024)	476 800 passengers per day
Urban rail (LRT, metro, tram) (2024)	192 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	90.63%

Intercity Rail

Rail network (2021)	2396 km
Rail travel activity (2021)	738 million passenger-km
Rail freight activity (2020)	3 585.457 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Triple the number of passengers by 2027, from 50 to 150 million a year
- Transporting an additional 6 billion tonnes of goods by rail

Road Transport

Total road vehicles in use per 1,000 people (2020)	245.7
Road vehicle fleet growth (from 2015 to 2020)	6.88%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	0.83 USD per litre
Gasoline prices (2022)	1.19 USD per litre

Aviation

Air passengers carried (2021)	10.3 million people
Air freight activity (2021)	1 284.0 million ton-km
Carbon-accredited airports (2023)	1 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	3
Liner shipping connectivity index (Q4 2024)	36.3
Container port traffic (2020)	4 192 000.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	301.93 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	1.2% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	1.2% of total transport energy consumption
Targeted renewable power share	100%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	157 g CO_2/km in 2020
Targeted CO_2 emissions performance (2024)	81 g CO_2/km by 2030
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2024)	8 600 vehicles
Share of electric vehicles in car sales (2024)	2.1 %
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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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

Colombia

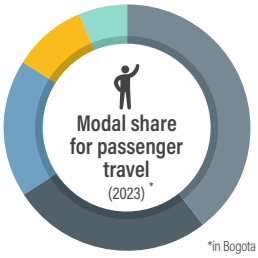
Colombia has strong ambitions on advancing sustainable, zero-emission transport. The NDC and VNR of Colombia reflect a comprehensive set of transport policies. However, as of 2023, transport sector was the second-largest source of greenhouse gas emissions, contributing 16.7% of national emissions. Renewable energy in transport, expresssed through biofuels and electricity, accounted for 6.6% of Colombia's transport energy consumption and the carbon intensity of its electricity is very low at 269 gCO_2/kWh in 2023. Beyond climate-related mattes, transport was responsible for 9.1% of national air pollutant emissions in 2019 which resulted in 2.44 premature deaths per 100,000 people. Road traffic injuries claimed 16.2 lives per 100,000 people and accounted for 4.20% of the country's GDP in 2021.
There is scarce data on passenger and freight transport activity, but urban mobility data indicates that walking is the most dominant mode (39.6% modal split), followed by private vehicles (26.40%). Bogotá also has a significant bus rapid transit system which has increased by 14 km since the previous edition of the country fact sheets in 2023. Road freight accounts for 96.9% of goods transport, but the country has ambitious plans for rail expansion, with an aim to reduce their logistics costs by 26%, improve productivity and reduce environmental pollution. Fossil fuel subsidies remain high at USD 531.61 per capita, but Colombia's policies, including NDC commitments and urban mobility frameworks, aim to enhance sustainability and resilience in its transport sector, for example the NDC featured a target of 600,000 electric vehicles by 2030. Colombia's 2024 VNR includes transport linkages to SDG 9 and SDG 11.

Income group: Middle-income	
Human Development Index (2023): 0.79	
Population size (2023): 47.17 million	**+11.26%** (2015 - 2023)
Urban population share (2023): 81.1%	**+9.70%** (2015 - 2023)
GDP per capita (2023): 6 857.12 USD	**+9.27%** (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	**9.3%**
Share of women employed in transport and storage (2023)	**13.2%**

Transport Demand Trends

Passenger transport activity

—
million passenger-km of rail transport in 2023
—
(2015 to 2023)

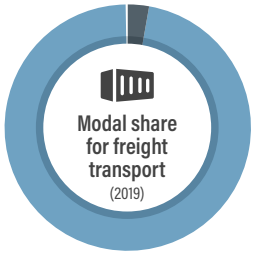


39.6%	Walking
26.4%	Car
18.1%	Motorcycle
9.8%	Bus
6.2%	Cycling

SDG 9.1

Freight transport activity

—
million ton-km of rail transport in 2023
—
(2015 to 2023)



0.04%	Railways
2.97%	Inland water
96.93%	Road
0.07%	Aviation

SDG 9.1

Transport energy consumption (2022)
545 888 TJ
+28% (2015 to 2022)

Oil products
90.0 of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12
531.6 USD per capita

Fuel quality standards (2022)
15-50 ppm

Average light duty vehicle fuel consumption (2022)
8.28 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6
16.2 deaths per 100,000 people
14.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)
4.2%

Premature deaths linked to transport air pollution (2019) SDG 11.6
2.4 deaths per 100,000 people
1.7 Regional
2.3 Global

Contribution of transport to air pollution (2019)
9.1%

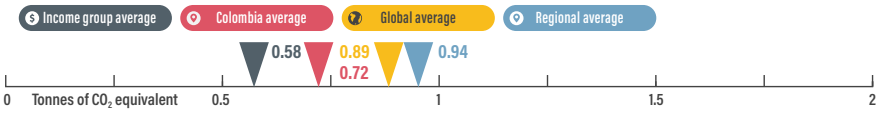
Transport Emission Trends

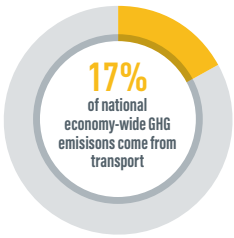
Transport GHG emissions (2023)
37.4 million tonnes of CO_2 equivalent

+31.1% (2015 to 2023)
+1.7% (2022 to 2023)
2015 — 2023

Per capita transport GHG emissions (2023)
0.72 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



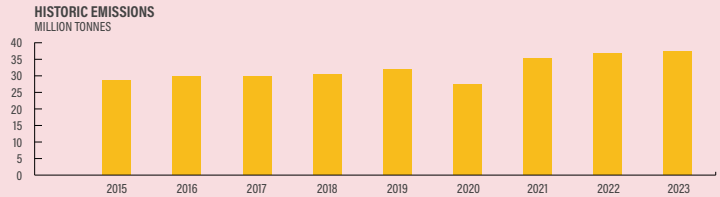


Transport is the second-largest GHG-emitting sector in the country in 2023.

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	Target of 600,000 electric vehicles by 2030
VNR highlights transport	✓ 2024 VNR with transport linkages to SDG 9 and SDG 11

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Inland water transport
- E-mobility

Transport actions in NDC

Mitigation

- Cycling measures
- Development density or intensiveness
- EV charging infrastructure
- EV purchase incentives
- Freight transport shifting to rail or inland waterways
- General aviation improvements
- General economic instruments
- General e-mobility
- General freight efficiency improvements
- General infrastructure improvements
- General vehicle improvements
- Mixed use
- Vehicle air pollution emission standards
- Vehicle efficiency standards

Adaptation

- Early warning system
- Education and Training
- Monitoring
- Notification system
- Risk assessment

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)	9 cities
Low emission zones (2024)	1 city

Adaptation and Resilience

ND-GAIN Index (2022)	48.69
Vulnerability score for infrastructure (2022)	0.10

Walking

Walkability Score (2024)	0.78
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	661 km
Percent near protected bikeways (2024)	28.25%
Bike sharing systems (2024)	21
National cycling strategies (2024)	✓

Public Transport

Bus rapid transit (2024)	241 km of total length in 7 cities
Bus rapid transit daily passenger volume (2024)	2 789 996 passengers per day
Urban rail (LRT, metro, tram) (2024)	31 km in 1 city
Proportion of population that has convenient access to public transport (2020) SDG 11.2	83.21%

Intercity Rail

Rail network (2021)	–
Rail travel activity (2020)	–
Rail freight activity (2019)	–
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Improve and develop cargo and passenger railway lines
- Reduce 26% of the country's logistics costs to improve productivity and reduce environmental pollution

Road Transport

Total road vehicles in use per 1,000 people (2020)	112.5
Road vehicle fleet growth (from 2015 to 2020)	6.14%
Rural Access Index (2019) SDG 9.1	52.9 RAI PST
Diesel prices (2022)	0.47 USD per litre
Gasoline prices (2022)	0.57 USD per litre

Aviation

Air passengers carried (2021)	26.2 million people
Air freight activity (2021)	1 605.2 million ton-km
Carbon-accredited airports (2023)	1 airport
of which carbon neutral:	1 airport

Shipping

Logistics Performance Index (2023)	2.9
Liner shipping connectivity index (Q4 2024)	49.2
Container port traffic (2020)	4 480 900.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	10.0%
Biofuel blend ethanol mandate (2023)	6.0%
Carbon intensity of electricity (2023)	268.97 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	6.6% of total transport energy consumption
Biofuels (2022)	6.2% of total transport energy consumption
Electricity (2022)	0.4% of total transport energy consumption
Targeted renewable power share	77%

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)	Banned
Electric vehicles stock for passenger cars (2024)	19 000 vehicles
Share of electric vehicles in car sales (2024)	7.4 %
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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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

Mexico

Mexico's transport sector remains heavily reliant on road-based travel, with private automobiles accounting for nearly all half of urban passenger trips in Mexico City (43.4%). Road freight accounted for almost 75% of the country's freight transport activity in 2023. While passenger and freight activity grew by 6.19% and 8.89% respectively since 2015, transport emissions declined by 13.5%. Transport remains the second-largest GHG-emitting sector, contributing 18.6% of national emissions. Renewable energy, including biofuels and electricity, accounted for only 0.3% of Mexico's transport energy consumption and the carbon intensity of its electricity remains high, at 492.3 gCO_2/kWh in 2023.

Beyond climate impacts, transport is a significant contributor to air pollution, accounting for 12.8% of national air pollutant emissions in 2019. Transport-induced air pollution caused 3.74 premature deaths per 100,000 people in Mexico in 2019. The country recorded 12.4 road traffic fatalities per 100,000 people in 2021 and accounted for 3.80% of the country's GDP in the same year. Policies focus on e-mobility, public transport, and rail freight expansion. However, electric vehicle adoption remains low, with just 1.3% of new car sales in 2023 being electric. Mexico has a national urban mobility framework and low-emission zones, but active transport infrastructure, such as cycling networks, remains limited.

Income group: Middle-income		
Human Development Index (2023): 0.79		
Population size (2023): 121.68 million	+7.2% (2015 - 2023)	
Urban population share (2023): 87.4%	+13.1% (2015 - 2023)	
GDP per capita (2023): 10 269.75 USD	+2.0% (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	5.6%	
Share of women employed in transport and storage (2023)	14.9%	

Transport Demand Trends

Passenger transport activity

541 452 million passenger-km in 2023

+6.2% (2015 to 2023)

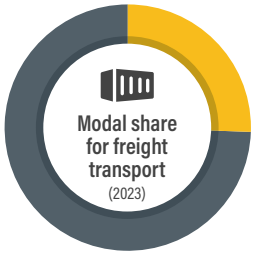
43.4%	Automobile
31.7%	Walking
9.0%	Subway
7.3%	Bus
5.5%	Motorcycle
2.7%	Cycling
0.4%	Rail

SDG 9.1

Freight transport activity

356 982 million ton-km in 2023

+8.9% (2015 to 2023)



25.8%	Rail
74.2%	Road

SDG 9.1

Transport energy consumption (2022)

1 862 004 TJ

-13.0% (2015 to 2022)

Oil products

99.7% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

481.1 USD per capita

Fuel quality standards (2022)

50-500 ppm

Average light duty vehicle fuel consumption (2022)

7.85 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

12.4 deaths per 100,000 people

14.6 Regional

15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

0.04

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

3.7 deaths per 100,000 people

1.7 Regional

2.3 Global

Contribution of transport to air pollution (2019)

12.8%

Transport Emission Trends

Transport GHG emissions (2023)

132.2 million tonnes of CO_2 equivalent

-13.5% (2015 to 2023)

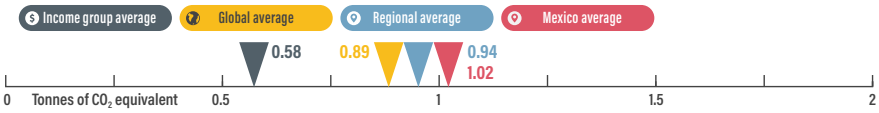
+1.69% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

1.02 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



Transport is the second-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	✗ 2024 VNR with no transport linkages

Transport actions in NDC

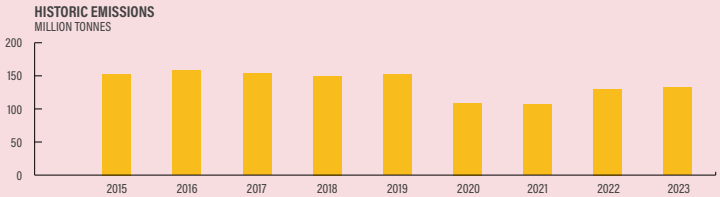
Mitigation

- General e-mobility
- Public transport improvements
- Infrastructure improvements
- Alternative fuels
- Teleworking
- Sustainable Urban Mobility Plans
- Vehicle efficiency improvements

Adaptation

- Transport Planning
- System resilience

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 (2022)	1 city, 1 ongoing
Low emission zones (2022)	✓ Similar

Adaptation and Resilience

ND-GAIN Index (2022)	49.63
Vulnerability score for infrastructure (2022)	0.19

Walking

Walkability Score (2024)	0.46
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	380.7 km
Percent near protected bikeways (2024)	6%
Bike sharing systems (2024)	11
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	458 km of total length in 12 cities
Bus rapid transit daily passenger volume (2024)	2 881 050 passengers per day
Urban rail (LRT, metro, tram) (2024)	313 km in 3 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	36.28 %

Intercity Rail

Rail network	–
Rail travel activity (2021)	466 million passenger-km
Rail freight activity (2021)	92 437 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Reduce urban congestion and air pollution.
- Rail to grow from 26.4% to 40% of land freight activity
- Achieve a decarbonised rail system

Road Transport

Total road vehicles in use per 1,000 people (2020)	356.8
Road vehicle fleet growth (from 2015 to 2020)	20.70%
Rural Access Index (2019) SDG 9.1	74.7 RAI PST
Diesel prices (2022)	0.92 USD per litre
Gasoline prices (2022)	0.99 USD per litre

Aviation

Air passengers carried (2021)	54.2 million people
Air freight activity (2021)	962.6 million ton-km
Carbon-accredited airports (2023)	44 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	2.9
Liner shipping connectivity index (Q4 2024)	47.3
Container port traffic (2020)	6 385 629.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	5.8%
Carbon intensity of electricity (2023)	492.34 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.3% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.3% of total transport energy consumption
Targeted renewable power share	35%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	145 g CO_2/km in 2015
Targeted CO_2 emissions performance (2024)	87 g CO_2/km by 2027
Regulatory environment ranking on used vehicles (2024)	Good
Electric vehicles stock for passenger cars (2023)	45 000 vehicles
Share of electric vehicles in car sales (2023)	2.2 %
ICE phase-out targets	✗
Electric vehicles stock for vans (2023)	–
Electric vehicles stock for trucks (2023)	–

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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

Peru

Peru's transport sector is the largest contributor to national GHG emissions, accounting for 26.04% of economy-wide emissions in 2023. Transport GHG emissions grew by 13.6% from 2015 to 2023. Urban mobility in Lima is dominated by cars (44%) and walking (34%), with limited public transport uptake. Transport energy consumption remains heavily reliant on oil products (88%), with biofuels comprising 4.1%, and electricity only 0.1%. Beyond climate impacts, transport accounted for 6.6% of national air pollutant emissions in 2019. Transport-induced air pollution was attributed to 1.68 premature deaths per 100,000 people in Peru in 2019. The rate of road traffic fatalities was 12.7 deaths per 100,000 people and accounted for 3.60% of the country's GDP in 2021.

While Peru has a national urban mobility framework and sustainable mobility plans for five cities, its NDC lacks explicit transport mitigation targets. Rail expansion plans aim to improve efficiency and environmental sustainability in passenger and freight transport. Peru has a very low share (27%) of urban population with convenient access to public transport as Lima was the only city with a metro system and BRT system in the country.

Income group: Middle-income		
Human Development Index (2023): 0.79		
Population size (2023): 30.64 million	**+11.2%** (2015 - 2023)	
Urban population share (2023): 80.71%	**+11.9** (2015 - 2023)	
GDP per capita (2023): 6 589.40 USD	**+5.1%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)	**8.7%**	
Share of women employed in transport and storage (2023)	**9.0%**	

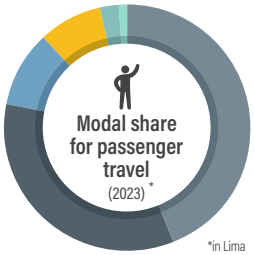
Transport Demand Trends

Passenger transport activity

127

million passenger-km of rail transport in 1998

(2015 to 2023)



Car	44%
Walking	34%
Motorcycle	9.9%
Bus	8.3%
Cycling	2.6%
Subway	0.9%

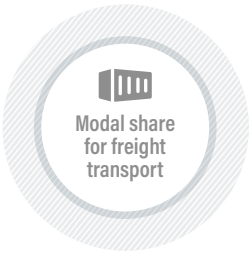
SDG 9.1

Freight transport activity

599

million ton-km of rail transport in 1998

(2015 to 2023)



SDG 9.1

Transport energy consumption (2022)

397 206 TJ

+27.2% (2015 to 2023)

Oil products

88.0% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

265.7 USD per capita

Fuel quality standards (2022)

2000-5000 ppm

Average light duty vehicle fuel consumption (2022)

Lge/km

Road traffic fatalities (2021), WHO estimates SDG 3.6

12.7 deaths per 100,000 people

14.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

3.6%

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

1.7 deaths per 100,000 people

1.7 Regional
2.3 Global

Contribution of transport to air pollution (2019)

6.6%

Transport Emission Trends

Transport GHG emissions (2023)

24.5

million tonnes of CO_2 equivalent

+13.6% (2015 to 2023)

+3.6% (2022 to 2023)

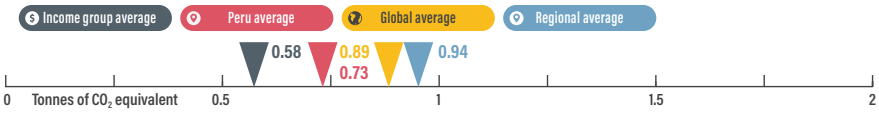
2015 — 2023

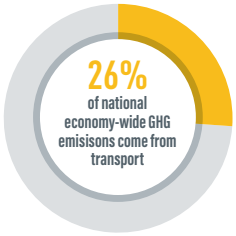
Per capita transport GHG emissions (2023)

0.73

tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON





Transport is the 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	✓ 2024 VNR with transport linkages to SDG 9 and SDG 11

Transport actions in VNRs

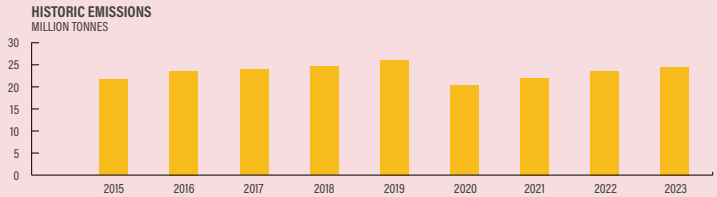
- Road safety
- Comprehensive urban transport planning

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)	5 cities
Low emission zones (2024)	–

Adaptation and Resilience

ND-GAIN Index (2022)	49.11
Vulnerability score for infrastructure (2022)	0.10

Walking

Walkability Score (2024)	0.86
National walking strategies (2024)	✓

Cycling

Cycling infrastructure in capital (2022)	294 km
Percent near protected bikeways (2024)	13%
Bike sharing systems (2024)	1
National cycling strategies (2024)	✗

Public Transport

Bus rapid transit (2024)	26 km of total length in 1 city
Bus rapid transit daily passenger volume (2024)	704 803 passengers per day
Urban rail (LRT, metro, tram) (2024)	34 km in 1 city
Proportion of population that has convenient access to public transport (2020) SDG 11.2	26.99%

Intercity Rail

Rail network (1998)	1 639 km
Rail travel activity (1998)	127 million passenger-km
Rail freight activity (1998)	599 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- To develop an efficient national railway system that has shorter travel times and lower logistics costs for passenger and freight transport, while addressing environmental concerns

Road Transport

Total road vehicles in use per 1,000 people (2020)	90.2
Road vehicle fleet growth (from 2015 to 2020)	20.49%
Rural Access Index (2019) SDG 9.1	47 RAI PST
Diesel prices (2022)	0.90 USD per litre
Gasoline prices (2022)	1.17 USD per litre

Aviation

Air passengers carried (2021)	9.1 million people
Air freight activity (2021)	258.3 million ton-km
Carbon-accredited airports (2023)	2 airports
of which carbon neutral:	none

Shipping

Logistics Performance Index (2023)	3
Liner shipping connectivity index (Q4 2024)	40.4
Container port traffic (2020)	2 601 411.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	5.0%
Biofuel blend ethanol mandate (2023)	7.8%
Carbon intensity of electricity (2023)	300.53 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	4.2% of total transport energy consumption
Biofuels (2022)	4.1% of total transport energy consumption
Electricity (2022)	0.1% of total transport energy consumption
Targeted renewable power share	15%

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Good
Electric vehicles stock for passenger cars (2024)	–
Share of electric vehicles in car sales (2024)	–
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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NDC	Nationally determined contribution
PST	Primary, secondary or tertiary roads
TEU	Twenty-foot Equivalent Unit
UNEP	United Nations Environment Programme
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VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure

Venezuela

Venezuela's transport sector experienced a sharp decline in energy consumption and emissions, with transport GHG emissions dropping by 61.8% between 2015 and 2023. However, because this reduction was not directly resulting from decarbonisation efforts, transport emissions are starting to rise again (30.4% increase from 2022 to 2023). Transport is the third-largest emitting sector, accounting for 11.8% of national emissions. Oil products dominate energy consumption (99.4%). Focusing on sustainability in transport, Venezuela's transport accounted for 6.6% of national air pollutant emissions and can be attributed to 2.82 premature deaths per 100,000 people in 2019. Road traffic resulted 13.2 deaths per 100,000 people and accounted for 4.3% of the country's GDP in 2021. In 2020, just 40.3% of the urban population had convenient access to public transport. There is limited data on passenger and freight transport activity as well as supporting policies, but public transport options include a 78 km urban rail network and 42 km of BRT serving nearly 241,000 passengers daily. Fuel prices remain extremely low, while vehicle emission standards lag at below Euro 3. Venezuela's NDC highlights transport for mitigation but lacks specific decarbonisation targets.

- **Income group:** Middle-income
- **Human Development Index (2023):** 0.71
- **Population size (2023):** 30.73 million — **-7.1%** (2015 - 2023)
- **Urban population share (2023):** 107.41% — **+10.5%** (2015 - 2023)
- GDP per capita (2023): –
- **Share of transport and storage jobs in workforce (2023)** — **7.2%**
- **Share of women employed in transport and storage (2023)** — **12%**

Transport Demand Trends

Passenger transport activity

12

million passenger-km of rail transport in 1995

– (2015 to 2023)

Modal share for passenger travel

SDG 9.1

Freight transport activity

81

million ton-km of rail transport in 2006

– (2015 to 2023)

Modal share for freight transport

SDG 9.1

Transport energy consumption (2022)

210 350 TJ

-68.0% (2015 to 2022)

Oil products

99.4% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

– USD per capita

Fuel quality standards (2022)

500-2000 ppm

Average light duty vehicle fuel consumption (2022)

– Lge/km

Road traffic fatalities (2021), WHO estimates SDG 3.6

13.2 deaths per 100,000 people

14.6 Regional
15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

0.04

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

2.8 deaths per 100,000 people

1.7 Regional
2.3 Global

Contribution of transport to air pollution (2019)

6.6%

Transport Emission Trends

Transport GHG emissions (2023)

17.9

million tonnes of CO_2 equivalent

-61.8% (2015 to 2023)

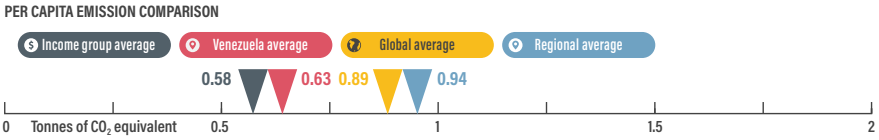
+30.4% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

0.63

tonnes of CO_2 equivalent per capita



Transport is the third-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	✗ 2016 VNR with no transport linkages

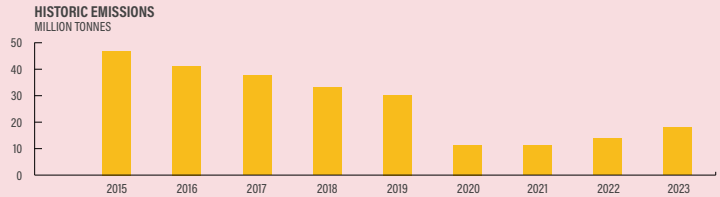
Transport actions in NDC

Mitigation

- Aircraft fleet renovation
- Biofuels
- BRT
- Fuel quality improvements
- General alternative fuels
- General public transport improvement
- General shipping improvement
- LPG/CNG/LNG
- Public transit integration and expansion
- Ship efficiency improvements
- Support on-shore power and electric charging facilities in ports
- Vehicle air pollution emission standards

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 (2022)	–
Low emission zones (2022)	–

Adaptation and Resilience

ND-GAIN Index (2022)	41.04
Vulnerability score for infrastructure (2022)	0.15

Walking

Walkability Score (2024)	0.43
National walking strategies (2024)	✕

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	0%
Bike sharing systems (2024)	2
National cycling strategies (2024)	✓

Target

Public Transport

Bus rapid transit (2024)	42 km of total length in 3 cities
Bus rapid transit daily passenger volume (2024)	240 778 passengers per day
Urban rail (LRT, metro, tram) (2024)	78 km in 3 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	40.25%

Intercity Rail

Rail network (2006)	336 km
Rail travel activity (1995)	12 million passenger-km
Rail freight activity (2006)	81.07 million ton-km
High-speed rail (2021)	–
High-speed rail travel activity (2021)	–
National plans for passenger and freight rail expansion (2024)	✕

Road Transport

Total road vehicles in use per 1,000 people (2020)	148.1
Road vehicle fleet growth (from 2015 to 2020)	-6.11%
Rural Access Index (2019) SDG 9.1	42.6 RAI PST
Diesel prices (2022)	0.02 USD per litre
Gasoline prices (2022)	0.02 USD per litre

Aviation

Air passengers carried (2021)	0.3 million people
Air freight activity (2021)	0.1 million ton-km
Carbon-accredited airports (2023)	–
of which carbon neutral:	–

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	7.4
Container port traffic (2020)	168 757.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	–
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	180.25 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.28% of total transport energy consumption
Biofuels (2022)	–
Electricity (2022)	0.28% of total transport energy consumption
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Below Euro 3
CO2 emissions performance for passenger cars (2024)	–
Targeted CO_2 emissions performance (2024)	No target set
Regulatory environment ranking on used vehicles (2024)	Banned
Electric vehicles stock for passenger cars (2024)	–
Share of electric vehicles in car sales (2024)	–
ICE phase-out targets	✕
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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PST	Primary, secondary or tertiary roads
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UNFCCC	United Nations Framework Convention on Climate Change
VNR	Voluntary national review of the Sustainable Development Goals
WLTP	Worldwide harmonised light vehicles test procedure

Canada

Canada's transport sector is the second-largest contributor to national GHG emissions, accounting for 22.6% of total emissions in 2023. Despite a decline of 2.8% in transport emissions since 2015, per capita emissions remain high at 4.33 tonnes, above the global and regional averages. The country has a strong policy framework for transport decarbonisation, including subnational emission targets and a 100% zero-emission light-duty vehicle sales target by 2035. Transport contributed with 9.8% a high share of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 1.01 premature deaths per 100,000 people in Canada in the same year. Road traffic injuries claimed 4.7 lives per 100,000 people and accounted for 1.9% of Canada's GDP in 2021. In 2020, 77% of Canada's population had convenient access to public transport.

Canada is advancing sustainable mobility through integrated urban transport planning, active transport strategies, and public transport expansion. While national cycling and walking strategies promote accessibility and safety, urban rail and bus rapid transit infrastructure remain limited. The country is investing in passenger and freight rail expansion, including a planned high-speed corridor between Toronto and Quebec City. Electric vehicle adoption is growing, with 13% of car sales in 2023 being electric, supported by an internal combustion engine phase-out target for 2035.

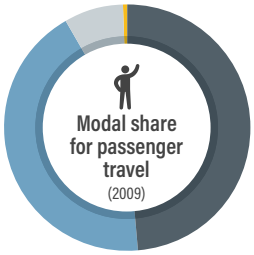
Income group: High-income	
Human Development Index (2023): 0.94	
Population size (2023): 36.13 million	+9.13% (2015 - 2023)
Urban population share (2023): 80.81%	+8.05% (2015 - 2023)
GDP per capita (2023): 45 568.05 USD	+4.78% (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	7.9%
Share of women employed in transport and storage (2023)	25%

Transport Demand Trends

Passenger transport activity

538 800 million passenger-km in 2009

+6.5% (2000 to 2009)



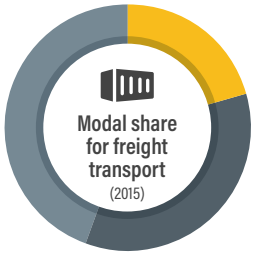
7.9%	Air
49.4%	Passenger cars
42.4%	Light trucks
0.3%	Intercity rail

SDG 9.1

Freight transport activity

808 300 million ton-km in 2015

+24.4% (2010 to 2015)



20.6%	Roads
35.0%	Railways
0.1%	Aviation
44.3%	Pipeline

SDG 9.1

Transport energy consumption (2022)

2 479 447 TJ

-2.4% (2015 to 2022)

Oil products

87.3% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

452.3 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

8.5 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6	4.7	deaths per 100,000 people	13.2 Regional, 15.0 Global
Road traffic fatality cost as percentage of GDP (2021)	1.9%		
Premature deaths linked to transport air pollution (2019) SDG 11.6	1.0	deaths per 100,000 people	1.7 Regional, 2.3 Global
Contribution of transport to air pollution (2019)	9.8%		

Transport Emission Trends

Transport GHG emissions (2023)

169.0 million tonnes of CO_2 equivalent

-2.8% (2015 to 2023)

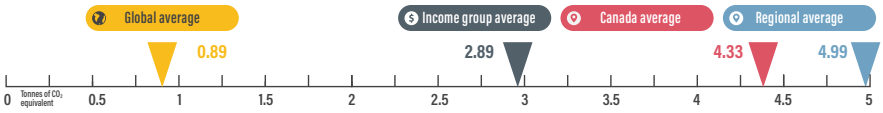
+1.3% (2022 to 2023)

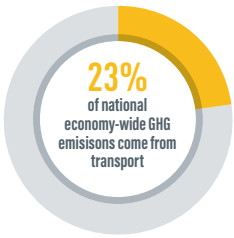
2015 — 2023

Per capita transport GHG emissions (2023)

4.3 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON



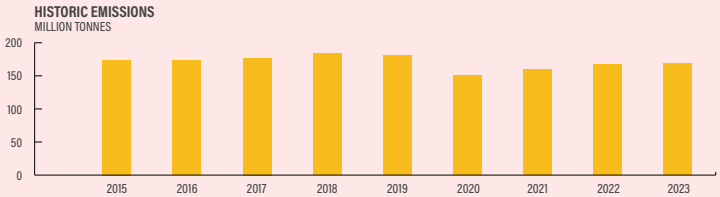


Transport is the second-largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗ No but subnational targets
Other non-emission related transport targets in NDC	✓ 100% of new light-duty vehicles sold to be zero-emission by 2035
VNR highlights transport	✓ 2023 VNR with transport linkages to SDG9 and SDG 11

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- E-mobility
- Charging stations
- Public transport expansion
- Active transport

Transport actions in NDC

Mitigation

- Transport demand management measures
- Transport and land use planning
- Public transport expansion and improvement
- Financial instruments to support decarbonisation
- Alternative fuels measures
- E-mobility measures
- Renewable energy measures
- Jet fuel policies

Adaptation

- Transport Infrastructure Resilience

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 (Québec)
Low emission zones (2022)	✗ 1 LEZ planned for Montreal (2030)

Adaptation and Resilience

ND-GAIN Index (2022)	68.46
Vulnerability score for infrastructure (2022)	0.12

Walking

Walkability Score (2024)	0.67
National walking strategies (2024)	✓ Combined with cycling

Target

- Improve community connections and promote social equity amongst vulnerable Canadians
- Make travel by active transport easier, more convenient and enjoyable, and enhance user safety and security
- Encourage people to choose active transport over personal vehicles (including supporting walking and cycling to access public transport)
- Contribute to long-term, sustainable, inclusive economic growth, while setting the foundation for achieving a more inclusive Canada and net-zero climate emissions by 2050
- Support the Canadian economy through a reduction in congestion, the creation of jobs and enhanced access via active transport modes to businesses

Cycling

Cycling infrastructure in capital (2024)	More than 1 000km in Montreal
Percent near protected bikeways (2024)	34%
Bike sharing systems (2024)	31
National cycling strategies (2024)	✓ Combined with walking

Target (see above)

Public Transport

Bus rapid transit (2024)	306 km of total length in 7 cities
Bus rapid transit daily passenger volume (2024)	503 407 passengers per day
Urban rail (LRT, metro, tram) (2024)	242.2 km in 5 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	77.1%

Intercity Rail

Rail network (2021)	48 149.91 km
Rail travel activity (2021)	536 million passenger-km
Rail freight activity (2021)	430 170 million ton-km
National plans for passenger and freight rail expansion (2024)	✓

Target

- The Alto high-speed rail network to connect Toronto and Quebec City, spanning approximately 1,000 kilometres
- Jaleslie Siding Extension project to enhance the reliability and fluidity of freight trains and passenger rail services to and from the Port of Vancouver

Road Transport

Total road vehicles in use per 1,000 people (2020)	704.6
Road vehicle fleet growth (from 2015 to 2020)	15.4%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.33 USD per litre
Gasoline prices (2022)	1.35 USD per litre

Aviation

Air passengers carried (2021)	25.0 million people
Air freight activity (2021)	3 240.0 million ton-km
Carbon-accredited airports (2023)	27 airports
of which carbon neutral:	3 airports

Shipping

Logistics Performance Index (2023)	4
Liner shipping connectivity index (Q4 2024)	48.8
Container port traffic (2020)	6 196 600.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	Subnational mandates ranging from 2 to 10%
Biofuel blend biodiesel mandate (2023)	2.0%
Biofuel blend ethanol mandate (2023)	5.0%
Carbon intensity of electricity (2023)	165.15 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	5.4% of total transport energy consumption
Biofuels (2022)	4.2% of total transport energy consumption
Electricity (2022)	1.2% of total transport energy consumption
Targeted renewable power share	90%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	112 g CO_2/km in 2017
Targeted CO_2 emissions performance (2024)	8 g CO_2/km by 2035
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	620 000 vehicles
Share of electric vehicles in car sales (2024)	17 %
ICE phase-out targets	✓ (2035)
Electric vehicles stock for vans (2024)	31 000 vehicles
Electric vehicles stock for trucks (2024)	5 300 vehicles

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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

United States of America

The transport sector in the **United States** showed a very strong dependence on light-duty vehicles while lacking efficiency, road safety and affordable alternatives. The United States has the highest transport emissions globally, with the sector accounting for 29% of national GHG emissions in 2023. While freight activity increased slightly, passenger travel declined due to a fall in public transport and active mobility use. Light-duty vehicles consumed 8.4 Lge/km in 2022. Transport accounted for 15.4% of national air pollutant emissions in 2019 as well as 2.3 premature deaths per 100,000 people in 2019. Road traffic injury is another leading cause of death, claiming 14.2 lives per 100,000 people and accounting for 5% of the country's GDP in 2021. In 2020, only 56.7% of the population had convenient access to public transport.

Efforts to improve the sustainability of mobility and decarbonise transport can be mainly found in individual states, as they establish subnational mandates for biofuels and electric vehicle policies. The United States has an increasing electric vehicle adoption (9.5% of new car sales in 2023) but the carbon intensity of its electricity remains high, at 392.9 gCO_2/kWh in 2023. Adaptation actions in transport are limited. Public transport systems exist in major cities to a limited degree as supporting national investment and policy frameworks only provide minimal support towards service improvements or network expansions.

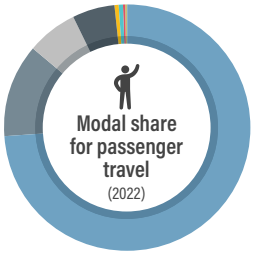
Income group: High-income		
Human Development Index (2023): 0.94		
Population size (2023): 327.62 million	**+5.50%** (2015 - 2023)	
Urban population share (2023): 82.34%	**+7.92%** (2015 - 2023)	
GDP per capita (2023): 63 585.02 USD	**+12.83%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)		**10.8%**
Share of women employed in transport and storage (2023)		**28.5%**

Transport Demand Trends

Passenger transport activity

9 324 219 million passenger-km in 2022

-3.8% (2015 to 2022)



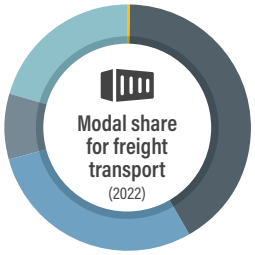
74.1%	Light duty vehicle
5.7%	Trucks
0.4%	Motorcycle
0.5%	Public Transport
0.3%	Walking
0.1%	Cycling
6.6%	Intercity bus
0.1%	Intercity rail
12.2%	Air

SDG 9.1

Freight transport activity

7 666 774 million ton-km in 2023

+2.8% (2015 to 2022)



0.4%	Air
41.4%	Truck
29.2%	Railroad
8.7%	Domestic water transportation
20.3%	Pipeline

SDG 9.1

Transport energy consumption (2022)

25 903 068 TJ

+1.2% (2015 to 2022)

Oil products

88.9% of total transport energy consumption

Per capita fossil fuel subsidies

SDG 12

— USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

8.39 Lge/km

Road traffic fatalities (2021), WHO estimates

SDG 3.6

14.2 deaths per 100,000 people — 13.2 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

5.0%

Premature deaths linked to transport air pollution (2019)

SDG 11.6

2.3 deaths per 100,000 people — 1.7 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

15.4%

Transport Emission Trends

Transport GHG emissions (2023)

1735.9 million tonnes of CO_2 equivalent

+0.4% (2015 to 2023)

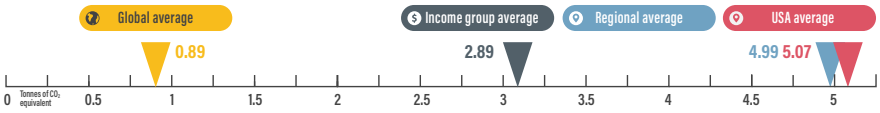
+0.7% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

5.07 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

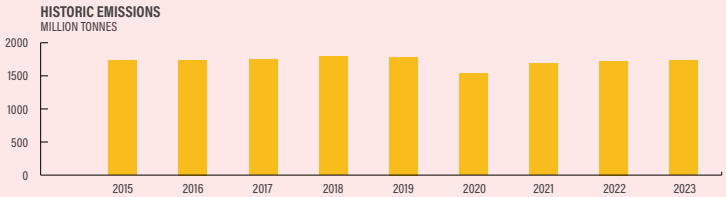


Transport is the largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	–

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

Transport actions in NDC

Mitigation

- Transport and land use planning
- Public transport improvement
- Active mobility
- Infrastructure improvements
- Financial instruments to support decarbonisation
- Freight actions
- E-mobility measures
- Hydrogen support measures
- Shipping improvement
- Jet fuel policies
- Innovations and digitalization

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	–
Sustainable urban mobility plans (2024)	–
Number of sustainable urban mobility plans (2022)	–
Low emission zones (2022) First nation-wide pilot in Santa Monica conducted in December 2022; Zero emissions delivery zones being developed in 8 cities	

Adaptation and Resilience

ND-GAIN Index (2022)	67.66
Vulnerability score for infrastructure (2022)	0.15

Walking

Walkability Score (2024)	–
National walking strategies (2024)	✕

Target (target combined with public transport and cycling)

- Increase the percentage of person trips by public transport and active transport modes from roughly 4% in 2020 to 6% by 2026

Cycling

Cycling infrastructure in capital (2022)	167 km of separated bikelanes
Percent near protected bikeways (2024)	–
Bike sharing systems (2024)	174
National cycling strategies (2024)	✕

Target (target combined with public transport and walking)

- Increase the percentage of person trips by public transport and active transport modes from roughly 4% in 2020 to 6% by 2026

Public Transport

Bus rapid transit (2024)	509 km of total length in 16 cities
Bus rapid transit daily passenger volume (2024)	502 389 passengers per day
Urban rail (LRT, metro, tram) (2024)	2 377 km in 41 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	56.72%

Intercity Rail

Rail network (2021)	148 553.3 km
Rail travel activity (2020)	12 460 million passenger-km
Rail freight activity (2021)	2 239 401 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Support the current freight rail market share and growth. Develop strategies to attract 50% of all shipments 500 miles or greater to intermodal rail by 2035.

Road Transport

Total road vehicles in use per 1,000 people (2020)	852.3
Road vehicle fleet growth (from 2015 to 2020)	9.40%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.14 USD per litre
Gasoline prices (2022)	1.03 USD per litre

Aviation

Air passengers carried (2021)	666.2 million people
Air freight activity (2021)	46 004.6 million ton-km
Carbon-accredited airports (2023)	60 airports
of which carbon neutral:	5 airports

Shipping

Logistics Performance Index (2023)	–
Liner shipping connectivity index (Q4 2024)	102.6
Container port traffic (2020)	54 963 689.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	Subnational mandates ranging from 2 to 20%
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	392.85 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	6.2% of total transport energy consumption
Biofuels (2022)	6.0% of total transport energy consumption
Electricity (2022)	0.2% of total transport energy consumption
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	90 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	38 g CO_2/km by 2032
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	4 700 000 vehicles
Share of electric vehicles in car sales (2024)	10 %
ICE phase-out targets	Sub-national (11 states by 2035)
Electric vehicles stock for vans (2024)	56 000 vehicles
Electric vehicles stock for trucks (2024)	–

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WLTP	Worldwide harmonised light vehicles test procedure

SDG 3.6 SDG 7.2.1 SDG 9.1 SDG 11.2 SDG 11.6 SDG 12

Australia

Australia's transport sector is characterised by high per capita emissions, with transport accounting for 17% of national GHG emissions in 2023. Despite a decline in transport energy consumption since 2015, emissions have risen due to continued reliance on oil products. Renewable energy, including biofuels and electricity, accounted for only 2.2% of Australia's transport energy consumption, whereas the carbon intensity of its electricity remains high, at 556.3 gCO_2/kWh in 2023. Passenger travel demand has remained stable, with private cars dominating the modal share, while freight transport has grown, primarily driven by road and rail. Beyond climate impacts, transport accounted for 4.4% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 0.34 premature deaths per 100,000 people in Australia in 2019. Road traffic injuries, on the other hand, claimed 4.5 lives per 100,000 people and accounted for 1.80% of the country's GDP in 2021. In 2020, a significant share (84.44%) of Australia's population had convenient access to public transport. The country has introduced measures to promote electric vehicles, including purchase incentives, but lacks national emissions reduction targets for transport in its NDC. Subnational policies, such as fuel mandates and ICE phase-out targets, indicate progress towards decarbonisation, while support for improved sustainability of transport is mainly supported by a few subnational activities on walking and cycling.

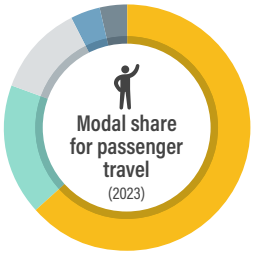
Income group: High-income	
Human Development Index (2023): 0.96	
Population size (2023): 24.13 million	+10.7% (2015 - 2023)
Urban population share (2023): 86.50%	+11.6% (2015 - 2023)
GDP per capita (2023): 62 081.21 USD	+9.2% (2015 - 2023)
Share of transport and storage jobs in workforce (2023)	8.3%
Share of women employed in transport and storage (2023)	24.7%

Transport Demand Trends

Passenger transport activity

434 600 million passenger-km in 2023

-0.1% (2015 to 2023)



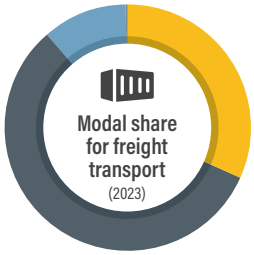
63.6%	Passenger cars
4.0%	Buses
3.5%	Rail
17.1%	Air
11.9%	Other

SDG 9.1

Freight transport activity

785 400 million ton-km in 2023

+7.7% (2015 to 2023)



31.7%	Road
57.0%	Rail
11.2%	Coastal shipping
0.03%	Air freight

SDG 9.1

Transport energy consumption (2022)

1 270 521 TJ

-3.9% (2015 to 2023)

Oil products

96.4% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

879.3 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

8.9 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

4.5 deaths per 100,000 people — 4.9 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

1.80%

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

0.3 deaths per 100,000 people — 1.7 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

4.4%

Transport Emission Trends

Transport GHG emissions (2023)

97.5 million tonnes of CO_2 equivalent

+4.3% (2015 to 2023)

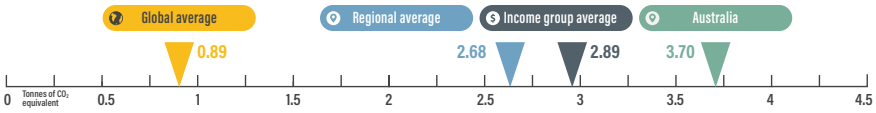
+7.2% (2022 to 2023)

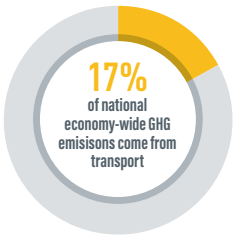
2015 — 2023

Per capita transport GHG emissions (2023)

3.7 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON





Transport is the third-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	✓ 2018 VNR with transport linkages to SDG 3 and SDG 11

Transport actions in VNRs

- Road safety improvements
- Transport system modernisation

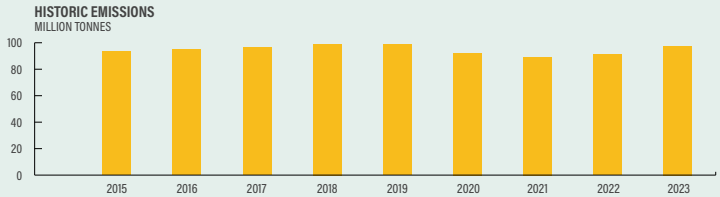
Transport actions in NDC

Mitigation

- EV purchase incentives
- General e-mobility
- Inspection and maintenance

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 (2022)	1 city
Low emission zones (2022)	✗ None, LEZs proposed for the City of Sydney

Adaptation and Resilience

ND-GAIN Index (2022)	69.55
Vulnerability score for infrastructure (2022)	0.18

Walking

Walkability Score (2024)	0.55
National walking strategies (2024)	Only on subnational level

Target

- Planning for walkable communities and places
- Building connected, comfortable and safe walking environments for all
- Encouraging more people to walk as part of their 'everyday'
- Working together to deliver for walking

Cycling

Cycling infrastructure in capital (2022)	–
Percent near protected bikeways (2024)	34.3%
Bike sharing systems (2024)	14
National cycling strategies (2024)	Only on subnational level

Target

- Objectives on inclusive cycling, accessibility, integration with land use planning and cycle tourism

Public Transport

Bus rapid transit (2024)	90 km of total length in 3 cities
Bus rapid transit daily passenger volume (2024)	413 300 passengers per day
Urban rail (LRT, metro, tram) (2024)	1325 km in 8 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	84.44%

Intercity Rail

Rail network	–
Rail travel activity (2021)	9 327.631 million passenger-km
Rail freight activity (2021)	453 091 million ton-km
High-speed rail	–
High-speed rail travel activity (2002)	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Inland Rail Project to upgrade 1,100 km and build 600 km new tracks

Road Transport

Total road vehicles in use per 1,000 people (2020)	737.6
Road vehicle fleet growth (from 2015 to 2020)	10.0%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.15 USD per litre
Gasoline prices (2022)	1.17 USD per litre

Aviation

Air passengers carried (2021)	24.6 million people
Air freight activity (2021)	1244.8 million ton-km
Carbon-accredited airports (2023)	16 airports
of which carbon neutral:	3 airports

Shipping

Logistics Performance Index (2023)	3.7
Liner shipping connectivity index (Q4 2024)	35.7
Container port traffic (2020)	8 656 995.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	Subnational mandates ranging from 0.5 to 10%
Biofuel blend biodiesel mandate (2023)	–
Biofuel blend ethanol mandate (2023)	10.0%
Carbon intensity of electricity (2023)	556.30 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	2.2% of total transport energy consumption
Biofuels (2022)	0.3% of total transport energy consumption
Electricity (2022)	1.9% of total transport energy consumption
Targeted renewable power share	–

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	154 g CO_2/km in 2021
Targeted CO_2 emissions performance (2024)	58 g CO_2/km by 2029
Regulatory environment ranking on used vehicles (2024)	–
Electric vehicles stock for passenger cars (2024)	250 000 vehicles
Share of electric vehicles in car sales (2024)	13 %
ICE phase-out targets	✓ Sub-national (South Australia and Australian Capital Territory: 2035; Queensland: 2036)
Electric vehicles stock for vans (2024)	–
Electric vehicles stock for trucks (2024)	–

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New Zealand

New Zealand's transport sector remains heavily reliant on road transport, with passenger cars accounting for over 95% of travel activity and road freight 87% of freight transport. Transport emissions have risen by 11% since 2015, making it the second-largest GHG emitting sector, contributing 19% of national emissions. Renewable energy, including biofuels and electricity, accounted for a mere 0.4% of New Zealand's transport energy consumption, whereas the carbon intensity of its electricity is rather low, at 104.4 gCO_2/kWh in 2023.

Beyond climate impacts, transport accounted for 6.8% of national air pollutant emissions in 2019. Transport-induced air pollution, in turn, caused 0.57 premature deaths per 100,000 people in New Zealand in 2019. Road traffic injury is a leading cause of death in New Zealand, having claimed 6.6 lives per 100,000 people and accounting for 2.7% of the country's GDP in 2021. In 2020, an impressive 94.4% of the population had convenient access to public transport. New Zealands supports vehicle electrification, walking, cycling and renewable energy through national climate and sustainability plans.

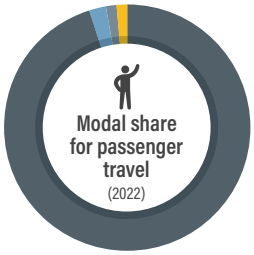
Income group: High-income		
Human Development Index (2023): 0.94		
Population size (2023): 4.66 million	**+12.9%** (2015 - 2023)	
Urban population share (2023): 83.67%	**+8.2%** (2015 - 2023)	
GDP per capita (2023): 42 306.07 USD	**+8.4%** (2015 - 2023)	
Share of transport and storage jobs in workforce (2023)		**8.2%**
Share of women employed in transport and storage (2023)		**31.2%**

Transport Demand Trends

Passenger transport activity

51 773 million passenger-km in 2022

+6.2% (2015 to 2022)



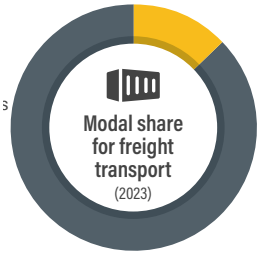
1.1%	Rail
95.2%	Road, passenger cars
2.3%	Road, bus
1.4%	Road, other

SDG 9.1

Freight transport activity

29 763 million ton-km in 2023

+8.5% (2015 to 2023)



12.85%	Rail
87.15%	Road

SDG 9.1

Transport energy consumption (2022)

204 820 TJ

+1.6% (2015 to 2023)

Oil products

99.6% of total transport energy consumption

Per capita fossil fuel subsidies (2022) SDG 12

776.0 USD per capita

Fuel quality standards (2022)

<15 ppm

Average light duty vehicle fuel consumption (2022)

7.5 Lge/km

Road traffic fatalities (2021), **WHO estimates** SDG 3.6

6.6 deaths per 100,000 people — 4.9 Regional, 15.0 Global

Road traffic fatality cost as percentage of GDP (2021)

2.70%

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

0.6 deaths per 100,000 people — 1.7 Regional, 2.3 Global

Contribution of transport to air pollution (2019)

6.8%

Transport Emission Trends

Transport GHG emissions (2023)

16.2 million tonnes of CO_2 equivalent

+11.1% (2015 to 2023)

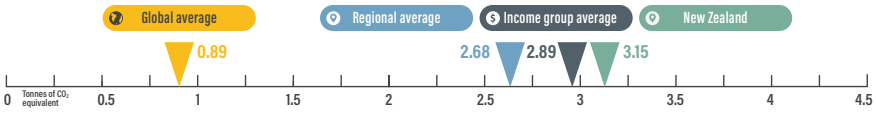
+7.6% (2022 to 2023)

2015 — 2023

Per capita transport GHG emissions (2023)

3.15 tonnes of CO_2 equivalent per capita

PER CAPITA EMISSION COMPARISON

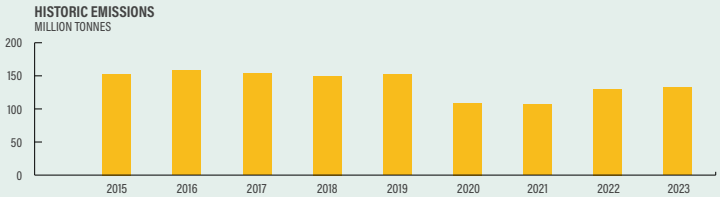


Transport is the second-largest GHG-emitting sector in the country in 2023.

Transport Decarbonisation Pathways

Transport strategy identifies climate change	✓
Long-term strategy submitted to UNFCCC	✓
NDC submitted:	1st, 2nd and 3rd NDC
NDC highlights transport for GHG mitigation	✓
Transport mitigation targets in NDC	✗
Other non-emission related transport targets in NDC	✗
VNR highlights transport	✓ 2019 VNR with transport linkages to SDG 3, SDG 7, SDG 8, SDG 11 and SDG 13

Transport GHG emissions from 2015 to 2023



Transport actions in VNRs

- Active transport promotion
- Road safety improvements
- Electric vehicles
- Renewable energy and hydrogen uptake in transport
- Road freight employment
- Public transport promotion

Transport actions in NDC

Mitigation

- EV purchase incentives
- Vehicle restrictions (import, age, access, sale, taxation)
- Vehicle taxes

Adaptation

Policy Areas: Indicators and Targets

Integrated Transport Planning

National urban mobility framework (2024)	✓
Sustainable urban mobility plans (2024)	✓
Number of sustainable urban mobility plans (2022)	5 cities
Low emission zones (2022)	–

Adaptation and Resilience

ND-GAIN Index (2022)	68.79
Vulnerability score for infrastructure (2022)	0.19

Walking

Walkability Score (2024)	0.68
National walking strategies (2024)	✓ (combined with cycling)

Target

- NZD 1 billion in walking and cycling improvements

Cycling

Cycling infrastructure in capital (2022)	55 km
Percent near protected bikeways (2024)	20.2%
Bike sharing systems (2024)	3
National cycling strategies (2024)	✓ (combined with walking)

Target

- NZD 1 billion in walking and cycling improvements

Public Transport

Bus rapid transit (2024)	6 km of total length in 1 city
Bus rapid transit daily passenger volume (2024)	22 900 passengers per day
Urban rail (LRT, metro, tram) (2024)	280 km in 2 cities
Proportion of population that has convenient access to public transport (2020) SDG 11.2	94.42 %

Intercity Rail

Rail network (1998)	3 908 km
Rail travel activity (2020)	802.03 million passenger-km
Rail freight activity (2021)	4 444 million ton-km
High-speed rail	–
High-speed rail travel activity	–
National plans for passenger and freight rail expansion (2024)	✓

Target

- Establishing a new long-term planning and funding framework
- Develop a resilient and reliable rail network

Road Transport

Total road vehicles in use per 1,000 people (2020)	873.4
Road vehicle fleet growth (from 2015 to 2020)	18.64%
Rural Access Index (2019) SDG 9.1	–
Diesel prices (2022)	1.15 USD per litre
Gasoline prices (2022)	1.58 USD per litre

Aviation

Air passengers carried (2021)	8.7 million people
Air freight activity (2021)	317.6 million ton-km
Carbon-accredited airports (2023)	12 airports
of which carbon neutral:	7 airports

Shipping

Logistics Performance Index (2023)	3.6
Liner shipping connectivity index (Q4 2024)	30.5
Container port traffic (2020)	3 174 304.0 TEU

Transport Energy Sources

Biofuel blend overall mandate (2023)	3.0%
Biofuel blend biodiesel mandate (2023)	7.0%
Biofuel blend ethanol mandate (2023)	–
Carbon intensity of electricity (2023)	104.42 gCO_2/kWh
Renewable energy (biofuels and electricity) share in transport (2022) SDG 7.2.1	0.4% of total transport energy consumption
Biofuels (2022)	0.1% of total transport energy consumption
Electricity (2022)	0.3% of total transport energy consumption
Targeted renewable power share	100%

Vehicle Technologies

Emission standards for LDVs (2024)	Euro 4 and above
CO_2 emissions performance for passenger cars (2024)	109 g CO_2/km in 2023
Targeted CO_2 emissions performance (2024)	59 g CO_2/km by 2029
Regulatory environment ranking on used vehicles (2024)	Good
Electric vehicles stock for passenger cars (2024)	78 000 vehicles
Share of electric vehicles in car sales (2024)	11%
ICE phase-out targets	✗
Electric vehicles stock for vans (2024)	2 000 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